Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Middle River Complex
2323 Eastern Boulevard
Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

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December 2013

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ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
API	American Petroleum Institute
ARARs	applicable or relevant and appropriate requirements
ASTM	ASTM International Inc.
ATC	anticipated typical concentration
BaPEq	benzo(a)pyrene equivalent
bgs	below ground surface
CDP	*Criterium*®

µg/kg	microgram(s) per kilogram
mg/kg	

GLOSSARY

alkyl polycyclic aromatic-hydrocarbons—Polycyclic aromatic hydrocarbons (PAHs; see glossary term) that contain carbon side chains appended at one or more location(s). The mobility and toxicity of a PAH compound are impacted by, among other things, the fundamental structure of the PAH parent compound and the number and location of the carbon side chains. Alkylated PAHs are named and characterized by the total number of alkyl carbon atoms on the parent PAH compound.

applicable or relevant and appropriate requirements (ARARs)—Environmental cleanup standards and requirements (i.e., federal and state laws and regulations) that must be attained during cleanup and maintained at project completion (required by a directive of the federal Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA]).

Aroclor—Aroclor is one of the most commonly known trade names for polychlorinated biphenyl (PCBs; see glossary term) mixtures produced from approximately 1930 to 1979. Each Aroclor has a distinguishing suffix number that indicates its degree of chlorination: the first two digits refer to the number of carbon atoms in the phenyl rings (for PCBs this is 12), the second two numbers indicate the chlorine percentage by mass. For example, the name Aroclor 1254 means that the mixture contains approximately 54% chlorine by weight.

background (background level)—As defined by the United States Environmental Protection Agency (USEPA), substances in the environment that are not influenced by releases from a site and usually described as naturally occurring or anthropogenic. Naturally occurring is defined as

cathodic protection—An engineered protective feature installed on underground storage tanks (UST) to prevent corrosion. Cathodic protection usually consists of a sacrificial anode coated with a material that has suitable dielectric properties to electrically isolate the tank from its environment. For example, cathodic protection on a UST isolates the tank from potential electrical charges in the surrounding environment and thus slows or prevents degradation of the tank.

chemical(s) of concern (COC)—Chemicals identified through the baseline risk assessment that, by regulatory definition, may potentially cause unacceptable adverse effects to human health and/or ecological receptors.

chemical(s) of potential concern (COPC)—Chemicals identified through a preliminary screening (typically in the first step in a baseline risk assessment) that should be considered further in the site evaluation.

cleanup—Actions to address a release or threat of release of a hazardous substance that could affect humans and/or the environment. The term “cleanup” is sometimes used interchangeably with the terms remedial action, removal action, response action, or corrective action.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)— Commonly called Superfund, a federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). Among other things, this law addresses the remediation of sites where t4cl5a(e)-10 remiygD26(tz)-6(a)4(16l(dous)-1(10(D2n4(r)-7(e)4(de)4

exposure assessment—One step in the human or ecological risk

***in situ*—**In this report, *in situ* means on-site and in place. For example, an *in situ* treatment of contaminated soil or groundwater will treat these environmental media in place, without removing soil or groundwater to treat it.

institutional controls—Non-engineering measures intended to affect human activities in such a way as to prevent or reduce exposure to hazardous substances. They are almost always used in conjunction with, or as a supplement to, other measures such as waste removal, treatment or containment. Institutional controls fall into four categories: governmental controls, proprietary controls, enforcement tools, and informational devices**.**

iteratively—In the context of the residual-risk assessment, a step that is repeated over and over again until the desired outcome or goal is achieved.

land use controls (LUCs)—Engineered and non-engineered (administrative) controls formulated and enforced to regulate current and future land use options. Engineered controls include fencing and signs. Non-engineered controls typically consist of administrative restrictions that prohibit certain types of develop10(us)-1(s)-1nJ -0.0(e)4(d)-10(s)-1(. N). Niiiveuve Tw()-2(ons

site—The Middle River Complex; in this document, specifically Tax Block D Panhandle, a 1.4 acre portion of the total property owned by LMC Properties, Inc.

solubility—A measure of the amount of solute that will dissolve in a solution. It is the ability or tendency of one substance to dissolve into another at a given temperature and pressure and is generally expressed in terms of the amount of solute that will dissolve in a given amount of solvent to produce a saturated solution.

standard proctor—A standardized mechanical testing method used to determine the compaction property of soil. The test is described in American Association of State Highway and Transportation Officials (AASHTO) specifications T-99 and ASTM International Inc. (ASTM) standard D698-12.

total petroleum hydrocarbons (TPH)—The concentration or mass of petroleum hydrocarbon constituents present in a given amount of air, soil, or water.

toxicity equivalency factor (TEF)—TEFs are estimates of compound-specific toxicity relative to the toxicity of an index chemical (e.g., benzo[a]pyrene). TEFs are used in a risk assessment to evaluate the risks associated with exposure to a mixture of similar compounds for human or ecological receptors.

volatile organic compounds (VOCs)—A group of organic compounds that will vaporize or evaporate into the atmosphere at room temperature. They often have a sharp smell and can come from many products, such as office equipment, adhesives, carpeting, upholstery, paints, petroleum products, solvents, and cleaning products. Trichloroethene is an example of a VOC.

Voluntary Cleanup Program (VCP)— A Maryland Department of the Environment (MDE) administered program providing oversight for voluntary cleanups of properties contaminated with hazardous substances. The program was established in 1997 as an agreement between MDE and the USEPA. The program provides liability protection for participants such that USEPA will consider sites in the VCP of “no further interest” provided they are successful in cleanup and MDE issues a No Further Requirements Determination or Certificate of Completion. The goal of the program is to increase the number of sites cleaned by streamlining the cleanup process while ensuring compliance with existing environmental regulations.

Executive Summary

Ensuring environmental stewardship associated with our activities is an important aspect of Lockheed Martin Corporation's (Lockheed Martin) commitment to the communities in which we operate. Accordingly, the Corporation has assumed responsibility to assess and clean up

contamination targeted for soil removal (based on reducing contaminant concentrations to background levels) are also identified in Figure 4-1.

***Remedial action objective*—**The following remedial action objective was developed to obtain a

Each of the alternatives identified above was then subjected to a detailed evaluation according to

***Schedule*—**A schedule of the remedial action implementation for Block D panhandle soil is in Section 10. Its major activities include:

submit final remedial action plan—fall 2014

remedial action implementation—early 2015

***Communication and community relations*—**Lockheed Martin Corporation is committed to its partnership with the Middle River community and to maintaining a high level of community outreach, stakeholder engagement, and communication as work progresses. The Corporation has and will continue to invest in the environmental, health, and economic needs of the community. Lockheed Martin Corporation also will provide remediation program updates to civic association leadership and, upon request, will attend civic association meetings to provide updates, answer questions, and listen to issues and concerns. Lockheed Martin Corporation will hold a public information availability session before the remedial action begins to inform and educate interested stakeholders about this project. Lockheed Martin Corporation remains committed to two-way communication with the community to ensure that questions are answered and issues and concerns are addressed in a timely manner.

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Section 1
Introduction

1.1 PURPOSE OF THE REMEDIAL ACTION PLAN

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this remedial action plan (RAP) for soil at the panhandle portion of Tax Block D ("Block D panhandle") of the Lockheed Martin Middle River Complex (MRC) in Middle River, Maryland. The location of the Middle River Complex is shown in Figure 1-1. This remedial action plan was prepared in accordance with the requirements enforced by the Maryland Department of the Environment (MDE) Controlled Hazardous Substances (CHS) Enforcement Division (see Section 7-222 of the "Environment Article," and *Code of Maryland Regulations* [COMAR] 26.14). The panhandle portion of Tax Block D, along with other portions of the Middle River Complex, was accepted into the Maryland Voluntary Cleanup Program (VCP) in 2006. They were withdrawn from the program in 2013; environmental restoration of Middle River Complex soils, groundwater, and offshore sediments will be consolidated under an Administrative Consent Order into a single regulatory program. A copy of the withdrawal letter documenting this change is in Appendix A. The panhandle portion of Tax Block D may potentially be used by Baltimore County for recreational use in the future.

The purpose of the remedial action plan is to provide the background, supporting documentation, and framework (i.e., goals, performance evaluation criteria, and schedule) for remediation of soils at the panhandle portion of Tax Block D. The plan details the remedial action objective (RAO), screening of remedial technologies, development and evaluation of remedial alternatives, and selection of the proposed remedial action. The remedial actions and goals detailed herein are based on current and historical site data derived from the soil investigations described in Section 2, and on the current and anticipated future land use. This remedial action plan provides information necessary to support the decision to remove contaminated soil to achieve the followingrA0 Tw 7.0[C2(ia)6(l a)6(c-4(k)-10n0.28 T002 Tc -0.002 b2(e)4(d 3 0 Td8(ect)-6(i)-6(o.)-10( )]TET

Soil remedial action objective— *Reduce site-related organic chemicals of concern (COC) in Block D panhandle soils to a 1×10^{-5} human health cancer-risk level for*

Appendix I—*Criterium*® *DecisionPlus*® Results

Appendix J—Permits

Section 2
Middle River Complex
Block D Panhandle Overview

This section presents the site background and site-specific chemicals of concern (COC), and the findings of previous site investigations. Also summarized are the nature and extent of site contaminants, the persistence and migration of site COC in the environment, and applicable exposure pathways, collectively known as the conceptual site model (CSM).

2.1 MIDDLE RIVER COMPLEX BACKGROUND

In 1929, the Glenn L. Martin Company, a predecessor entity of Lockheed Martin Corporation (Lockheed Martin), acquired contiguous parcels of undeveloped land in Middle River, Maryland to manufacture aircraft for the United States government and commercial clients. In the early 1960s, Glenn L. Martin Company merged with American-Marietta Company to form Martin Marietta Corporation. In the mid-1990s, Martin Marietta Corporation merged with Lockheed Corporation to [illegible]

G, and H surrounding Block

After the shoreline was reconstructed, parking lot No. 6 and the panhandle were paved with asphalt. The parking lot, the panhandle, and the Block D waterfront area were not developed with any structures in the past, according to available records. Two Martin State Airport-owned storm-water drainage outfalls (outfall No. 8 [8OF001] and outfall No. 9 [9OF001]) are on the panhandle shoreline.

Outfall No. 9 (9OF001) receives flow from the surface water drainage ditches on the east side of Wilson Point Road; stormwater from these ditches flows westerly below Wilson Point Road, continuing below the paved panhandle area to the outfall at Dark Head Cove. Outfall No. 8 (8OF001) is south of outfall No. 9; it also receives storm water from the east side of Wilson Point Road. The outfall No. 9 conduit passes below the road and then below ground near the southern end of the panhandle area. A third drainage conduit begins on the east side of Wilson Point Road and passes north of the panhandle; flow from this conduit discharges at the corner of the bulkhead where the panhandle and the Block D waterfront lot meet. Available records indicate these storm drain conduits were constructed of two-foot-diameter corrugated metal pipe.

2.3 BLOCK D PANHANDLE PREVI264(264(2642(de)4(o)008 Tw Td [(24(r)3(

During previous investigations, screening criteria used for data comparison have varied due to revisions in the applicable Maryland Department of Environment (MDE) soil standards. Residential screening-criteria have been used to screen data in the past, as well as MDE anticipated typical concentrations (ATCs) for some metals (regional background concentrations recognized by the MDE; [MDE, 2008]). Using recreational soil-screening criteria is more appropriate for the projected future use of the property.

For clarity in the discussion below, previous investigation results are presented in general terms, with qualitative comparison to the screening criteria used at the time of those previous investigations (referred to hereinafter as the “previously used” criteria). Chemicals detected in these areas (Earth Tech, 2003). In addition to identifying RECs, the Phase I ESA also recommended further investigation of MRC historical activities to identify other possible environmental concerns.

2.3.3 Historical Survey (2004)

The historical research investigation of the MRC was conducted in summer 2004 to review all available historical information identified in the Phase I ESA (Tetra Tech, 2004b). The historical survey included a review of MRC maps (e.g., as-builts, proposed construction plans, and plot maps), interviews with Lockheed Martin and tenant personnel, and documentation of site visits. This survey identified no data indicating that parking lot No. 6 had ever been used for anything other than parking and crate storage.

2.3.4 Site-Wide Phase II Investigation (2004)

The 2004 site-wide Phase II investigation further investigated environmental concerns at RECs identified during the 2003 Phase II investigation and in the historical research survey, and addressed possible data gaps associated with the 2003 investigation. All 31 RECs at the MRC were investigated during the site-wide Phase II investigation. The Phase II investigation included geophysical surveys of five areas and soil and groundwater sampling. Table 2-3 provides a summary of the samples and analyses for this investigation.

Investigation of Block D was expanded during the site-wide Phase II investigation. Although 11 additional soil samples were collected from newly advanced soil borings (SB-57 through SB-67) throughout Block D, only one of these borings was advanced within the panhandle (SB-65). One surface soil sample, four subsurface soil samples (5-, 10-, 15-, 20- feet bgs), and one Hydropunch® groundwater sample were collected from this boring (SB-65). All samples were analyzed for VOCs, SVOCs, metals, PCBs, TPH-GRO, and -DRO. The location of the 2004 panhandle boring is shown in Figure 2-2.

Chromium and TPH-DRO were the only constituents detected in SB-65 soil at concentrations

intervals. The 2009 panhandle boring location is shown in Figure 2-2. Table 2-4 summarizes the analyses completed for the panhandle samples collected as part of the 2009 investigation.

During the delineation investigation, 15 soil samples were collected at one-foot intervals in the new boring (SB-65RE) and analyzed for PAHs by USEPA SW-846 Method 8270C. Samples were re-collected so that more precise benzo(a)pyrene equivalent concentrations (BaPEq) could be calculated for previous samples that had non-detect or less-than-detection-veePamatrec

Table 2-5 summarizes the analyses completed for the panhandle samples collected as part of the 2010 data gap investigation. A summary of the 2010 data gap investigation results is provided below.

SVOCs—21 exceedances appear widespread across the panhandle grid. Of these exceedances, three samples (D-SB-787-03, D-SB-790-05, and D-SB-794-SS) exceeded both residential and non-residential criteria for benzo(a)pyrene

BaPEq—six exceedances of the site-specific screening criteria appeared in four soil-boring locations (D-SB-786, D-SB-787, D-SB-790, and D-SB-794)

Metals

- arsenic—one sample concentration (14.3 mg/kg at D-SB-786-

through D-SB-881 were advanced in the southern area. Table 2-6 summarizes the analyses completed for the panhandle samples collected in 2012; boring locations are shown in Figure 2-2.

Five samples (from depths of 0–1, 1–2, 2–4, 4–6, and 6–

(MDE, 2008) and *Voluntary Cleanup Program Guidance* (MDE, 2006). Current guidance and reports published by USEPA and USEPA Region 3 were also used to prepare the risk assessment.

Historical land uses suggest that construction workers and industrial workers are the primary receptors that could potentially be exposed to contaminated soils at the MRC; however, the anticipated future land use at the Block D panhandle is recreational. Cancer and non-cancer risk estimates were calculated for these receptors using reasonable maximum-exposure assumptions, assuming that human exposure may occur via incidental ingestion, dermal contact, and inhalation exposure-routes. Cancer-risk estimates were presented in terms of incremental lifetime-cancer-risks (ILCR); non-cancer-risk estimates were presented in terms of hazard indices. Potential cancer effects were interpreted using the MDE cancer-risk benchmark (1×10^{-5}, or a one-in-100,000 probability of developing cancer) for cumulative risk, and the USEPA target cancer-risk range (1×10^{-4} to 1×10^{-6}, or a one-in-10,000 to a one-in-a-million probability, respectively, of developing cancer). Non-cancer risks were evaluated using a total hazard index (HI) value of 1 (adverse non-cancer health effects are not anticipated when the estimated HI is equal to or less than 1). BaPEq, hexavalent chromium, and arsenic were identified as COC for future recreational use in the HHRA for all Block D surface soils, including panhandle surface soils.

The Block D panhandle (and entire MRC) has been intensely developed in the past for industrial purposes, and much of the current land surface is paved or denuded of vegetation other than maintained grass areas. Thus, the currently available habitat for flora/fauna populations is limited, as is the potential for ecological receptor exposure and risk. In addition, as the planned future use of the panhandle is recreational, this area will likely consist of a similar type of maintained vegetative open space. Consequently, the amount and quality of the ecological habitat in the Block D panhandle will continue to be limited. For these reasons, an ecological risk assessment was not developed for the site, and remedial action and risk management decisions are based on the results of the HHRA.

2.4 CONCEPTUAL SITE MODEL

The action proposed in this RAP will address contaminated soils in the Block D panhandle. Block D irh3HAo-11(rh3HA(th)2(e)]pl)-2(.2 Tw T*4(s)-2i)-Tw 2..Tw (i)J 0 Tc 0 Twa 0 Ttindpey 5Twa parking lot No. 6 asphalt paving extends into the northern portion of the panhandle site, and the southern portion of the Block D panhandle is grassed. The following sections describe the sources of contamination at the Block D panhandle, as well as land use scenarios and exposure pathways.

2.4.1 Contaminant Sources and Soil Contaminants of Concern

Most PAH-future construction were to bring subsurface soil to the surface, contaminants in these soils could be transported into the air through wind erosion.

Surface water runoff generated in the grass-covered areas will generally infiltrate into the underlying soil or discharge to Dark Head Cove as overland sheet-flow. Therefore, overland runoff and erosion can only be potential migration pathways if contaminated soil is exposed during future construction, and if runoff is not contained and controlled as it is in its current state. PAHs generally adhere to soils; therefore, migration of these contaminants from soils to groundwater is not considered a complete migration pathway. This assumption is supported by years of groundwater monitof graceomw.[(d)2(h)(w.[(d)2(h)(w.[(d)2(h)(4d04(pAnt)-46.Tu)-6ltTw 18.83 0 T2

Table 2-1

Historical Soil Investigations
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Investigation	Year	General scope	Reference
Phase I Environmental Site Assessment	2003	13 Recognized Environmental Conditions (RECs) identified at the Middle River Complex. One REC overlaps with panhandle (REC #6: fill with unknown origin below parking lot No. 6 and the waterfront lot)	Earth Tech, 2003
Phase II Investigation	2003	Completed geophysical survey in parking lot No. 6. One soil boring advanced in the northern portion of the panhandle	Tetra Tech, 2004a
Historical survey	2004	18 additional RECs identified (none at Block D/panhandle)	Tetra Tech, 2004b
Phase II Soil Investigation	2005 and 2006	Three borings advanced at the panhandle, with soil sampling at three depths in each boring	Tetra Tech, 2006
Additional Soil Charcterization	2007	Soil sampling at multiple depths in 10 soil borings at the panhandle	Tetra Tech, 2011a
Final Delineation Investigation	2009	One boring resampled at one-foot depth increments to assess vertical extent of BaPEq	Tetra Tech, 2011a
Data Gap Investigation	2010	Soil sampling in 15 soil borings at the panhandle	Tetra Tech, 2011b
Panhandle Investigation	2012	Soil sampling in 10 soil borings within two target areas at the panhandle	Tetra Tech, 2012

BaPEq - benzo(a)pyrene equivalent concentrations
REC- recognized environmental condition

Table 2-2

Applicable Soil Screening Criteria
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Constituents Identified in Soils at Concentrations Exceeding Screening Levels	Current Maryland Residential Cleanup Level[1]	Current Maryland Industrial Screening Level[1]	Maryland Anticipated Typical Concentration[2]	Recreational, Site-Specific Preliminary Remedial Goal
BaPEq	22	390	NA	200
Arsenic	430	1,900	3,600	12,000[5]
Hexavalent chromium	23,000	310,000	NA	1,000[5]

Table 2-3

Summary of 2003 to 2005 Panhandle Soil Samples
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

		Top	Bottom	
Phase II Site Investigation Samples (Autumn/Winter 2003)				
SB-033	SB-33-05	5	5	VOCs, SVOCs, pesticides/PCBs, metals, and TPH-GRO and -DRO
Site-Wide Phase II Investigation Samples (2004)				
SB-031	SB-33A-SS	0	1	VOCs, SVOCs, pesticides/PCBs, metals, and TPH-GRO and -DRO
SB-065	SB-65-SS	0	1	VOCs, SVOCs, pesticides/PCBs, metals, and TPH-GRO and -DRO
SB-065	SB-65-05	5	5	VOCs, SVOCs, pesticides/PCBs, metals, and TPH-GRO and -DRO
SB-065	SB-65-10	10	10	VOCs, SVOCs, pesticides/PCBs, metals, and TPH-GRO and -DRO
SB-065	SB-65-15	15	15	VOCs, SVOCs, pesticides/PCBs, metals, and TPH-GRO and -DRO
SB-065	SB-65-20	20	20	VOCs, SVOCs, pesticides/PCBs, metals, and TPH-GRO and -DRO
SB-247	SB-247-05	5	5	Metals, SVOCs, and PCBs
SB-247	SB-247-10	10	10	Metals, SVOCs, and PCBs
SB-247	SB-247-15	15	15	Metals, SVOCs, and PCBs
SB-248	SB-248-05	5	5	Metals, SVOCs, and PCBs
SB-248	SB-248-10	10	10	Metals, SVOCs, and PCBs
SB-248	SB-248-15	15	15	Metals, SVOCs, and PCBs
SB-249	SB-249-05	5	5	Metals, SVOCs, and PCBs
SB-249	SB-249-10	10	10	Metals, SVOCs, and PCBs
SB-249	SB-249-15	15	15	Metals, SVOCs, and PCBs

Table 2-4

Summary of 2007 - 2009 Soil Samples
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Location	Depth Intervals (feet)	Analysis	Number of Samples Collected

Table 2-5

Summary of 2010 Data Gap Investigation Samples
Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Depth Intervals (feet)	Number of Samples Collected
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals (1, 3, 5, 7, 9, 11, 13, 15-ft.)	
	1-15 at two foot intervals	

Table 2-5

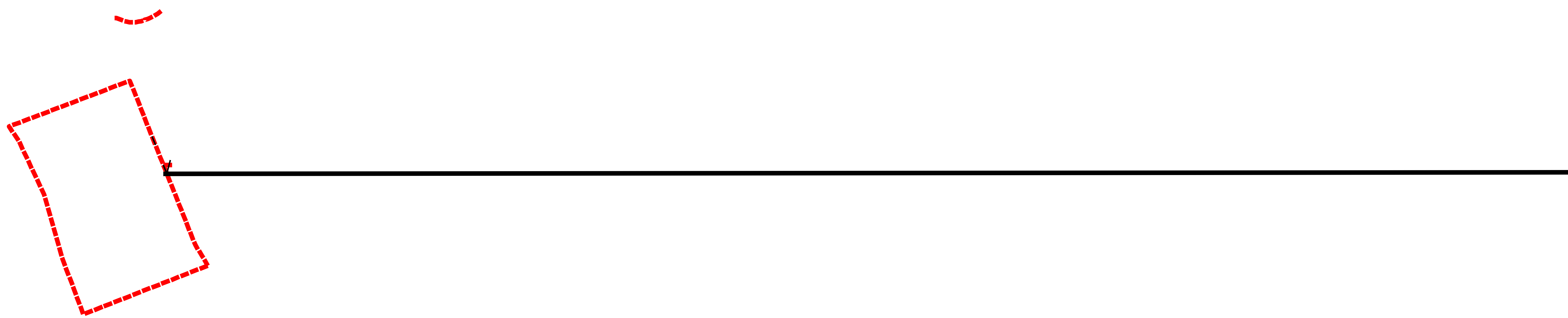
Summary of 2010 Data Gap Investigation Samples
Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

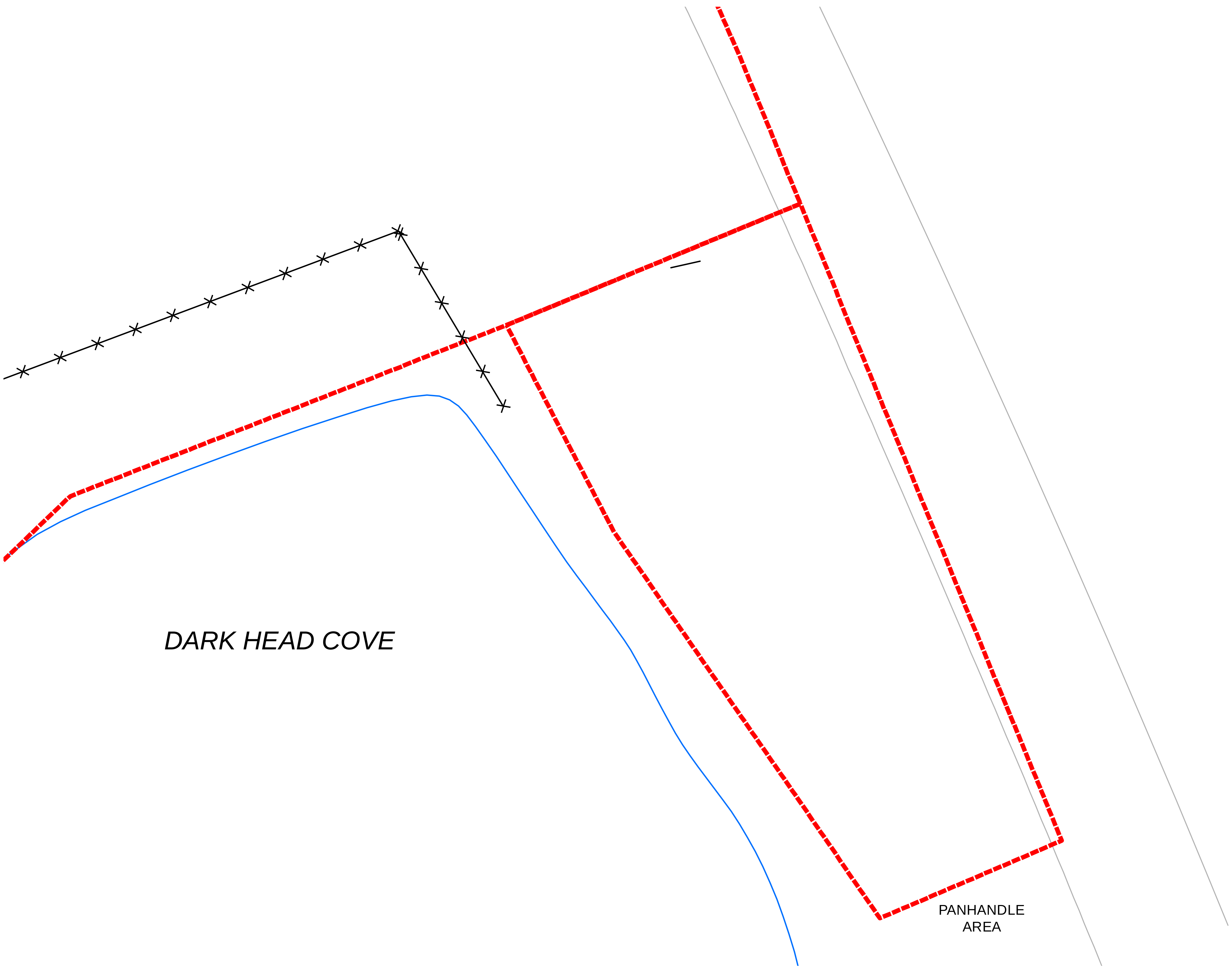
Sample Identification	Depth Intervals (feet)	Analysisfff -6.0396 re 2474(Cof)262)-41f -6.0396 re 446.28(f)26	Number of Samples Collected

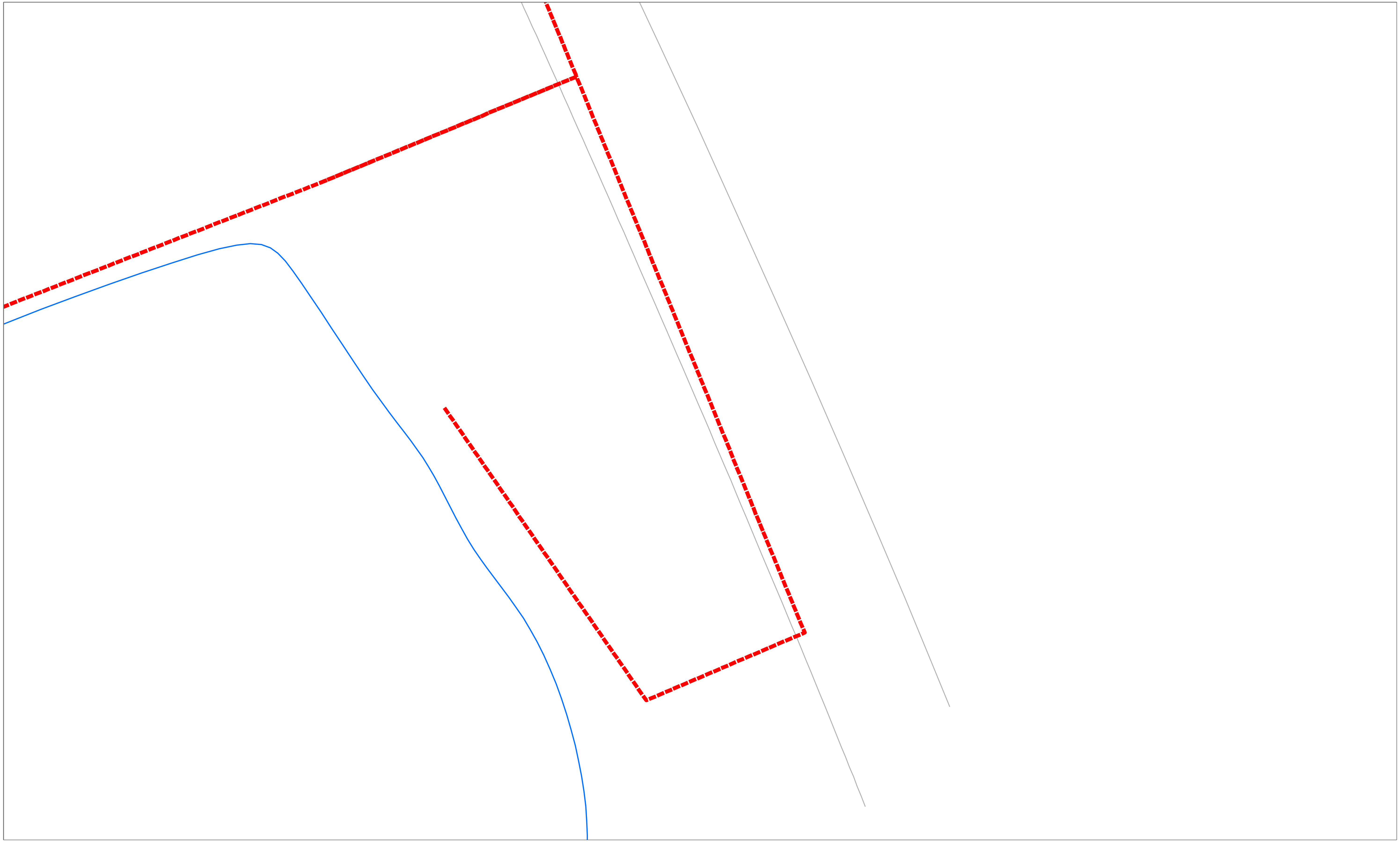
Table 2-6

Summary of 2012 Panhandle Investigation Samples
Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Sample Identification	Depth Intervals (feet)	Analysis	Number of Samples Collected
D-SB-872	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-873	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-874	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-875	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-876	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-877	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-878	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-879	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-880	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5
D-SB-881	0-1, 1-2, 2-4, 4-6, 6-8	VOCs, SVOCs and dioxin, pesticides/PCBs, metals, mercury, hexavalent chromium, and TPH-GRO and -DRO	5




DARK HEAD COVE
PANHANDLE
AREA



Section 3
Exposure Assessment

An exposure assessment for the Middle River Complex (MRC) was conducted to evaluate

3.3 FATE AND TRANSPORT OF PRIMARY SITE CHEMICALS OF POTENTIAL CONCERN (COPC) IN SOIL

PAHs are relatively immobile chemicals composed of large molecules; they have low solubilities, low vapor pressures, and high partitioning coefficients. These physical characteristics mean that PAHs in soil are much more likely to bind to soil and be transported via mass-transport mechanisms (e.g., gravity flow of PAH-containing product, etc.), rather than through dissolution. Thus, PAHs found in surface soil generally do not migrate vertically to a great extent. Instead, they are more likely to adhere to soil particles and be removed from the site via surface water runoff and erosion, especially in the absence of pavement or stabilizing vegetation, or if erosion controls are absent or not functioning properly. PAHs are not typically found in groundwater if generally low PAH concentrations are present in soils. Groundwater monitoring completed at the MRC provides evidence that PAHs are not leaching to groundwater; therefore, PAHs are not a groundwater COC.

3.4 POTENTIAL CURRENT AND FUTURE RECEPTORS OF CONCERN AND EXPOSURE PATHWAYS

The northern portion of the site is currently asphalt paved, but future site redevelopment might be for recreational use. Recreational users are thus potential receptors of concern for Block D panhandle contaminants. A recreational user could be exposed to surface soils (0–2 feet below grade) through incidental ingestion, dermal contact, and inhalation of chemicals emitted from soil to the air. To aid future risk management decisions, risks to recreational users from subsurface soil (2–10 feet below grade) were also evaluated, because future construction could redistribute subsurface soil to the surface.

Section 4
Preliminary Remedial Goals

Section 4 provides a summary of the chemicals of concern (COC) in soils for which further remedial action is necessary to reduce human health risk to future users of Block D panhandle. This section also presents the preliminary remedial goals (PRGs) developed for panhandle soils and an overview of the residual-

of 1×10^{-5} (versus a remedial goal based on an ILCR of 1×10^{-6}, i.e., a one-in-a-million risk) is appropriate for the following reasons:

BaPEq represents a *group* of chemicals (i.e., benzo(a)pyrene and related chemicals), not a single COC, and therefore risk analysis based on BaPEq accounts for cumulative risk

non-site related anthropogenic sources (associated with "fill material") of benzo(a)pyrene (and other PAHs used to calculate BaPEq) have contributed to study area soil concentrations

PRGs set at the 1×10^{-6} level for the BaPEq constituents are often significantly less than typical anthropogenic background levels (particularly in highly developed areas)

Appendix D includes histograms showing BaPEq-concentration distributions in the panhandle. The histograms demonstrate that risk estimates are strongly influenced by elevated concentrations detected at relatively few of the many sampling locations within the BlockTad-4(p)-4(o)-14c

Step 1: Identification of COC for the RRA—As discussed earlier, BaPEq, arsenic and hexavalent chromium were identified as the Block D panhandle COC.

Step 2: Identification of PRGs—Risk-based preliminary remedial goals for the recreational user were calculated for all COC and presented in the *HHRA for Tax Block Soils* (Tetra Tech, 2012). The remedial goal selected for evaluation of BaPEq constituents in the RRA (195 μg/kg) is the concentration representing the $1{\times}10^{-5}$ cancer-risk level for the recreational user. Metals soil-standards are (a) range from 40 µ

Other criteria that are non-promulgated, non-enforceable guidelines or criteria that may be useful in developing a remedial action or may be necessary to determine what protects human health and/or the environment will be considered. Examples include United States Environmental Protection Agency (USEPA) recreational exposure risk-based concentrations and similar MDE standards.

One of the primary concerns in developing remedial action alternatives for contaminated sites is the degree of human health and environmental protection offered by a remedy. CERCLA Section no action

containment

soil removal

in situ treatment

limited action: institutional controls

5.2 SCREENING OF TECHNOLOGIES AND PROCESS OPTIONS

This section includes identification, screening, and evaluation of potential technologies and process options that may be applicable to remediating impacted panhandle soil. The primary objective of this phase is to develop an appropriate range of remediation technologies and process options that will meet the RAO. The remediation technologies and process options are identified based on experience with similar projects. In addition, publicly available information from the Federal Remediation Technologies Roundtable (FRTR) technologies screening-matrix tool (FRTR, 2012) and the Interstate Technology and Regulatory Council (ITRC) screening tool (ITRC, 2012) were used.

The identified technologies and process options were screened in accordance with USEPA guidance (USEPA, 1988) and Lockheed Martin Corporation (Lockheed Martin)-specific considerations for environmental impacts and total cost analysis. Table 5-5 presents the results of the screening with respect to effectiveness, implementability, and relative cost. The following evaluation criteria were used in the screening:

Effectiveness: This criterion screens out technologies as follows:

- Technologies and process options that were not effective in eliminating potential exposure pathways (in particular, for current industrial workers), or were not effective in meeting the RAO, were screened out.

- Unreliable technologies and process options were screened out.

Implementability: Technologies that cannot be implemented in the area were screened out.

Relative cost: Technologies with costs significantly higher than others that achieve similar performance or goals were screened out. Relative costs such as high, medium, and low are provided, based on experience with similar projects and publicly available information from the FRTR and ITRC screening tools (FRTR, 2012 and ITRC, 2012).

The technologies and process options that passed the initial screening and detailed evaluation (provided in Table 5-6) were then selected for the next step in remedial alternative selection—the development of soil remedial alternatives.

5.3 DEVELOPMENT AND DETAILED ANALYSES OF ALTERNATIVES

This section discusses the development of the soil remedial action alternatives from the retained process options, and describes the conceptual design for the selected short list of alternatives. Impacted soil, as defined in the following discussion, is soil that the RRA identified for remediation. A two-step process for identifying and evaluate alternatives was used for this RAP. First, an initial list of eight potential remedial action alternatives was developed from the process options retained during the preliminary screening of technologies. Advantages and disadvantages of each were identified, and the alternatives' capital and operating costs were estimated. After the initial list of eight alternatives was screened during a qualitative analysis, seven remedial alternatives were retained for further evaluation.

5.3.1 Development of Alternatives

controls will still be required for soils that remain onsite and for soils below the groundwater table. The excavated areas will be restored using stabilizing vegetation. This alternative includes poststabilizing vegetation. Bench-scale testing will be required to establish the viability of this technology, and to determine if the RAO will be achieved.

Alternative 7: *In situ* stabilization of impacted soils to the groundwater table and institutional controls.

This alternative consists of *in situ* stabilization of soils using an auger and cement-like material, resulting in COC becoming less mobile and less bioavailable. Stabilization

MDE will document institutional controls and related environmental covenants applicable to the Block D panhandle property in the applicable “No Further Action” letter, which will be issued upon successful completion of soil remediation achieving the RAO in the Block D panhandle. The “No Further Action” letter will be filed in the local land use records and will be passed to subsequent property owners as part of the deed documentation (i.e., the covenant “travels with the land”). MDE regards all institutional controls as existing in perpetuity unless the related environmental covenants are eliminated or modified by mutual consent of the stakeholders. MDE will present certain environmental covenants as part of the “No Further Action” letter documentation, and these covenants will provide stakeholders with legal standing for their first two criteria, or *threshold criteria*, include overall protection of human health and the environment and compliance with ARARs. All alternatives (excluding Alternative 1: No Action) meet these criteria, although several will require bench-scale testing to determine if the RAO will be achieved. The next five criteria described in the NCP are primary *balancing criteria*. This RAP also adds a sixth balancing criterion: the environmental impacts of each alternative. Thus, the six primary *balancing criteria* considered are as follows:

long-term effectiveness and permanence

implementability

Implementability**—**The ease or difficulty of implementing the alternatives must be assessed by considering technical feasibility, administrative feasibility, and availability of services and materials.

Environmental impacts**—**The environmental impacts of the remedial alternatives were assessed using the *SiteWise*™ software tool (Appendix G). *SiteWise*™ is a spreadsheet-based tool developed by the United States Navy, United States Army Corps of Engineers, and Battelle Memorial Institute (United States Navy, 2011). It provides a model for assessing the environmental footprint of remedial alternatives in terms of a consistent set of metrics, including greenhouse gas emissions, particulate emissions, and energy usage. The components of Alternatives 3–7 were divided into four modules (representing the remedial phases of most remedial actions) and their environmental footprint was then calculated. These results were then combined to determine the total footprint of each alternative and enable comparison among the set of alternatives. *SiteWise*™

- future development under institutional controls
- currently unknown issues, such as:
    - unknown contamination in the remediation area or under the operating manufacturing facilities
    - future releases to groundwater
    - effect that future modification or demolition of manufacturing facilities may have, including changes in groundwater flow and contaminant release
    - emerging contaminants of concern

IV—Internal intangible costs, including:

- community relations
- regulatory relations
- corporate and brand impacts
- customer loyalty

Long-term effectiveness and permanence—Alternative 2 will not be compatible with the desired current and future land use of the site. Alternative 2 will not be effective in the long term at meeting the RAO because BaPEq in soils will remain above the 1×10^{-5}

Components 1: soil excavation—Figure 4-1 shows the areas of the Block D panhandle that will be excavated to meet the recreational risk-based PRG (195 µg/kg). Site preparation will include construction of a material-handling pad, decontamination zones, and haul routes to allow equipment access; these areas will be investigated for the presence of underground utilities and structures, if required. Following confirmation of the excavation boundaries by design characterization sampling (see Section 6 and Figure 6-1), the top two feet of soils will be excavated using a bulldozer, front-end loader, or similar equipment.

Post-removal confirmation samples in excavation areas A and B (see Figure 6-1) will be collected from the sidewalls of the excavations and analyzed for benzo(a)pyrene equivalent (BaPEq) PAHs, arsenic, and hexavalent chromium. Excavation-base samples will also be collected, but only for informational purposes. Following excavation, and after the overall site-wide exposure-point concentration for BaPEq is less than 195 µg/kg (including sampling results from sidewall excavation areas A and B) and the metals COC have been reduced to background levels, the excavated areas will be backfilled with certified-clean material, graded to original contours, and restored to pre-response-action conditions.

Component 2: off-site soil disposal—The expected actions for excavated soils are as follows:

Excavated material characterized as Resource Conservation and Recovery Act (RCRA) nonhazardous waste will be transported to a permitted RCRA Subtitle D facility for direct landfilling or to a permitted, Lockheed Martin-approved recycling facility.

Excavated soil that fails toxicity characteristic leaching procedure (TCLP) testing will be characterized as RCRA hazardous waste and will be transported to a permitted RCRA Subtitle C treatment, storage, and disposal facility (TSDF) for treatment to meet TCLP limits, followed by direct landfilling.

The volumes estimated for disposal will need to be verified based on sampling and analysis of stockpiled soil, followed by profiling (as necessary) for each facility. Estimated disposal volumes are in the TCA (Appendix H).

Component 3: institutional controls—Institutional controls would include documentation of residual soil contamination, enforcement of the MRC soil management plan (e.g., excavation notification and soil reuse restrictions), and limitations on future property use.

***Long-term effectiveness and permanence*—**Alternative 3 would be effective in eliminating long-term risk if impacted surface soils are removed.

***Reduction of toxicity, mobility, and volume through treatment*—**No reduction of toxi

R-5(e.)]-TJ 0 Tc 0-3.77/(c)42 Tc -0Sho0.004 e 6 Tc 3-(m)-26( ) 2f) 19 (f)-1 (0 ct)-F6(i)-62(

operations, maintenance, and monitoring:	$168,750
closure cost:	$88,039
total cost:	$1,184,239
net present value cost:	$1,059,567

Component 2: off-site soil disposal—The expected actions for excavated soils would be as follows:

Excavated material characterized as RCRA nonhazardous waste would be transported to a permitted RCRA Subtitle D facility for direct landfilling, or to a permitted Lockheed Martin-approved recycling facility.

Excavated soil that fails TCLP testing would be characterized as RCRA hazardous waste and be transported to a permitted RCRA Subtitle C TSDF for treatment to meet TCLP limits, followed by direct landfilling.

Estimated disposal volumes would need to be verified based on sampling and analysis of stockpiled soil, followed by profiling (as necessary) for each facility. Estimated disposal volumes are in the TCA (Appendix H).

Component 3: institutional controls—Institutional controls include documentation of residual soil contamination, enforcement of the MRC soil-management plan (e.g., excavation notification and soil reuse restrictions), and limitations on future use of property.

***Long-term effectiveness and permanence*—**Alternative 4 will be effective in eliminating long-term risk because impacted soils down to the groundwater table would be removed in the areas identified in the RRA.

***Reduction of toxicity, mobility, and volume through treatment*—**No reduction of toxicity, mobility, or volume through treatment will be achieved under Alternative interfere with construction also be required during the design process and before intrusive construction work begins. With these considerations, Alternative 4 is implementable.

Environmental impacts—The following environmental effects were estimated using *SiteWise*™ (Appendix G):

- greenhouse gas emissions—57.6 metric tons
- water impacts—374 gallons
- nitrogen oxides (NO_x) emissions—0.071 metric tons
- sulfur oxides (SO_x) emissions—0.020 metric tons
- particulate matter (PM_{10}) emissions—0.010 metric tons
- total energy used—2,295 MMBTUs

Cost—The following costs for Alternative 4 were estimated via the TCA process:

implementation:	$967,755
operations, maintenance, and monitoring:	$168,750
closure cost:	$91,865
total cost:	$1,228,370
net present value cost:	$1,103,448

5.3.3.5 Alternative 5: Limited Excavation or Asphalt Pavement Removal, Soil Cover over Impacted Areas, and Institutional Controls

Alternative 5 consists of the following four major components: (1) excavation of the top six inches of soil or asphalt pavement in impacted areas, (2) off-site disposal of soil and asphalt, (3) placement of soil cover, and (4) implementation of institutional controls. Figure 4-1 illustrates the areas to be remediated under Alternative 5.

Components 1 and 2: soil excavation and placement of soil cover—Figure 4-1 shows the areas of the Block D panhandle that will be excavated to six inches bgs. Portions of area A in Figure 4-1 are paved with six inches of degraded asphalt; the asphalt will be removed in these areas (instead of excavating soil). A material-handling pad, decontamination zones, and haul routes will be constructed to allow equipment to access the areas to be excavated; these areas will be investigated for the presence of underground utilities and structures, if required. Soil will be excavated using a bulldozer, front-end loader, or similar equipment.

Soil cover in the excavated areas will

net present value cost: $984,840

<u>5.3.3.6 Alternative 6: Enhanced Bioremediation of Impacted Soils to a Depth of Two Feet and Institutional Controls</u>

The bioremediation technique proposed involves the *in situ* application of soil amendments (e.g., DARAMEND® organic amendment) and water to stimulate native organisms to biodegrade organic material. Alternative*DARAM-6(h)-4(e)]TJ* [illegible] (e.g.,

NO_x emissions—0.085 metric tons

SO_x emissions—0.014 metric tons

PM_{10} emissions—0.009 metric tons

total energy used—1,047 MMBTUs

Cost—The following costs for Alternative 6 were estimated via the TCA process:

implementation:	$932,360
operations, maintenance, and monitoring:	$224,552
closure cost:	$88,506
total cost:	$1,245,418
net present value cost:	$1,118,890

5.3.3.7 Alternative 7: *In situ* Stabilization of Impacted Soils to the Groundwater Table and Institutional Controls

Alternative 7 consists of three major components: (1) bench-scale test, (2) *in situ* soil bilization, and (3) implementation of institutional controls. Figure 14 illustrates the areas that be remedied under Alternative 7.

Component 1: bench-scale testing—A bench-scale test would be performed to determine the a increase in elevation in the panhandle will be necessary. Pending MDE approval, some of the stabilized soils could be used as backfill.

Component 4: institutional controls—Institutional controls include documentation of residual soil contamination, enforcement of the MRC soil-management plan (e.g., excavation notification and soil reuse restrictions), and limitations on future use of property.

***Long-term effectiveness and permanence*—**Alternative 7 binds COC in cement-like material and make them less mobile and less bioavailable, but COC concentrations will not be decreased. The stabilized material could eventually degrade over time, and COC could then be remobilized in soil.

***Reduction of toxicity, mobility, and volume through treatment*—**Alternative 7 will reduce the the 0 (l)-2(e)4 water impacts—23,354 gallons

NOx emissions—0.035 metric tons

SOx emissions—0.013 metric tons

PM10 emissions—0.008 metric tons

total energy used—2,969 MMBTUs

Cost—The following costs for Alternative 7 were estimated via the TCA process:

implementation:	$1,129,320
operations, maintenance, and monitoring:	$168,750
closure cost:	$134,003
total cost:	$1,432,073
net present value cost:	$1,304,395

5.4 COMPARATIVE ANALYSIS OF ALTERNATIVES AND PROPOSED ALTERNATIVE

The seven soil remedial-action alternatives to remedy soils in Block D panhandle were compared qualitatively and quantitatively. Both types of analysis use the same evaluation criteria described

iC2_0 (b)-14p0 Tw129,3245 Td(, m)-uEMC /EMC 45 Tc2(ons)-1(, m)-2(a)4(. T0 Th(, m)EMC /45 Tde)]T
1

incorporated into the tool (InfoHarvest, 2001). To build the decision hierarchy and incorporate all the decision factors, each NCP evaluation criterion is represented by one or more individual metrics. To account for these metrics, up to three levels of evaluation criteria were established:

Level 1 criteria are the major balancing and modifying criteria

Level 2 criteria have factors considered in the evaluation of Level 1 criteria

Level 3 has further subcomponents with which to evaluate the Level 2 criteria

The results of the CDP screening are in Appendix I; Table 5-9 summarizes the quantitative CDP analysis. Table 5-10 summarizes the weightings, rankings, and results of the CDP analysis. Higher scores indicate that the alternative is more favorably ranked in that category.

All seven alternatives evaluated meet the threshold criteria equally well; therefore, the six balancing criteria were used to differentiate between alternatives and determine the preferred alternative:

Long-term effectiveness and permanence—Alternative 4 ranks highest in this category because it has the lowest long-term residual potential-risk as compared to the other six alternatives. This alternative is very effective at eliminating risk because it removes all soil needing remediation to achieve a site-wide residual risk of 1×10^{-5}. Alternative 3 ranks second highest in this categorngs, acP2.72 0AlTT61036[(6)]TJ10 Tc5-36854( )te4(d)1(28)dive0.58

The overall CDP scoring of the various alternatives resulted in Alternative 3 achieving the highest ranking. The CDP scoring is as follows (higher scores indicate that the alternative is more favorably ranked):

- Alternative 1—0.415
- Alternative 2—0.502
- Alternative 3—0.611
- Alternative 4—0.619
- Alternative 5—0.537
- Alternative 6—0.547
- Alternative 7—0.572

In the quantitative analysis, Alternative 4 ranks highest. Most importantly, it ranks highest in long-term effectiveness at reducing risk to human health. In the final comparison of the top three alternatives (Alternatives 4, 3, and 7), Alternative 4 poses the least residual potential risk of all alternatives because it removes all soils identified for remediation in the RRA, thus achieving a site-wide cumulative residual risk of 1×10^{-5} for the hypothetical recreational user and reducing arsenic and hexavalent chromium to background levels. Alternative 4 is easily constructible, and the technology and experts needed are readily available. Unlike Alternatives 2, 5, 6, and 7, Alternative 4 will not require any monitoring once the remedial action has been completed. Alternative 4 was selected as the proposed soil remedial action at Block D based on both the qualitative and quantitative analyses.

Table 5-1
Chemical-Specific Applicable or Relevant and Appropriate Requirements and To Be Considered Guidance
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Cleanup Standards for Soil and Groundwater	Maryland Annotated Code7do274(Co)-4(m)5 Td 2112.08259bde oniderd			

anduppm

Table 5-2

Location-Specific Applicable and Relevant and Appropriate Requirements and To Be Considered Criteria
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Federal				
Endangered Species Act Regulations	50 CFR Parts 81, 225, and 402	Potentially Applicable	This act requires federal agencies to take action to avoid jeopardizing the continued existence of federally listed endangered or threatened species.	If a site investigation or remediation could potentially affect an endangered species or their habitat, these regulations would apply (There have been no endangered species or their habitat identified at the MRC.)
Historic Sites Act Regulations	36 CFR Part 62	Potentially Applicable	Requires federal agencies to consider to existence and location of landmarks on the National Registry of Natural Landmarks to avoid undesirable impacts on such landmarks	The existence of national landmarks will be identified prior to remedial activities on site including remedial investigations (No national landmarks have been identified at the MRC.)
State				
Nongame and Endangered Species Conservation Act	Annotated Code of Maryland 10-2A-01; COMAR 08.03.08 and 08.02.12.	Potentially Applicable	Requires state agencies to use their authority to maintain and enhance nongame wildlife and endangered species populations	If a site investigation or remediation could potentially affect an endangered species or their habitat, these regulations would apply (No endangered species or habitats have been identified at the MRC.)
Division of Historical and Cultural Programs	Annotated Code of Maryland 5A	Potentially Applicable	The Maryland Historic Trust formed in 1961 to preserve, protect, and enhance districts, sites, buildings, structures, and objects significant in the prehistory, history, upland and underwater archeology, architecture, engineering, and culture of the state.	The existence of Maryland historic sites would be identified prior to remedial activities on site including remedial investigations (No historic sites have been identified at the MRC.)

CFR- Code of Federal Regulations   COMAR- Code of Maryland Regulations   MRC- Middle River Complex

Table 5-3

Action-Specific Applicable or Relevant and Appropriate Requirements and To Be Considered Criteria
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland
Page 1 of 3

Requirement	Citation	Status		Evaluation/Action to be Taken
RCRA Regulations, Identification and Listing of Hazardous Wastes	40 CFR Part 261	Potentially applicable		These regulations would apply when determining whether or not a solid waste is hazardous, either by being listed or by exhibiting a hazardous characteristic, as described in the regulations.
CAA Regulations, NAAQSs	40 CFR Part 50	Potentially applicable		Site remediation activities must comply with NAAQSs. The principal application of these standards is during response action activities resulting in exposures through dust and vapors. In general, emissions from CERCLA activities are not expected to qualify as a major source and are therefore not expected to be applicable requirements. However, the requirements may be determined to be relevant and appropriate for non-major sources with significantly similar emissions.
RCRA Regulations, LDRs	40 CFR Part 268	Potentially applicable		Response actions that involve excavating, treating, and redepositing hazardous soil would comply with LDRs. However, consolidation of contaminated soil within Block F for the purposes of reducing the size of the contaminated area may not constitute land disposal.
OSHA Regulations, General Industry Standards	29 CFR Part 1910	Applicable	Requires establishment of programs to assure worker health and safety at hazardous waste sites, including employee training requirements.	These regulations would apply to all response activities.
OSHA Regulations, Occupational Health and Safety Regulations	29 CFR Part 1910, Subpart Z	Potentially applicable	Establishes permissible exposure limits	Standards are applicable for worker exposure to OSHA hazardous chemicals during response action activities.

Table 5-3

Action-Specific Applicable or Relevant and Appropriate Requirements and To Be Considered Criteria
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
OSHA Regulations, Recordkeeping, Reporting, and Related Regulations	29 CFR Part 1904	Applicable		These requirements apply to all site contractors and subcontractors and must be followed during all site work.
OSHA Regulations, Health and Safety Standards	29 CFR Part 1926	Applicable		All phases of the response action would be executed in compliance with this regulation.
	40 CFR 264, Subpart D			The administrative requirements established in this rule would be met for response actions involving the management of hazardous waste.
RCRA Regulations, Preparedness and Prevention	40 CFR Part 264, Subpart C	Potentially relevant and appropriate	Outlines requirements for safety equipment and spill control for hazardous waste facilities. Facilities must be designed, maintained, constructed, and operated to minimize the possibility of an unplanned release that could threaten human health or the environment.	Safety and communication equipment would be incorporated into all aspects of the response action process, and local authorities would be familiarized with site operations.
RCRA Regulations, Standards for Owners and Operators of Hazardous Waste TSDFs.	40 CFR Part 264	Potentially relevant and appropriate	Establishes minimum national standards defining the acceptable management of hazardous wastes for owners and operators of facilities that treat, store, or dispose of hazardous wastes.	If response actions involving management of RCRA wastes at an off-site TSDF, or if RCRA wastes are managed on-site, the requirements of this rule would be followed.
RCRA Regulations, Use and Management of Containers	40 CFR Part 264, Subpart I	Potentially relevant and appropriate		This requirement would apply if a response action alternative involves the storage of a hazardous waste (i.e., contaminated soil) in containers prior to treatment or disposal.
Migratory Bird Treaty Act	16 USC 703-711	Potentially applicable	Protects migratory birds and their nests.	Proposed response action will not kill migratory birds or destroy their nests and eggs.

Table 5-3

Table 5-4

Remedial Action Objectives and General Response Actions
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Reduce site-related chemicals of concern in Block D soils to
1×10^{-5} human health cancer risk limits for recreational users exposed to

Table 5-5

Results of Preliminary Technology Screening
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below					Results		
				Effectiveness (primary)			Implementability	Relative cost			
				Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability			Screening comment	Retain	Eliminate
Removal	Excavation	Traditional excavation (with backhoe)	Removal of contaminated soils by backhoe, bulldozer, loader, etc.	Very effective in eliminating future risk and eliminating future exposure pathway	Impacted soils have to be transported to the disposal facility and brought to the site for backfill.	Reliable	Easily implemented with traditional equipment. Depending on depth of excavation, may require dewatering of excavation and associated treatment of groundwater.	High cost; potential for large escalations in cost if area is not thoroughly characterized to ascertain impacted soil volumes.	Retained for removal of contaminated soil		
		Stabilization/ Solidification	Mixing of chemical agents in the soil to chemically bind, solidify, and reduce contaminant mobility	Well understood technology, can be utilized in areas with target inorganic concentrations and polycyclic aromatic hydrocarbons (PAHs).	Soils has to be processed. Large quantity of stabilizing agent such as cement may have to be transported to the site.	Reliable; will require bench-scale and possibly pilot testing to ascertain mix	Implementable with traditional equipment	Moderate cost	Retained.		
In situ Treatment	Physical/ Chemical										
		Soil mixing with zero valent iron (ZVI) or emulsified nano ZVI	Permeable reactive barrier (PRB) used to treat halogenated compounds and heavy metals. Nano-scale ZVI was developed to further enhance its effectiveness and the clean-up time. Thiralea [(S)2(o)-6(ilu)6(c)-2(h)-247(a)-2(s)-204er54.32			Remediation with ZVI is an emerging technology	Requires a bench-scale and/or a pilot-scale testing prior to implementation	High cost	Td [Nanoectivchnitsgy(h)6(y)18ionail1hirReqithveao5(g)6(e)--2(s)-2gvetab(e		

Table 5-5

Results of Preliminary Technology Screening
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryee5(e)-4 35

Table 5-5

Results of Preliminary Technology Screening
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below					Results		
				Effectiveness (primary)			Implementability	Relative cost			
				Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability			Screening comment	Retain	Eliminate
		Bioventing	Oxygen is delivered to contaminated unsaturated soils by forced aeration (either extraction or injection of air) to increase oxygen concentrations and stimulate biodegradation. In contrast to soil vapor extraction, bioventing uses low air flow so as to provide only enough oxygen to sustain microbial activity.	Bioventing is an *in situ* technology that degrades compounds in soil by providing oxygen to existing soil microorganisms. Soil grain size and moisture content significantly affect its performance. Site geology indicates presence of some clayey soils, which reduce bioventing performance significantly.	Bioremediation will take a long time to implement.	May not be effective due to site geology.	Easily implemented with standard construction techniques	Low to moderate cost	Eliminated; site geology indicates the presence of some fine grain soils which would reduce bioventing performance.		
		Phytoremediation	Use of selected plants cultivated in contaot								

Table 5-5

Results of Preliminary Technology Screening
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below					Results		
				Effectiveness (primary)			Implementability	Relative cost			
				Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability			Screening comment	Retain	Eliminate
Ex situ Treatment	Physical/ Chemical	Chemical fixation/ Stabilization/Solidification	Mixing of chemical agents to bind, solidify, and reduce contaminant mobility.	Well understood technology; can be utilized in areas with target inorganics, polycyclic aromatic hydrocarbons	Soils have to be processed which would require movtivti						

CheRubil-26 re 501P624(4$)5.96-(/)]TJ 0]TJ 0]TE-275(S2 9.96 n697.44 2)2(h)-22599.52085.6 4J.96 0dStabol.9 e8]TJy,e(E-275(tab)-)2,(tab)-tdR7636.1 -97.ng(to)-5(o)-6(dT* [(h(v)6(46(in)7(d)-6(,3(o)-gi)26(e)-2(m)198 [(S)b)-)2Td [(R -100ix)7(in)7(gT)19(a)2(t)-19)-252(m)19(0d)]72(n 76.56 471.12 Td4

Table 5-5

Results of Preliminary Technology Screening
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below: Effectiveness (primary): Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability	Implementability	Relative cost	Results: Screening comment	Retain	Eliminate
Ex situ treatment (continued)	Biological (continued)	Composting	Composting is a biological process to convert organic contaminants to innocuous end products. Typically, thermophilic conditions (i.e., 54 to 65 Celsius) must be maintained. Soils are excavated and mixed with bulking agents such as wood chips and mixed to promote biodegradation.	Composting results in a volumetric increase because of the addition of amendment materials. Composting has been demonstrated to degrade many organic contaminants in soils, including PAHs. All materials and equipment used for composting are readily available.	Similar to biopiles, windrow composting requires substantial space. Bioremediation will take a long time to implement.	Reliability has to be assessed through bench-scale testing. PAHs are comparatively slow to biodegrade.	Easily implemented with standard construction techniques	Moderate cost	Eliminated; would take a many years to reach the RAO. This technology will require a large area to implement. Impacted areas that are excavated have to remain open and have to be managed until backfilled with treated soils.		
Disposal	Off-site	Hazardous waste landfilling/ Non-hazardous waste landfilling/Recycling	Disposal of excavated wastes and treatment residuals in a permitted Resource Conservation and Recovery Act (RCRA) Subtitle C or D facility or at a permitted recycling facility	Very effective in eliminating future risk and eliminating future exposure pathways, provided all areas with impacted soils have been identified	Soil will have to be transported via large trucks.	Reliable	Easily implemented with traditional technology; has to be used in conjunction with excavation and removal	High cost	Retained landfilling or recycling, to be used in conjunction with other response action technologies		

Table 5-5

Results of Preliminary Technology Screening
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin, Middle River Complex
Middle River, Maryland

General response action	Response action technology	Process option	Description	Quantitative Screening Based on Criteria Below					Results		
				Effectiveness (primary)			Implementability	Relative cost			
				Effectiveness in eliminating potential exposure pathways	Impacts during implementation	Reliability			Screening comment	Retain	Eliminate

Table 5-6

Technologies and Process Options for Soil Remedial Action
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

General Response Action	Remedial Action Technology	Process OptionGJ 85J 3815606.6(Ac.7.66 Tf2R)2i

Table 5-7
Development of Remedial Alternatives
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

		Alternatives							
		1	2	3	4	5	6	7	8
Remedial Action Objective	**Risk Pathway**								**Phytoremediation in impacted areas and institutional controls**
Reduce site related chemicals of control in Block D panhandle soils to 1×10^{-5} human health cancer risk limits for recreational users exposed to chemicals of concern via ingestion, dermal contact and inhalation.	Ingestion, inhalation, and dermal contact	Not Applicable		Risk pathway is mitigated via excavation and disposal of soils in the top two feet.	Risk pathway is eliminated via excavation and disposal of soils to the water table.	Risk pathway is mitigated via placement of a cover/cap.	Risk pathway is mitigated via treatment of surface soils.	Risk pathway is mitigated via stabilization of soils down to the water table.	While the phytoremediation technology may be promising, inconsistances in the rooting system can not guarantee the RAO will be met in the impacted areas
				Institutional controls will mitigate risk associated with soils at depths > two feet.	Institutional controls will mitigate risk associated with saturated soils.	Institution controls are required for maintenance of cover/cap.	Institutional controls will mitigate risk associated with soils at depths > two feet.	Institutional controls will mitigate risk associated with saturated soils.	

Table 5-8

Ranking of Alternatives Based on Preliminary Screening
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Ranking	Alternative	Retained?
1		

Table 5-9

Comparative Analysis of Alternatives
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Evaluation Criteria	Evaluation Sub-Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
	Residual potential long-term effectiveness and risk (assuming remedy failure)							

Table 5-9

Comparative Analysis of Alternatives
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Evaluation Criteria	Evaluation Sub-Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
	Time to achieve RAOs	Very long timeframe	Very long timeframe	Will require longer than Alternative 4 since all surface soils are dealt with. (1 year)	Will require a long duration since large			

4475(o)7(i)-4(l)-4()]TJ 54.6 43.68 s.6-5292 -1(r)-5(a)-7p ET l-7(rr)-5tie433.8 3tTd [(s5952 8 447167(e)-2U)la-.68 tiJ 19.92 -1J 19.gJ 54.6 4b ET l-7(rr)d [(s52(A)4(O)4(s)]TJ 4.6 4d8 -10.92 T7(3.68 s.68 e5l)-4((r)-5(a)-7p ET .64 -10

Table 5-9

Comparative Analysis of Alternatives
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Evaluation Criteria	Evaluation Sub-Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Implementability (continued)	Constructability	Easily constructed	Easily constructed	Easily constructed, but more involved than Alternative 5. Can be implemented using standard construction techniques.	Very involved, requires shoring, dewatering and treatment and disposal of large volumes of soil; can be implemented using standard construction techniques.	Difficult to implement over large areas that are not contiguous	Can be constructed with standard equipment and machinery for tilling and application of amendments	Can be constructed with standard equipment and techniques
	Availability of experts and technology	Does not require any expertise	Expertise is available.	Expertise and technology is readily available.	Expertise and technology is readily available.	Expertise and technology is readily available.	Expertise and technology is available. Viability of technology to be ascertained by pilot testing.	Expertise and technology are readily available; will require bench-scale testing to ascertain mix
	Adaptability to modify/ update as necessary	Alternative can be modified as required.	Alternative can be modified as required.	Alternative can be modified as required. Additional excavations can be carried out.	Alternative can be modified as required. Additional excavations can be carried out.	Alternative can be modified as required.	Cannot be modified, since the limits of degradation of chemicals of concern will dictate the final concentration.	Alternative can be modified as required.

Table 5-9

Comparative Analysis of Alternatives
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Evaluation Criteria	Evaluation Sub-Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7

Table 5-10

Criteria Weighting and Ranking
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Weight	*Criteria*	*Weight*	*Sub-Criteria 1*	*Weight*	*Sub-Criteria 2*	*Criteria/ Sub-Criteria*	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
		50	Residual										

Table 5-10

Criteria Weighting and Ranking
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Corporation Middle River Complex
Middle River, Maryland

Weighting						**Ranking**								
Weight	***Criteria***	***Weight***	***Sub-Criteria 1***	***Weight***	***Sub-Criteria 2***	***Criteria/ Sub-Criteria***	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**	**Alternative 6**	**Alternative 7**
75	Costs	50	Capital			Capital	10.00	6.30	1.90	1.60	2.80	1.90	0.00
		50	O&M			O&M	10.00	8.40	5.20	5.20	2.30	0.00	5.20
						TOTAL SCORE	**0.415**	**0.537**	**0.594**	**0.615**	**0.534**	**0.567**	**0.572**

Notes:

GHG - greenhouse gases
NO_x - nitrogen oxides
SO_x - sulfur oxides
PM_{10} - respirable particulate matter
O&M - operation and maintenance
RAOs - remedial action objectives

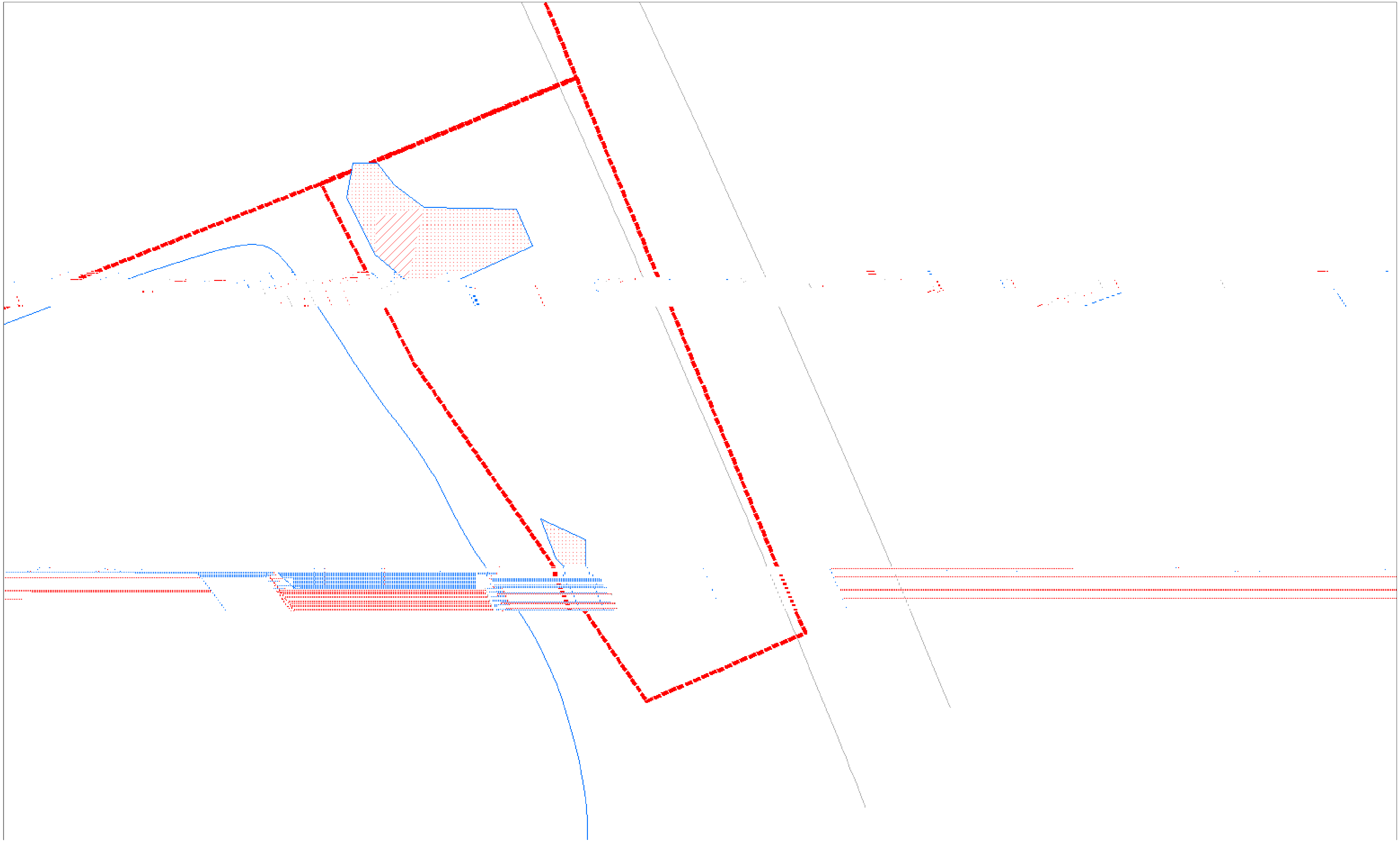
Alternative 1:No action
Alternative 2: Institutional controls
Alternative 3: Excavation and off-site disposal of impacted soils* to a depth of two feet and institutional controls
Alternative 4: Excavation and off-site disposal of impacted soils* to the water table and institutional controls
Alternative 5: Concrete slab remvoal and soil cover over impacted areas* and institutional controls
Alternative 6: Enhanced bioremediation of impacted surface soils* and institutional controls
Alternative 7: *In situ* stabilization of impacted soils* to the groundwater table and institutional controls

*Impacted soil is defined as soil that the residual risk analysis identified for remediation

Section 6
Design Characterization Sampling

The residual-risk analysis (RRA) performed on Block D panhandle soils (see Section 4) identified areas that must be remediated to achieve “representative” soil concentrations that do not exceed the preliminary remediation goal (PRG) established for benzo(a)pyrene equivalent (BaPEq), the primary chemical of concern (COC) in panhandle soils. The RRA was conducted using sample location data from all previous investigations described in Section 2.3. The RRA process consists of ranking sample locations from most contaminated to least contaminated and then sequentially “removing” sample results/locations from the upper confidence level (UCL) calculation until the 95% UCL concentration for the COC does not exceed the recreational risk-based PRG (195 µg/kg) associated with the remedial action objective (RAO) 0 Tc 44(b)-4ka4(

Figure 6-1 shows the proposed sampling locations for design characterization sampling. A complete sampling and analysis plan will be prepared during the design phase of the remedial action. Sampling will be completed before remediation begins. Sampling results will be used to recalculate residual risk. That analysis will be used to determine if the currently proposed excavation areas require adjustment. Any adjustments will be incorporated into the final remedial design documents.



Section 7

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Section 8
Proposed Remedial Actions

This section presents the conceptual design for the proposed soil remedial action at the Block D panhandle. The selected remedial alternative, Alternative 4, involves excavation and disposal of impacted soils to the groundwater table, and implementation of institutional controls. A site plan presenting the layout of the preliminary remedial design is in Figure 4-1. This proposed conceptual design may be altered during design characterization sampling (see Section 6) or during the detailed full design and permitting process that that precedes implementation.

A final soil remedial action design will be developed following approval of this remedial action plan (RAP). It will provide the final design-basis for the remedial action, describe the areas and volumes of soil to be excavated, and describe the volume and type of fill material to be used. The soil remedial-action design will be submitted as a RAP addendum. The remedial action implementation schedule is in Section 10.

8.1 SUMMARY OF MAJOR COMPONENTS

Major components of the remedial action necessary to achieve a "No Further Action" site closure from the Maryland Department of the Environment (MDE) include:

> *Removing soil with chemical of concern (COC) concentrations greater than the preliminary remedial goals (PRGs) for* benzo(a)pyrene equivalent (BaPEq) *(195 micrograms per kilogram [µg/kg]), arsenic (12 milligrams per kilogram [mg/kg]), and hexavalent chromium (12 mg/kg) in designated excavation areas to satisfy the remedial action objective (RAO)*—This will involve removal of the top two feet of soils in areas A and B in Figure 4-1 and removal of soils to a minimum depth of four feet in a portion of area A in Figure 4-

sampling results. The design and final limits of removal will be determined after data from pre-design characterization sampling and post-removal confirmation sampling have been acquired. Removal limits will in some cases will extend to the water table. Sediments with COC concentrations greater than cleanup goals that accumulate in erosion and sediment control devices during remedial activities will be disposed of off-site, along with the removed soils. Erosion and sediment control devices will be described in the separate remedial action design document that will be prepared prior to implementation.

8.1.2 Dewatering

Dewatering of removal areas may be required to facilitate excavation and backfilling. Water from

8.1.5 Backfilling

Removal areas will be backfilled following post-removal confirmation sampling and excavation

Table 8-1

Backfill Material Acceptance Criteria[1]
Block D Panhandle Soil Remedial Action Plan
Lockheed Martin Middle River Complex, Middle River, Maryland

Parameter

Section 9

Permits and Notifications

This section describes the permits that will be reta21( )s

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Section 11
References

1. Baltimore County Soil Conservation District, 1999. *Policy and Guidelines for Erosion and Sediment-Control, Storm-Water-Management, Sediment-Basin, and Small-Pond Review Manual*. January.

2. Earth Tech, 2003. *Phase I Environmental Site Assessment, Chesapeake Industrial Park, Middle River, Maryland.* May.

3. FRTR (Federal Remediation Technologies Roundtable), 2012. *FRTR technologies screening matrix tool*: http://www.frtr.gov/matrix2/top_page.html.

4. InfoHarvest, Inc., 2001. *Criterium® DecisionPlus®. The Complete Decision Formulation, Analysis, and Presentation for Windows Version 3.0, User's Guide Tutorial*. Seattle, Washington.

5. ITRC (Interstate Technology and Regulatory Council), 2012. *ITRC technology-screening tool:* http://www.itrcweb.org/.

6. Maryland Department of the Environment (MDE), undated. *Facts About (Voluntary Cleanup Program) VCP—Clean Imported-Fill Material.* Information pamphlet.

7. Maryland Department of the Environment (MDE), 1994. *1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control*. Maryland Department of the Environment, Water Management Administration, in association with the United States Department of Agriculture Natural Resources Conservation Service (formerly known as the Soil Conservation Service) and the (Maryland) State Soil Conservation Committee. July.

8. Maryland Department of the Environment (MDE), 2000. *2000 Maryland Storm-Water Design Manual, Volumes I and II*. Prepared by the Center for Watershed Protection and the Maryland Department of the Environment, Water Management Administration. Effective October 2000, revised May 2009.

9. Maryland Department of the Environment (MDE), 2006. *Voluntary Cleanup Program Guidance Document.* MDE Land Restoration Program, Maryland Department of the Environment, Baltimore, Maryland. March.

10. Maryland Department of the Environment (MDE), 2008. *Cleanup Standards for Soil and Groundwater, Interim Final Guidance (Update No. 2.1)*. June.

11. Maryland Department of the Environment (MDE), 2011. *Maryland Standards and Specifications for Soil Erosion and Sediment Control*. Maryland Department of the Environment, Water Management Administration, in association with United States Department of Agriculture Natural Resources Conservation Service (formerly known as the Soil Conservation Service) and the Maryland Association of Soil Conservation Districts. December.

12. United States Navy, 2011. *SiteWise™ Version 2 User Guide*. Naval Facilities Engineering Command Engineering Service Center. Port Hueneme, California. UG-2092-ENV. June.

13. Tetra Tech, Inc. (Tetra Tech), 2004a. *Phase II Environmental Site Investigation, Middle River Complex*. February.

14. Tetra Tech, Inc. (Tetra Tech), 2004b. *Historical Research Report, Lockheed Martin*
Naen-4(0)-4(0)-4(4)-14(a.)-4112(e)5(TT2 1 Td(v)4(i)39(onm)2(e)4(nt)-2(al)-2(Si)-2(t)-2(e-2(, L)

APPENDIX A—VOLUNTARY CLEANUP PROGRAM WITHDRAWAL LETTER

Please le [illegible] know if you [illegible]

APPENDIX B—EXCEEDANCES OF RISK-BASED SCREENING CRITERIA BASED ON RECREATIONAL EXPOSURE TO BLOCK D PANHANDLE SOILS (table)

				Units Risk Based IND Cleanup	NA	4.91	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-1	SB-065	1	1	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-10	SB-065	10	10	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-11	SB-065	11	11	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-12	SB-065	12	12	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-13	SB-065	13	13	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-14	SB-065	14	14	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-15	SB-065	15	15	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-2	SB-065	2	2	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-3	SB-065	3	3	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-5	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-5-AVG	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-5-D	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE DATE	ANTIMONY71 5412.44 re f BT 0 g /TT1 9.96 Tf 457.72 43								
Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
Risk Based IND Cleanup	NA	4.91	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	IRON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	4.91	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	IRON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	4.91	NA	NA	NA	NA	NA	NA	NA
D-SB-790-11	SB-790	11	11	20100908	0.051 J	2.1	16.1	1.6	--	9.4	2.6	12.8 L	6230
D-SB-790-13	SB-790	13	13	20100908	0.41 J	5	14	4.2	0.025 B	22.1	8.8	20.1 L	36600
D-SB-790-15	SB-790	15	15	20100908	0.22 J	3.3	20.9	4.2	0.027 B	22.7	7.4	18.5 L	28600
D-SB-790-SS	SB-790	0	1	20100908	--	0.71	3.7	--	--	8.2	0.52	2.9	3870
D-SB-791-03	SB-791	3	3	20100909	0.26 B	5.4 L	20.6	3.1 J	0.027 B	23.8	10.9	15.1	37400
D-SB-791-05	SB-791	5	5	20100909	0.14 B	3.7 L	14.9	1.6 J	0.022 B	16.9	4.3	22	22100
D-SB-791-07	SB-791	7	7	20100909	0.3 B	7.9 L	12.6	3.4 J	0.019 B	31	10.3	24.7	50200
D-SB-791-09	SB-791	9	9	20100909	--	5 L	7.4	0.82 J	0.017 B	2.2	3.4	4.7	1420
D-SB-791-11	SB-791	11	11	20100909	0.11 B	3.9 L	7.3	1 J	0.015 B	15.9	3.7	6.1	17100
D-SB-791-13	SB-791	13	13	20100909	0.18 B	2.8 L	7.2	1.3 J	0.017 B	20.6	5.9	12.5	26600
D-SB-791-15	SB-791	15	15	20100909	0.68 J	8.2 L	14.3	3.5 J	0.025 B	56.1	13.5	30.2	87200
D-SB-791-SS	SB-791	0	1	20100909	--	0.72 L	3.9	0.055 J	--	8.6	0.5	3.2	4450
D-SB-792-03	SB-792	3	3	20100909	--	5.4 L	40.6	1.5 J	0.24 B	19.6	33	31.1	18800
D-SB-792-05	SB-792	5	5	20100909	0.23 B	4.4 L	16.7	1.9 J	0.026 B	22.3	7	20.4	35700
D-SB-792-07	SB-792	7	7	20100909	0.21 B	2.9 L	12.2	1.7 J	--	17.9	7.1	13	27100
D-SB-792-09	SB-792	9	9	20100909	0.22 B	3.8 L	10.3	2.7 J	0.02 B	24.8	12.1	18.2	42300
D-SB-792-11	SB-792	11	11	20100909	0.14 B	3.3 L	11.5	2.1 J	0.019 B	26.3	8.7	17.8	34100
D-SB-792-13	SB-792	13	13	20100909	0.83 J	5 J	10.3	6.4 J	0.027 B	54.8	13.6	47.9	134000
D-SB-792-15	SB-792	15	15	20100909	0.043 B	0.65 L	9	0.99 J	0.02 B	12.1	5.4	6.3	6810
D-SB-792-SS	SB-792	0	1	20100909	0.11 B	2.3 L	23.6	0.59 J	0.081 B	11.6	4	9.4	9890
D-SB-793-03	SB-793	3	3	20100909	0.3 B	5.6 L	26.5	2.2 J	0.3 B	20.1	15.7	32.8	25900
D-SB-793-05	SB-793	5	5	20100909	0.12 B	3.6 L	15.6	0.92 J	--	18.7	5.3	21.5	27600
D-SB-793-07	SB-793	7	7	20100909	0.15 B	4.1 L	10.7	1.4 J	--	23.5	4.7	26.2	29300
D-SB-793-09	SB-793	9	9	20100909	0.3 B	3.6 J	15.7	2.6 J	0.028 B	27.3 J	18.2 J	27.8 J	35600 J
D-SB-793-11	SB-793	11	11	20100909	0.28 B	4.6 J	12.7	2.3 J	0.022 B	26.5 J	15 J	27.5 J	33500 J
D-SB-793-13	SB-793	13	13	20100909	0.17 B	2.7 J	12.6	1.5 J	0.024 B	18 J	11 J	15.8 J	22400 J

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	IRON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	4.91	NA	NA	NA	NA	NA	NA	NA
D-SB-872-0-1	SB-872	0	1	20120424	--	2.1	11 J	--	0.17 J	11	1.3	3.7	NA
D-SB-872-1-2	SB-872	1	2	20120424	--	2.2	10 J	1.1	0.068 J	19	6	9.6	NA
D-SB-872-2-4	SB-872	2	4	20120424	0.54 B	4	13 J	3.6	0.28 J	25	11	30	NA
D-SB-872-4-6	SB-872	4	6	20120424	--	3.7	15 J	2	0.1 J	18	12	13	NA
D-SB-872-6-8	SB-872	6	8	20120424	--	5.1 J	18 J	3.8	0.38 J	24	12	29	NA
D-SB-873-0-1	SB-873	0	1	20120423	--	3.5	22 J	1.1	0.29 J	18 J	9.1	11	NA
D-SB-873-1-2	SB-873	1	2	20120423	--	6.7 J	28 J	1.5 J	--	21 J	8.8	20	NA
D-SB-873-2-4	SB-873	2	4	20120423	--	6.3	17 J	1.3	0.067 J	24 J	6.6	16	NA
D-SB-873-4-6	SB-873	4	6	20120423	--	4.9	6.7 J	1.1	0.069 J	22 J	4	11	NA
D-SB-873-6-8	SB-873	6	8	20120423	2.1 J	3.2 J	5.3 J	0.61	--	16 J	1.9	9.3	NA
D-SB-874-0-1	SB-874	0	1	20120424	0.45 B	1.9	15 J	--	0.21 J	13	1.7 L	4.3	NA
D-SB-874-1-2	SB-874	1	2	20120424	0.49 B	4.2	12 J	1.1	0.26 J	21	5.9	18	NA
D-SB-874-2-4	SB-874	2	4	20120424	0.75 B	3	17 J	1.7	0.38 J	24	8.2	16	NA
D-SB-874-4-6	SB-874	4	6	20120424	0.53 B	4.4	25	1.5	0.24 J	21	7.8	16	NA
D-SB-874-6-8	SB-874	6	8	20120424	--	3.6	15 J	1.2	0.21 J	16	10	15	NA
D-SB-875-0-1	SB-875	0	1	20120423	1.3 J	1.8	15 J	--	0.1 J	12 J	1.9 L	3.9 L	NA
D-SB-875-1-2	SB-875	1	2	20120423	--	24	17 J	0.65	--	26 J	2.7	13	NA
D-SB-875-2-4	SB-875	2	4	20120423	1.7 J	7.7	77 J	1.3	0.22 J	53 J	44	38	NA
D-SB-875-4-6	SB-875	4	6	20120423	0.57 J	4.3	7.2 J	1.3	0.46 J	25 J	3.5	21	NA
D-SB-875-6-8	SB-875	6	8	20120423	1.1 J	4.6	5.2 J	1.1	0.6	30 J	5.4	9.9	NA
D-SB-876-0-1	SB-876	0	1	20120423	--	3	30 J	0.31 B	0.21 J	18 J	6.2	6.4	NA
D-SB-876-1-2	SB-876	1	2	20120423	--	3.7	12 J	0.93 J	0.12 J	26 J	4.4	11	NA
D-SB-876-2-4	SB-876	2	4	20120423	2.5 J	9 J	29 J	1.6 J	--	27 J	8.3	21	NA
D-SB-876-4-6	SB-876	4	6	20120423	0.82 J	4.5	26 J	1.4	--	23 J	6.1	27	NA
D-SB-876-6-8	SB-876	6	8	20120423	0.59 J	2.1	6.6 J	1.1	--	18 J	3.5	20	NA
D-SB-877-0-1	SB-877	0	1	20120425	--	3.9	20 J	1.3	0.054 J	19 J	7.1	13	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	IRON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	4.91	NA	NA	NA	NA	NA	NA	NA
D-SB-877-1-2	SB-877	1	2	20120425	--	4.2	31 J	0.86	0.21 J	19 J	15	10	NA
D-SB-877-2-4	SB-877	2	4	20120425	--	4.2	27 J	1.4	0.2 J	18 J	18	26	NA
D-SB-877-4-6	SB-877	4	6	20120425	--	4.3	6.6 J	1.2	0.08 J	29 J	10	24	NA
D-SB-877-6-8	SB-877	6	8	20120425	--	7.4 J	19 J	1.7 J	--	34 J	12	22 L	NA
D-SB-878-0-1	SB-878	0	1	20120424	--	3.8	51	1.1	0.34 J	16	8.3	14	NA
D-SB-878-1-2	SB-878	1	2	20120424	--	3.3	30	0.98	0.16 J	15	7.9	14	NA
D-SB-878-2-4	SB-878	2	4	20120424	--	3.9	13 J	2.2	0.16 J	25	25	41	NA
D-SB-878-4-6	SB-878	4	6	20120424	--	3	21	1.3	0.1 J	20	23	30	NA
D-SB-878-6-8	SB-878	6	8	20120424	--	8.3	34 J	2.3	0.3 J	30	25	35	NA
D-SB-879-0-1	SB-879	0	1	20120425	--	3	35 J	0.78	0.12 J	13 J	5.4	9.7	NA
D-SB-879-1-2	SB-879	1	2	20120425	--	2.9	33 J	0.91	0.1 J	14 J	6.2	12	NA
D-SB-879-2-4	SB-879	2	4	20120425	--	3.8	12 J	1.2	0.065 J	16 J	8.9	26	NA
D-SB-879-4-6	SB-879	4	6	20120425	--	4.9 J	50 J	1.7 J	--	17 J	19	23 L	NA
D-SB-879-6-8	SB-879	6	8	20120425	--	6.4 J	29 J	2.6 J	--	22 J	21 L	28 L	NA
D-SB-880-0-1	SB-880	0	1	20120424	--	3	46	0.64 B	0.065 J	12	3.8	7.4	NA
D-SB-880-1-2	SB-880	1	2	20120424	--	2.7	43	1.1	0.14 J	13	11	12	NA
D-SB-880-2-4	SB-880	2	4	20120424	--	3.4	20 J	2	0.15 J	23	19	28	NA
D-SB-880-4-6	SB-880	4	6	20120424	--	14	41 J	2.1 J	0.32 J	19	21	24	NA
D-SB-880-6-8	SB-880	6	8	20120424	--	4.5 J	24 J	3.8	0.23 J	22	23	37	NA
D-SB-881-0-1	SB-881	0	1	20120425	--	2.5	150 J	0.62	0.21 J	12 J	4.4	6.7	NA
D-SB-881-1-2	SB-881	1	2	20120425	--	2.3	77 J	0.46	0.12 J	9.6 J	3.1	6.4	NA
D-SB-881-2-4	SB-881	2	4	20120425	--	3.8	14 J	1.3	0.07 J	18 J	9.7	13	NA
D-SB-881-4-6	SB-881	4	6	20120425	--	5.8 J	23 J	4.2	0.33 J	23 J	17	32	NA
D-SB-881-6-8	SB-881	6	8	20120425	--	3.1	10 J	1	0.062 J	10 J	9.3	11	NA
D-SS-782-01	SB-782	0	1	20100902	0.15 J	2.2 J	40.7	0.28	0.24 K	9 J	2 J	6 J	7620 J
D-SS-783-01	SB-783	0	1	20100902	0.25 B	2.4 J	17.3	0.28	0.11 K	9.1 J	3.2 J	9 J	6110 J

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM	COBALT	COPPER	IRON
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	4.91	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH03	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-65RE-1	SB-065	1	1	20090916
D-SB-65RE-10	SB-065	10	10	20090916
D-SB-65RE-11	SB-065	11	11	20090916
D-SB-65RE-12	SB-065	12	12	20090916
D-SB-65RE-13	SB-065	13	13	20090916
D-SB-65RE-14	SB-065	14	14	20090916
D-SB-65RE-15	SB-065	15	15	20090916
D-SB-65RE-2	SB-065	2	2	20090916
D-SB-65RE-3	SB-065	3	3	20090916
D-SB-65RE-5	SB-065	5	5	20090916
D-SB-65RE-5-AVG	SB-065	5	5	20090916
D-SB-65RE-5-D	SB-065	5	5	20090916
D-SB-65RE-6	SB-065	6	6	20090916
D-SB-65RE-7	SB-065	7	7	20090916
D-SB-65RE-8	SB-065	8	8	20090916
D-SB-65RE-9	SB-065	9	9	20090916
D-SB-782-03	SB-782	3	3	20100902
D-SB-782-05	SB-782	5	5	20100902
D-SB-782-07	SB-782	7	7	20100902
D-SB-782-09	SB-782	9	9	20100902
D-SB-782-11	SB-782	11	11	20100902
D-SB-782-13	SB-782	13	13	20100902
D-SB-782-15	SB-782	15	15	20100902
D-SB-783-03	SB-783	3	3	20100902
D-SB-783-05	SB-783	5	5	20100902
D-SB-783-07	SB-783	7	7	20100902

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) LEAD	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	SELENIUM	SILVER	THALLIUM	VANADIUM
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-783-09	SB-783	9	9	20100902	3.2	9.4	--	--	4.5 J	1.5	--	0.07 B	10.4 J
D-SB-783-11	SB-783	11	11	20100902	4.8	30.9	--	0.12 J	9.1 J	1.3	--	0.077 B	13.8 J
D-SB-783-13	SB-783	13	13	20100902	6	14.9	--	0.17 J	6.3 J	1.5	--	0.1 B	17.7 J
D-SB-783-15	SB-783	15	15	20100902	6.7	64.2	--	0.51	24.4 J	1.8	--	0.089 B	36.3 J
D-SB-784-03	SB-784	3	3	20100902	9.4	67.3	--	0.29	21.4 J	2.5	--	0.081 B	25.3 J
D-SB-784-05	SB-784	5	5	20100902	7.7	118	--	0.89	16.6 J	0.86	--	0.038 B	57.7 J
D-SB-784-07	SB-784	7	7	20100902	7.4	61.5	--	0.54	24.8 J	2.7	--	0.12 B	38.3 J
D-SB-784-09	SB-784	9	9	20100902	4.4	14.9	--	--	4.4 J	3.3	--	0.1 B	9.7 J
D-SB-784-11	SB-784	11	11	20100902	4.4	52.5	--	0.15 J	18.1 J	1	--	0.07 B	14.9 J
D-SB-784-13	SB-784	13	13	20100902	4.4	55.4	--	0.44	25.4 J	0.89	--	0.074 B	42.2 J
D-SB-784-15	SB-784	15	15	20100902	6.3	142	--	0.82	37.6 J	1.4	0.026 J	0.11 B	50.4 J
D-SB-785-03	SB-785	3	3	20100903	13.8 J	94.3 J	0.3 K	0.54	14.6 J	2.6 L	0.2 K	0.064 J	25.7
D-SB-785-05	SB-785	5	5	20100903	21.7 J	95.3 J	0.4 K	0.56	41 J	4 L	0.33 K	0.063 J	34.4
D-SB-785-07	SB-785	7	7	20100903	2.9 J	38 J	--	0.81	8.3 J	0.45 J	--	--	21.8
D-SB-785-09	SB-785	9	9	20100908	6.7	63.2	--	0.17 J	35.4 J	1.2 J	--	0.12	24.5
D-SB-785-11	SB-785	11	11	20100908	6.7	66.4	--	0.32	22.4 J	1.1 J	--	0.12	30.7
D-SB-785-13	SB-785	13	13	20100908	14	96	0.059 J	0.6	32.8 J	1.1 J	0.029 J	0.094 B	34.4
D-SB-785-15	SB-785	15	15	20100908	4.8	54.1	--	0.55	27.7 J	1.5 L	--	0.084 B	48.3
D-SB-786-03	SB-786	3	3	20100903	12.2 J	50.1 J	0.16 K	0.33	27.6 J	2.4 L	0.16 K	0.057 J	28.4
D-SB-786-05	SB-786	5	5	20100903	13.4 J	91.2 J	0.16 K	0.52	39.2 J	3.5 L	0.08 J	0.065 J	38.4
D-SB-786-07	SB-786	7	7	20100903	5.9 J	33.5 J	0.021 J	0.49	20.3 J	1.3 L	--	0.033 J	33.7
D-SB-786-09	SB-786	9	9	20100903	7 J	16.6 J	--	0.69	23.8 J	1.2 L	--	0.018 J	68
D-SB-786-11	SB-786	11	11	20100903	2.8 J	3.1 J	--	--	2.5 J	4.6 L	--	0.037 J	4.6
D-SB-786-13	SB-786	13	13	20100903	3.8 J	5.6 J	--	0.13 J	14 J	2 L	--	0.12 L	16.5
D-SB-786-15	SB-786	15	15	20100908	1.3	1.6	--	0.095 J	3.2 J	0.57 J	0.047 J	0.064 B	1.6
D-SB-787-03	SB-787	3	3	20100908									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE									
				Units	[illegible]								
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-787-05	SB-787	5	5	20100908									
D-SB-787-07	SB-787	7	7	20100903									
D-SB-787-09	SB-787	9	9	20100908									
D-SB-787-11	SB-787	11	11	20100908									
D-SB-787-13	SB-787	13	13	20100908									
D-SB-787-15	SB-787	15	15	20100908									
D-SB-788-03	SB-788	3	3	20100908									
D-SB-788-05	SB-788	5	5	20100908									
D-SB-788-07	SB-788	7	7	20100908									
D-SB-788-09	SB-788	9	9	20100908									
D-SB-788-11	SB-788	11	11	20100908									
D-SB-788-13	SB-788	13	13	20100908									
D-SB-788-15	SB-788	15	15	20100908									
D-SB-788-SS	SB-788	0	1	20100908									
D-SB-789-03	SB-789	3	3	20100908									
D-SB-789-05	SB-789	5	5	20100908									
D-SB-789-07	SB-789	7	7	20100908									
D-SB-789-09	SB-789	9	9	20100908									
D-SB-789-11	SB-789	11	11	20100908									
D-SB-789-13	SB-789	13	13	20100908									
D-SB-789-15	SB-789	15	15	20100908									
D-SB-789-SS	SB-789	0	1	20100908									
D-SB-790-03	SB-790	3	3	20100908									
D-SB-790-05	SB-790	5	5	20100908									
D-SB-790-07	SB-790	7	7	20100908									
D-SB-790-09	SB-790	9	9	20100908									

APPENDIX B

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) LEAD	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	SELENIUM	SILVER	THALLIUM	VANADIUM
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-793-15	SB-793	15	15	20100909	4.9	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-793-SS	SB-793	0	1	20100909									
D-SB-794-03	SB-794	3	3	20100909									
D-SB-794-05	SB-794	5	5	20100909									
D-SB-794-07	SB-794	7	7	20100909									
D-SB-794-09	SB-794	9	9	20100909									
D-SB-794-11	SB-794	11	11	20100909									
D-SB-794-13	SB-794	13	13	20100909									
D-SB-794-15	SB-794	15	15	20100909									
D-SB-794-SS	SB-794	0	1	20100909									
D-SB-795-03	SB-795	3	3	20100909									
D-SB-795-05	SB-795	5	5	20100909									
D-SB-795-07	SB-795	7	7	20100909									
D-SB-795-09	SB-795	9	9	20100909									
D-SB-795-11	SB-795	11	11	20100909									
D-SB-795-13	SB-795	13	13	20100909									
D-SB-795-15	SB-795	15	15	20100909									
D-SB-795-SS	SB-795	0	1	20100909									
D-SB-796-03	SB-796	3	3	20100910									
D-SB-796-05	SB-796	5	5	20100910									
D-SB-796-07	SB-796	7	7	20100910									
D-SB-796-09	SB-796	9	9	20100910									
D-SB-796-11	SB-796	11	11	20100910									
D-SB-796-13	SB-796	13	13	20100910									
D-SB-796-15	SB-796	15	15	20100910									
D-SB-796-SS	SB-796	0	1	20100910									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) LEAD	S]TJ 32(L)2(I)1(U)-1(M)]91 0.95 -3	MERCURY	MOLYBDENUM	NICKEL	SELENIUM	SILVER	THALLIUM	VANADIUM
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-872-0-1	SB-872	0	1	20120424									
D-SB-872-1-2	SB-872	1	2	20120424									
D-SB-872-2-4	SB-872	2	4	20120424									
D-SB-872-4-6	SB-872	4	6	20120424									
D-SB-872-6-8	SB-872	6	8	20120424									
D-SB-873-0-1	SB-873	0	1	20120423									
D-SB-873-1-2	SB-873	1	2	20120423									
D-SB-873-2-4	SB-873	2	4	20120423									
D-SB-873-4-6	SB-873	4	6	20120423									
D-SB-873-6-8	SB-873	6	8	20120423									
D-SB-874-0-1	SB-874	0	1	20120424									
D-SB-874-1-2	SB-874	1	2	20120424									
D-SB-874-2-4	SB-874	2	4	20120424									
D-SB-874-4-6	SB-874	4	6	20120424									
D-SB-874-6-8	SB-874	6	8	20120424									
D-SB-875-0-1	SB-875	0	1	20120423									
D-SB-875-1-2	SB-875	1	2	20120423									
D-SB-875-2-4	SB-875	2	4	20120423									
D-SB-875-4-6	SB-875	4	6	20120423									
D-SB-875-6-8	SB-875	6	8	20120423									
D-SB-876-0-1	SB-876	0	1	20120423									
D-SB-876-1-2	SB-876	1	2	20120423									
D-SB-876-2-4	SB-876	2	4	20120423									
D-SB-876-4-6	SB-876	4	6	20120423									
D-SB-876-6-8	SB-876	6	8	20120423									
D-SB-877-0-1	SB-877	0	1	20120425									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	METALS (MG/KG) LEAD	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	SELENIUM	SILVER	THALLIUM	VANADIUM
				Units	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-877-1-2	SB-877	1	2	20120425	78 J	NA	0.23	0.36 J	15	--	--	--	30 J
D-SB-877-2-4	SB-877	2	4	20120425	16 J	NA	0.11	0.37 J	28	--	--	--	32 J
D-SB-877-4-6	SB-877	4	6	20120425	6.4 J	NA	0.02 J	--	28	--	--	--	43 J
D-SB-877-6-8	SB-877	6	8	20120425	18 J	NA	0.13	--	24	--	--	--	38 J
D-SB-878-0-1	SB-878	0	1	20120424	21	NA	0.082 J	0.43 J	13	--	--	--	36
D-SB-878-1-2	SB-878	1	2	20120424	23	NA	0.049 B	0.4 J	11	0.5 J	--	--	32
D-SB-878-2-4	SB-878	2	4	20120424	6.8	NA	--	0.3 J	47	--	--	--	47
D-SB-878-4-6	SB-878	4	6	20120424	5.1	NA	0.016 B	0.31 J	39	--	--	--	36
D-SB-878-6-8	SB-878	6	8	20120424	37	NA	0.15 J	2.5 J	36	1.3 J	--	--	62
D-SB-879-0-1	SB-879	0	1	20120425	18 J	NA	0.038 J	0.38 J	9.6	--	--	--	26 J
D-SB-879-1-2	SB-879	1	2	20120425	13 J	NA	0.043 J	0.34 J	11	--	--	--	28 J
D-SB-879-2-4	SB-879	2	4	20120425	6.9 J	NA	--	0.29 J	21	--	--	--	28 J
D-SB-879-4-6	SB-879	4	6	20120425	20 J	NA	0.089 J	--	28	--	--	--	28 J
D-SB-879-6-8	SB-879	6	8	20120425	26 J	NA	0.42	--	46	--	--	--	28 J
D-SB-880-0-1	SB-880	0	1	20120424	5.2	NA	0.029 B	--	8.8	0.55 J	--	--	28
D-SB-880-1-2	SB-880	1	2	20120424	15	NA	0.045 B	0.29 J	12	--	--	--	28
D-SB-880-2-4	SB-880	2	4	20120424	5.7	NA	--	0.3 J	38	--	--	--	43
D-SB-880-4-6	SB-880	4	6	20120424	24	NA	1.3	--	26	--	--	--	24
D-SB-880-6-8	SB-880	6	8	20120424	18	NA	0.21	--	44	--	--	--	32
D-SB-881-0-1	SB-881	0	1	20120425	11 J	NA	--	0.44 J	7.3	--	--	1.9 J	40 J
D-SB-881-1-2	SB-881	1	2	20120425	8.4 J	NA	--	0.26 J	5.7	--	--	--	24 J
D-SB-881-2-4	SB-881	2	4	20120425	6.2 J	NA	0.027 J	0.29 J	20	--	--	--	25 J
D-SB-881-4-6	SB-881	4	6	20120425	16 J	NA	--	--	48	--	--	--	36 J
D-SB-881-6-8	SB-881	6	8	20120425	8.3 J	NA	0.063 J	1 J	13	--	--	--	20 J
D-SS-782-01	SB-782	0	1	20100902	45.5	102	0.08 J	0.45	5.1 J	0.4 J	0.099 J	0.042 B	14.2 J
D-SS-783-01	SB-783	0	1	20100902	25.1	30.8	0.077 J	0.38	5.2 J	0.46 J	0.097 J	0.069 B	15.7 J

Units
Risk Based
IND Cleanu1

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ZINC	MISCELLANEO PERCENT SOLIDS	MISCELLANEO HEXAVALENT CHROMIUM	MISCELLANEO MERCURY (METHYL)	PCBS (UG/KG) AROCLOR-1260	PCBS (UG/KG) TOTAL AROCLOR	PESTICIDES (UG/KG) 4,4'-DDE	PESTICIDES (UG/KG) ENDOSULFAN SULFATE	PEST 4,4'-DDD
				Units	MG/KG	%	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	1.81	NA	NA	NA	NA	NA	NA
D-SB-65RE-1	SB-065	1	1	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-10	SB-065	10	10	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-11	SB-065	11	11	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-12	SB-065	12	12	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-13	SB-065	13	13	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-14	SB-065	14	14	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-15	SB-065	15	15	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-2	SB-065	2	2	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-3	SB-065	3	3	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-5	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-5-AVG	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-5-D	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-6	SB-065	6	6	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-7	SB-065	7	7	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-8	SB-065	8	8	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-9	SB-065	9	9	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-782-03	SB-782	3	3	20100902	52 J	NA	0.36 J	NA	--	--	NA	NA	--
D-SB-782-05	SB-782	5	5	20100902	51 J	NA	--	NA	--	--	NA	NA	--
D-SB-782-07	SB-782	7	7	20100902	45.8 J	NA	0.4 J	NA	--	--	NA	NA	--
D-SB-782-09	SB-782	9	9	20100902	37.1 J	NA	--	NA	--	--	NA	NA	--
D-SB-782-11	SB-782	11	11	20100902	47.9 J	NA	0.83 J	NA	--	--	NA	NA	--
D-SB-782-13	SB-782	13	13	20100902	47 J	NA	--	NA	--	--	NA	NA	--
D-SB-782-15	SB-782	15	15	20100902	46.5 J	NA	0.34 J	NA	--	--	NA	NA	--
D-SB-783-03	SB-783	3	3	20100902	58 J	NA	0.86 J	NA	--	--	NA	NA	--
D-SB-783-05	SB-783	5	5	20100902	50.9 J	NA	--	NA	--	--	NA	NA	--
D-SB-783-07	SB-783	7	7	20100902	27.7 J	NA	0.71 J	NA	--	--	NA	NA	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE		MISCELLANEO	MISCELLANEO	MISCELLANEO	PCBS (UG/KG)		PESTICIDES (UG/KG)		PEST
					ZINC	PERCENT SOLIDS	HEXAVALENT CHROMIUM	MERCURY (METHYL)	AROCLOR-1260	TOTAL AROCLOR	4,4'-DDE	ENDOSULFAN SULFATE	4,4'-DDD
				Units	MG/KG	%	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	1.81	NA	NA	NA	NA	NA	NA
D-SB-783-09	SB-783	9	9	20100902	13.4 J	NA	--	NA	--	--	NA	NA	--
D-SB-783-11	SB-783	11	11	20100902	25 J	NA	--	NA	--	--	NA	NA	--
D-SB-783-13	SB-783	13	13	20100902	21.9 J	NA	--	NA	--	--	NA	NA	--
D-SB-783-15	SB-783	15	15	20100902	48.5 J	NA	--	NA	--	--	NA	NA	--
D-SB-784-03	SB-784	3	3	20100902	35 J	NA	0.73 J	NA	--	--	NA	NA	--
D-SB-784-05	SB-784	5	5	20100902	31.2 J	NA	0.94 J	NA	--	--	NA	NA	--
D-SB-784-07	SB-784	7	7	20100902	71.3 J	NA	0.5 J	NA	--	--	NA	NA	--
D-SB-784-09	SB-784	9	9	20100902	10.8 J	NA	--	NA	--	--	NA	NA	--
D-SB-784-11	SB-784	11	11	20100902	83.2 J	NA	0.35 J	NA	--	--	NA	NA	--
D-SB-784-13	SB-784	13	13	20100902	45.7 J	NA	0.63 J	NA	--	--	NA	NA	--
D-SB-784-15	SB-784	15	15	20100902	81.3 J	NA	--	NA	--	--	NA	NA	--
D-SB-785-03	SB-785	3	3	20100903	28.6 J	NA	0.91 J	NA	--	--	NA	NA	--
D-SB-785-05	SB-785	5	5	20100903	141 J	NA	--	NA	--	--	NA	NA	--
D-SB-785-07	SB-785	7	7	20100903	19.8 J	NA	--	NA	--	--	NA	NA	--
D-SB-785-09	SB-785	9	9	20100908	127	NA	0.89 J	NA	--	--	NA	NA	--
D-SB-785-11	SB-785	11	11	20100908	65.8	NA	0.88 J	NA	--	--	NA	NA	--
D-SB-785-13	SB-785	13	13	20100908	114	NA	--	NA	--	--	NA	NA	--
D-SB-785-15	SB-785	15	15	20100908	42.5	NA	0.8 J	NA	--	--	NA	NA	--
D-SB-786-03	SB-786	3	3	20100903	58.3 J	NA	--	NA	--	--	NA	NA	--
D-SB-786-05	SB-786	5	5	20100903	90 J	NA	0.7 J	NA	--	--	NA	NA	--
D-SB-786-07	SB-786	7	7	20100903	23 J	NA	0.54 J	NA	--	--	NA	NA	--
D-SB-786-09	SB-786	9	9	20100903	20.2 J	NA	0.71 J	NA	--	--	NA	NA	--
D-SB-786-11	SB-786	11	11	20100903	3.4 J	NA	--	NA	--	--	NA	NA	--
D-SB-786-13	SB-786	13	13	20100903	16.9 J	NA	0.55 J	NA	--	--	NA	NA	--
D-SB-786-15	SB-786	15	15	20100908	4.7	NA	--	NA	--	--	NA	NA	--
D-SB-787-03	SB-787	3	3	20100908	49.5	NA	--	NA	--	--	NA	NA	--

A-DDNANANANAA.8.8 JNANANANAA.5NANANAA.2NANA

AIEsAk Bsed NANANANANANAA/KG/KG/KG

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ZINC	PERCENT SOLIDS	HEXAVALENT CHROMIUM	MERCURY (METHYL)	AROCLOR-1260	TOTAL AROCLOR	4,4'-DDE	ENDOSULFAN SULFATE	4,4'-DDD
						MISCELLANEO	MISCELLANEO	MISCELLANEO	PCBS (UG/KG)	NA	NA PESTICIDES (UG/KG)	NA NA NA NA NA	PEST
				Units	MG/KG	%	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	1.81	NA	NA	NA	NA	NA	NA
D-SB-790-11	SB-790	11	11	20100908									
D-SB-790-13	SB-790	13	13	20100908									
D-SB-790-15	SB-790	15	15	20100908									
D-SB-790-SS	SB-790	0	1	20100908									
D-SB-791-03	SB-791	3	3	20100909									
D-SB-791-05	SB-791	5	5	20100909									
D-SB-791-07	SB-791	7	7	20100909									
D-SB-791-09	SB-791	9	9	20100909									
D-SB-791-11	SB-791	11	11	20100909									
D-SB-791-13	SB-791	13	13	20100909									
D-SB-791-15	SB-791	15	15	20100909									
D-SB-791-SS	SB-791	0	1	20100909									
D-SB-792-03	SB-792	3	3	20100909									
D-SB-792-05	SB-792	5	5	20100909									
D-SB-792-07	SB-792	7	7	20100909									
D-SB-792-09	SB-792	9	9	20100909									
D-SB-792-11	SB-792	11	11	20100909									
D-SB-792-13	SB-792	13	13	20100909									
D-SB-792-15	SB-792	15	15	20100909									
D-SB-792-SS	SB-792	0	1	20100909									
D-SB-793-03	SB-793	3	3	20100909									
D-SB-793-05	SB-793	5	5	20100909									
D-SB-793-07	SB-793	7	7	20100909									
D-SB-793-09	SB-793	9	9	20100909									
D-SB-793-11	SB-793	11	11	20100909									
D-SB-793-13	SB-793	13	13	20100909									

Units
Risk Based

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-872-0-1	SB-872	0	1	20120424
D-SB-872-1-2	SB-872	1	2	20120424
D-SB-872-2-4	SB-872	2	4	20120424
D-SB-872-4-6	SB-872	4	6	20120424
D-SB-872-6-8	SB-872	6	8	20120424
D-SB-873-0-1	SB-873	0	1	20120423
D-SB-873-1-2	SB-873	1	2	20120423
D-SB-873-2-4	SB-873	2	4	20120423
D-SB-873-4-6	SB-873	4	6	20120423
D-SB-873-6-8	SB-873	6	8	20120423
D-SB-874-0-1	SB-874	0	1	20120424
D-SB-874-1-2	SB-874	1	2	20120424
D-SB-874-2-4	SB-874	2	4	20120424
D-SB-874-4-6	SB-874	4	6	20120424
D-SB-874-6-8	SB-874	6	8	20120424
D-SB-875-0-1	SB-875	0	1	20120423
D-SB-875-1-2	SB-875	1	2	20120423
D-SB-875-2-4	SB-875	2	4	20120423
D-SB-875-4-6	SB-875	4	6	20120423
D-SB-875-6-8	SB-875	6	8	20120423
D-SB-876-0-1	SB-876	0	1	20120423
D-SB-876-1-2	SB-876	1	2	20120423
D-SB-876-2-4	SB-876	2	4	20120423
D-SB-876-4-6	SB-876	4	6	20120423
D-SB-876-6-8	SB-876	6	8	20120423
D-SB-877-0-1	SB-877	0	1	20120425

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-877-1-2	SB-877	1	2	20120425
D-SB-877-2-4	SB-877	2	4	20120425
D-SB-877-4-6	SB-877	4	6	20120425
D-SB-877-6-8	SB-877	6	8	20120425
D-SB-878-0-1	SB-878	0	1	20120424
D-SB-878-1-2	SB-878	1	2	20120424
D-SB-878-2-4	SB-878	2	4	20120424
D-SB-878-4-6	SB-878	4	6	20120424
D-SB-878-6-8	SB-878	6	8	20120424
D-SB-879-0-1	SB-879	0	1	20120425
D-SB-879-1-2	SB-879	1	2	20120425
D-SB-879-2-4	SB-879	2	4	20120425
D-SB-879-4-6	SB-879	4	6	20120425
D-SB-879-6-8	SB-879	6	8	20120425
D-SB-880-0-1	SB-880	0	1	20120424
D-SB-880-1-2	SB-880	1	2	20120424
D-SB-880-2-4	SB-880	2	4	20120424
D-SB-880-4-6	SB-880	4	6	20120424
D-SB-880-6-8	SB-880	6	8	20120424
D-SB-881-0-1	SB-881	0	1	20120425
D-SB-881-1-2	SB-881	1	2	20120425
D-SB-881-2-4	SB-881	2	4	20120425
D-SB-881-4-6	SB-881	4	6	20120425
D-SB-881-6-8	SB-881	6	8	20120425
D-SS-782-01	SB-782	0	1	20100902
D-SS-783-01	SB-783	0	1	20100902

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE		MISCELLANEO	MISCELLANEO	MISCELLANEO	PCBS (UG/KG)		PESTICIDES (UG/KG)		PEST
					ZINC	PERCENT SOLIDS	HEXAVALENT CHROMIUM	MERCURY (METHYL)	AROCLOR-1260	TOTAL AROCLOR	4,4'-DDE	ENDOSULFAN SULFATE	4,4'-DDD
				Units	MG/KG	%	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	1.81	NA	NA	NA	NA	NA	NA
D-SS-784-01	SB-784	0	1	20100902	15.5 J	NA	1.3	NA	--	--	NA	NA	--
D-SS-785-01	SB-785	0	1	20100903	3.3 J	NA	0.52 J	NA	--	--	NA	NA	--
D-SS-786-01	SB-786	0	1	20100903	48.5 J	NA	--	NA	--	--	NA	NA	--
D-SS-787-01	SB-787	0	1	20100903	139 J	NA	--	NA	--	--	NA	NA	--
SB-247-05	SB-247	5	5	20050607	57	NA	--	0.31 K	--	--	NA	NA	NA
SB-247-10	SB-247	10	10	20050607	83	NA	NA	NA	--	--	NA	NA	NA
SB-247-15	SB-247	15	15	20050607	NA	NA	NA	NA	--	--	NA	NA	NA
SB-248-05	SB-248	5	5	20050607	65	NA	--	NA	--	--	NA	NA	NA
SB-248-10	SB-248	10	10	20050607	39	NA	--	NA	--	--	NA	NA	NA
SB-248-15	SB-248	15	15	20050607	30	NA	--	NA	--	--	NA	NA	NA
SB-249-05	SB-249	5	5	20050607	137	NA	NA	0.474 K	--	--	NA	NA	NA
SB-249-10	SB-249	10	10	20050607	10	NA	--	NA	--	--	NA	NA	NA
SB-249-15	SB-249	15	15	20050607	NA	NA	NA	NA	--	--	NA	NA	NA
SB-33-05	SB-033	5	5	20031121	180	73	NA	NA	--	--	NA	NA	NA
SB-336-0203	SB-336	2	3	20071101	NA	87.3	NA	NA	NA	NA	NA	NA	NA
SB-336-0506	SB-336	5	6	20071101	NA	79.2	NA	NA	NA	NA	NA	NA	NA
SB-336-0809	SB-336	8	9	20071101	NA	81.7	NA	NA	NA	NA	NA	NA	NA
SB-337-0203	SB-337	2	3	20071101	NA	84.8	NA	NA	NA	NA	NA	NA	NA
SB-337-0506	SB-337	5	6	20071101	NA	80.3	NA	NA	NA	NA	NA	NA	NA
SB-337-0809	SB-337	8	9	20071101	NA	79.4	NA	NA	NA	NA	NA	NA	NA
SB-338-0203	SB-338	2	3	20071101	NA	82.4	NA	NA	NA	NA	NA	NA	NA
SB-338-0506	SB-338	5	6	20071101	NA	81.7	NA	NA	NA	NA	NA	NA	NA
SB-338-0809	SB-338	8	9	20071101	NA	81.8	NA	NA	NA	NA	NA	NA	NA
SB-339-0203	SB-339	2	3	20071101	NA	88.4	NA	NA	NA	NA	NA	NA	NA
SB-339-0506	SB-339	5	6	20071101	NA	80.2	NA	NA	NA	NA	NA	NA	NA
SB-339-0809	SB-339	8	9	20071101	NA	86.7	NA	NA	NA	NA	NA	NA	NA

APPENDIX B

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-65RE-1	SB-065	1	1	20090916
D-SB-65RE-10	SB-065	10	10	20090916
D-SB-65RE-11	SB-065	11	11	20090916
D-SB-65RE-12	SB-065	12	12	20090916
D-SB-65RE-13	SB-065	13	13	20090916
D-SB-65RE-14	SB-065	14	14	20090916
D-SB-65RE-15	SB-065	15	15	20090916
D-SB-65RE-2	SB-065	2	2	20090916
D-SB-65RE-3	SB-065	3	3	20090916
D-SB-65RE-5	SB-065	5	5	20090916
D-SB-65RE-5-AVG	SB-065	5	5	20090916
D-SB-65RE-5-D	SB-065	5	5	20090916
D-SB-65RE-6	SB-065	6	6	20090916
D-SB-65RE-7	SB-065	7	7	20090916
D-SB-65RE-8	SB-065	8	8	20090916
D-SB-65RE-9	SB-065	9	9	20090916
D-SB-782-03	SB-782	3	3	20100902
D-SB-782-05	SB-782	5	5	20100902
D-SB-782-07	SB-782	7	7	20100902
D-SB-782-09	SB-782	9	9	20100902
D-SB-782-11	SB-782	11	11	20100902
D-SB-782-13	SB-782	13	13	20100902
D-SB-782-15	SB-782	15	15	20100902
D-SB-783-03	SB-783	3	3	20100902
D-SB-783-05	SB-783	5	5	20100902
D-SB-783-07	SB-783	7	7	20100902

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ICIDES/PCBS (UG/KG)		PETROLEUM	PETROLEUM HYDROCARBONS					
					4,4'-DDE	BETA-BHC	TPH (C10-C32)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C06-C10)	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE
				Units	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-783-09	SB-783	9	9	20100902	--	--	NA	--	--	NA	--	--	--
D-SB-783-11	SB-783	11	11	20100902	--	--	NA	4400 J	--	NA	--	--	--
D-SB-783-13	SB-783	13	13	20100902	--	--	NA	--	--	NA	--	--	--
D-SB-783-15	SB-783	15	15	20100902	--	--	NA	--	--	NA	--	--	--
D-SB-784-03	SB-784	3	3	20100902	--	--	NA	3400 J	--	NA	--	--	--
D-SB-784-05	SB-784	5	5	20100902	--	--	NA	37000	--	NA	--	--	--
D-SB-784-07	SB-784	7	7	20100902	--	--	NA	6700 J	--	NA	--	--	--
D-SB-784-09	SB-784	9	9	20100902	--	--	NA	--	--	NA	--	--	--
D-SB-784-11	SB-784	11	11	20100902	--	--	NA	--	--	NA	--	--	--
D-SB-784-13	SB-784	13	13	20100902	--	--	NA	--	--	NA	--	--	--
D-SB-784-15	SB-784	15	15	20100902	--	--	NA	--	--	NA	--	--	--
D-SB-785-03	SB-785	3	3	20100903	--	--	NA	73000	--	NA	--	--	--
D-SB-785-05	SB-785	5	5	20100903	--	--	NA	4700 J	--	NA	--	--	--
D-SB-785-07	SB-785	7	7	20100903	--	--	NA	56000	--	NA	--	--	--
D-SB-785-09	SB-785	9	9	20100908	--	--	NA	--	--	NA	--	--	--
D-SB-785-11	SB-785	11	11	20100908	--	--	NA	--	--	NA	--	--	--
D-SB-785-13	SB-785	13	13	20100908	--	--	NA	17000	--	NA	--	--	--
D-SB-785-15	SB-785	15	15	20100908	--	--	NA	--	--	NA	--	--	--
D-SB-786-03	SB-786	3	3	20100903	--	--	NA	26000	250	NA	16	32	--
D-SB-786-05	SB-786	5	5	20100903	--	--	NA	45000	150	NA	45	23	--
D-SB-786-07	SB-786	7	7	20100903	--	--	NA	92000	190	NA	--	11	--
D-SB-786-09	SB-786	9	9	20100903	--	--	NA	--	--	NA	--	--	--
D-SB-786-11	SB-786	11	11	20100903	--	--	NA	--	--	NA	--	--	--
D-SB-786-13	SB-786	13	13	20100903	--	--	NA	4300 J	79 J	NA	--	--	--
D-SB-786-15	SB-786	15	15	20100908	--	--	NA	3800 J	--	NA	--	--	--
D-SB-787-03	SB-787	3	3	20100908	--	--	NA	81000	--	NA	50	230	--

Units

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ICIDES/PCBS (UG/KG)		PETROLEUM	PETROLEUM HYDROCARBONS					
					4,4'-DDE	BETA-BHC	TPH (C10-C32)	DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C06-C10)	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE
				Units	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-793-15	SB-793	15	15	20100909	--	--	NA	--	--	NA	--	--	--
D-SB-793-SS	SB-793	0	1	20100909	--	--	NA	40000	--	NA	--	--	--
D-SB-794-03	SB-794	3	3	20100909	--	--	NA	70000	--	NA	59 J	39 J	--
D-SB-794-05	SB-794	5	5	20100909	--	--	NA	8400 J	--	NA	--	--	--
D-SB-794-07	SB-794	7	7	20100909	--	--	NA	5100 J	--	NA	--	--	--
D-SB-794-09	SB-794	9	9	20100909	--	--	NA	--	--	NA	--	--	--
D-SB-794-11	SB-794	11	11	20100909	--	--	NA	--	--	NA	--	--	--
D-SB-794-13	SB-794	13	13	20100909	--	--	NA	--	--	NA	--	--	--
D-SB-794-15	SB-794	15	15	20100909	--	--	NA	--	--	NA	--	--	--
D-SB-794-SS	SB-794	0	1	20100909	7.1 J	--	NA	39000	--	NA	69	160	--
D-SB-795-03	SB-795	3	3	20100909	--	--	NA	11000 J	--	NA	--	--	--
D-SB-795-05	SB-795	5	5	20100909	--	--	NA	33000	--	NA	--	--	--
D-SB-795-07	SB-795	7	7	20100909	--	--	NA	4200 J	--	NA	--	--	--
D-SB-795-09	SB-795	9	9	20100909	--	--	NA	5300 J	--	NA	--	--	--
D-SB-795-11	SB-795	11	11	20100909	--	--	NA	4800 J	--	NA	--	--	--
D-SB-795-13	SB-795	13	13	20100909	--	--	NA	8300 J	--	NA	--	--	--
D-SB-795-15	SB-795	15	15	20100909	--	--	NA	--	--	NA	--	--	--
D-SB-795-SS	SB-795	0	1	20100909	--	--	NA	34000	--	NA	--	--	--
D-SB-796-03	SB-796	3	3	20100910	--	--	NA	160000	--	NA	--	--	--
D-SB-796-05	SB-796	5	5	20100910	--	--	NA	57000	--	NA	--	--	--
D-SB-796-07	SB-796	7	7	20100910	--	--	NA	5600 J	--	NA	--	--	--
D-SB-796-09	SB-796	9	9	20100910	--	--	NA	5600 J	--	NA	--	--	--
D-SB-796-11	SB-796	11	11	20100910	--	--	NA	5000 J	--	NA	--	--	--
D-SB-796-13	SB-796	13	13	20100910	--	--	NA	3400 J	--	NA	--	--	--
D-SB-796-15	SB-796	15	15	20100910	--	--	NA	--	--	NA	--	--	--
D-SB-796-SS	SB-796	0	1	20100910	--	--	NA	64000	--	NA	10	13	--

[redacted]

				Units	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-872-0-1	SB-872	0	1	20120424									
D-SB-872-1-2	SB-872	1	2	20120424									
D-SB-872-2-4	SB-872	2	4	20120424									
D-SB-872-4-6	SB-872	4	6	20120424									
D-SB-872-6-8	SB-872	6	8	20120424									
D-SB-873-0-1	SB-873	0	1	20120423									
D-SB-873-1-2	SB-873	1	2	20120423									
D-SB-873-2-4	SB-873	2	4	20120423									
D-SB-873-4-6	SB-873	4	6	20120423									
D-SB-873-6-8	SB-873	6	8	20120423									
D-SB-874-0-1	SB-874	0	1	20120424									
D-SB-874-1-2	SB-874	1	2	20120424									
D-SB-874-2-4	SB-874	2	4	20120424									
D-SB-874-4-6	SB-874	4	6	20120424									
D-SB-874-6-8	SB-874	6	8	20120424									
D-SB-875-0-1	SB-875	0	1	20120423									
D-SB-875-1-2	SB-875	1	2	20120423									
D-SB-875-2-4	SB-875	2	4	20120423									
D-SB-875-4-6	SB-875	4	6	20120423									
D-SB-875-6-8	SB-875	6	8	20120423									
D-SB-876-0-1	SB-876	0	1	20120423									
D-SB-876-1-2	SB-876	1	2	20120423									
D-SB-876-2-4	SB-876	2	4	20120423									
D-SB-876-4-6	SB-876	4	6	20120423									
D-SB-876-6-8	SB-876	6	8	20120423									
D-SB-877-0-1	SB-877	0	1	20120425									

[redacted]

SAMPLE DATE

SAMPLE ID

Units
Risk Based
IND Cleanup

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SS-784-01	SB-784	0	1	20100902
D-SS-785-01	SB-785	0	1	20100903
D-SS-786-01	SB-786	0	1	20100903
D-SS-787-01	SB-787	0	1	20100903
SB-247-05	SB-247	5	5	20050607
SB-247-10	SB-247	10	10	20050607
SB-247-15	SB-247	15	15	20050607
SB-248-05	SB-248	5	5	20050607
SB-248-10	SB-248	10	10	20050607
SB-248-15	SB-248	15	15	20050607
SB-249-05	SB-249	5	5	20050607
SB-249-10	SB-249	10	10	20050607
SB-249-15	SB-249	15	15	20050607
SB-33-05SB-78D787-01	SB-787	0	1	20100903
SB-247-05	SB-247	5		S3-247

5 S9-247 S3-247 5 5 S9-247 S3-247 5 5

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ICIDES/PCBS (UG/KG) 4,4'-DDE	BETA-BHC	PETROLEUM TPH (C10-C32)	PETROLEUM HYDROCARBONS DIESEL RANGE ORGANICS	GASOLINE RANGE ORGANICS	TPH (C06-C10)	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE
				Units	UG/KG	UG/KG	MG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33A-SS	SB-033	0	0	20040917									
SB-340-0203	SB-340	2	3	20071101									
SB-340-0506	SB-340	5	6	20071101									
SB-340-0809	SB-340	8	9	20071101									
SB-341-0203	SB-341	2	3	20071101									
SB-341-0506	SB-341	5	6	20071101									
SB-341-0809	SB-341	8	9	20071101									
SB-342-0203	SB-342	2	3	20071101									
SB-342-0506	SB-342	5	6	20071101									
SB-342-0809	SB-342	8	9	20071101									
SB-343-0203	SB-343	2	3	20071101									
SB-343-0506	SB-343	5	6	20071101									
SB-343-0809	SB-343	8	9	20071101									
SB-344-0203	SB-344	2	3	20071101									
SB-344-0506	SB-344	5	6	20071101									
SB-344-0809	SB-344	8	9	20071101									
SB-65-05	SB-065	5	5	20040917									
SB-65-10	SB-065	10	10	20040917									
SB-65-15	SB-065	15	15	20040917									
SB-65-20	SB-065	20	20	20040917									
SB-65-SS	SB-065	0	0	20040917									

				Units Risk Based IND Cleanup
D-SB-65RE-1	SB-065	1	1	20090916
D-SB-65RE-10	SB-065	10	10	20090916
D-SB-65RE-11	SB-065	11	11	20090916
D-SB-65RE-12	SB-065	12	12	20090916
D-SB-65RE-13	SB-065	13	13	20090916
D-SB-65RE-14D735- 0 14 39SB-065	3-065	20050916 13		

APPENDIX B

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS (UG/K								
					ANTHRACENE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	195	195	195	NA	NA	NA	NA	NA
D-SB-787-05	SB-787	5	5	20100908	--	--	--	NA	--	--	--	--	--
D-SB-787-07	SB-787	7	7	20100903	--	--	--	NA	--	--	--	--	--
D-SB-787-09	SB-787	9	9	20100908	--	--	--	NA	--	--	--	--	--
D-SB-787-11	SB-787	11	11	20100908	--	--	--	NA	--	--	--	--	--
D-SB-787-13	SB-787	13	13	20100908	--	--	--	NA	--	--	--	--	--
D-SB-787-15	SB-787	15	15	20100908	--	--	--	NA	--	--	--	--	--
D-SB-788-03	SB-788	3	3	20100908	--	53	51	NA	26	40	48	25	23
D-SB-788-05	SB-788	5	5	20100908	--	--	--	NA	--	--	--	--	--
D-SB-788-07	SB-788	7	7	20100908	--	--	--	NA	--	--	--	--	--
D-SB-788-09	SB-788	9	9	20100908	--	--	--	NA	--	--	--	--	--
D-SB-788-11	SB-788	11	11	20100908	--	--	--	NA	--	--	--	--	--
D-SB-788-13	SB-788	13	13	20100908	--	--	--	NA	--	--	--	--	--
D-SB-788-15	SB-788	15	15	20100908	--	--	--	NA	--	--	--	--	--
D-SB-788-SS	SB-788	0	1	20100908	20	105	105	NA	53	63	83	36	29
D-SB-789-03	SB-789	3	3	20100908	--	17	15	NA	--	14	11	--	--
D-SB-789-05	SB-789	5	5	20100908	--	--	--	NA	--	--	--	--	--
D-SB-789-07	SB-789	7	7	20100908	--	--	--	NA	--	--	--	--	--
D-SB-789-09	SB-789	9	9	20100908	--	--	--	NA	--	--	--	--	--
D-SB-789-11	SB-789	11	11	20100908	--	--	--	NA	--	--	--	--	--
D-SB-789-13	SB-789	13	13	20100908	--	--	--	NA	--	--	--	--	--
D-SB-789-15	SB-789	15	15	20100908	--	--	--	NA	--	--	--	--	--
D-SB-789-SS	SB-789	0	1	20100908	--	22	20	NA	--	17	15	--	--
D-SB-790-03	SB-790	3	3	20100908	72	224	224	NA	160	140	180	77	72
D-SB-790-05	SB-790	5	5	20100908	620	1353	1345	NA	1500	1000	1400	490	570
D-SB-790-07	SB-790	7	7	20100908	28	73	71	NA	48	53	82	34	40
D-SB-790-09	SB-790	9	9	20100908	--	--	--	NA	--	--	--	--	--

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	ANTHRACENE					BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	195	195	195	NA	NA	NA	NA	NA
D-SB-790-11	SB-790	11	11	20100908									
D-SB-790-13	SB-790	13	13	20100908									
D-SB-790-15	SB-790	15	15	20100908									
D-SB-790-SS	SB-790	0	1	20100908									
D-SB-791-03	SB-791	3	3	20100909									
D-SB-791-05	SB-791	5	5	20100909									
D-SB-791-07	SB-791	7	7	20100909									
D-SB-791-09	SB-791	9	9	20100909									
D-SB-791-11	SB-791	11	11	20100909									
D-SB-791-13	SB-791	13	13	20100909									
D-SB-791-15	SB-791	15	15	20100909									
D-SB-791-SS	SB-791	0	1	20100909									
D-SB-792-03	SB-792	3	3	20100909									
D-SB-792-05	SB-792	5	5	20100909									
D-SB-792-07	SB-792	7	7	20100909									
D-SB-792-09	SB-792	9	9	20100909									
D-SB-792-11	SB-792	11	11	20100909									
D-SB-792-13	SB-792	13	13	20100909									
D-SB-792-15	SB-792	15	15	20100909									
D-SB-792-SS	SB-792	0	1	20100909									
D-SB-793-03	SB-793	3	3	20100909									
D-SB-793-05	SB-793	5	5	20100909									
D-SB-793-07	SB-793	7	7	20100909									
D-SB-793-09	SB-793	9	9	20100909									
D-SB-793-11	SB-793	11	11	20100909									
D-SB-793-13	SB-793	13	13	20100909									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-872-0-1	SB-872	0	1	20120424
D-SB-872-1-2	SB-872	1	2	20120424
D-SB-872-2-4	SB-872	2	4	20120424
D-SB-872-4-6	SB-872	4	6	20120424
D-SB-872-6-8	SB-872	6	8	20120424
D-SB-873-0-1	SB-873	0	1	20120423
D-SB-873-1-2	SB-873	1	2	20120423
D-SB-873-2-4	SB-873	2	4	20120423
D-SB-873-4-6	SB-873	4	6	20120423
D-SB-873-6-8	SB-873	6	8	20120423
D-SB-874-0-1	SB-874	0	1	20120424
D-SB-874-1-2	SB-874	1	2	20120424
D-SB-874-2-4	SB-874	2	4	20120424
D-SB-874-4-6	SB-874	4	6	20120424
D-SB-874-6-8	SB-874	6	8	20120424
D-SB-875-0-1	SB-875	0	1	20120423
D-SB-875-1-2	SB-875	1	2	20120423
D-SB-875-2-4	SB-875	2	4	20120423
D-SB-875-4-6	SB-875	4	6	20120423
D-SB-875-6-8	SB-875	6	8	20120423
D-SB-876-0-1	SB-876	0	1	20120423
D-SB-876-1-2	SB-876	1	2	20120423
D-SB-876-2-4	SB-876	2	4	20120423
D-SB-876-4-6	SB-876	4	6	20120423
D-SB-876-6-8	SB-876	6	8	20120423
D-SB-877-0-1	SB-877	0	1	20120425

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-877-1-2	SB-877	1	2	20120425
D-SB-877-2-4	SB-877	2	4	20120425
D-SB-877-4-6	SB-877	4	6	20120425
D-SB-877-6-8	SB-877	6	8	20120425
D-SB-878-0-1	SB-878	0	1	20120424
D-SB-878-1-2	SB-878	1	2	20120424
D-SB-878-2-4	SB-878	2	4	20120424
D-SB-878-4-6	SB-878	4	6	20120424
D-SB-878-6-8	SB-878	6	8	20120424
D-SB-879-0-1	SB-879	0	1	20120425
D-SB-879-1-2	SB-879	1	2	20120425
D-SB-879-2-4	SB-879	2	4	20120425
D-SB-879-4-6	SB-879	4	6	20120425
D-SB-879-6-8	SB-879	6	8	20120425
D-SB-880-0-1	SB-880877	6	8	20120425

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	POLYCYCLIC AROMATIC HYDROCARBONS (UG/K								
					ANTHRACENE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BAP EQUIVALENT-UCL	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	195	195	195	NA	NA	NA	NA	NA
D-SS-784-01	SB-784	0	1	20100902	--	40	39	NA	27	30	40	24	13
D-SS-785-01	SB-785	0	1	20100903	--	--	--	NA	--	--	--	--	--
D-SS-786-01	SB-786	0	1	20100903	190	574	574	NA	520	380	440	210	220
D-SS-787-01	SB-787	0	1	20100903	20	72	72	NA	49	40	58	26	22
SB-247-05	SB-247	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-247-10	SB-247	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-247-15	SB-247	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-05	SB-248	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-10	SB-248	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-15	SB-248	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-05	SB-249	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-10	SB-249	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-15	SB-249	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33-05	SB-033	5	5	20031121	260 J	944	696	731	640	570	560	220 J	580
SB-336-0203	SB-336	2	3	20071101	NA	--	--	2	NA	--	NA	NA	NA
SB-336-0506	SB-336	5	6	20071101	NA	--	--	0	NA	--	NA	NA	NA
SB-336-0809	SB-336	8	9	20071101	NA	24	24	24	NA	24 J	NA	NA	NA
SB-337-0203	SB-337	2	3	20071101	NA	13	13	13	NA	13 J	NA	NA	NA
SB-337-0506	SB-337	5	6	20071101	NA	700	700	700	NA	700 J	NA	NA	NA
SB-337-0809	SB-337	8	9	20071101	NA	--	--	2	NA	--	NA	NA	NA
SB-338-0203	SB-338	2	3	20071101	NA	40	40	40	NA	40 J	NA	NA	NA
SB-338-0506	SB-338	5	6	20071101	NA	50	50	50	NA	50 J	NA	NA	NA
SB-338-0809	SB-338	8	9	20071101	NA	--	--	2	NA	--	NA	NA	NA
SB-339-0203	SB-339	2	3	20071101	NA	14	14	14	NA	14 J	NA	NA	NA
SB-339-0506	SB-339	5	6	20071101	NA	--	--	0	NA	--	NA	NA	NA
SB-339-0809	SB-339	8	9	20071101	NA	--	--	0	NA	--	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
SB-33A-SS	SB-033	0	0	20040917
SB-340-0203	SB-340	2	3	20071101
SB-340-0506	SB-340	5	6	20071101
SB-340-0809	SB-340	8	9	20071101
SB-341-0203	SB-341	2	3	20071101
SB-341-0506	SB-341	5	6	20071101
SB-341-0809	SB-341	8	9	20071101
SB-342-0203	SB-342	2	3	20071101
SB-342-0506	SB-342	5	6	20071101
SB-342-0809 SB-65-10	SB-342	8	9	20071101
SB-343-0203	SB-343	2	3	20071101
SB-343-0506	SB-343	5	6	20071101
SB-343-0809	SB-343	8	9	20071101
SB-344-0203	SB-344	2	3	20071101
SB-344-0506	SB-344	5	6	20071101
SB-344-0809	SB-344	8	9	20071101
SB-65-05	SB-065	5	5	20040917
SB-65-10	SB-065	10	10	20040917

SB-65-18J 112.796]TJ 141.586 0 Td [(9)-43(2)2(0)2(0)2(7)2(1)2(1)(1)2(00)-4(6)2(5)0Td [(9)-43(2)2(0)2(0)2(7)2(1)2(1)(1)2(0)2(-)-4

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	G)								
					CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE	TOTAL PAHS
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-65RE-1	SB-065	1	1	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-10	SB-065	10	10	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-11	SB-065	11	11	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-12	SB-065	12	12	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-13	SB-065	13	13	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-14	SB-065	14	14	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-15	SB-065	15	15	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-2	SB-065	2	2	20090916	22	--	NA	NA	9.4	NA	NA	NA	90.8
D-SB-65RE-3	SB-065	3	3	20090916	11	--	NA	NA	9.8	NA	NA	NA	54.9
D-SB-65RE-5	SB-065	5	5	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-5-AVG	SB-065	5	5	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-5-D	SB-065	5	5	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-6	SB-065	6	6	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-7	SB-065	7	7	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-8	SB-065	8	8	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-65RE-9	SB-065	9	9	20090916	--	--	NA	NA	--	NA	NA	NA	--
D-SB-782-03	SB-782	3	3	20100902	31	21	49	--	18	--	24	39	317
D-SB-782-05	SB-782	5	5	20100902	--	--	--	--	--	--	--	--	--
D-SB-782-07	SB-782	7	7	20100902	--	--	--	--	--	--	--	--	--
D-SB-782-09	SB-782	9	9	20100902	--	--	--	--	--	--	--	--	--
D-SB-782-11	SB-782	11	11	20100902	--	--	--	--	--	--	--	--	--
D-SB-782-13	SB-782	13	13	20100902	8.7	--	15	--	--	--	--	15	51.7
D-SB-782-15	SB-782	15	15	20100902	--	--	--	--	--	--	--	--	--
D-SB-783-03	SB-783	3	3	20100902	--	--	--	--	--	--	--	--	--
D-SB-783-05	SB-783	5	5	20100902	--	--	--	--	--	--	--	--	--
D-SB-783-07	SB-783	7	7	20100902	--	--	--	--	--	--	--	--	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	G)								
					CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE	TOTAL PAHS
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-783-09	SB-783	9	9	20100902	--	--	--	--	--	--	--	--	--
D-SB-783-11	SB-783	11	11	20100902	--	--	--	--	--	--	--	--	--
D-SB-783-13	SB-783	13	13	20100902	--	--	--	--	--	--	--	--	--
D-SB-783-15	SB-783	15	15	20100902	--	--	--	--	--	--	--	--	--
D-SB-784-03	SB-784	3	3	20100902	--	--	--	--	--	--	--	--	--
D-SB-784-05	SB-784	5	5	20100902	--	--	--	--	--	--	--	--	--
D-SB-784-07	SB-784	7	7	20100902	--	--	--	--	--	--	--	--	--
D-SB-784-09	SB-784	9	9	20100902	--	--	--	--	--	--	--		
D-SB-784-11	SB-784	11	11	20100902									
D-SB-784-13	SB-784	13	13	20100902									
D-SB-784-15	SB-784	15	15	20100902									
D-SB-785-03	SB-785	3	3	20100903									
D-SB-785-05	SB-785	5	5	20100903									
D-SB-785-07	SB-785	7	7	20100903									
D-SB-785-09	SB-785	9	9	20100908									
D-SB-785-11	SB-785	11	11	20100908									
D-SB-785-13	SB-785	13	13	20100908									
D-SB-785-15	SB-785	15	15	20100908									
D-SB-786-03	SB-786	3	3	20100903									
D-SB-786-05	SB-786	5	5	20100903									
D-SB-786-07	SB-786	7	7	20100903									
D-SB-786-09	SB-786	9	9	20100903									
D-SB-786-11	SB-786	11	11	20100903									
D-SB-786-13	SB-786	13	13	20100903									
D-SB-786-15	SB-786	15	15	20100908									
D-SB-787-03	SB-787	3	3	20100908									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-787-05	SB-787	5	5	20100908
D-SB-787-07	SB-787	7	7	20100903
D-SB-787-09	SB-787	9	9	20100908
D-SB-787-11	SB-787	11	11	20100908
D-SB-787-13	SB-787	13	13	20100908
D-SB-787-15	SB-787	15	15	20100908
D-SB-788-03	SB-788	3	3	20100908
D-SB-788-05	SB-788	5	5	20100908
D-SB-788-07	SB-788	7	7	20100908
D-SB-788-09	SB-788S69908			

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE									
				Units									
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-790-11	SB-790	11	11	20100908									
D-SB-790-13	SB-790	13	13	20100908									
D-SB-790-15	SB-790	15	15	20100908									
D-SB-790-SS	SB-790	0	1	20100908									
D-SB-791-03	SB-791	3	3	20100909									
D-SB-791-05	SB-791	5	5	20100909									
D-SB-791-07	SB-791	7	7	20100909									
D-SB-791-09	SB-791	9	9	20100909									
D-SB-791-11	SB-791	11	11	20100909									
D-SB-791-13	SB-791	13	13	20100909									
D-SB-791-15	SB-791	15	15	20100909									
D-SB-791-SS	SB-791	0	1	20100909									
D-SB-792-03	SB-792	3	3	20100909									
D-SB-792-05	SB-792	5	5	20100909									
D-SB-792-07	SB-792	7	7	20100909									
D-SB-792-09	SB-792	9	9	20100909									
D-SB-792-11	SB-792	11	11	20100909									
D-SB-792-13	SB-792	13	13	20100909									
D-SB-792-15	SB-792	15	15	20100909									
D-SB-792-SS	SB-792	0	1	20100909									
D-SB-793-03	SB-793	3	3	20100909									
D-SB-793-05	SB-793	5	5	20100909									
D-SB-793-07	SB-793	7	7	20100909									
D-SB-793-09	SB-793	9	9	20100909									
D-SB-793-11	SB-793	11	11	20100909									
D-SB-793-13	SB-793	13	13	20100909									

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE									
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-793-15	SB-793	15	15	20100909									
D-SB-793-SS	SB-793	0	1	20100909									
D-SB-794-03	SB-794	3	3	20100909									
D-SB-794-05	SB-794	5	5	20100909									
D-SB-794-07	SB-794	7	7	20100909									
D-SB-794-09	SB-794	9	9	20100909									
D-SB-794-11	SB-794	11	11	20100909									
D-SB-794-13	SB-794	13	13	20100909									
D-SB-794-15	SB-794	15	15	20100909									
D-SB-794-SS	SB-794	0	1	20100909									
D-SB-795-03	SB-795	3	3	20100909									
D-SB-795-05	SB-795	5	5	20100909									
D-SB-795-07	SB-795	7	7	20100909									
D-SB-795-09	SB-795	9	9	20100909									
D-SB-795-11	SB-795	11	11	20100909									
D-SB-795-13	SB-795	13	13	20100909									
D-SB-795-15	SB-795	15	15	20100909									
D-SB-795-SS	SB-795	0	1	20100909									
D-SB-796-03	SB-796	3	3	20100910									
D-SB-796-05	SB-796	5	5	20100910									
D-SB-796-07	SB-796	7	7	20100910									
D-SB-796-09	SB-796	9	9	20100910									
D-SB-796-11	SB-796	11	11	20100910									
D-SB-796-13	SB-796	13	13	20100910									
D-SB-796-15	SB-796	15	15	20100910									
D-SB-796-SS	SB-796	0	1	20100910									

APPENDIX B

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	G)								
					CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE	TOTAL PAHS
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-877-1-2	SB-877	1	2	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-877-2-4	SB-877	2	4	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-877-4-6	SB-877	4	6	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-877-6-8	SB-877	6	8	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-878-0-1	SB-878	0	1	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-878-1-2	SB-878	1	2	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-878-2-4	SB-878	2	4	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-878-4-6	SB-878	4	6	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-878-6-8	SB-878	6	8	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-879-0-1	SB-879	0	1	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-879-1-2	SB-879	1	2	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-879-2-4	SB-879	2	4	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-879-4-6	SB-879	4	6	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-879-6-8	SB-879	6	8	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-880-0-1	SB-880	0	1	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-880-1-2	SB-880	1	2	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-880-2-4	SB-880	2	4	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-880-4-6	SB-880	4	6	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-880-6-8	SB-880	6	8	20120424	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-881-0-1	SB-881	0	1	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-881-1-2	SB-881	1	2	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-881-2-4	SB-881	2	4	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-881-4-6	SB-881	4	6	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-881-6-8	SB-881	6	8	20120425	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SS-782-01	SB-782	0	1	20100902	91	28	180	10	49	--	96	150	1032
D-SS-783-01	SB-783	0	1	20100902	150	35	370	16	75	11	290	320	1951.9

APPENDIX B

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE			FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	N,26 r(H)-1(S)-3(H)-1(E)4(L)-22NE			TOTAL PAHS
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33A-SS	SB-033	0	0	20040917									
SB-340-0203	SB-340	2	3	20071101									
SB-340-0506	SB-340	5	6	20071101									
SB-340-0809	SB-340	8	9	20071101									
SB-341-0203	SB-341	2	3	20071101									
SB-341-0506	SB-341	5	6	20071101									
SB-341-0809	SB-341	8	9	20071101									
SB-342-0203	SB-342	2	3	20071101									
SB-342-0506	SB-342	5	6	20071101									
SB-342-0809	SB-342	8	9	20071101									
SB-343-0203	SB-343	2	3	20071101									
SB-343-0506	SB-343	5	6	20071101									
SB-343-0809	SB-343	8	9	20071101									
SB-344-0203	SB-344	2	3	20071101									
SB-344-0506	SB-344	5	6	20071101									
SB-344-0809	SB-344	8	9	20071101									
SB-65-05	SB-065	5	5	20040917									
SB-65-10	SB-065	10	10	20040917									
SB-65-15	SB-065	15	15	20040917									
SB-65-20	SB-065	20	20	20040917									
SB-65-SS	SB-065	0	0	20040917									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-65RE-1	SB-065	1	1	20090916
D-SB-65RE-10	SB-065	10	10	20090916
D-SB-65RE-11	SB-065	11	11	20090916
D-SB-65RE-12	SB-065	12	12	20090916
D-SB-65RE-13	SB-065	13	13	20090916
D-SB-65RE-14	SB-065	14	14	20090916
D-SB-65RE-15	SB-065	15	15	20090916
D-SB-65RE-2	SB-065	2	2	20090916
D-SB-65RE-3	SB-065	3	3	20090916
D-SB-65RE-5	SB-065	5	5	20090916
D-SB-65RE-5-AVG	SB-065	5	5	20090916
D-SB-65RE-5-D	SB-065	5	5	20090916
D-SB-65RE-6	SB-065	6	6	20090916
D-SB-65RE-7	SB-065	7	7	20090916
D-SB-65RE-8	SB-065	8	8	20090916
D-SB-65RE-9	SB-065	9	9	20090916
D-SB-782-03	SB-782	3	3	20100902
D-SB-782-05	SB-782	5	5	20100902
D-SB-782-07	SB-782	7	7	20100902
D-SB-782-09	SB-782	9	9	20100902
D-SB-782-11	SB-782	11	11	20100902
D-SB-782-13	SB-782	13	13	20100902
D-SB-782-15	SB-782	15	15	20100902
D-SB-783-03	SB-783	3	3	20100902
D-SB-783-05	SB-783	5	5	20100902
D-SB-783-07	SB-783	7	7	20100902

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	1,1-BIPHENYL	2,4-DIMETHYLPHENOL	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BENZALDEHYDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	195	195	NA
D-SB-783-09	SB-783	9	9	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-783-11	SB-783	11	11	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-783-13	SB-783	13	13	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-783-15	SB-783	15	15	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-784-03	SB-784	3	3	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-784-05	SB-784	5	5	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-784-07	SB-784	7	7	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-784-09	SB-784	9	9	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-784-11	SB-784	11	11	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-784-13	SB-784	13	13	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-784-15	SB-784	15	15	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-785-03	SB-785	3	3	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-785-05	SB-785	5	5	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-785-07	SB-785	7	7	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-785-09	SB-785	9	9	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-785-11	SB-785	11	11	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-785-13	SB-785	13	13	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-785-15	SB-785	15	15	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-786-03	SB-786	3	3	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-786-05	SB-786	5	5	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-786-07	SB-786	7	7	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-786-09	SB-786	9	9	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-786-11	SB-786	11	11	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-786-13	SB-786	13	13	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-786-15	SB-786	15	15	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-787-03	SB-787	3	3	20100908	--	--	NA	NA	NA	NA	NA	NA	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based
				IND Cleanup
D-SB-787-05	SB-787	5	5	20100908
D-SB-787-07	SB-787	7	7	20100903
D-SB-787-09	SB-787	9	9	20100908
D-SB-787-11	SB-787	11	11	20100908
D-SB-787-13	SB-787	13	13	20100908
D-SB-787-15	SB-787	15	15	20100908
D-SB-788-03	SB-788	3	3	20100908
D-SB-788-05	SB-788	5	5	20100908
D-SB-788-07	SB-788	7	7	20100908
D-SB-788-09	SB-788	9	9	20100908
D-SB-788-11	SB-788	11	11	20100908
D-SB-788-13	SB-788	13	13	20100908
D-SB-788-15	SB-788	15	15	20100908
D-SB-788-SS	SB-788	0	1	20100908
D-SB-789-03	SB-789	3	3	20100908
D-SB-789-05	SB-789	5	5	20100908
D-SB-789-07	SB-789	7	7	20100908
D-SB-789-09	SB-789	9	9	20100908
D-SB-789-11	SB-789	11	11	20100908
D-SB-789-13	SB-789	13	13	20100908
D-SB-789-1B-788-15	SB-788	15	15	20100908

D-SB-788-SS SB-7880041..N70 Td [(S)4(B)4(8)2(9)2(0)2(8)]TJ -262.415 -1J 121.908 0 Td [(S)4(B)4(-)-4(7)2(8)2(8)-4Df 8SB9 13
D-SB-789-05SB789 5 (8)-4Df 8100908
789-07SB789 7 (8) 4Df 8100908

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	1,1-BIPHENYL	2,4-DIMETHYLPHENOL	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BENZALDEHYDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	195	195	NA
D-SB-790-11	SB-790	11	11	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-790-13	SB-790	13	13	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-790-15	SB-790	15	15	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-790-SS	SB-790	0	1	20100908	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-791-03	SB-791	3	3	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-791-05	SB-791	5	5	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-791-07	SB-791	7	7	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-791-09	SB-791	9	9	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-791-11	SB-791	11	11	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-791-13	SB-791	13	13	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-791-15	SB-791	15	15	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-791-SS	SB-791	0	1	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-792-03	SB-792	3	3	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-792-05	SB-792	5	5	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-792-07	SB-792	7	7	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-792-09	SB-792	9	9	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-792-11	SB-792	11	11	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-792-13	SB-792	13	13	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-792-15	SB-792	15	15	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-792-SS	SB-792	0	1	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-793-03	SB-793	3	3	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-793-05	SB-793	5	5	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-793-07	SB-793	7	7	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-793-09	SB-793	9	9	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-793-11	SB-793	11	11	20100909	--	--	NA	NA	NA	NA	NA	NA	--
D-SB-793-13	SB-793	13	13	20100909	--	--	NA	NA	NA	NA	NA	NA	--

APPENDIX B

BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA

ALL BLOCK D PANHANDLE SOIL SAMPLES

SAMPLE ID	SAMPLE DATE
	Units
	Risk Based IND Cleanup

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	1,1-BIPHENYL	2,4-DIMETHYLPHENOL	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BENZALDEHYDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	195	195	NA
D-SB-877-1-2	SB-877	1	2	20120425	--	--	--	--	--	11	67	65	--
D-SB-877-2-4	SB-877	2	4	20120425	--	--	--	--	--	--	--	--	--
D-SB-877-4-6	SB-877	4	6	20120425	--	--	--	--	--	--	--	--	--
D-SB-877-6-8	SB-877	6	8	20120425	--	--	--	10	--	19	46	44	--
D-SB-878-0-1	SB-878	0	1	20120424	--	--	7.6 J	--	25	25	68	65	--
D-SB-878-1-2	SB-878	1	2	20120424	--	--	--	--	--	10	29	27	--
D-SB-878-2-4	SB-878	2	4	20120424	--	--	--	--	--	--	--	--	--
D-SB-878-4-6	SB-878	4	6	20120424	--	--	--	--	--	--	--	--	--
D-SB-878-6-8	SB-878	6	8	20120424	--	--	--	--	--	--	--	--	86 J
D-SB-879-0-1	SB-879	0	1	20120425	--	--	--	--	12	15	51	49	--
D-SB-879-1-2	SB-879	1	2	20120425	--	--	12						
D-SB-879-2-4	SB-879	2	4	20120425									
D-SB-879-4-6	SB-879	4	6	20120425									
D-SB-879-6-8	SB-879	6	8	20120425									
D-SB-880-0-1	SB-880	0	1	20120424									
D-SB-880-1-2	SB-880	1	2	20120424									
D-SB-880-2-4	SB-880	2	4	20120424									
D-SB-880-4-6	SB-880	4	6	20120424									
D-SB-880-6-8	SB-880	6	8	20120424									
D-SB-881-0-1	SB-881	0	1	20120425									
D-SB-881-1-2	SB-881	1	2	20120425									
D-SB-881-2-4	SB-881	2	4	20120425									
D-SB-881-4-6	SB-881	4	6	20120425									
D-SB-881-6-8	SB-881	6	8	20120425									
D-SS-782-01	SB-782	0	1	20100902									
D-SS-783-01	SB-783	0	1	20100902									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	1,1-BIPHENYL	2,4-DIMETHYLPHENOL	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BENZALDEHYDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	195	195	NA
D-SS-784-01	SB-784	0	1	20100902	--	--	NA	NA	NA	NA	NA	NA	--
D-SS-785-01	SB-785	0	1	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SS-786-01	SB-786	0	1	20100903	--	--	NA	NA	NA	NA	NA	NA	--
D-SS-787-01	SB-787	0	1	20100903	--	--	NA	NA	NA	NA	NA	NA	--
SB-247-05	SB-247	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-247-10	SB-247	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-247-15	SB-247	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-05	SB-248	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-10	SB-248	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-15	SB-248	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-05	SB-249	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-10	SB-249	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-15	SB-249	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33-05	SB-033	5	5	20031121	--	--	NA	NA	NA	NA	NA	NA	NA
SB-336-0203	SB-336	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-336-0506	SB-336	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-336-0809	SB-336	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-337-0203	SB-337	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-337-0506	SB-337	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-337-0809	SB-337	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-338-0203	SB-338	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-338-0506	SB-338	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-338-0809	SB-338	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-339-0203	SB-339	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-339-0506	SB-339	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-339-0809	SB-339	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	1,1-BIPHENYL	2,4-DIMETHYLPHENOL	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BAP EQUIVALENT-HALFND	BAP EQUIVALENT-POS	BENZALDEHYDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	195	195	NA
SB-33A-SS	SB-033	0	0	20040917									
SB-340-0203	SB-340	2	3	20071101									
SB-340-0506	SB-340	5	6	20071101									
SB-340-0809	SB-340	8	9	20071101									
SB-341-0203	SB-341	2	3	20071101									
SB-341-0506	SB-341	5	6	20071101									
SB-341-0809	SB-341	8	9	20071101									
SB-342-0203	SB-342	2	3	20071101									
SB-342-0506	SB-342	5	6	20071101									
SB-342-0809	SB-342	8	9	20071101									
SB-343-0203	SB-343	2	3	20071101									
SB-343-0506	SB-343	5	6	20071101									
SB-343-0809	SB-343	8	9	20071101									
SB-344-0203	SB-344	2	3	20071101									
SB-344-0506	SB-344	5	6	20071101									
SB-344-0809	SB-344	8	9	20071101									
SB-65-05	SB-065	5	5	20040917									
SB-65-10	SB-065	10	10	20040917									
SB-65-15	SB-065	15	15	20040917									
SB-65-20	SB-065	20	20	20040917									
SB-65-SS	SB-065	0	0	20040917									

APPENDIX B

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)								
					BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	BIS(2-ETHYLHEXYL)PHTHALATE	BUTYL BENZYL PHTHALATE	CARBAZOLE	CHRYSENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-787-05	SB-787	5	5	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-787-07	SB-787	7	7	20100903	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-787-09	SB-787	9	9	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-787-11	SB-787	11	11	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-787-13	SB-787	13	13	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-787-15	SB-787	15	15	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-788-03	SB-788	3	3	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-788-05	SB-788	5	5	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-788-07	SB-788	7	7	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-788-09	SB-788	9	9	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-788-11	SB-788	11	11	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-788-13	SB-788	13	13	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-788-15	SB-788	15	15	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-788-SS	SB-788	0	1	20100908	NA	NA	NA	NA	NA	20 J	--	--	NA
D-SB-789-03	SB-789	3	3	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-789-05	SB-789	5	5	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-789-07	SB-789	7	7	20100908	NA	NA	NA	NA	NA	24 J	--	--	NA
D-SB-789-09	SB-789	9	9	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-789-11	SB-789	11	11	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-789-13	SB-789	13	13	20100908	NA	NA	NA	NA	NA	--	29 J	--	NA
D-SB-789-15	SB-789	15	15	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-789-SS	SB-789	0	1	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-790-03	SB-790	3	3	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-790-05	SB-790	5	5	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-790-07	SB-790	7	7	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-790-09	SB-790	9	9	20100908	NA	NA	NA	NA	NA	--	--	--	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	SEMIVOLATILES (UG/KG)								
					BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(G,H,I)PERYLENE	BENZO(K)FLUORANTHENE	BIS(2-ETHYLHEXYL)PHTHALATE	BUTYL BENZYL PHTHALATE	CARBAZOLE	CHRYSENE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-790-11	SB-790	11	11	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-790-13	SB-790	13	13	20100908	NA	NA	NA	NA	NA	140	--	--	NA
D-SB-790-15	SB-790	15	15	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-790-SS	SB-790	0	1	20100908	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-791-03	SB-791	3	3	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-791-05	SB-791	5	5	20100909	NA	NA	NA	NA	NA	52 J	--	--	NA
D-SB-791-07	SB-791	7	7	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-791-09	SB-791	9	9	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-791-11	SB-791	11	11	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-791-13	SB-791	13	13	20100909	NA	NA	NA	NA	NA	23 J	--	--	NA
D-SB-791-15	SB-791	15	15	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-791-SS	SB-791	0	1	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-792-03	SB-792	3	3	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-792-05	SB-792	5	5	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-792-07	SB-792	7	7	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-792-09	SB-792	9	9	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-792-11	SB-792	11	11	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-792-13	SB-792	13	13	20100909	NA	NA	NA	NA	NA	110	--	--	NA
D-SB-792-15	SB-792	15	15	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-792-SS	SB-792	0	1	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-793-03	SB-793	3	3	20100909	NA	NA	NA	NA	NA	30 J	--	--	NA
D-SB-793-05	SB-793	5	5	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-793-07	SB-793	7	7	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-793-09	SB-793	9	9	20100909	NA	NA	NA	NA	NA	32 J	--	--	NA
D-SB-793-11	SB-793	11	11	20100909	NA	NA	NA	NA	NA	--	--	--	NA
D-SB-793-13	SB-793	13	13	20100909	NA	NA	NA	NA	NA	--	--	--	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-793-15	SB-793	15	15	20100909
D-SB-793-SS	SB-793	0	1	20100909
D-SB-794-03	SB-794	3	3	20100909
D-SB-794-05	SB-794	5	5	20100909
D-SB-794-07	SB-794	7	7	20100909
D-SB-794-09	SB-794	9	9	20100909
D-SB-794-11	SB-794	11	11	20100909
D-SB-794-13	SB-794	13	13	20100909
D-SB-794-15	SB-794	15	15	20100909
D-SB-794-SS	SB-794	0	1	20100909
D-SB-795-03	SB-79520100909			

-09 S115

Units
Risk Based

Units
Risk Based

Units
Risk Based
IND Cleanup

				Units Risk Based IND Cleanup
D-SB-65RE-1	SB-065	1	1	20090916
D-SB-65RE-10	SB-065	10	10	20090916
D-SB-65RE-11	SB-065	11	11	20090916
D-SB-65RE-12B735T 0 TdR,10				

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-783-09	SB-783	9	9	20100902
D-SB-783-11	SB-783	11	11	20100902
D-SB-783-13	SB-783	13	13	20100902
D-SB-783-15	SB-783	15	15	20100902
D-SB-784-00902				

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-787-05	SB-787	5	5	20100908
D-SB-787-07	SB-787	7	7	20100903
D-SB-787-09	SB-787	9	9	20100908
D-SB-787-11	SB-787	11	11	20100908
D-SB-787-13	SB-787	13	13	20100908
D-SB-787-15	SB-787	15	15	20100908
D-SB-788-03	SB-788	3	3	20100908
D-SB-788-05	SB-788	5	5	20100908
D-SB-788-07	SB-788	7	7	20100908
D-SB-788-09	SB-788	9	9	20100908
D-SB-788-11	SB-788	11	11	20100908
D-SB-788-13	SB-788	13	13	20100908
D-SB-788-15	SB-788	15	15	20100908
D-SB-788-SS	SB-788	0	1	20100908
D-SB-789-03	SB-789	3	3	20100908
D-SB-789-05	SB-789	5	5	20100908
D-SB-789-07	SB-789	7	7	20100908
D-SB-789-09	SB-789	9	9	20100908
D-SB-789-11	SB-789	11	11	20100908
D-SB-789-13	SB-789	13	13	20100908
D-SB-789-15	SB-789	15	15	20100908
D-SB-789-SS	SB-789	0	1	20100908
D-SB-790-03	SB-790	3	3	20100908
D-SB-790-05	SB-790	5	5	20100908
D-SB-790-07	SB-790	7	7	20100908
D-SB-790-09	SB-790	9	9	20100908

S3J 12 (1)9-19 NANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANAN

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SO1APPENDIX B

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	ISOPHORONE	NAPHTHALENE	PHENANTHRENE	PHENOL	
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-872-0-1	SB-872	0	1	20120424	30 J	--	360	33	46	--	22	180	--	
D-SB-872-1-2	SB-872	1	2	20120424	78 J	--	2100	91	590	--	98	120	--	
D-SB-872-2-4	SB-872	2	4	20120424	55 J	--	340	70	130	--	3200	120	--	
D-SB-872-4-6	SB-872	4	6	20120424	210	--	1100	160	57	--	5500	580	--	
D-SB-872-6-8	SB-872	6	8	20120424	47 J	--	650	72	40	--	1200	410	--	
D-SB-873-0-1	SB-873	0	1	20120423	10 J	--	160	14	--	--	9	130	--	
D-SB-873-1-2	SB-873	1	2	20120423	--	--	11	--	--	--	--	--	--	
D-SB-873-2-4	SB-873	2	4	20120423	--	--	10	--	--	--	--	--	--	
D-SB-873-4-6	SB-873	4	6	20120423	--	--	--	--	--	--	--	--	--	
D-SB-873-6-8	SB-873	6	8	20120423	--	--	--	--	--	--	--	--	--	
D-SB-874-0-1	SB-874	0	1	20120424	--	--	230	--	62	--	1000	100	--	
D-SB-874-1-2	SB-874	1	2	20120424	6800	--	27000	9600	1700	--	21000	37000	--	
D-SB-874-2-4	SB-874	2	4	20120424	2600	--	10000	4000	530	--	27000	15000	--	
D-SB-874-4-6	SB-874	4	6	20120424	4300	--	3900	4900	300	--	34000	11000	--	
D-SB-874-6-8	SB-874	6	8	20120424	26 J	--	77	31	6.8 J	--	270	140	--	
D-SB-875-0-1	SB-875	0	1	20120423	--	--	--	--	--	--	--	--	--	
D-SB-875-1-2	SB-875	1	2	20120423	44 J	--	130	25	34	--	58	160	--	
D-SB-875-2-4	SB-875	2	4	20120423	23 J	--	120	44	--	--	34	210	--	
D-SB-875-4-6	SB-875	4	6	20120423	--	--	--	--	--	--	--	--	--	
D-SB-875-6-8	SB-875	6	8	20120423	--	--	--	--	--	--	--	--	--	
D-SB-876-0-1	SB-876	0	1	20120423	--	--	45	--	--	--	--	--	--	
D-SB-876-1-2	SB-876	1	2	20120423	18 J	--	210	33	53	--	15	210	--	
D-SB-876-2-4	SB-876	2	4	20120423	--	--	66	8.2	35	--	15	42	--	--
D-SB-876-4-6	SB-876	4	6	20120423										
D-SB-876-6-8	SB-876	6	8	20120423										
D-SB-877-0-1	SB-877	0	1	20120425										

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	ISOPHORONE	NAPHTHALENE	PHENANTHRENE	PHENOL
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-877-1-2	SB-877	1	2	20120425	--	--	89	--	31	--	--	42	--
D-SB-877-2-4	SB-877	2	4	20120425	--	22 J	--	--	--	--	--	--	42 J
D-SB-877-4-6	SB-877	4	6	20120425	--	21 J	--	--	--	--	--	--	--
D-SB-877-6-8	SB-877	6	8	20120425	--	--	80	11	23	--	10	64	--
D-SB-878-0-1	SB-878	0	1	20120424	--	290 J	120	--	--	--	9.4	43	--
D-SB-878-1-2	SB-878	1	2	20120424	--	--	49	--	11	--	--	38	--
D-SB-878-2-4	SB-878	2	4	20120424	--	--	7.9	--	--	--	--	--	--
D-SB-878-4-6	SB-878	4	6	20120424	--	--	--	--	--	--	--	--	--
D-SB-878-6-8	SB-878	6	8	20120424	--	--	--	--	--	--	--	--	--
D-SB-879-0-1	SB-879	0	1	20120425	--	--	42	--	26	--	--	22	--
D-SB-879-1-2	SB-879	1	2	20120425	--	--	81	--	110	--	--	34	--
D-SB-879-2-4	SB-879	2	4	20120425	--	--	--	--	--	--	--	--	--
D-SB-879-4-6	SB-879	4	6	20120425	8.2 J	--	96	12	33	--	12	79	--
D-SB-879-6-8	SB-879	6	8	20120425	13 J	--	43	14	15	--	17	52	--
D-SB-880-0-1	SB-880	0	1	20120424	--	--	34 J	--	8.8 J	--	11 J	20 J	--
D-SB-880-1-2	SB-880	1	2	20120424	--	--	19	--	--	--	--	9.8	--
D-SB-880-2-4	SB-880	2	4	20120424	--	--	34	--	--	--	4.2 J	11	--
D-SB-880-4-6	SB-880	4	6	20120424	--	--	46	--	--	--	19	25	--
D-SB-880-6-8	SB-880	6	8	20120424	--	--	4.4 J	--	--	--	13	7.2 J	--
D-SB-881-0-1	SB-881	0	1	20120425	--	--	130	3.9 J	51	--	--		
D-SB-881-1-2	SB-881	1	2	20120425									
D-SB-881-2-4	SB-881	2	4	20120425									
D-SB-881-4-6	SB-881	4	6	20120425									
D-SB-881-6-8	SB-881	6	8	20120425									
D-SS-782-01	SB-782	0	1	20100902									
D-SS-783-01	SB-783	0	1	20100902									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	DIBENZOFURAN	DI-N-BUTYL PHTHALATE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	ISOPHORONE	NAPHTHALENE	PHENANTHRENE	PHENOL
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SS-784-01	SB-784	0	1	20100902	--	--	NA	NA	NA	--	NA	NA	--
D-SS-785-01	SB-785	0	1	20100903	--	--	NA	NA	NA	--	NA	NA	--
D-SS-786-01	SB-786	0	1	20100903	34 J	--	NA	NA	NA	--	NA	NA	--
D-SS-787-01	SB-787	0	1	20100903	--	--	NA	NA	NA	--	NA	NA	--
SB-247-05	SB-247	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-247-10	SB-247	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-247-15	SB-247	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-05	SB-248	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-10	SB-248	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-248-15	SB-248	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-05	SB-249	5	5	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-10	SB-249	10	10	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-249-15	SB-249	15	15	20050607	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33-05	SB-033	5	5	20031121	65 J	--	NA	NA	NA	--	NA	NA	--
SB-336-0203	SB-336	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-336-0506	SB-336	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-336-0809	SB-336	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-337-0203	SB-337	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-337-0506	SB-337	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-337-0809	SB-337	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-338-0203	SB-338	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-338-0506	SB-338	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-338-0809	SB-338	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-339-0203	SB-339	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-339-0506	SB-339	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-339-0809	SB-339	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE						ISOPHORONE			
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33A-SS	SB-033	0	0	20040917									
SB-340-0203	SB-340	2	3	20071101									
SB-340-0506	SB-340	5	6	20071101									
SB-340-0809	SB-340	8	9	20071101									
SB-341-0203	SB-341	2	3	20071101									
SB-341-0506	SB-341	5	6	20071101									
SB-341-0809	SB-341	8	9	20071101									
SB-342-0203	SB-342	2	3	20071101									
SB-342-0506	SB-342	5	6	20071101									
SB-342-0809	SB-342	8	9	20071101									
SB-343-0203	SB-343	2	3	20071101									
SB-343-0506	SB-343	5	6	20071101									
SB-343-0809	SB-343	8	9	20071101									
SB-344-0203	SB-344	2	3	20071101									
SB-344-0506	SB-344	5	6	20071101									
SB-344-0809	SB-344	8	9	20071101									
SB-65-05	SB-065	5	5	20040917									
SB-65-10	SB-065	10	10	20040917									
SB-65-15	SB-065	15	15	20040917									
SB-65-20	SB-065	20	20	20040917									
SB-65-SS	SB-065	0	0	20040917									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-65RE-1	SB-065	1	1	20090916
D-SB-65RE-10	SB-065	10	10	20090916
D-SB-65RE-11	SB-065	11	11	20090916
D-SB-65RE-12	SB-065	12	12	20090916
D-SB-65RE-13	SB-065	13	13	20090916
D-SB-65RE-14	SB-065	14	14	20090916
D-SB-65RE-15	SB-065	15	15	20090916
D-SB-65RE-2	SB-065	2	2	20090916
D-SB-65RE-3	SB-065	3	3	20090916
D-SB-65RE-5	SB-065	5	5	20090916
D-SB-65RE-5-AVG	SB-065	5	5	20090916
D-SB-65RE-5-D	SB-065	5	5	20090916
D-SB-65RE-6	SB-065	6	6	20090916
D-SB-65RE-7	SB-065	7	7	20090916
D-SB-65RE-8	SB-065	8	8	20090916
D-SB-65RE-9	SB-065	9	9	20090916
D-SB-782-03	SB-782	3	3	20100902
D-SB-782-05	SB-782	5	5	20100902
D-SB-782-07	SB-782	7	7	20100902
D-SB-782-09	SB-782	9	9	20100902
D-SB-782-11	SB-782	11	11	20100902
D-SB-782-13	SB-782	13	13	20100902
D-SB-782-15	SB-782	15	15	20100902
D-SB-783-03	SB-783	3	3	20100902
D-SB-783-05	SB-783	5	5	20100902
D-SB-783-07	SB-783	7	7	20100902

Units
Risk Based

APPENDIX B

APPENDIX B

BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-793-15	SB-793	15	15	20100909
D-SB-793-SS	SB-793	0	1	20100909
D-SB-794-03	SB-794	3	3	20100909
D-SB-794-05	SB-794	5	5	20100909
D-SB-794-07	SB-794	7	7	20100909
D-SB-794-09	SB-794	9	9	20100909
D-SB-794-11	SB-794	11	11	20100909
D-SB-794-13	SB-794	13	13	20100909
D-SB-794-15	SB-794	15	15	20100909
D-SB-794-SS	SB-794	0	1	20100909
D-SB-795-03	SB-795	3	3	20100909
D-SB-795-05	SB-795	5	5	20100909
D-SB-795-07	SB-795	7	7	20100909

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE									
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-872-0-1	SB-872	0	1	20120424									
D-SB-872-1-2	SB-872	1	2	20120424									
D-SB-872-2-4	SB-872	2	4	20120424									
D-SB-872-4-6	SB-872	4	6	20120424									
D-SB-872-6-8	SB-872	6	8	20120424									
D-SB-873-0-1	SB-873	0	1	20120423									
D-SB-873-1-2	SB-873	1	2	20120423									
D-SB-873-2-4	SB-873	2	4	20120423									
D-SB-873-4-6	SB-873	4	6	20120423									
D-SB-873-6-8	SB-873	6	8	20120423									
D-SB-874-0-1	SB-874	0	1	20120424									
D-SB-874-1-2	SB-874	1	2	20120424									
D-SB-874-2-4	SB-874	2	4	20120424									
D-SB-874-4-6	SB-874	4	6	20120424									
D-SB-874-6-8	SB-874	6	8	20120424									
D-SB-875-0-1	SB-875	0	1	20120423									
D-SB-875-1-2	SB-875	1	2	20120423									
D-SB-875-2-4	SB-875	2	4	20120423									
D-SB-875-4-6	SB-875	4	6	20120423									
D-SB-875-6-8	SB-875	6	8	20120423									
D-SB-876-0-1	SB-876	0	1	20120423									
D-SB-876-1-2	SB-876	1	2	20120423									
D-SB-876-2-4	SB-876	2	4	20120423									
D-SB-876-4-6	SB-876	4	6	20120423									
D-SB-876-6-8	SB-876	6	8	20120423									
D-SB-877-0-1	SB-877	0	1	20120425									

	SAMPLE DATE
SAMPLE ID	
	Units
	Risk Based IND Cleanup

APPENDIX B

BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA

				Units
				Risk Based
				IND Cleanup
D-SB-65RE-1	SB-065	1	1	20090916
D-SB-65RE-10	SB-065	10	10	20090916
D-SB-65RE-11	SB-065	11	11	20090916

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	-BUTANONE	-HEXANONE	HYLNAPHTHALENE	PROPYLTOLUENE	ACETONE	BENZENE	.4.1]UNDECA-1,3,5,7,9-PENTAENE	OMOMETHANE	BON DISULFIDE
[redacted]													
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-783-09	SB-783	9	9	20100902	--	--	NA	--	--	--	NA	0.49	--
D-SB-783-11	SB-783	11	11	20100902	--	--	NA	--	--	--	NA	--	--
D-SB-783-13	SB-783	13	13	20100902	--	--	NA	--	5.8 B	--	NA	--	--
D-SB-783-15	SB-783	15	15	20100902	--	--	NA	--	--	--	NA	--	--
D-SB-784-03	SB-784	3	3	20100902	--	--	NA	--	6.1 B	--	NA	--	--
D-SB-784-05	SB-784	5	5	20100902	5.5 J	--	NA	--	71	--	NA	--	1.4 J
D-SB-784-07	SB-784	7	7	20100902	--	--	NA	--	13 B	--	NA	--	--
D-SB-784-09	SB-784	9	9	20100902	--	--	NA	--	--	--	NA	--	--
D-SB-784-11	SB-784	11	11	20100902	--	--	NA	--	--	--	NA	--	--
D-SB-784-13	SB-784	13	13	20100902	--	--	NA	--	--	--	NA	--	--
D-SB-784-15	SB-784	15	15	20100902	--	--	NA	--	--	--	NA	--	--
D-SB-785-03	SB-785	3	3	20100903	4.3 B	--	NA	--	320 B	--	NA	--	0.81 B
D-SB-785-05	SB-785	5	5	20100903	1.4 J	--	NA	--	11 B	--	NA	--	0.9 B
D-SB-785-07	SB-785	7	7	20100903	5 J	--	NA	--	390 B	--	NA	--	2.3 B
D-SB-785-09	SB-785	9	9	20100908	--	--	NA	--	220 B	--	NA	--	0.97 B
D-SB-785-11	SB-785	11	11	20100908	1.6 J	--	NA	--	37 B	--	NA	--	0.81 B
D-SB-785-13	SB-785	13	13	20100908	--	--	NA	--	28 B	--	NA	--	1.2 B
D-SB-785-15	SB-785	15	15	20100908	3.3 J	--	NA	--	200 B	--	NA	--	--
D-SB-786-03	SB-786	3	3	20100903	120 B	--	NA	--	--	--	NA	--	35 J
D-SB-786-05	SB-786	5	5	20100903	--	--	NA	--	--	--	NA	--	--
D-SB-786-07	SB-786	7	7	20100903	200 B 5.9 B	-21.4 J235 B	--	NA	--	4.2 B			
D-SB-786-09	SB-786 4.3 B	9	--9	20100903 NA	--	.329.4 J15[(-850.193 0 Td (NA)Tj 84.351 0 Td [(-)-4(-)]TJ 64.673 0 Td [(0)2(4)2(.2)-359(B)]T5.4178.016 -12.36 Td [(1)2(2)2(0)-360(B)]TJ 87.111 0							
D-SB-786-11 1.6 J	SB-786--	11 NA	11	--20100903	8 B	--	NA	--					
D-SB-786-13	SB-786	13	13	20100903									

[redacted]

APPENDIX B

APPENDIX B

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE Units Risk Based IND Cleanup
D-SB-793-15	SB-793	15	15	20100909
D-SB-793-SS	SB-793	0	1	20100909
D-SB-794-03	SB-794	3	3	20100909
D-SB-794-05	SB-794	5	5	20100909
D-SB-794-07	SB-794	7	7	20100909
D-SB-794-09	SB-794	9	9	20100909
D-SB-794-11	SB-794	11	11	20100909
D-SB-794-13	SB-794	13	13	20100909
D-SB-794-15	SB-794	15	15	20100909
D-SB-794-SS	SB-794	0	1	20100909
D-SB-795-03	SB-795	3	3	20100909
D-SB-795-05	SB-795	5	5	20100909
D-SB-795-07	SB-795	7	7	20100909
D-SB-795-09	SB-795	9	9	20100909
D-SB-795-11	SB-795	11	11	20100909
D-SB-795-13	SB-795	13	13	20100909
D-SB-795-15	SB-795	15	15	20100909
D-SB-795-SS	SB-795	0	1	20100909
D-SB-796-03	SB-796	3	3	20100910
D-SB-796-05	SB-796	5	5	20100910
D-SB-796-07	SB-796	7	7	20100910
D-SB-796-09	SB-796	9	9	20100910
D-SB-796-11	SB-796	11	11	20100910
D-SB-796-13	SB-796	13	13	20100910
D-SB-796-15	SB-796	15	15	20100910
D-SB-796-SS	SB-796	0	1	20100910

Units
Risk Based

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SS-784-01	SB-784	0	1	20100902
D-SS-785-01	SB-785	0	1	20100903
D-SS-786-01	SB-786	0	1	20100903
D-SS-787-01	SB-787	0	1	20100903
SB-247-05	SB-247	5	5	20050607
SB-247-10	SB-247	10	10	20050607
SB-247-15	SB-247	15	15	20050607
SB-248-05	SB-248	5	5	20050607
SB-248-10	SB-248	10	10	20050607

SB-248-180 Td [(S0)2(0)2(5)2(0)2(6)2(0)2(7)]TJ -254.377 -12.36 Td 13

5 5 2050607

10 10 2050607

)5)2(0)2(7)]TJ -254.377 -11.6(0)2-3B-248-05

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	2-BUTANONE	2-HEXANONE	2-METHYLNAPHTHALENE	4-ISOPROPYLTOLUENE	ACETONE	BENZENE	BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE	BROMOMETHANE	CARBON DISULFIDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33A-SS	SB-033	0	0	20040917	--	--	NA	--	--	--	NA	--	--
SB-340-0203	SB-340	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-340-0506	SB-340	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-340-0809	SB-340	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-341-0203	SB-341	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-341-0506	SB-341	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-341-0809	SB-341	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-342-0203	SB-342	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-342-0506	SB-342	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-342-0809	SB-342	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-343-0203	SB-343	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-343-0506	SB-343	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-343-0809	SB-343	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-344-0203	SB-344	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-344-0506	SB-344	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-344-0809	SB-344	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-65-05	SB-065	5	5	20040917	--	--	NA	--	--	--	NA	--	--
SB-65-10	SB-065	10	10	20040917	--	--	NA	--	--	--	NA	--	--
SB-65-15	SB-065	15	15	20040917	--	--	NA	--	--	--	NA	--	--
SB-65-20	SB-065	20	20	20040917	--	--	NA	--	--	--	NA	--	--
SB-65-SS	SB-065	0	0	20040917	--	--	NA	--	--	--	NA	--	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE										
				Units										
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-1	SB-065	1	1	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-10	SB-065	10	10	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-11	SB-065	11	11	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-12	SB-065	12	12	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-13	SB-065	13	13	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-14	SB-065	14	14	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-15	SB-065	15	15	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-2	SB-065	2	2	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-3	SB-065	3	3	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-5	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-5-AVG	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-5-D	SB-065	5	5	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-6	SB-065	6	6	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-7	SB-065	7	7	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-8	SB-065	8	8	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	
D-SB-65RE-9	SB-065	9	9	20090916	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-782-03	SB-782	3	3	20100902				NA	NA	NA	NA	NA	NA	NA
D-SB-782-05	SB-782	5	5	20100902					NA	NA	NTA	NTA	NTA	NTA
D-SB-782-07	SB-782	7	7	20100902										
D-SB-782-09	SB-782	9	9	20100902										
D-SB-782-11	SB-782	11	11	20100902										
D-SB-782-13	SB-782	13	13	20100902										
D-SB-782-15	SB-782	15	15	20100902										
D-SB-783-03	SB-783	3	3	20100902										
D-SB-783-05	SB-783	5	5	20100902										
D-SB-783-07	SB-783	7	7	20100902										

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-783-09	SB-783	9	9	20100902
D-SB-783-11	SB-783	11	11	20100902
D-SB-783-13	SB-783	13	13	20100902
D-SB-783-15	SB-783	15	15	20100902
D-SB-784-03	SB-784	3	3	20100902
D-SB-784-05	SB-784	5	5	20100902
D-SB-784-07	SB-784	7	7	20100902
D-SB-784-09	SB-784	9	9	20100902
D-SB-784-11	SB-784	11	11	20100902
D-SB-784-13	SB-784	13	13	20100902
D-SB-784-15	SB-784	15	15	20100902
D-SB-785-03	SB-785	3	3	20100903
D-SB-785-05	SB-785	5	5	20100903
D-SB-785-07	SB-785	7	7	20100903
D-SB-785-09	SB-785	9	9	20100908
D-SB-785-11	SB-785	11	11	20100908
D-SB-785-13	SB-785	13	13	20100908
D-SB-785-15	SB-785	15	15	20100908
D-SB-786-03	SB-786	3	3	20100903
D-SB-786-05	SB-786	5	5	20100903
D-SB-786-07	SB-786	7	7	20100903
D-SB-786-09	SB-786	9	9	20100903
D-SB-786-11	SB-786	11	11	20100903
D-SB-786-13	SB-786	13	13	20100903
D-SB-786-15	SB-786	15	15	20100908
D-SB-787-03	SB-787	3	3	20100908NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-787-05	SB-787	5	5	20100908
D-SB-787-07	SB-787	7	7	20100903
D-SB-787-09	SB-787	9	9	20100908
D-SB-787-11	SB-787	11	11	20100908
D-SB-787-13	SB-787	13	13	20100908
D-SB-787-15	SB-787	15	15	20100908
D-SB-788-03	SB-788	3	3	20100908
D-SB-788-05	SB-788	5	5	20100908
D-SB-788-07	SB-788	7	7	20100908
D-SB-788-09	SB-788	9	9	20100908
D-SB-788-11	SB-788	11	11	20100908
D-SB-788-13	SB-788	13	13	20100908
D-SB-788-15	SB-788	15	15	20100908
D-SB-788-SS	SB-788	0	1	20100908
D-SB-789-03	SB-789	3	3	20100908
D-SB-789-05	SB-789	5	5	20100908
D-SB-789-07	SB-789	7	7	20100908
D-SB-789-09	SB-789	9	9	20100908
D-SB-789-11	SB-789	11	11	20100908
D-SB-789-13	SB-789	13	13	20100908
D-SB-789-15	SB-789	15	15	20100908

NANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANANA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units Risk Based IND Cleanup

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)								
					CHLOROMETHANE	CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	ETHYLBENZENE	INDANE	ISOPROPYLBENZENE	M+P-XYLENES	METHYL ACETATE	METHYL CYCLOHEXANE	METHYLENE CHLORIDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-793-15	SB-793	15	15	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-793-SS	SB-793	0	1	20100909	--	NA	--	NA	--	--	NA	NA	1 B
D-SB-794-03	SB-794	3	3	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-794-05	SB-794	5	5	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-794-07	SB-794	7	7	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-794-09	SB-794	9	9	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-794-11	SB-794	11	11	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-794-13	SB-794	13	13	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-794-15	SB-794	15	15	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-794-SS	SB-794	0	1	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-795-03	SB-795	3	3	20100909	--	NA	--	NA	--	--	NA	NA	2.7 B
D-SB-795-05	SB-795	5	5	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-795-07	SB-795	7	7	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-795-09	SB-795	9	9	20100909	--	NA	--	NA	--	--	NA	NA	0.93 B
D-SB-795-11	SB-795	11	11	20100909	--	NA	--	NA	--	--	NA	NA	1.2 B
D-SB-795-13	SB-795	13	13	20100909	--	NA	--	NA	--	--	NA	NA	1.1 B
D-SB-795-15	SB-795	15	15	20100909	--	NA	--	NA	--	--	NA	NA	--
D-SB-795-SS	SB-795	0	1	20100909	--	NA	--	NA	--	--	NA	NA	2.1 B
D-SB-796-03	SB-796	3	3	20100910	--	NA	--	NA	--	--	NA	NA	0.75 B
D-SB-796-05	SB-796	5	5	20100910	--	NA	--	NA	--	--	NA	NA	0.98 B
D-SB-796-07	SB-796	7	7	20100910	--	NA	--	NA	--	--	NA	NA	1 B
D-SB-796-09	SB-796	9	9	20100910	--	NA	--	NA	--	--	NA	NA	1 B
D-SB-796-11	SB-796	11	11	20100910	--	NA	--	NA	--	--	NA	NA	0.78 B
D-SB-796-13	SB-796	13	13	20100910	--	NA	--	NA	--	--	NA	NA	0.86 B
D-SB-796-15	SB-796	15	15	20100910	--	NA	--	NA	--	--	NA	NA	0.96 B
D-SB-796-SS	SB-796	0	1	20100910	--	NA	--	NA	--	--	NA	NA	0.82 B

APPENDIX B

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG) CHLOROMETHANE	CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	ETHYLBENZENE	INDANE	ISOPROPYLBENZENE	M+P-XYLENES	METHYL ACETATE	METHYL CYCLOHEXANE	METHYLENE CHLORIDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-877-1-2	SB-877	1	2	20120425	--	NA	--	NA	--	--	2.2 NJ	NA	0.63 B
D-SB-877-2-4	SB-877	2	4	20120425	--	NA	--	NA	--	--	NA	NA	0.9 B
D-SB-877-4-6	SB-877	4	6	20120425	--	NA	--	NA	--	--	NA	NA	2.3 B
D-SB-877-6-8	SB-877	6	8	20120425	--	NA	--	NA	--	--	NA	NA	--
D-SB-878-0-1	SB-878	0	1	20120424	--	NA	--	NA	--	--	25 NJ	NA	--
D-SB-878-1-2	SB-878	1	2	20120424	--	NA	--	NA	--	--	3.9 NJ	NA	--
D-SB-878-2-4	SB-878	2	4	20120424	--	NA	--	NA	--	--	NA	NA	1 J
D-SB-878-4-6	SB-878	4	6	20120424	--	NA	--	NA	--	--	NA	NA	--
D-SB-878-6-8	SB-878	6	8	20120424	--	NA	--	NA	--	--	NA	NA	--
D-SB-879-0-1	SB-879	0	1	20120425	--	NA	--	NA	--	--	5.8 NJ	NA	1.5 B
D-SB-879-1-2	SB-879	1	2	20120425	--	NA	--	NA	--	--	3.7 NJ	NA	--
D-SB-879-2-4	SB-879	2	4	20120425	--	NA	--	NA	--	--	NA	NA	--
D-SB-879-4-6	SB-879	4	6	20120425	--	NA	--	NA	--	--	NA	NA	1.8 B
D-SB-879-6-8	SB-879	6	8	20120425	--	NA	--	NA	--	--	NA	NA	1 B
D-SB-880-0-1	SB-880	0	1	20120424	--	NA	--	NA	--	--	2.3 NJ	NA	--
D-SB-880-1-2	SB-880	1	2	20120424	--	NA	--	NA	--	--	NA	NA	--
D-SB-880-2-4	SB-880	2	4	20120424	--	NA	--	NA	--	--	NA	NA	--
D-SB-880-4-6	SB-880	4	6	20120424	--	NA	--	NA	--	--	NA	NA	--
D-SB-880-6-8	SB-880	6	8	20120424	--	NA	--	NA	--	--	NA	NA	--
D-SB-881-0-1	SB-881	0	1	20120425	--	NA	--	NA	--	--	38 NJ	NA	--
D-SB-881-1-2	SB-881	1	2	20120425	--	NA	--	NA	--	--	NA	NA	--
D-SB-881-2-4	SB-881	2	4	20120425	--	NA	--	NA	--	--	NA	NA	--
D-SB-881-4-6	SB-881	4	6	20120425	--	NA	--	NA	--	--	NA	NA	1.3 B
D-SB-881-6-8	SB-881	6	8	20120425	--	NA	--	NA	--	--	NA	NA	--
D-SS-782-01	SB-782	0	1	20100902	--	NA	--	NA	--	--	NA	NA	--
D-SS-783-01	SB-783	0	1	20100902	--	NA	--	NA	--	--	NA	NA	--

VOLATILES (UG/KG)NANANANA NA

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	CHLOROMETHANE	CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	ETHYLBENZENE	INDANE	ISOPROPYLBENZENE	M+P-XYLENES	METHYL ACETATE	METHYL CYCLOHEXANE	METHYLENE CHLORIDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SS-784-01	SB-784	0	1	20100902									
D-SS-785-01	SB-785	0	1	20100903									
D-SS-786-01	SB-786	0	1	20100903									
D-SS-787-01	SB-787	0	1	20100903									
SB-247-05	SB-247	5	5	20050607									
SB-247-10	SB-247	10	10	20050607									
SB-247-15	SB-247	15	15	20050607									
SB-248-05	SB-248	5	5	20050607									
SB-248-10	SB-248	10	10	20050607									
SB-248-15	SB-248	15	15	20050607									
SB-249-05	SB-249	5	5	20050607									
SB-249-10	SB-249	10	10	20050607									
SB-249-15	SB-249	15	15	20050607									
SB-33-05	SB-033	5	5	20031121									
SB-336-0203	SB-336	2	3	20071101									
SB-336-0506	SB-336	5	6	20071101									
SB-336-0809	SB-336	8	9	20071101									
SB-337-0203	SB-337	2	3	20071101									
SB-337-0506	SB-337	5	6	20071101									
SB-337-0809	SB-337	8	9	20071101									
SB-338-0203	SB-338	2	3	20071101									
SB-338-0506	SB-338	5	6	20071101									
SB-338-0809	SB-338	8	9	20071101									
SB-339-0203	SB-339	2	3	20071101									
SB-339-0506	SB-339	5	6	20071101									
SB-339-0809	SB-339	8	9	20071101									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	VOLATILES (UG/KG)								
					CHLOROMETHANE	CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	ETHYLBENZENE	INDANE	ISOPROPYLBENZENE	M+P-XYLENES	METHYL ACETATE	METHYL CYCLOHEXANE	METHYLENE CHLORIDE
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-33A-SS	SB-033	0	0	20040917	--	NA	--	NA	--	10 J	NA	NA	8 J
SB-340-0203	SB-340	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-340-0506	SB-340	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-340-0809	SB-340	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-341-0203	SB-341	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-341-0506	SB-341	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-341-0809	SB-341	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-342-0203	SB-342	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-342-0506	SB-342	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-342-0809	SB-342	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-343-0203	SB-343	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-343-0506	SB-343	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-343-0809	SB-343	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-344-0203	SB-344	2	3	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-344-0506	SB-344	5	6	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-344-0809	SB-344	8	9	20071101	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-65-05	SB-065	5	5	20040917	--	NA	--	NA	--	--	NA	NA	8 J
SB-65-10	SB-065	10	10	20040917	--	NA	--	NA	--	--	NA	NA	8 J
SB-65-15	SB-065	15	15	20040917	--	NA	--	NA	--	--	NA	NA	8 J
SB-65-20	SB-065	20	20	20040917	--	NA	--	NA	--	--	NA	NA	9 J
SB-65-SS	SB-065	0	0	20040917	--	NA	--	NA	--	--	NA	NA	7 J

Units
Risk Based
IND Cleand2

D-SB-783]TJ

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE										
				Units										
				Risk Based IND Cleanup										
D-SB-783-09	SB-783	9	9	20100902										
D-SB-783-11	SB-783	11	11	20100902										
D-SB-783-13	SB-783	13	13	20100902										
D-SB-783-15	SB-783	15	15	20100902										
D-SB-784-03	SB-784	3	3-784	3	3-784	3	3-784	3	3-3-784	3	3-	SB-783	13	SB-783

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units
				Risk Based IND Cleanup
D-SB-787-05	SB-787	5	5	20100908
D-SB-787-07	SB-787	7	7	20100903
D-SB-787-09	SB-787	9	9	20100908
D-SB-787-11	SB-787	11	11	20100908
D-SB-787-13	SB-787	13	13	20100908
D-SB-787-15	SB-787	15	15	20100908
D-SB-788-03	SB-788	3	3	20100908
D-SB-788-05	SB-788	5	5	20100908
D-SB-788-07	SB-788	7	7	20100908
D-SB-788-09	SB-788	9	9	20100908
D-SB-788-11	SB-788	11	11	20100908
D-SB-781				

)]TJ 120.8TJ 10908

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE		N-BUTYLBENZENE	N-PROPYLBENZENE	0A1A409NA 52n [(O)-5(-)-4(71 409.19 52n [(O)-5(-)-4(71				TOLUENE	TOTAL XYLENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-790-11	SB-790	11	11	20100908									
D-SB-790-13	SB-790	13	13	20100908									
D-SB-790-15	SB-790	15	15	20100908									
D-SB-790-SS	SB-790	0	1	20100908									
D-SB-791-03	SB-791	3	3	20100909									
D-SB-791-05	SB-791	5	5	20100909									
D-SB-791-07	SB-791	7	7	20100909									
D-SB-791-09	SB-791	9	9	20100909									
D-SB-791-11	SB-791	11	11	20100909									
D-SB-791-13	SB-791	13	13	20100909									
D-SB-791-15	SB-791	15	15	20100909									
D-SB-791-SS	SB-791	0	1	20100909									
D-SB-792-03	SB-792	3	3	20100909									
D-SB-792-05	SB-792	5	5	20100909									
D-SB-792-07	SB-792	7	7	20100909									
D-SB-792-09	SB-792	9	9	20100909									
D-SB-792-11	SB-792	11	11	20100909									
D-SB-792-13	SB-792	13	13	20100909									
D-SB-792-15	SB-792	15	15	20100909									
D-SB-792-SS	SB-792	0	1	20100909									
D-SB-793-03	SB-793	3	3	20100909									
D-SB-793-05	SB-793	5	5	20100909									
D-SB-793-07	SB-793	7	7	20100909									
D-SB-793-09	SB-793	9	9	20100909									
D-SB-793-11	SB-793	11	11	20100909									
D-SB-793-13	SB-793	13	13	20100909									

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	NAPHTHALENE	N-BUTYLBENZENE	N-PROPYLBENZENE	O-XYLENE	STYRENE	TERT-AMYL METHYL ETHER	TETRACHLOROETHENE	TOLUENE	TOTAL XYLENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-793-15	SB-793	15	15	20100909	--	--	--	--	--	--	--	--	--
D-SB-793-SS	SB-793	0	1	20100909	2.2 B	--	--	--	--	--	--	--	--
D-SB-794-03	SB-794	3	3	20100909	--	--	--	--	--	--	--	--	--
D-SB-794-05	SB-794	5	5	20100909	--	--	--	--	--	--	--	--	--
D-SB-794-07	SB-794	7	7	20100909	0.8 B	--	--	--	--	--	--	--	--
D-SB-794-09	SB-794	9	9	20100909	0.72 B	--	--	--	--	--	--	--	--
D-SB-794-11	SB-794	11	11	20100909	--	--	--	--	--	--	--	--	--
D-SB-794-13	SB-794	13	13	20100909	0.75 B	--	--	--	--	--	--	--	--
D-SB-794-15	SB-794	15	15	20100909	0.77 B	--	--	--	--	--	--	--	--
D-SB-794-SS	SB-794	0	1	20100909	--	--	--	--	--	--	--	--	--
D-SB-795-03	SB-795	3	3	20100909	0.84 B	--	--	--	--	--	--	--	--
D-SB-795-05	SB-795	5	5	20100909	1 B	--	--	--	--	--	--	--	--
D-SB-795-07	SB-795	7	7	20100909	--	--	--	--	--	--	--	--	--
D-SB-795-09	SB-795	9	9	20100909	0.8 B	--	--	--	--	--	--	--	--
D-SB-795-11	SB-795	11	11	20100909	0.88 B	--	--	--	--	--	--	--	--
D-SB-795-13	SB-795	13	13	20100909	0.86 B	--	--	--	--	--	--	--	--
D-SB-795-15	SB-795	15	15	20100909	0.92 B	--	--	--	--	--	--	--	--
D-SB-795-SS	SB-795	0	1	20100909	0.78 B	--	--	--	--	--	--	--	--
D-SB-796-03	SB-796	3	3	20100910	0.7 B	--	--	--	--	--	--	--	--
D-SB-796-05	SB-796	5	5	20100910	0.83 B	--	--	--	--	--	--	--	--
D-SB-796-07	SB-796	7	7	20100910	0.83 B	--	--	--	--	--	--	--	--
D-SB-796-09	SB-796	9	9	20100910	0.77 B	--	--	--	--	--	--	--	--
D-SB-796-11	SB-796	11	11	20100910	0.69 B	--	--	--	--	--	--	--	--
D-SB-796-13	SB-796	13	13	20100910	0.74 B	--	--	--	--	--	--	--	--
D-SB-796-15	SB-796	15	15	20100910	0.7 B	--	--	--	--	--	--	--	--
D-SB-796-SS	SB-796	0	1	20100910	0.71 B	--	--	--	--	--	--	--	--

APPENDIX B
BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA
ALL BLOCK D PANHANDLE SOIL SAMPLES
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	NAPHTHALENE	N-BUTYLBENZENE	N-PROPYLBENZENE	O-XYLENE	STYRENE	TERT-AMYL METHYL ETHER	TETRACHLOROETHENE	TOLUENE	TOTAL XYLENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-872-0-1	SB-872	0	1	20120424	9.8	--	--	--	--	--	--	--	--
D-SB-872-1-2	SB-872	1	2	20120424	2.5 J	--	--	--	--	--	--	--	--
D-SB-872-2-4	SB-872	2	4	20120424	920	--	--	--	--	--	--	--	13 B
D-SB-872-4-6	SB-872	4	6	20120424	9500	--	--	21 B	--	--	--	--	90 B
D-SB-872-6-8	SB-872	6	8	20120424	400	9.2 J	--	15 B	6.7 B	--	--	19 J	36 B
D-SB-873-0-1	SB-873	0	1	20120423	0.31 B	--	--	--	0.16 B	--	1.9 J	--	--
D-SB-873-1-2	SB-873	1	2	20120423	--	--	--	--	--	--	--	--	--
D-SB-873-2-4	SB-873	2	4	20120423	--	--	--	--	--	--	--	--	--
D-SB-873-4-6	SB-873	4	6	20120423	--	--	--	--	--	--	--	--	--
D-SB-873-6-8	SB-873	6	8	20120423	--	--	--	--	--	--	--	--	--
D-SB-874-0-1	SB-874	0	1	20120424	29	--	--	--	--	--	--	0.43 J	--
D-SB-874-1-2	SB-874	1	2	20120424	70000	--	--	120 B	--	--	--	--	230 B
D-SB-874-2-4	SB-874	2	4	20120424	20000	--	--	--	--	--	--	95 J	54 B
D-SB-874-4-6	SB-874	4	6	20120424	130000	--	--	240 B	--	--	--	--	620 B
D-SB-874-6-8	SB-874	6	8	20120424	5300	--	--	26 B	--	--	--	19 J	54 B
D-SB-875-0-1	SB-875	0	1	20120423	--	--	--	--	--	--	--	--	--
D-SB-875-1-2	SB-875	1	2	20120423	--	--	--	--	--	--	--	--	--
D-SB-875-2-4	SB-875	2	4	20120423	--	--	--	--	--	--	--	--	--
D-SB-875-4-6	SB-875	4	6	20120423	--	--	--	--	--	--	--	--	--
D-SB-875-6-8	SB-875	6	8	20120423	--	--	--	--	--	--	--	--	--
D-SB-876-0-1	SB-876	0	1	20120423	--	--	--	--	--	--	--	--	--
D-SB-876-1-2	SB-876	1	2	20120423	--	--	--	--	--	--	--	--	--
D-SB-876-2-4	SB-876	2	4	20120423	--	--	--	--	--	--	--	--	--
D-SB-876-4-6	SB-876	4	6	20120423	--	--	--	--	--	--	--	--	--
D-SB-876-6-8	SB-876	6	8	20120423	--	--	--	--	--	--	--	--	--
D-SB-877-0-1	SB-877	0	1	20120425	--	--	--	--	--	--	--	--	---9f 105 re f 100---

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	NAPHTHALENE	N-BUTYLBENZENE	N-PROPYLBENZENE	O-XYLENE	STYRENE	TERT-AMYL METHYL ETHER	TETRACHLOROETHENE	TOLUENE	TOTAL XYLENES
				Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
				Risk Based IND Cleanup	NA	NA	NA	NA	NA	NA	NA	NA	NA
D-SB-877-1-2	SB-877	1	2	20120425	--	--	--	--	--	--	--	--	--
D-SB-877-2-4	SB-877	2	4	20120425	--	--	--	--	--	--	--	--	--
D-SB-877-4-6	SB-877	4	6	20120425	--	--	--	--	--	--	--	--	--
D-SB-877-6-8	SB-877	6	8	20120425	--	--	--	--	--	--	--	--	--
D-SB-878-0-1	SB-878	0	1	20120424	--	--	--	--	--	--	--	--	--
D-SB-878-1-2	SB-878	1	2	20120424	--	--	--	--	--	--	--	--	--
D-SB-878-2-4	SB-878	2	4	20120424	--	--	--	--	--	--	--	--	--
D-SB-878-4-6	SB-878	4	6	20120424	--	--	--	--	--	--	--	--	--
D-SB-878-6-8	SB-878	6	8	20120424	2.5 J	--	--	--	--	--	--	--	--
D-SB-879-0-1	SB-879	0	1	20120425	--	--	--	--	--	--	--	--	--
D-SB-879-1-2	SB-879	1	2	20120425	--	--	--	--	--	--	--	--	--
D-SB-879-2-4	SB-879	2	4	20120425	--	--	--	--	--	--	--	--	--
D-SB-879-4-6	SB-879	4	6	20120425	--	--	--	--	--	--	--	--	--
D-SB-879-6-8	SB-879	6	8	20120425	--	--	--	--	--	--	--	--	--
D-SB-880-0-1	SB-880	0	1	20120424	0.55 J	--	--	--	--	--	--	--	--
D-SB-880-1-2	SB-880	1	2	20120424	0.35 B	--	--	--	--	--	--	--	--
D-SB-880-2-4	SB-880	2	4	20120424	0.23 B	--	--	--	--	--	--	--	--
D-SB-880-4-6	SB-880	4	6	20120424	0.24 B	--	--	--	--	--	--	--	--
D-SB-880-6-8	SB-880	6	8	20120424	0.73 B	--	--	--	--	--	--	--	--
D-SB-881-0-1	SB-881	0	1	20120425	--	--	--	--	--	--	--	--	--
D-SB-881-1-2	SB-881	1	2	20120425	0.24 B	--	--	--	--	--	--	--	--
D-SB-881-2-4	SB-881	2	4	20120425	--	--	--	--	--	--	--	--	--
D-SB-881-4-6	SB-881	4	6	20120425	--	--	--	--	--	--	--	--	--
D-SB-881-6-8	SB-881	6	8	20120425	--	--	--	--	--	--	--	--	--
D-SS-782-01	SB-782	0	1	20100902	--	--	--	--	--	--	--	--	--
D-SS-783-01	SB-783	0	1	20100902	--	--	--	--	--	--	--	--	--

APPENDIX B

BLOCK D PANHANDLE INDUSTRIAL EXCEEDANCES OF RISK-BASED SCREENING CRITERIA

				Units Risk Based IND Cleanup
D-SB-65RE-1	SB-065	1	1	20090916
D-SB-65RE-10	SB-065	10	10	20090916

APPENDIX B

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TRICHLOROFLUOROMETHANE
				Units	UG/KG
				Risk Based IND Cleanup	NA
D-SB-787-05	SB-787	5	5	20100908	--
D-SB-787-07	SB-787	7	7	20100903	--
D-SB-787-09	SB-787	9	9	20100908	--
D-SB-787-11	SB-787	11	11	20100908	--
D-SB-787-13	SB-787	13	13	20100908	--
D-SB-787-15	SB-787	15	15	20100908	--
D-SB-788-03	SB-788	3	3	20100908	--
D-SB-788-05	SB-788	5	5	20100908	--
D-SB-788-07	SB-788	7	7	20100908	--
D-SB-788-09	SB-788	9	9	20100908	--
D-SB-788-11	SB-788	11	11	20100908	--
D-SB-788-13	SB-788	13	13	20100908	--
D-SB-788-15	SB-788	15	15	20100908	--
D-SB-788-SS	SB-788	0	1	20100908	--
D-SB-789-03	SB-789	3	3	20100908	--
D-SB-789-05	SB-789	5	5	20100908	--
D-SB-789-07	SB-789	7	7	20100908	--
D-SB-789-09	SB-789	9	9	20100908	--
D-SB-789-11	SB-789	11	11	20100908	--
D-SB-789-13	SB-789	13	13	20100908	--
D-SB-789-15	SB-789	15	15	20100908	--
D-SB-789-SS	SB-789	0	1	20100908	--
D-SB-790-03	SB-790	3	3	20100908	--
D-SB-790-05	SB-790	5	5	20100908	--
D-SB-790-07	SB-790	7	7	20100908	--
D-SB-790-09	SB-790	9	9	20100908	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TRICHLOROFLUOROMETHANE
				Units	UG/KG
				Risk Based IND Cleanup	NA
D-SB-790-11	SB-790	11	11	20100908	--
D-SB-790-13	SB-790	13	13	20100908	--
D-SB-790-15	SB-790	15	15	20100908	--
D-SB-790-SS	SB-790	0	1	20100908	--
D-SB-791-03	SB-791	3	3	20100909	--
D-SB-791-05	SB-791	5	5	20100909	--
D-SB-791-07	SB-791	7	7	20100909	--
D-SB-791-09	SB-791	9	9	20100909	--
D-SB-791-11	SB-791	11	11	20100909	--
D-SB-791-13	SB-791	13	13	20100909	--
D-SB-791-15	SB-791	15	15	20100909	--
D-SB-791-SS	SB-791	0	1	20100909	--
D-SB-792-03	SB-792	3	3	20100909	--
D-SB-792-05	SB-792	5	5	20100909	--
D-SB-792-07	SB-792	7	7	20100909	--
D-SB-792-09	SB-792	9	9	20100909	--
D-SB-792-11	SB-792	11	11	20100909	--
D-SB-792-13	SB-792	13	13	20100909	--
D-SB-792-15	SB-792	15	15	20100909	--
D-SB-792-SS	SB-792	0	1	20100909	--
D-SB-793-03	SB-793	3	3	20100909	--
D-SB-793-05	SB-793	5	5	20100909	--
D-SB-793-07	SB-793	7	7	20100909	--
D-SB-793-09	SB-793	9	9	20100909	--
D-SB-793-11	SB-793	11	11	20100909	0.35 J
D-SB-793-13	SB-793	13	13	20100909	--

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE
				Units Risk Based IND Cleanup

SAMPLE ID	LOCATION ID	TOP	SAMPLE DATE
			Units
			Risk Based IND Cleanup

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	SAMPLE DATE	TRICHLOROFLUOROMETHANE
				Units	UG/KG
				Risk Based IND Cleanup	NA
D-SS-784-01	SB-784	0	1	20100902	--
D-SS-785-01	SB-785	0	1	20100903	--
D-SS-786-01	SB-786	0	1	20100903	--
D-SS-787-01	SB-787	0	1	20100903	--
SB-247-05	SB-247	5	5	20050607	NA
SB-247-10	SB-247	10	10	20050607	NA
SB-247-15	SB-247	15	15	20050607	NA
SB-248-05	SB-248	5	5	20050607	NA
SB-248-10	SB-248	10	10	20050607	NA
SB-248-15	SB-248	15	15	20050607	NA
SB-249-05	SB-249	5	5	20050607	NA
SB-249-10	SB-249	10	10	20050607	NA
SB-249-15	SB-249	15	15	20050607	NA
SB-33-05	SB-033	5	5	20031121	--
SB-336-0203	SB-336	2	3	20071101	NA
SB-336-0506	SB-336	5	6	20071101	NA
SB-336-0809	SB-336	8	9	20071101	NA
SB-337-0203	SB-337	2	3	20071101	NA
SB-337-0506	SB-337	5	6	20071101	NA
SB-337-0809	SB-337	8	9	20071101	NA
SB-338-0203	SB-338	2	3	20071101	NA
SB-338-0506	SB-338	5	6	20071101	NA
SB-338-0809	SB-338	8	9	20071101	NA
SB-339-0203	SB-339	2	3	20071101	NA
SB-339-0506	SB-339	5	6	20071101	NA
SB-339-0809	SB-339	8	9	20071101	NA

SAMPLE DATE3 [garbled overprinted text] SB-340-023 200711016 0 Td [(3)-43(e)2J5 up 20071101634J-3 200711016 0 Td [(3)-43(e)2J5 up

SAMPLE ID	LOCATION ID	TOP DEPTH	BOTTOM DEPTH	DATE3
				Units
				Risk Based IND Cleanup
SB-33A-SS	SB-033	0	0	20040917
SB-340-0203	SB-340	2	3	200711016 0 Td [(3)-4311(2)2(0)2(0)2(7)2(1)2(1)2(0)2(16 0 Td [(3)-43(e)2J5)2(u)2(p)]TJ ET Q BT /TT1 9.96 Tf 408.96 572.88 Td [(S)4(A)4(M)2(P)4(L)2(E)]TJ 6.84 -12.36 Td [(DA)4(T)-1

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-033**	**SB-033**	**SB-065**	**SB-065**	**SB-065**	**SB-065**	**SB-065**
SAMPLE ID	**SB-33-05**	**SB-33A-SS**	**SB-65-05**	**SB-65-10**	**SB-65-15**	**SB-65-20**	**SB-65-SS**
SAMPLE DATE	**11/21/2003**	**9/17/2004**	**9/17/2004**	**9/17/2004**	**9/17/2004**	**9/17/2004**	**9/17/2004**
METALS (MG/KG)							
ANTIMONY	3.4 UL [--]	2.4 UR [--]	3.1 UR [--]	2.9 UR [--]	2.8 UR [--]	2.8 U [--]	2.6 UR [--]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-033	SB-033	SB-065	SB-065	SB-065	SB-065	SB-065
SAMPLE ID	SB-33-05	SB-33A-SS	SB-65-05	SB-65-10	SB-65-15	SB-65-20	SB-65-SS
SAMPLE DATE	11/21/2003	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/17/2004
4-NITROPHENOL							

LOCATION	SB-033	SB-033	SB-065	SB-065	SB-065	SB-065	SB-065
SAMPLE ID	SB-33-05	SB-33A-SS	SB-65-05	SB-65-10	SB-65-15	SB-65-20	SB-65-SS
SAMPLE DATE	11/21/2003	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/17/2004
1,1-DICHLOROETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,1-DICHLOROETHENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,1-DICHLOROPROPENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2,3-TRICHLOROBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2,3-TRICHLOROPROPANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2,4-TRIMETHYLBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2-DIBROMO-3-CHLOROPROPANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2-DIBROMOETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2-DICHLOROBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2-DICHLOROETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,2-DICHLOROPROPANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,3,5-TRIMETHYLBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,3-DICHLOROBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,3-DICHLOROPROPANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,4-DICHLOROBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-	--	--	--	--	--	--	--
1-BUTANOL	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
2-BUTANONE	6 J [--]	54 U [--]	62 U [--]	60 U [--]	56 U [--]	57 U [--]	53 U [--]
2-CHLOROETHYL VINYL ETHER	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
2-CHLOROTOLUENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
2-HEXANONE	68 U [--]	54 U [--]	62 U [--]	60 U [--]	56 U [--]	57 U [--]	53 U [--]
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
4-CHLOROTOLUENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
4-ISOPROPYLTOLUENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
4-METHYL-2-PENTANONE	68 U [--]	54 U [--]	62 U [--]	60 U [--]	56 U [--]	57 U [--]	53 U [--]
ACETONE	59 J [--]	54 U [--]	62 U [--]	60 U [--]	56 U [--]	57 U [--]	53 U [--]
BENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE	--	--	--	--	--	--	--
BROMOBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
BROMOCHLOROMETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
BROMODICHLOROMETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
BROMOFORM	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
BROMOMETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CARBON DISULFIDE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CARBON TETRACHLORIDE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CHLOROBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CHLORODIBROMOMETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CHLOROETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CHLOROFORM	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CHLOROMETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CIS-1,2-DICHLOROETHENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CIS-1,3-DICHLOROPROPENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	--	--	--	--	--	--	--
DIBROMOMETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
DICHLORODIFLUOROMETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
DIISOPROPYL ETHER	--	--	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-033	SB-033	SB-065	SB-065	SB-065	SB-065	SB-065
SAMPLE ID	**SB-33-05**	**SB-33A-SS**	**SB-65-05**	**SB-65-10**	**SB-65-15**	**SB-65-20**	**SB-65-SS**
SAMPLE DATE	**11/21/2003**	**9/17/2004**	**9/17/2004**	**9/17/2004**	**9/17/2004**	**9/17/2004**	**9/17/2004**
DISILOXANE, HEXAMETHYL-	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--	--	--	--
ETHYLBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
HEXACHLOROBUTADIENE	7 U [--]	--	--	--	--	--	--
INDANE	--	--	--	--	--	--	--
ISOPROPYLBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
M+P-XYLENES	20 U [--]	10 J [--]	12 U [--]	12 U [--]	11 U [--]	11 U [--]	11 U [--]
METHYL ACETATE	--	--	--	--	--	--	--
METHYL CYCLOHEXANE	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
METHYLENE CHLORIDE	11 J [--]	8 J [--]	8 J [--]	8 J [--]	8 J [--]	9 J [--]	7 J [--]
NAPHTHALENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
N-BUTYLBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
N-PROPYLBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
O-XYLENE	20 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
SEC-BUTYLBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
STYRENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
TERT-AMYL METHYL ETHER	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
TERTIARY-BUTYL ALCOHOL	--	--	--	--	--	--	--
TETRACHLOROETHENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
TOLUENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
TOTAL XYLENES	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
TRANS-1,3-DICHLOROPROPENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
TRICHLOROETHENE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
TRICHLOROFLUOROMETHANE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
VINYL ACETATE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
VINYL CHLORIDE	7 U [--]	5 U [--]	6 U [--]	6 U [--]	6 U [--]	6 U [--]	5 U [--]
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)							
2-METHYLNAPHTHALENE	450 U [--]	3600 U [--]	420 U [--]	400 U [--]	380 U [--]	390 U [--]	3600 U [--]
ACENAPHTHENE	110 J [--]	3600 U [--]	420 U [--]	400 U [--]	380 U [--]	390 U [--]	3600 U [--]
ACENAPHTHYLENE	450 U [--]	3600 U [--]	420 U [--]	400 U [--]	380 U [--]	390 U [--]	3600 U [--]
ANTHRACENE	260 J [--]	3600 U [--]	420 U [--]	400 U [--]	380 U [--]	390 U [--]	3600 U [--]
BAP EQUIVALENT-HALFND	943.91 [--]	3600 U [--]	420 U [--]	400 U [--]	380 U [--]	390 U [--]	3600 U [--]
BAP EQUIVALENT-POS	696.41 [--]	3600 U [--]	420 U [--]	400 U [--]	380 U [--]	390 U [--]	3600 U [--]
BAP EQUIVALENT-UCL	731.131966 [--]	2604136(J)427..36 Td 4([)-6(-)5(-)52]	260 J [--]	260 J	380 U [--]	--] 600.416-]	260 J [--]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-033	SB-033	SB-065	SB-065	SB-065	SB-065	SB-065

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
METALS (MG/KG)
ANTIMONY
ARSENIC
BARIUM
BERYLLIUM
CADMIUM
CHROMIUM
COBALT
COPPER
IRON
LEAD
MANGANESE
MERCURY
MOLYBDENUM
NICKEL
SELENIUM
SILVER
THALLIUM
VANADIUM
ZINC
MISCELLANEOUS PARAMETERS
PERCENT SOLIDS (%)
HEXAVALENT CHROMIUM (MG/KG)
MERCURY (METHYL) (UG/KG)
SEMIVOLATILES (UG/KG)
1,1-BIPHENYL
1,4-DIOXANE
2,2'-OXYBIS(1-CHLOROPROPANE)
2,4,5-TRICHLOROPHENOL
2,4,6-TRICHLOROPHENOL
2,4-DICHLOROPHENOL
2,4-DIMETHYLPHENOL
2,4-DINITROPHENOL

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
-NITROPHENOL	
ACENAPHTHENE	
ACENAPHTHYLENE	
ACETOPHENONE	
ANTHRACENE	
ATRAZINE	
BAP EQUIVALENT-HALFND	
BAP EQUIVALENT-POS	
BENZALDEHYDE	
BENZO(A)ANTHRACENE	
BENZO(A)PYRENE	
BENZO(B)FLUORANTHENE	
BENZO(G,H,I)PERYLENE	
BENZO(K)FLUORANTHENE	
BIS(2-CHLOROETHOXY)METHANE	
BIS(2-CHLOROETHYL)ETHER	
BIS(2-ETHYLHEXYL)PHTHALATE	
BUTYL BENZYL PHTHALATE	
CAPROLACTAM	
CARBAZOLE	
CHRYSENE	
DIBENZO(A,H)ANTHRACENE	
DIBENZOFURAN	
DIETHYL PHTHALATE	
DIMETHYL PHTHALATE	
DI-N-BUTYL PHTHALATE	
DI-N-OCTYL PHTHALATE	
FLUORANTHENE	
FLUORENE	
HEXACHLOROBENZENE	
HEXACHLOROBUTADIENE	
HEXACHLOROCYCLOPENTADIENE	
HEXACHLOROETHANE	
INDENO(1,2,3-CD)PYRENE	
ISOPHORONE	
NAPHTHALENE	
NITROBENZENE	
N-NITROSODIMETHYLAMINE	
N-NITROSO-DI-N-PROPYLAMINE	
N-NITROSODIPHENYLAMINE	
PENTACHLOROPHENOL	
PHENANTHRENE	
PHENOL	
PYRENE	
VOLATILES (U5(E)5(H)5(L)2(P)-.72(P)-.72(P)-.72(P)-.72(P)-.72(P)-.72(P)-.72(P)-.72(P)-.72(P)-.72(P)-.7OBPPROBHPR72(PRO6(HR72(P[(B)-5(E)-5(NTT0 8.03 Tf T*N)5()5(L)4(O)5(P)-5(Y)-5(R)5(E)-5(N)5(E)]TJ /)]TJ T* [)]TJ T* [)]TJ T* [(H)5(T)-T.72(P)-.72(U)5(I)-6(V)-NDENO(1,2,3-CD	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-065	SB-065	SB-065	SB-065	SB-065	SB-065	SB-065
SAMPLE ID	D-SB-65RE-1	D-SB-65RE-10	D-SB-65RE-11	D-SB-65RE-12	D-SB-65RE-13	D-SB-65RE-14	D-SB-65RE-15
[redacted]		9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009
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APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

[redacted] [H 8.8(P)-)052(E)]T14.5T0 8.03

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APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
METALS (MG/KG)	
ANTIMONY	
ARSENIC	
BARIUM	
BERYLLIUM	
CADMIUM	
CHROMIUM	
COBALT	
COPPER	
IRON	
LEAD	
MANGANESE	
MERCURY	
MOLYBDENUM	
NICKEL	
SELENIUM	
SILVER	
THALLIUM	
VANADIUM	
ZINC	
MISCELLANEOUS PARAMETERS	
PERCENT SOLIDS (%)	
HEXAVALENT CHROMIUM (MG/KG)	
MERCURY (METHYL) (UG/KG)	
SEMIVOLATILES (UG/KG)	
1,1-BIPHENYL	
1,4-DIOXANE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
4-NITROPHENOL
ACENAPHTHENE
ACENAPHTHYLENE
ACETOPHENONE
ANTHRACENE
ATRAZINE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
BENZALDEHYDE
BENZO(A)ANTHRACENE
BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
BENZO(G,H,I)PERYLENE
BENZO(K)FLUORANTHENE
BIS(2-CHLOROETHOXY)METHANE
BIS(2-CHLOROETHYL)ETHER
BIS(2-ETHYLHEXYL)PHTHALATE
BUTYL BENZYL PHTHALATE
CAPROLACTAM
CARBAZOLE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-065	SB-065	SB-065	SB-065	SB-065	SB-065	SB-065
SAMPLE ID	D-SB-65RE-2	D-SB-65RE-3	D-SB-65RE-5	D-SB-65RE-5-D	D-SB-65RE-6	D-SB-65RE-7	D-SB-65RE-8
SAMPLE DATE	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009	9/16/2009
1,1-DICHLOROETHANE	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-	--	--	--	--	--	--	--
1-BUTANOL	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--	--	--
2-HEXANONE	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	--	--	--	--	--
BENZENE	--	--	--	--	--	--	--
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE	--	--	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--	--	--
BROMOFORM	--	--	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--	--	--
CHLOROFORM	--	--	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--	--	--
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	--	--	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--	--	--

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-065**	**SB-065**	**SB-065**	**SB-065**	**SB-065**	**SB-065**	**SB-065**
[redacted]	**D-SB-65RE-2**	**D-SB-65RE-3**	**D-SB-65RE-5**	**D-SB-65RE-5-D**	**D-SB-65RE-6**	**D-SB-65RE-7**	**D-SB-65RE-8**
	9/16/2009	**9/16/2009**	**9/16/2009**	**9/16/2009**	**9/16/2009**	**9/16/2009**	**9/16/2009**
	90.8 [MDL=1.5]	54.9 [MDL=1.6]	0 U [MDL=1.6]	0 U [MDL=1.6]	0 U [MDL=1.5]	0 U [MDL=1.5]	0 U [MDL=1.5]
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AROCLOR-1221	--	--	--	--	--	--	--
AROCLOR-1232	--	--	--	--	--	--	--
AROCLOR-1242	--	--	--	--	--	--	--
AROCLOR-1248	--	--	--	--	--	--	--
AROCLOR-1254	--	--	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--	--	--
TOTAL AROCLOR	--	--	--	--	--	--	--
PESTICIDES (UG/KG)							
4,4'-DDD	--	--	--	--	--	--	--
[redacted]	--	--	--	--	--	--	--
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LOCATION	**SB-065**	**SB-065**	**SB-065**	**SB-065**	**SB-065**	**SB-065**	**SB-065**
SAMPLE ID	**D-SB-65RE-2**	**D-SB-65RE-3**	**D-SB-65RE-5**	**D-SB-65RE-5-D**	**D-SB-65RE-6**	**D-SB-65RE-7**	**D-SB-65RE-8**
SAMPLE DATE	**9/16/2009**	**9/16/2009**	**9/16/2009**	**9/16/2009**	**9/16/2009**	**9/16/2009**	**9/16/2009**
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	--	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS	--	--	--	--	--	--	--
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--
TPH (C06-C10)	--	--	--	--	--	--	--

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.
Data Qualifiers:
Blank (i.e., no qualifier) = the chemical was detected.
> = The chemical was detected.
J = The chemical was detected but the concentration reported is an
U = The chemical was not detected.
< = The chemical was not detected.
R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	

LOCATION	SB-065	SB-247	SB-247	SB-247	SB-248	SB-248	SB-248
SAMPLE ID	D-SB-65RE-9	SB-247-05	SB-247-10	SB-247-15	SB-248-05	SB-248-10	SB-248-15
SAMPLE DATE	9/16/2009	6/7/2005	6/7/2005	6/7/2005	6/7/2005	6/7/2005	6/7/2005
1,1-DICHLOROETHANE	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-	--	--	--	--	--	--	--
1-BUTANOL	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--	--	--
2-HEXANONE	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	--	--	--	--	--
BENZENE	--	--	--	--	--	--	--
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE	--	--	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--	--	--
BROMOFORM	--	--	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--	--	--
CHLOROFORM	--	--	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--	--	--
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	--	--	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATEEE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
METALS (MG/KG)
ANTIMONY
ARSENIC
BARIUM
BERYLLIUM
CADMIUM
CHROMIUM
COBALT
COPPER
IRON
LEAD
MANGANESE
MERCURY
MOLYBDENUM
NICKEL
SELENIUM
SILVER
THALLIUM
VANADIUM
ZINC
MISCELLANEOUS PARAMETERS
PERCENT SOLIDS (%)
HEXAVALENT CHROMIUM (MG/KG)

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
4-NITROPHENOL	
ACENAPHTHENE	
ACENAPHTHYLENE	
ACETOPHENONE	
ANTHRACENE	
ATRAZINE	
BAP EQUIVALENT-HALFND	
BAP EQUIVALENT-POS	
BENZALDEHYDE	
BENZO(A)ANTHRACENE	
BENZO(A)PYRENE	
BENZO(B)FLUORANTHENE	
BENZO(G,H,I)PERYLENE	
BENZO(K)FLUORANTHENE	
BIS(2-CHLOROETHOXY)METHANE	
BIS(2-CHLOROETHOROE(E)]TJ TH2(R)5(O)2(E)-54(E)-5(-6(S)-5(()5(2)4(-)5(C)5(H)5(L)4(O)2(2(R)5(O)2(E)-5((E)]TJ TE)-54(E)-)12(E)-5(TTJ T)-1(H5(Y)-5(L)4(E)-5(N)5(H)5(Y)--5(Z)-1(I)I)-6(S)-5(()5(2U(L)4(E)-Y)37(T)13(A)-1(O)2(()5(K)-5()Y)37(T)13(A)5(Y)-5(L)4(E)-5(N)5(H)5(Y)--5(Z)-1(I)I)-6(S)-5(C(T)-1(H)5(Y)-1(H)5(O)(Y)--5(Z)C(L)4(E)-	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-249	SB-249	SB-249	SB-336	SB-336	SB-336	SB-337
SAMPLE ID	SB-249-05	SB-249-10	SB-249-15	SB-336-0203	SB-336-0506	SB-336-0809	SB-337-0203
SAMPLE DATE	6/7/2005	6/7/2005	6/7/2005	11/1/2007	11/1/2007	11/1/2007	11/1/2007
1,1-DICHLOROETHANE	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-	--	--	--	--	--	--	--
1-BUTANOL	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--	--	--
2-HEXANONE	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	--	--	--	--	--
BENZENE	--	--	--	--	--	--	--
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE	--	--	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--	--	--
BROMOFORM	--	--	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--	--	--
CHLOROFORM	--	--	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--	--	--
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	--	--	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--	--	--

[redacted] C
[redacted] S INVESTIGATIONS
[redacted] ANDLE
[redacted] LE RIVER, MARYLAND

[redacted]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-249**
SAMPLE ID	
SAMPLE DATE	
TOTAL PAHS	
PCBS (UG/KG)	
AROCLOR-1016	
AROCLOR-1221	
AROCLOR-1232	
AROCLOR-1242	
AROCLOR-1248	
AROCLOR-1254	
AROCLOR-1260	
TOTAL AROCLOR	
PESTICIDES (UG/KG)	
4,4'-DDD	
4,4'-DDE	
4,4'-DDT	
ALDRIN	
ALPHA-BHC	
ALPHA-CHLORDANE	
BETA-BHC	
DELTA-BHC	
DIELDRIN	
ENDOSULFAN I	
ENDOSULFAN II	
ENDOSULFAN SULFATE	
ENDRIN	
ENDRIN ALDEHYDE	
ENDRIN KETONE	
GAMMA-BHC (LINDANE)	
GAMMA-CHLORDANE	
HEPTACHLOR	
HEPTACHLOR EPOXIDE	
METHOXYCHLOR	
TOXAPHENE	
PESTICIDES/PCBS (UG/KG)	
4,4'-DDD	
4,4'-DDE	
4,4'-DDT	
ALDRIN	
ALPHA-BHC	
ALPHA-CHLORDANE	
BETA-BHC	
DELTA-BHC	
DIELDRIN	
ENDOSULFAN I	
ENDOSULFAN II	
ENDOSULFAN SULFATE	
ENDRIN	
ENDRIN ALDEHYDE	
ENDRIN KETONE	
GAMMA-BHC (LINDANE)	
GAMMA-CHLORDANE	
HEPTACHLOR	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-249**	**SB-249**	**SB-249**	**SB-336**	**SB-336**	**SB-336**	**SB-337**
SAMPLE ID	**SB-249-05**	**SB-249-10**	**SB-249-15**	**SB-336-0203**	**SB-336-0506**	**SB-336-0809**	**SB-337-0203**
SAMPLE DATE	**6/7/2005**	**6/7/2005**	**6/7/2005**	**11/1/2007**	**11/1/2007**	**11/1/2007**	**11/1/2007**
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	--	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS	--	--	--	--	--	--	--
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--
TPH (C06-C10)	--	--	--	--	--	--	--

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

U = The chemical was not detected.

< = The chemical was not detected.

R = The chemical was rejected.

LOCATION	SB-337	SB-337	SB-338	SB-338	SB-338	SB-339	SB-339
SAMPLE ID	SB-337-0506	SB-337-0809	SB-338-0203	SB-338-0506	SB-338-0809	SB-339-0203	SB-339-0506
SAMPLE DATE	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007
METALS (MG/KG)							
ANTIMONY	--	--	--	--	--	--	--
ARSENIC	--	--	--	--	--	--	--
BARIUM	--	--	--	--	--	--	--
BERYLLIUM	--	--	--	--	--	--	--
CADMIUM	--	--	--	--	--	--	--
CHROMIUM	--	--	--	--	--	--	--
COBALT	--	--	--	--	--	--	--
COPPER	--	--	--	--	--	--	--
IRON	--	--	--	--	--	--	--
LEAD	--	--	--	--	--	--	--
MANGANESE	--	--	--	--	--	--	--
MERCURY	0.093 B [MDL=0.015]	0.82 [MDL=0.015]	0.42 [MDL=0.015]	0.042 B [MDL=0.015]	0.055 B [MDL=0.015]	0.13 B [MDL=0.015]	0.22 J [MDL=0.015]
MOLYBDENUM	--	--	--	--	--	--	--
NICKEL	--	--	--	--	--	--	--
SELENIUM	--	--	--	--	--	--	--
SILVER	--	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--	--
VANADIUM	--	--	--	--	--	--	--
ZINC	--	--	--	--	--	--	--
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)	80.3 [MDL=10]	79.4 [MDL=10]	82.4 [MDL=10]	81.7 [MDL=10]	81.8 [MDL=10]	88.4 [MDL=10]	80.2 [MDL=10]
HEXAVALENT CHROMIUM (MG/KG)	--	--	--	--	--	--	--
MERCURY (METHYL) (UG/KG)	--	--	--	--	--	--	--
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL	--	--	--	--	--	--	--
1,4-DIOXANE	--	--	--	--	--	--	--
2,2'-OXYBIS(1-CHLOROPROPANE)	--	--	--	--	--	--	--
2,4,5-TRICHLOROPHENOL	--	--	--	--	--	--	--
2,4,6-TRICHLOROPHENOL	--	--	--	--	--	--	--
2,4-DICHLOROPHENOL	--	--	--	--	--	--	--
2,4-DIMETHYLPHENOL	--	--	--	--	--	--	--
2,4-DINITROPHENOL	--	--	--	--	--	--	--
2,4-DINITROTOLUENE	--	--	--	--	--	--	--
2,6-DINITROTOLUENE	--	--	--	--	--	--	--
2-CHLORONAPHTHALENE	--	--	--	--	--	--	--
2-CHLOROPHENOL	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2-METHYLPHENOL	--	--	--	--	--	--	--
2-NITROANILINE	--	--	--	--	--	--	--
2-NITROPHENOL	--	--	--	--	--	--	--
3&4-METHYLPHENOL	--	--	--	--	--	--	--
3,3'-DICHLOROBENZIDINE	--	--	--	--	--	--	--
3-NITROANILINE	--	--	--	--	--	--	--
4,6-DINITRO-2-METHYLPHENOL	--	--	--	--	--	--	--
4-BROMOPHENYL PHENYL ETHER	--	--	--	--	--	--	--
4-CHLORO-3-METHYLPHENOL	--	--	--	--	--	--	--
4-CHLOROANILINE	--	--	--	--	--	--	--
4-CHLOROPHENYL PHENYL ETHER	--	--	--	--	--	--	--
4-METHYLPHENOL	--	--	--	--	--	--	--
4-NITROANILINE	--	--	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS

[redacted]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-337	SB-337	SB-338	SB-338	SB-338	SB-339	SB-339
SAMPLE ID	SB-337-0506	SB-337-0809	SB-338-0203	SB-338-0506	SB-338-0809	SB-339-0203	SB-339-0506
SAMPLE DATE	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007
1,1-DICHLOROETHANE	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-	--	--	--	--	--	--	--
1-BUTANOL	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--	--	--
2-HEXANONE	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	--	--	--	--	--
BENZENE	--	--	--	--	--	--	--
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE	--	--	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--	--	--
BROMOFORM	--	--	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--	--	--
CHLOROFORM	--	--	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--	--	--
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	--	--	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-337**	**SB-337**	**SB-338**	**SB-338**	**SB-338**	**SB-339**	**SB-339**
SAMPLE ID	**SB-337-0506**	**SB-337-0809**	**SB-338-0203**	**SB-338-0506**	**SB-338-0809**	**SB-339-0203**	**SB-339-0506**
SAMPLE DATE	**11/1/2007**	**11/1/2007**	**11/1/2007**	**11/1/2007**	**11/1/2007**	**11/1/2007**	**11/1/2007**
DISILOXANE, HEXAMETHYL-	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--
HEXACHLOROBUTADIENE	--	--	--	--	--	--	--
INDANE	--	--	--	--	--	--	--
ISOPROPYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYL ACETATE	--	--	--	--	--	--	--
METHYL CYCLOHEXANE	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	--	--	--	--	--	--	--
METHYLENE CHLORIDE	--	--	--	--	--	--	--
NAPHTHALENE	--	--	--	--	--	--	--
N-BUTYLBENZENE	--	--	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
SEC-BUTYLBENZENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TERT-AMYL METHYL ETHER	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	--	--	--	--	--	--	--
TETRACHLOROETHENE	--	--	--	--	--	--	--
TOLUENE	--	--	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
TRANS-1,3-DICHLOROPROPENE	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--	--	--
TRICHLOROFLUOROMETHANE	--	--	--	--	--	--	--
VINYL ACETATE	--	--	--	--	--	--	--
VINYL CHLORIDE	--	--	--	--	--	--	--
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)							
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
ACENAPHTHENE	--	--	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--	--	--
ANTHRACENE	--	--	--	--	--	--	--
BAP EQUIVALENT-HALFND	700 [MDL=16]	4200 U [MDL=16]	40 [MDL=1.6]	50 [MDL=1.6]	400 U [MDL=1.6]	14 [MDL=1.5]	1.6 U [MDL=1.6]
BAP EQUIVALENT-POS	700 [MDL=16]	4200 U [MDL=16]	40 [MDL=1.6]	50 [MDL=1.6]	400 U [MDL=1.6]	14 [MDL=1.5]	1.6 U [MDL=1.6]
BAP EQUIVALENT-UCL	700 [MDL=16]	1.782775 [MDL=16]	40 [MDL=1.6]	50 [MDL=1.6]	1.913443 [MDL=1.6]	14 [MDL=1.5]	0.008761 [MDL=1.6]
BENZO(A)ANTHRACENE -	17.7817.17.7817E7.78 0 Td [(17.788.7817.17..17..17..17..17..17..17.17.7817.7817.7817.781(U)-278([)-6(M)12(D)5(L5(]])]TJ 12496.286 0 Td [(-)5(-)]7.78177817.7817.7817.7817.7817.7817.78163(U)-2TJ -817.71TS8.1)4836 0 T(-)]TJ -817.7817.7817.7817.7817.7817.7817.						
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

[redacted]
AROCLOR-1221
AROCLOR-1232
AROCLOR-1242
AROCLOR-1248
AROCLOR-1254
[redacted]
ALDRIN
ALPHA-BHC
ALPHA-CHLORDANE
BETA-BHC
DELTA-BHC
[redacted]
ENDRIN KETONE
GAMMA-BHC (LINDANE)
GAMMA-CHLORDANE
HEPTACHLOR
HEPTACHLOR EPOXIDE
[redacted]
ALDRIN
ALPHA-BHC
ALPHA-CHLORDANE
BETA-BHC
DELTA-BHC
DIELDRIN
ENDOSULFAN I
ENDOSULFAN II
ENDOSULFAN SULFATE
ENDRIN
[redacted]

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
METALS (MG/KG)	
ANTIMONY	
ARSENIC	
BARIUM	
BERYLLIUM	
CADMIUM	
CHROMIUM	
COBALT	
COPPER	
IRON	
LEAD	
MANGANESE	
MERCURY	
MOLYBDENUM	
NICKEL	
SELENIUM	
SILVER	
THALLIUM	
VANADIUM	
ZINC	
MISCELLANEOUS PARAMETERS	
PERCENT SOLIDS (%)	
HEXAVALENT CHROMIUM (MG/KG)	
MERCURY (METHYL) (UG/KG)	
SEMIVOLATILES (UG/KG)	
1,1-BIPHENYL	
1,4-DIOXANE	
2,2'-OXYBIS(1-CHLOROPROPANE)	
2,4,5-TRICHLOROPHENOL	
2,4,6-TRICHLOROPHENOL	
2,4-DICHLOROPHENOL	
2,4-DIMETHYLPHENOL	
2,4-DINITROPHENOL	
2,4-DINITROTOLUENE	
2,6-DINITROTOLUENE	
2-CHLORONAPHTHALENE	
2-CHLOROPHENOL	
2-METHYLNAPHTHALENE	
2-METHYLPHENOL	
2-NITROANILINE	
2-NITROPHENOL	
3&4-METHYLPHENOL	
3,3'-DICHLOROBENZIDINE	
3-NITROANILINE	
4,6-DINITRO-2-METHYLPHENOL	
4-BROMOPHENYL PHENYL ETHER	
4-CHLORO-3-METHYLPHENOL	
4-CHLOROANILINE	
4-CHLOROPHENYL PHENYL ETHER	
4-METHYLPHENOL	
4-NITROANILINE	
3,3'-DICHLOROBENZIDINE	
3-NITROANILINE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
4-NITROPHENOL
ACENAPHTHENE
ACENAPHTHYLENE
ACETOPHENONE
ANTHRACENE
ATRAZINE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
BENZALDEHYDE
BENZO(A)ANTHRACENE
BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
BENZO(G,H,I)PERYLENE
BENZO(K)FLUORANTHENE
BIS(2-CHLOROETHOXY)METHANE
BIS(2-CHLOROETHYL)ETHER
BIS(2-ETHYLHEXYL)PHTHALATE
BUTYL BENZYL PHTHALATE
CAPROLACTAM
CARBAZOLE
CHRYSENE
DIBENZO(A,H)ANTHRACENE
DIBENZOFURAN
DIETHYL PHTHALATE
DIMETHYL PHTHALATE
DI-N-BUTYL PHTHALATE
DI-N-OCTYL PHTHALATE
FLUORANTHENE
FLUORENE
HEXACHLOROBENZENE
HEXACHLOROBUTADIENE
HEXACHLOROCYCLOPENTADIENE
HEXACHLOROETHANE
INDENO(1,2,3-CD)PYRENE
ISOPHORONE
NAPHTHALENE
NITROBENZENE
N-NITROSODIMETHYLAMINE
N-NITROSO-DI-N-PROPYLAMINE
N-NITROSODIPHENYLAMINE
PENTACHLOROPHENOL
PHENANTHRENE
PHENOL
PYRENE
VOLATILES (UG/KG)
.BETA.-SESQUIPHELLANDRENE
1,1,1,2-TETRACHLOROETHANE
1,1,1-TRICHLOROETHANE
1,1,2,2-TETRACHLOROETHANE
1,1,2-TRICHLOROETHANE
1,1,2-TRICHLOROTRIFLUOROETHANE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
1,1-DICHLOROETHANE	
[redacted]	
1,2,3-TRICHLOROBENZENE	
1,2,3-TRICHLOROPROPANE	
1,2,3-TRIMETHYLBENZENE	
1,2,4-TRICHLOROBENZENE	
1,2,4-TRIMETHYLBENZENE	
1,2-DIBROMO-3-CHLOROPROPANE	
1,2-DIBROMOETHANE	
1,2-DICHLOROBENZENE	
1,2-DICHLOROETHANE	
[redacted]	
1,3-DICHLOROBENZENE	
1,3-DICHLOROPROPANE	
[redacted]	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

[redacted]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
TOTAL PAHS
PCBS (UG/KG)
AROCLOR-1016
AROCLOR-1221
AROCLOR-1232
AROCLOR-1242
AROCLOR-1248
AROCLOR-1254
AROCLOR-1260
TOTAL AROCLOR
PESTICIDES (UG/KG)
4,4'-DDD
4,4'-DDE
4,4'-DDT
ALDRIN
ALPHA-BHC
ALPHA-CHLORDANE
BETA-BHC
DELTA-BHC
DIELDRIN
ENDOSULFAN I
ENDOSULFAN II
ENDOSULFAN SULFATE
ENDRIN
ENDRIN ALDEHYDE
ENDRIN KETONE
GAMMA-BHC (LINDANE)
GAMMA-CHLORDANE
HEPTACHLOR
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PESTICIDES/PCBS (UG/KG)
4,4'-DDD
4,4'-DDE
4,4'-DDT
ALDRIN
ALPHA-BHC
ALPHA-CHLORDANE
BETA-BHC
DELTA-BHC
DIELDRIN
ENDOSULFAN I
ENDOSULFAN II
ENDOSULFAN SULFATE
ENDRIN
ENDRIN ALDEHYDE
ENDRIN KETONE
GAMMA-BHC (LINDANE)
GAMMA-CHLORDANE
HEPTACHLOR

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PETROLEUM HYDROCARBONS (MG/KG)
TPH (C10-C32)
PETROLEUM HYDROCARBONS (UG/KG)
DIESEL RANGE ORGANICS
GASOLINE RANGE ORGANICS
TPH (C06-C10)

SOIL Footnotes:

-- = The chemicaUS INts:

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
METALS (MG/KG)
ANTIMONY
ARSENIC
BARIUM
BERYLLIUM
CADMIUM
CHROMIUM
COBALT
COPPER
IRON
LEAD
MANGANESE
MERCURY
MOLYBDENUM
NICKEL
SEJ T* [(M(Y)]TJ T* [(M)12(O)2(L)4(Y T* [(S7 T* [(M* [(L)4(E)-52 TD)]TJ T* (A)-5(N)5(E)-5-52 TD)]TJ T* (A)-5(N)5(EJ T* [(S)-5(EJ T* [(G)2(A)-5(N)5(E)-5(S)R)5(IH)(E)-5(A)-5(I)-6(U)5(M)]TJ T* [(C)5(V)5(U)5(R)N)2(B)-5(A)-5(U)5(M)]TJ T* [(C)5(Z)5(I)-6(UN-6(C) TD [(S)-5(A)50(MTf T* [(A)-)-6(US-4(I)-N)5(E)-5-5(I5-5(I(I)-65(D)5(E)-5(EJU-5(
AR-SEN
NICKENY

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
[redacted]

LOCATION	SB-342	SB-342	SB-342	SB-343	SB-343	SB-343	SB-344
SAMPLE ID	SB-342-0203	SB-342-0506	SB-342-0809	SB-343-0203	SB-343-0506	SB-343-0809	SB-344-0203
SAMPLE DATE	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007	11/1/2007
1,1-DICHLOROETHANE	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	--	--	--	--	--	--	--
1,1-DICHLOROPROPENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRICHLOROPROPANE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DIBROMO-3-CHLOROPROPANE	--	--	--	--	--	--	--
1,2-DIBROMOETHANE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	--	--	--	--	--	--	--
1,2-DICHLOROPROPANE	--	--	--	--	--	--	--
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-	--	--	--	--	--	--	--
1-BUTANOL	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
2-CHLOROETHYL VINYL ETHER	--	--	--	--	--	--	--
2-CHLOROTOLUENE	--	--	--	--	--	--	--
2-HEXANONE	--	--	--	--	--	--	--
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
4-CHLOROTOLUENE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	--	--	--	--	--
BENZENE	--	--	--	--	--	--	--
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE	--	--	--	--	--	--	--
BROMOBENZENE	--	--	--	--	--	--	--
BROMOCHLOROMETHANE	--	--	--	--	--	--	--
BROMODICHLOROMETHANE	--	--	--	--	--	--	--
BROMOFORM	--	--	--	--	--	--	--
BROMOMETHANE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CHLORODIBROMOMETHANE	--	--	--	--	--	--	--
CHLOROETHANE	--	--	--	--	--	--	--
CHLOROFORM	--	--	--	--	--	--	--
CHLOROMETHANE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
CIS-1,3-DICHLOROPROPENE	--	--	--	--	--	--	--
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	--	--	--	--	--	--	--
DIBROMOMETHANE	--	--	--	--	--	--	--
DICHLORODIFLUOROMETHANE	--	--	--	--	--	--	--
DIISOPROPYL ETHER	--	--	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-342 SB-342-0203 11/1/2007	SB-342 SB-342-0506 11/1/2007	SB-342 SB-342-0809 11/1/2007	SB-343 SB-343-0203 11/1/2007	SB-343 SB-343-0506 11/1/2007	SB-343 SB-343-0809 11/1/2007	SB-344 SB-344-0203 11/1/2007
TOTAL PAHS	78 [MDL=1.5]	17 [MDL=1.8]	0 U [MDL=2.1]	11 [MDL=1.6]	0 U [MDL=1.7]	0 U [MDL=1.6]	0 U [MDL=1.6]
PCBS (UG/KG)							
AROCLOR-1016	--	--	--	--	--	--	--
AROCLOR-1221	--	--	--	--	--	--	--
AROCLOR-1232	--	--	--	--	--	--	--
AROCLOR-1242	--	--	--	--	--	--	--
AROCLOR-1248	--	--	--	--	--	--	--
AROCLOR-1254	--	--	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--	--	--
TOTAL AROCLOR	--	--	--	--	--	--	--
PESTICIDES (UG/KG)							
4,4'-DDD	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--
ALDRIN	--	--	--	--	--	--	--
ALPHA-BHC	--	--	--	--	--	--	--
ALPHA-CHLORDANE	--	--	--	--	--	--	--
BETA-BHC	--	--	--	--	--	--	--
DELTA-BHC	--	--	--	--	--	--	--
DIELDRIN	--	--	--	--	--	--	--
ENDOSULFAN I	--	--	--	--	--	--	--
ENDOSULFAN II	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	--	--	--	--	--	--	--
ENDRIN	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	--	--	--	--	--	--	--
ENDRIN KETONE	--	--	--	--	--	--	--
GAMMA-BHC (LINDANE)	--	--	--	--	--	--	--
GAMMA-CHLORDANE	--	--	--	--	--	--	--
HEPTACHLOR	--	--	--	--	--	--	--
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	--	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--
ALDRIN	--	--	--	--	--	--	--
ALPHA-BHC	--	--	--	--	--	--	--
ALPHA-CHLORDANE	--	--	--	--	--	--	--
BETA-BHC	--	--	--	--	--	--	--
DELTA-BHC	--	--	--	--	--	--	--
DIELDRIN	--	--	--	--	--	--	--
ENDOSULFAN I	--	--	--	--	--	--	--
ENDOSULFAN II	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	--	--	--	--	--	--	--
ENDRIN	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	--	--	--	--	--	--	--
ENDRIN KETONE	--	--	--	--	--	--	--
GAMMA-BHC (LINDANE)	--	--	--	--	--	--	--
GAMMA-CHLORDANE	--	--	--	--	--	--	--
HEPTACHLOR	--	--	--	--	--	--	--

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
HEPTACHLOR EPOXIDE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-344	SB-344	SB-782	SB-782	SB-782	SB-782	SB-782
SAMPLE ID	SB-344-0506	SB-344-0809	D-SB-782-03	D-SB-782-05	D-SB-782-07	D-SB-782-09	D-SB-782-11
SAMPLE DATE	11/1/2007	11/1/2007	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010
4-NITROPHENOL	--	--	92 U [MDL=92]	97 U [MDL=97]	97 U [MDL=97]	96 U [MDL=96]	93 U [MDL=93]
ACENAPHTHENE	--	--	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--	--	--
ACETOPHENONE	--	--	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]
ANTHRACENE	--	--	--	--	--	--	--
ATRAZINE	--	--	10 U [MDL=10]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]
BAP EQUIVALENT-HALFND	--	--	--	--	--	--	--
BAP EQUIVALENT-POS	--	--	--	--	--	--	--
BENZALDEHYDE	--	--	14 U [MDL=14]	15 U [MDL=15]	15 U [MDL=15]	14 U [MDL=14]	14 U [MDL=14]
BENZO(A)ANTHRACENE	--	--	--	--	--	--	--
BENZO(A)PYRENE	--	--	--	--	--	--	--
BENZO(B)FLUORANTHENE	--	--	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	--	--	25 U [MDL=25]	27 U [MDL=27]	27 U [MDL=27]	26 U [MDL=26]	25 U [MDL=25]
BIS(2-CHLOROETHYL)ETHER	--	--	2.3 U [MDL=2.3]	2.4 U [MDL=2.4]	2.4 U [MDL=2.4]	2.4 U [MDL=2.4]	2.3 U [MDL=2.3]
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	59 [MDL=22]	23 U [MDL=23]	23 U [MDL=23]	23 U [MDL=23]	22 U [MDL=22]
BUTYL BENZYL PHTHALATE	--	--	11 U [MDL=11]	12 U [MDL=12]	12 U [MDL=12]	12 U [MDL=12]	12 U [MDL=12]
CAPROLACTAM	--	--	43 U [MDL=43]	45 U [MDL=45]	45 U [MDL=45]	45 U [MDL=45]	43 U [MDL=43]
CARBAZOLE	--	--	31 U [MDL=31]	33 U [MDL=33]	33 U [MDL=33]	32 U [MDL=32]	31 U [MDL=31]
CHRYSENE	--	--	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--	--	--
DIBENZOFURAN	--	--	3.8 U [MDL=3.8]	4 U [MDL=4]	4 U [MDL=4]	4 U [MDL=4]	3.8 U [MDL=3.8]
DIETHYL PHTHALATE	--	--	18 U [MDL=18]	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]
DIMETHYL PHTHALATE	--	--	20 U [MDL=20]	21 U [MDL=21]	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]
DI-N-BUTYL PHTHALATE	--	--	17 U [MDL=17]	18 U [MDL=18]	18 U [MDL=18]	18 U [MDL=18]	17 U [MDL=17]
DI-N-OCTYL PHTHALATE	--	--	31 U [MDL=31]	33 U [MDL=33]	33 U [MDL=33]	32 U [MDL=32]	31 U [MDL=31]
FLUORANTHENE	--	--	--	--	--	--	--
FLUORENE	--	--	--	--	--	--	--
HEXACHLOROBENZENE	--	--	2.4 U [MDL=2.4]	2.6 U [MDL=2.6]	2.6 U [MDL=2.6]	2.5 U [MDL=2.5]	2.4 U [MDL=2.4]
HEXACHLOROBUTADIENE	--	--	31 U [MDL=31]	33 U [MDL=33]	33 U [MDL=33]	32 U [MDL=32]	31 U [MDL=31]
HEXACHLOROCYCLOPENTADIENE	--	--	31 U [MDL=31]	33 U [MDL=33]	33 U [MDL=33]	32 U [MDL=32]	31 U [MDL=31]
HEXACHLOROETHANE	--	--	10 U [MDL=10]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	10 U [MDL=10]
INDENO(1,2,3-CD)PYRENE	--	--	--	--	--	--	--
ISOPHORONE	--	--	15 U [MDL=15]	16 U [MDL=16]	16 U [MDL=16]	16 U [MDL=16]	15 U [MDL=15]
NAPHTHALENE	--	--	--	--	--	--	--
NITROBENZENE	--	--	2.5 U [MDL=2.5]	2.7 U [MDL=2.7]	2.7 U [MDL=2.7]	2.6 U [MDL=2.6]	2.5 U [MDL=2.5]
N-NITROSODIMETHYLAMINE	--	--	18 U [MDL=18]	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]
N-NITROSO-DI-N-PROPYLAMINE	--	--	31 U [MDL=31]	33 U [MDL=33]	33 U [MDL=33]	32 U [MDL=32]	31 U [MDL=31]
N-NITROSODIPHENYLAMINE	--	--	24 U [MDL=24]	26 U [MDL=26]	26 U [MDL=26]	25 U [MDL=25]	24 U [MDL=24]
PENTACHLOROPHENOL	--	--	92 U [MDL=92]	97 U [MDL=97]	97 U [MDL=97]	96 U [MDL=96]	93 U [MDL=93]
PHENANTHRENE	--	--	--	--	--	--	--
PHENOL	--	--	31 U [MDL=31]	33 U [MDL=33]	33 U [MDL=33]	32 U [MDL=32]	31 U [MDL=31]
PYRENE	--	--	--	--	--	--	--
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE	--	--	--	--	--	--	--
1,1,1,2-TETRACHLOROETHANE	--	--	0.53 U [MDL=0.53]	0.57 U [MDL=0.57]	0.61 U [MDL=0.61]	0.51 U [MDL=0.51]	0.52 U [MDL=0.52]
1,1,1-TRICHLOROETHANE	--	--	0.48 U [MDL=0.48]	0.52 U [MDL=0.52]	0.55 U [MDL=0.55]	0.46 U [MDL=0.46]	0.47 U [MDL=0.47]
1,1,2,2-TETRACHLOROETHANE	--	--	0.29 U [MDL=0.29]	0.31 U [MDL=0.31]	0.33 U [MDL=0.33]	0.28 U [MDL=0.28]	0.28 U [MDL=0.28]
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	--	--	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]	1.3 U [MDL=1.3]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATIO[redacted]
SAMPLE [redacted]
SAMPLE [redacted]
DISILOXA[redacted]
ETHYL T[redacted]
ETHYLBE[redacted]
HEXACH[redacted]
INDANE [redacted]
ISOPROF[redacted]
M+P-XYL[redacted]
METHYL [redacted]
METHYL [redacted]
METHYL [redacted]
METHYLE[redacted]
NAPHTHA[redacted]
N-BUTYL[redacted]
N-PROPY[redacted]
O-XYLEN[redacted]
SEC-BUT[redacted]
STYRENE[redacted]
TERT-AM[redacted]
TERT-BU[redacted]
TERTIAR[redacted]
TETRACH[redacted]
TOLUENE[redacted]
[redacted]
TRANS-1[redacted]E
TRANS-1[redacted]NE
TRICHLO[redacted]
TRICHLO[redacted]E
VINYL AC[redacted]
VINYL CH[redacted]
POLYCY[redacted]ROCARBONS (UG/KG)
2-METHY[redacted]
ACENAP[redacted]
ACENAP[redacted]
ANTHRA[redacted]
BAP EQU[redacted]
BAP EQU[redacted]
BAP EQU[redacted]
BENZO(A[redacted]
BENZO(A[redacted]
BENZO(B[redacted]
BENZO(G[redacted]
BENZO(K[redacted]
CHRYSE[redacted]
DIBENZO[redacted]
FLUORAN[redacted]
FLUOREN[redacted]
INDENO([redacted]
NAPHTHA[redacted]
PHENANT[redacted]
PYRENE [redacted]

[redacted]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
HEPTACHLOR EPOXIDE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-782	SB-782	SB-782	SB-783	SB-783	SB-783	SB-783
SAMPLE ID	D-SB-782-13	D-SB-782-15	D-SS-782-01	D-SB-783-03	D-SB-783-05	D-SB-783-07	D-SB-783-09
SAMPLE DATE	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010
METALS (MG/KG)							
ANTIMONY	0.19 B [MDL=0.03]	0.072 B [MDL=0.028]	0.15 J [MDL=0.025]	0.35 J [MDL=0.13]	0.15 B [MDL=0.03]	0.31 J [MDL=0.028]	0.059 B [MDL=0.028]
ARSENIC	4.6 J [MDL=0.077]	2.6 J [MDL=0.071]	2.2 J [MDL=0.065]	5 J [MDL=0.069]	6.1 J [MDL=0.077]	9.2 J [MDL=0.074]	1.8 J [MDL=0.073]
BARIUM	20.7 [MDL=0.057]	19.2 [MDL=0.053]	40.7 [MDL=0.048]	48.1 [MDL=0.25]	8.1 [MDL=0.057]	7.8 [MDL=0.055]	8.4 [MDL=0.054]
BERYLLIUM	2.8 [MDL=0.059]	2.7 [MDL=0.054]	0.28 [MDL=0.049]	0.9 [MDL=0.052]	1.2 [MDL=0.058]	2.4 [MDL=0.056]	0.66 [MDL=0.056]
CADMIUM	0.054 J [MDL=0.0097]	0.096 J [MDL=0.009]	0.24 K [MDL=0.0081]	0.55 K [MDL=0.0086]	0.0097 UL [MDL=0.0097]	0.0093 UL [MDL=0.0093]	0.0092 UL [MDL=0.0092]
CHROMIUM	17.8 J [MDL=0.05]	13.4 J [MDL=0.046]	9 J [MDL=0.042]	14.6 J [MDL=0.044]	23.2 J [MDL=0.05]	29.5 J [MDL=0.047]	8.7 J [MDL=0.047]
COBALT	5.9 J [MDL=0.0047]	8.2 J [MDL=0.0044]	2 J [MDL=0.004]	11.8 J [MDL=0.0042]	4.3 J [MDL=0.0047]	5.1 J [MDL=0.0045]	2 J [MDL=0.0045]
COPPER	18.8 J [MDL=0.054]	6.4 J [MDL=0.05]	6 J [MDL=0.045]	17.3 J [MDL=0.048]	36.3 J [MDL=0.053]	37.6 J [MDL=0.051]	5.7 J [MDL=0.051]
IRON	19200 J [MDL=1.2]	5110 J [MDL=1.2]	7620 J [MDL=1]	19100 J [MDL=1.1]	34500 J [MDL=1.2]	45200 J [MDL=1.2]	4670 J [MDL=1.2]
LEAD	10.4 [MDL=0.016]	5.6 [MDL=0.015]	45.5 [MDL=0.014]	1010 [MDL=0.072]	4.5 [MDL=0.016]	6.2 [MDL=0.015]	3.2 [MDL=0.015]
MANGANESE	31.6 [MDL=0.059]	9.7 [MDL=0.054]	102 [MDL=0.24]	97.8 [MDL=0.052]	16.5 [MDL=0.058]	46.5 [MDL=0.056]	9.4 [MDL=0.056]
MERCURY	0.019 U [MDL=0.019]	0.017 U [MDL=0.017]	0.08 J [MDL=0.016]	0.47 [MDL=0.017]	0.019 U [MDL=0.019]	0.018 U [MDL=0.018]	0.018 U [MDL=0.018]
MOLYBDENUM	0.67 [MDL=0.079]	0.073 U [MDL=0.073]	0.45 [MDL=0.066]	0.48 [MDL=0.07]	0.52 [MDL=0.078]	0.73 [MDL=0.075]	0.075 U [MDL=0.075]
NICKEL	15.7 J [MDL=0.026]	17.6 J [MDL=0.024]	5.1 J [MDL=0.022]	18.2 J [MDL=0.023]	14.7 J [MDL=0.026]	14.4 J [MDL=0.025]	4.5 J [MDL=0.025]
SELENIUM	2 [MDL=0.11]	4.5 [MDL=0.1]	0.4 J [MDL=0.094]	1 [MDL=0.1]	0.6 J [MDL=0.11]	0.93 [MDL=0.11]	1.5 [MDL=0.11]
SILVER	0.082 J [MDL=0.02]	0.018 UL [MDL=0.018]	0.099 J [MDL=0.017]	0.25 [MDL=0.018]	0.02 UL [MDL=0.02]	0.019 UL [MDL=0.019]	0.019 UL [MDL=0.019]
THALLIUM	0.13 B [MDL=0.016]	0.14 B [MDL=0.015]	0.042 B [MDL=0.014]	0.072 U [MDL=0.072]	0.067 B [MDL=0.016]	0.05 B [MDL=0.015]	0.07 B [MDL=0.015]
VANADIUM	29.7 J [MDL=0.051]	6.6 J [MDL=0.047]	14.2 J [MDL=0.043]	24.5 J [MDL=0.045]	46 J [MDL=0.051]	65.7 J [MDL=0.049]	10.4 J [MDL=0.049]
ZINC	47 J [MDL=0.25]	46.5 J [MDL=0.23]	23.4 J [MDL=0.21]	58 J [MDL=0.22]	50.9 J [MDL=0.25]	27.7 J [MDL=0.24]	13.4 J [MDL=0.24]
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)	--	--	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	0.34 U [MDL=0.34]	0.34 J [MDL=0.31]	0.28 U [MDL=0.28]	0.86 J [MDL=0.3]	0.34 U [MDL=0.34]	0.71 J [MDL=0.32]	0.32 U [MDL=0.32]
MERCURY (METHYL) (UG/KG)	--	--	--	--	--	--	--
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL	34 U [MDL=34]	31 U [MDL=31]	28 U [MDL=28]	30 UJ [MDL=30]	34 U [MDL=34]	32 U [MDL=32]	32 U [MDL=32]
1,4-DIOXANE	27 U [MDL=27]	25 U [MDL=25]	23 U [MDL=23]	24 UJ [MDL=24]	27 U [MDL=27]	26 U [MDL=26]	26 U [MDL=26]
2,2'-OXYBIS(1-CHLOROPROPANE)	12 U [MDL=12]	11 U [MDL=11]	9.9 U [MDL=9.9]	11 UJ [MDL=11]	12 U [MDL=12]	11 U [MDL=11]	11 U [MDL=11]
2,4,5-TRICHLOROPHENOL	31 U [MDL=31]	29 U [MDL=29]	26 U [MDL=26]	28 U [MDL=28]	31 U [MDL=31]	30 U [MDL=30]	30 U [MDL=30]
2,4,6-TRICHLOROPHENOL	100 U [MDL=100]	92 U [MDL=92]	83 U [MDL=83]	89 U [MDL=89]	100 U [MDL=100]	95 U [MDL=95]	95 U [MDL=95]
2,4-DICHLOROPHENOL	25 U [MDL=25]	23 U [MDL=23]	21 U [MDL=21]	22 U [MDL=22]	25 U [MDL=25]	24 U [MDL=24]	24 U [MDL=24]
2,4-DIMETHYLPHENOL	25 U [MDL=25]	23 U [MDL=23]	21 U [MDL=21]	22 U [MDL=22]	25 U [MDL=25]	24 U [MDL=24]	24 U [MDL=24]
2,4-DINITROPHENOL	100 U [MDL=100]	92 U [MDL=92]	83 U [MDL=83]	89 U [MDL=89]	100 U [MDL=100]	95 U [MDL=95]	95 U [MDL=95]
2,4-DINITROTOLUENE	34 U [MDL=34]	31 U [MDL=31]	28 U [MDL=28]	30 UJ [MDL=30]	34 U [MDL=34]	32 U [MDL=32]	32 U [MDL=32]
2,6-DINITROTOLUENE	26 U [MDL=26]	24 U [MDL=24]	22 U [MDL=22]	23 UJ [MDL=23]	26 U [MDL=26]	25 U [MDL=25]	25 U [MDL=25]
2-CHLORONAPHTHALENE	4.1 U [MDL=4.1]	3.8 U [MDL=3.8]	3.4 U [MDL=3.4]	3.7 UJ [MDL=3.7]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
2-CHLOROPHENOL	34 U [MDL=34]	31 U [MDL=31]	28 UJ [MDL=28]	30 U [MDL=30]	34 U [MDL=34]	32 U [MDL=32]	32 U [MDL=32]
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2-METHYLPHENOL	100 U [MDL=100]	92 U [MDL=92]	83 U [MDL=83]	89 U [MDL=89]	100 U [MDL=100]	95 U [MDL=95]	95 U [MDL=95]
2-NITROANILINE	11 U [MDL=11]	10 U [MDL=10]	9.5 U [MDL=9.5]	10 UJ [MDL=10]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]
2-NITROPHENOL	34 U [MDL=34]	31 U [MDL=31]	28 U [MDL=28]	30 U [MDL=30]	34 U [MDL=34]	32 U [MDL=32]	32 U [MDL=32]
3&4-METHYLPHENOL	--	--	--	--	--	--	--
3,3'-DICHLOROBENZIDINE	22 U [MDL=22]	21 U [MDL=21]	19 U [MDL=19]	20 UJ [MDL=20]	22 U [MDL=22]	21 U [MDL=21]	21 U [MDL=21]
3-NITROANILINE	20 U [MDL=20]	18 U [MDL=18]	17 U [MDL=17]	18 UJ [MDL=18]	20 U [MDL=20]	19 U [MDL=19]	19 U [MDL=19]
4,6-DINITRO-2-METHYLPHENOL	100 U [MDL=100]	92 U [MDL=92]	83 U [MDL=83]	89 U [MDL=89]	100 U [MDL=100]	95 U [MDL=95]	95 U [MDL=95]
4-BROMOPHENYL PHENYL ETHER	16 U [MDL=16]	15 U [MDL=15]	14 U [MDL=14]	14 UJ [MDL=14]	16 U [MDL=16]	15 U [MDL=15]	15 U [MDL=15]
4-CHLORO-3-METHYLPHENOL	26 U [MDL=26]	24 U [MDL=24]	22 U [MDL=22]	23 U [MDL=23]	26 U [MDL=26]	25 U [MDL=25]	25 U [MDL=25]
4-CHLOROANILINE	21 U [MDL=21]	20 U [MDL=20]	18 U [MDL=18]	19 UJ [MDL=19]	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]
4-CHLOROPHENYL PHENYL ETHER	16 U [MDL=16]	15 U [MDL=15]	14 U [MDL=14]	14 UJ [MDL=14]	16 U [MDL=16]	15 U [MDL=15]	15 U [MDL=15]
4-METHYLPHENOL	100 U [MDL=100]	92 U [MDL=92]	83 U [MDL=83]	89 U [MDL=89]	100 U [MDL=100]	95 U [MDL=95]	95 U [MDL=95]
4-NITROANILINE	32 U [MDL=32]	30 U [MDL=30]	27 U [MDL=27]	29 UJ [MDL=29]	32 U [MDL=32]	31 U [MDL=31]	31 U [MDL=31]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
4-NITROPHENOL
ACENAPHTHENE
ACENAPHTHYLENE
ACETOPHENONE
ANTHRACENE
ATRAZINE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
BENZALDEHYDE
BENZO(A)ANTHRACENE
BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
BENZO(G,H,I)PERYLENE
BENZO(K)FLUORANTHENE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION **SAMPLE ID** **SAMPLE DATE**
DISILOXANE, HEXAMETHYL-
ETHYL TERT-BUTYL ETHER
ETHYLBENZENE
HEXACHLOROBUTADIENE
INDANE
ISOPROPYLBENZENE
M+P-XYLENES
METHYL ACETATE
METHYL CYCLOHEXANE
METHYL TERT-BUTYL ETHER
METHYLENE CHLORIDE
NAPHTHALENE
N-BUTYLBENZENE
N-PROPYLBENZENE
O-XYLENE
SEC-BUTYLBENZENE
STYRENE
TERT-AMYL METHYL ETHER
TERT-BUTYLBENZENE
TERTIARY-BUTYL ALCOHOL
TETRACHLOROETHENE
TOLUENE
TOTAL XYLENES
TRANS-1,2-DICHLOROETHENE
TRANS-1,3-DICHLOROPROPENE
TRICHLOROETHENE
TRICHLOROFLUOROMETHANE
VINYL ACETATE
VINYL CHLORIDE
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)
2-METHYLNAPHTHALENE
ACENAPHTHENE
ACENAPHTHYLENE
ANTHRACENE
BAP EQUIVHAHRACENE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
TOTAL PAHS	
PCBS (UG/KG)	
AROCLOR-1016	
AROCLOR-1221	
AROCLOR-1232	
AROCLOR-1242	
AROCLOR-1248	
AROCLOR-1254	
AROCLOR-1260	
TOTAL AROCLOR	
PESTICIDES (UG/KG)	
4,4'-DDD	
4,4'-DDE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PETROLEUM HYDROCARBONS (MG/KG)
TPH (C10-C32)
PETROLEUM HYDROCARBONS (UG/KG)
DIESEL RANGE ORGANICS
GASOLINE RANGE ORGANICS
TPH (C06-C10)

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

tioncon(b)C4) = the chee=bwas detected.

J = Tno 10)

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
4-NITROPHENOL
ACENAPHTHENE
ACENAPHTHYLENE
ACETOPHENONE
ANTHRACENE
ATRAZINE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
BENZALDEHYDE
BENZO(A)ANTHRACENE
BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
BENZO(G,H,I)PERYLENE
BENZO(K)FLUORANTHENE
BIS(2-CHLOROETHOXY)METHANE
BIS(2-CHLOROETHYL)ETHER
BIS(2-ETHYLHEXYL)PHTHALATE
BUTYL BENZYL PHTHALATE
CAPROLACTAM
CARBAZOLE
CHRYSENE
DIBENZO(A,H)ANTHRACENE
DIBENZOFURAN
DIETHYL PHTHALATE
DIMETHYL PHTHALATE
DI-N-BUTYL PHTHALATE
DI-N-OCTYL PHTHALATE
FLUORANTHENE
FLUORENE
HEXACHLOROBENZENE
HEXACHLOROBUTADIENE
HEXACHLOROCYCLOPENTADIENE
HEXACHLOROETHANE
INDENO(1,2,3-CD)PYRENE
ISOPHORONE
NAPHTHALENE
NITROBENZENE
N-NITROSODIMETHYLAMINE
N-NITROSO-DI-N-PROPYLAMINE
N-NITROSODIPHENYLAMINE

CLOPEHLE(T)-ZALDEHYD5(O)201(N)5(E)]TJ T* [(N)5(-)5(N)J T* [()-5(C)5(L)4((R)5(O)2((N)J T* [()-5(C)5(L)4((R)4(A)37(R)5(Y)(R)5(V [(N)5(-L)-6(N)450.36 -24.36L(I)-6(T)-S)4(F)-TJ T*A)-5 T* /4.36N8T)37(R)5(Y)(R)5(RC)-5 T(Y)(R)5(V [(N).)5(E)-5(N)5(E))5(E)]TJ T.1(R)5(O)E

BANCIPA1(N)5(E)]TJ T* [(N)5(-)56(N)5(D)56(N)5(D)56(N)5(D)5TJ T* [(TT)-SFENE

HEXACHLOROET6(N)5(D)56(N)5(D)56(N)* [(TT)-SR(B)-5(A)]TJ T* [(H)5(E)-5(X)25(A)-5(C)5(H)5(L)4(O)2(R)5(O)2(E)-5(T6(N)5(D)56(N)5(D)52(N)5(D)5TJ T* [(TT)-S)4(F)ENE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE
1,2,3-TRICHLOROBENZENE
1,2,3-TRICHLOROPROPANE
1,2,3-TRIMETHYLBENZENE
1,2,4-TRICHLOROBENZENE
1,2,4-TRIMETHYLBENZENE
1,2-DIBROMO-3-CHLOROPROPANE
1,2-DIBROMOETHANE

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-783**	**SB-783**	**SB-783**	**SB-783**	**SB-784**	**SB-784**	**SB-784**
SAMPLE ID	**D-SB-783-11**	**D-SB-783-13**	**D-SB-783-15**	**D-SS-783-01**	**D-SB-784-03**	**D-SB-784-05**	**D-SB-784-07**
SAMPLE DATE	**9/2/2010**	**9/2/2010**	**9/2/2010**	**9/2/2010**	**9/2/2010**	**9/2/2010**	**9/2/2010**
TOTAL PAHS	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	1951.9 [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PCBS (UG/KG)							
AROCLOR-1016	25 U [MDL=25]	26 U [MDL=26]	26 U [MDL=26]	23 U [MDL=23]	25 U [MDL=25]	26 U [MDL=26]	25 U [MDL=25]
AROCLOR-1221	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]	18 U [MDL=18]	19 U [MDL=19]	20 U [MDL=20]	19 U [MDL=19]
AROCLOR-1232	17 U [MDL=17]	17 U [MDL=17]	17 U [MDL=17]	16 U [MDL=16]	16 U [MDL=16]	17 U [MDL=17]	17 U [MDL=17]
AROCLOR-1242	15 U [MDL=15]	16 U [MDL=16]	16 U [MDL=16]	14 U [MDL=14]	15 U [MDL=15]	16 U [MDL=16]	15 U [MDL=15]
AROCLOR-1248	20 U [MDL=20]	21 U [MDL=21]	21 U [MDL=21]	19 U [MDL=19]	20 U [MDL=20]	21 U [MDL=21]	20 U [MDL=20]
AROCLOR-1254	20 U [MDL=20]	21 U [MDL=21]	21 U [MDL=21]	19 U [MDL=19]	20 U [MDL=20]	21 U [MDL=21]	20 U [MDL=20]
AROCLOR-1260	20 U [MDL=20]	21 U [MDL=21]	21 U [MDL=21]	19 U [MDL=19]	20 U [MDL=20]	21 U [MDL=21]	20 U [MDL=20]
TOTAL AROCLOR	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PESTICIDES (UG/KG)							
4,4'-DDD	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--
ALDRIN	--	--	--	--	--	--	--
ALPHA-BHC	--	--	--	--	--	--	--
ALPHA-CHLORDANE	--	--	--	--	--	--	--
BETA-BHC	--	--	--	--	--	--	--
DELTA-BHC	--	--	--	--	--	--	--
DIELDRIN	--	--	--	--	--	--	--
ENDOSULFAN I	--	--	--	--	--	--	--
ENDOSULFAN II	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	--	--	--	--	--	--	--
ENDRIN	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	--	--	--	--	--	--	--
ENDRIN KETONE	--	--	--	--	--	--	--
GAMMA-BHC (LINDANE)	--	--	--	--	--	--	--
GAMMA-CHLORDANE	--	--	--	--	--	--	--
HEPTACHLOR	--	--	--	--	--	--	--
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	--	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD	0.73 UJ [MDL=0.73]	0.75 UJ [MDL=0.75]	0.75 UJ [MDL=0.75]	3.5 U [MDL=3.5]	0.73 UJ [MDL=0.73]	3.8 UJ [MDL=3.8]	0.74 UJ [MDL=0.74]
4,4'-DDE	0.46 U [MDL=0.46]	0.47 U [MDL=0.47]	0.47 U [MDL=0.47]	7.8 J [MDL=2.2]	0.46 U [MDL=0.46]	2.4 U [MDL=2.4]	0.46 U [MDL=0.46]
4,4'-DDT	0.75 U [MDL=0.75]	0.77 U [MDL=0.77]	0.77 U [MDL=0.77]	3.5 U [MDL=3.5]	0.74 U [MDL=0.74]	3.9 U [MDL=3.9]	0.75 U [MDL=0.75]
ALDRIN	1.4 UJ [MDL=1.4]	1.5 UJ [MDL=1.5]	1.5 UJ [MDL=1.5]	6.7 U [MDL=6.7]	1.4 UJ [MDL=1.4]	7.4 U [MDL=7.4]	1.4 UJ [MDL=1.4]
ALPHA-BHC	0.86 UJ [MDL=0.86]	0.89 UJ [MDL=0.89]	0.89 UJ [MDL=0.89]	4.1 U [MDL=4.1]	0.86 UJ [MDL=0.86]	4.5 U [MDL=4.5]	0.87 UJ [MDL=0.87]
ALPHA-CHLORDANE	1.1 UJ [MDL=1.1]	1.1 UJ [MDL=1.1]	1.1 UJ [MDL=1.1]	5.2 U [MDL=5.2]	1.1 UJ [MDL=1.1]	5.8 U [MDL=5.8]	1.1 UJ [MDL=1.1]
BETA-BHC	1.3 UJ [MDL=1.3]	1.3 UJ [MDL=1.3]	1.3 UJ [MDL=1.3]	9.1 J [MDL=6.1]	1.3 UJ [MDL=1.3]	6.8 U [MDL=6.8]	1.3 UJ [MDL=1.3]
DELTA-BHC	1.4 UJ [MDL=1.4]	1.5 UJ [MDL=1.5]	1.5 UJ [MDL=1.5]	6.7 U [MDL=6.7]	1.4 UJ [MDL=1.4]	7.4 U [MDL=7.4]	1.4 UJ [MDL=1.4]
DIELDRIN	0.56 UJ [MDL=0.56]	0.57 UJ [MDL=0.57]	0.57 UJ [MDL=0.57]	2.6 U [MDL=2.6]	0.55 UJ [MDL=0.55]	2.9 U [MDL=2.9]	0.56 UJ [MDL=0.56]
ENDOSULFAN I	0.62 UJ [MDL=0.62]	0.63 UJ [MDL=0.63]	0.63 UJ [MDL=0.63]	2.9 U [MDL=2.9]	0.61 UJ [MDL=0.61]	3.2 U [MDL=3.2]	0.62 UJ [MDL=0.62]
ENDOSULFAN II	0.97 UJ [MDL=0.97]	1 UJ [MDL=1]	1 UJ [MDL=1]	4.6 U [MDL=4.6]	0.96 UJ [MDL=0.96]	5.1 U [MDL=5.1]	0.98 UJ [MDL=0.98]
ENDOSULFAN SULFATE	1 UJ [MDL=1]	1.1 UJ [MDL=1.1]	1.1 UJ [MDL=1.1]	4.8 U [MDL=4.8]	1 UJ [MDL=1]	5.4 U [MDL=5.4]	1 UJ [MDL=1]
ENDRIN	0.59 UJ [MDL=0.59]	0.61 UJ [MDL=0.61]	0.61 UJ [MDL=0.61]	2.8 U [MDL=2.8]	0.59 UJ [MDL=0.59]	3.1 U [MDL=3.1]	0.59 UJ [MDL=0.59]
ENDRIN ALDEHYDE	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]	5.6 U [MDL=5.6]	1.2 U [MDL=1.2]	6.2 U [MDL=6.2]	1.2 U [MDL=1.2]
ENDRIN KETONE	0.75 U [MDL=0.75]	0.77 U [MDL=0.77]	0.77 U [MDL=0.77]	3.5 U [MDL=3.5]	0.74 U [MDL=0.74]	3.9 U [MDL=3.9]	0.75 U [MDL=0.75]
GAMMA-BHC (LINDANE)	0.88 UJ [MDL=0.88]	0.9 UJ [MDL=0.9]	0.9 UJ [MDL=0.9]	4.1 U [MDL=4.1]	0.87 UJ [MDL=0.87]	4.6 U [MDL=4.6]	0.88 UJ [MDL=0.88]
GAMMA-CHLORDANE	0.5 UJ [MDL=0.5]	0.51 UJ [MDL=0.51]	0.51 UJ [MDL=0.51]	2.3 U [MDL=2.3]	0.49 UJ [MDL=0.49]	2.6 U [MDL=2.6]	0.5 UJ [MDL=0.5]
HEPTACHLOR	1.3 UJ [MDL=1.3]						

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
METALS (MG/KG)
ANTIMONY
ARSENIC
BARIUM
BERYLLIUM
CADMIUM
CHROMIUM
COBALT
COPPER
IRON
LEAD
MANGANESE
MERCURY
MOLYBDENUM
NICKEL
SELENIUM
SILVER
THALLIUM
VANADIUM
ZINC
MISCELLANEOUS PARAMETERS
PERCENT SOLIDS (%)
HEXAVALENT CHROMIUM (MG/KG)
MERCURY (METHYL) (UG/KG)
SEMIVOLATILES (UG/KG)
1,1-BIPHENYL
1,4-DIOXANE
2,2'-OXYBIS(1-CHLOROPROPANE)
2,4,5-TRICHLOROPHENOL
2,4,6-TRICHLOROPHENOL
2,4-DICHLOROPHENOL
2,4-DIMETHYLPHENOL
2,4-DINITROPHENOL
2,4-DINITROTOLUENE
2,6-DINITROTOLUENE
2-CHLORONAPHTHALENE
2-CHLOROPHENOL
2-METHYLNAPHTHALENE
2-METHYLPHENOL
2-NITROANILINE
2-NITROPHENOL
3&4-METHYLPHENOL
3,3'-DICHLOROBENZIDINE
3-NITROANILINE
4,6-DINITRO-2-METHYLPHENOL
4-BROMOPHENYL PHENYL ETHER
4-CHLORO-3-METHYLPHENOL
4-CHLOROANILINE
4-CHLOROPHENYL PHENYL ETHER
4-METHYLPHENOL
4-NITROANILINE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE
1,2,3-TRICHLOROBENZENE
1,2,3-TRICHLOROPROPANE
1,2,3-TRIMETHYLBENZENE
1,2,4-TRICHLOROBENZENE
1,2,4-TRIMETHYLBENZENE
1,2-DIBROMO-3-CHLOROPROPANE
1,2-DIBROMOETHANE
1,2-DICHLOROBENZENE
1,2-DICHLOROETHANE
1,2-DICHLOROPROPANE
1,3,5-TRIMETHYLBENZENE
1,3-DICHLOROBENZENE
1,3-DICHLOROPROPANE
1,4-DICHLOROBENZENE
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-
1-BUTANOL
1-METHYLNAPHTHALENE
2,2-DICHLOROPROPANE
2-BUTANONE
2-CHLOROETHYL VINYL ETHER
2-CHLOROTOLUENE
2-HEXANONE
2-METHYLNAPHTHALENE
4-CHLOROTOLUENE
4-ISOPROPYLTOLUENE
4-METHYL-2-PENTANONE
ACETONE
BENZENE
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE
BROMOBENZENE
BROMOCHLOROMETHANE
BROMODICHLOROMETHANE
BROMOFORM
BROMOMETHANE
CARBON DISULFIDE
CARBON TETRACHLORIDE
CHLOROBENZENE
CHLORODIBROMOMETHANE
CHLOROETHANE
CHLOROFORM
CHLOROMETHANE
CIS-1,2-DICHLOROETHENE
[redacted]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
DISILOXANE, HEXAMETHYL-
ETHYL TERT-BUTYL ETHER
ETHYLBENZENE
HEXACHLOROBUTADIENE
INDANE
ISOPROPYLBENZENE
M+P-XYLENES
METHYL ACETATE
METHYL CYCLOHEXANE
METHYL TERT-BUTYL ETHER
METHYLENE CHLORIDE
NAPHTHALENE
N-BUTYLBENZENE
N-PROPYLBENZENE
O-XYLENE
SEC-BUTYLBENZENE
STYRENE
TERT-AMYL METHYL ETHER
TERT-BUTYLBENZENE
TERTIARY-BUTYL ALCOHOL
TETRACHLOROETHENE
TOLUENE
TOTAL XYLENES
TRANS-1,2-DICHLOROETHENE
TRANS-1,3-DICHLOROPROPENE
TRICHLOROETHENE
TRICHLOROFLUOROMETHANE
VINYL ACETATE
VINYL CHLORIDE
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)
2-METHYLNAPHTHALENE
ACENAPHTHENE
ACENAPHTHYLENE
ANTHRACENE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
BAP EQUIVALENT-UCL
BENZO(A)ANTHRACENE
BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
BENZO(G,H,I)PERYLENE
BENZO(K)FLUORANTHENE
CHRYSENE
DIBENZO(A,H)ANTHRACENE
FLUORANTHENE
FLUORENE
INDENO(1,2,3-TENENE

-5(8.5(A95(E)-5N)5(E)]E)]1.]TJ T* [(F)-1(L)4(U)5(O)2(R)5(E)-5(N)5(E)]TJ T* [(I)-6(N)5(D)5(E)-5(N)5(O)2(()5(1)4(,)-6(2)4(,)8-5(C)5(O)2(R)5(Od1(N)5(D)]TJ T*71.51 Z)-Od1(N)5(D)]TJ T*71.51 ZND

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-784	SB-784	SB-784	SB-784	SB-784	SB-785	SB-785
SAMPLE ID	D-SB-784-09	D-SB-784-11	D-SB-784-13	D-SB-784-15	D-SS-784-01	D-SB-785-03	D-SB-785-05
SAMPLE DATE	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/3/2010	9/3/2010
HEPTACHLOR EPOXIDE	0.91 U [MDL=0.91]	0.94 U [MDL=0.94]	0.93 U [MDL=0.93]	0.99 U [MDL=0.99]	0.88 UJ [MDL=0.88]	48 UJ [MDL=48]	0.97 UJ [MDL=0.97]
METHOXYCHLOR	1.7 U [MDL=1.7]	1.8 U [MDL=1.8]	1.7 U [MDL=1.7]	1.8 U [MDL=1.8]	1.7 U [MDL=1.7]	90 U [MDL=90]	1.8 U [MDL=1.8]
TOXAPHENE	22 U [MDL=22]	22 U [MDL=22]	22 U [MDL=22]	23 U [MDL=23]	21 U [MDL=21]	1100 U [MDL=1100]	23 U [MDL=23]
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS	3200 U [MDL=3.2]	3300 U [MDL=3.3]	3300 U [MDL=3.3]	3500 U [MDL=3.5]	8600 J [MDL=3.1]	73000 [MDL=3.4]	4700 J [MDL=3.4]
GASOLINE RANGE ORGANICS	52 U [MDL=52]	54 U [MDL=54]	54 U [MDL=54]	57 U [MDL=57]	51 U [MDL=51]	55 U [MDL=55]	56 U [MDL=56]
TPH (C06-C10)	--	--	--	--	--	--	--

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

U = The chemical was not detected.

< = The chemical was not detected.

R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-785	SB-785	SB-785	SB-785	SB-785	SB-785	SB-786
SAMPLE ID	D-SB-785-07	D-SS-785-01	D-SB-785-09	D-SB-785-11	D-SB-785-13	D-SB-785-15	D-SB-786-03
SAMPLE DATE	9/3/2010	9/3/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/3/2010
METALS (MG/KG)							
ANTIMONY	0.065 J [MDL=0.03]	0.063 J [MDL=0.026]	0.13 J [MDL=0.029]	0.28 J [MDL=0.028]	0.12 J [MDL=0.029]	0.28 J [MDL=0.028]	0.16 J [MDL=0.028]
ARSENIC	3.2 [MDL=0.078]	1.6 [MDL=0.067]	3.6 L [MDL=0.076]	3.2 L [MDL=0.073]	3.1 L [MDL=0.075]	3.8 L [MDL=0.072]	3.9 [MDL=0.073]
BARIUM	6.1 J [MDL=0.058]	4.1 J [MDL=0.05]	10.7 J [MDL=0.056]	12.7 J [MDL=0.054]	15.1 J [MDL=0.056]	10.9 J [MDL=0.054]	20.2 J [MDL=0.054]
BERYLLIUM	1.2 [MDL=0.059]	0.065 J [MDL=0.051]	4.8 J [MDL=0.057]	6.4 J [MDL=0.056]	4.6 J [MDL=0.057]	4.5 J [MDL=0.055]	2.4 [MDL=0.055]
CADMIUM	0.022 J [MDL=0.0098]	0.0084 UL [MDL=0.0084]	0.01 B [MDL=0.0095]	0.0092 U [MDL=0.0092]	0.12 K [MDL=0.0095]	0.013 B [MDL=0.0091]	0.091 J [MDL=0.0092]
CHROMIUM	15 [MDL=0.05]	14.2 [MDL=0.043]	14.9 J [MDL=0.049]	28.8 J [MDL=0.047]	23.2 J [MDL=0.049]	28.7 J [MDL=0.047]	18.5 [MDL=0.047]
COBALT	4.7 [MDL=0.0048]	0.65 [MDL=0.0041]	15.6 [MDL=0.0046]	8 [MDL=0.0045]	13.7 [MDL=0.0046]	8.6 [MDL=0.0044]	13.2 [MDL=0.0045]
COPPER	8.9 J [MDL=0.054]	5.1 J [MDL=0.047]	89.7 [MDL=0.052]	23.5 [MDL=0.051]	56.2 [MDL=0.052]		
IRON							
LEAD							
MANGANESE							
MERCURY							
MOLYBDENUM							
NICKEL							
SELENIUM							
SILVER							
THALLIUM							
VANADIUM							
ZINC							
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)							
HEXAVALENT CHROMIUM (MG/KG)							
MERCURY (METHYL) (UG/KG)							
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL							
1,4-DIOXANE							
2,2'-OXYBIS(1-CHLOROPROPANE)							
2,4,5-TRICHLOROPHENOL							
2,4,6-TRICHLOROPHENOL							
2,4-DICHLOROPHENOL							
2,4-DIMETHYLPHENOL							
2,4-DINITROPHENOL							
2,4-DINITROTOLUENE							
2,6-DINITROTOLUENE							
2-CHLORONAPHTHALENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE							
2-METHYLPHENOL							
2-NITROANILINE							
2-NITROPHENOL							
3&4-METHYLPHENOL							
3,3'-DICHLOROBENZIDINE							
3-NITROANILINE							
4,6-DINITRO-2-METHYLPHENOL							
4-BROMOPHENYL PHENYL ETHER							
4-CHLORO-3-METHYLPHENOL							
4-CHLOROANILINE							
4-CHLOROPHENYL PHENYL ETHER							
4-METHYLPHENOL							
4-NITROANILINE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
4-NITROPHENOL
ACENAPHTHENE
ACENAPHTHYLENE
ACETOPHENONE
ANTHRACENE
ATRAZINE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
BENZALDEHYDE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-785	SB-785	SB-785	SB-785	SB-785	SB-785	SB-786
SAMPLE ID	D-SB-785-07	D-SS-785-01	D-SB-785-09	D-SB-785-11	D-SB-785-13	D-SB-785-15	D-SB-786-03
SAMPLE DATE	9/3/2010	9/3/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/3/2010
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,1-DICHLOROPROPENE							
1,2,3-TRICHLOROBENZENE							
1,2,3-TRICHLOROPROPANE							
1,2,3-TRIMETHYLBENZENE							
1,2,4-TRICHLOROBENZENE							
1,2,4-TRIMETHYLBENZENE							
1,2-DIBROMO-3-CHLOROPROPANE							
1,2-DIBROMOETHANE							
1,2-DICHLOROBENZENE							
1,2-DICHLOROETHANE							
1,2-DICHLOROPROPANE							
1,3,5-TRIMETHYLBENZENE							
1,3-DICHLOROBENZENE							
1,3-DICHLOROPROPANE							
1,4-DICHLOROBENZENE							
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-							
1-BUTANOL							
1-METHYLNAPHTHALENE							
2,2-DICHLOROPROPANE							
2-BUTANONE							
2-CHLOROETHYL VINYL ETHER							
2-CHLOROTOLUENE							
2-HEXANONE							
2-METHYLNAPHTHALENE							
4-CHLOROTOLUENE							
4-ISOPROPYLTOLUENE							
4-METHYL-2-PENTANONE							
ACETONE							
BENZENE							
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE							
BROMOBENZENE							
BROMOCHLOROMETHANE							
BROMODICHLOROMETHANE							
BROMOFORM							
BROMOMETHANE							
CARBON DISULFIDE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLORODIBROMOMETHANE							
CHLOROETHANE							
CHLOROFORM							
CHLOROMETHANE							
CIS-1,2-DICHLOROETHENE							
CIS-1,3-DICHLOROPROPENE							
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (							
DIBROMOMETHANE							
DICHLORODIFLUOROMETHANE							
DIISOPROPYL ETHER							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-785	SB-785	SB-785	SB-785	SB-785	SB-785	SB-786
SAMPLE ID	D-SB-785-07	D-SS-785-01	D-SB-785-09	D-SB-785-11	D-SB-785-13	D-SB-785-15	D-SB-786-03
SAMPLE DATE	9/3/2010	9/3/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/3/2010
HEPTACHLOR EPOXIDE	1 UJ [MDL=1]	8.7 UJ [MDL=8.7]	0.98 U [MDL=0.98]	0.95 U [MDL=0.95]	0.97 U [MDL=0.97]	0.93 U [MDL=0.93]	9.4 UJ [MDL=9.4]
METHOXYCHLOR	1.9 U [MDL=1.9]	16 U [MDL=16]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	
TOXAPHENE							
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)							
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS							
GASOLINE RANGE ORGANICS							
TPH (C06-C10)							

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

U = The chemical was not detected.

< = The chemical was not detected.

R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-786	SB-786	SB-786	SB-786	SB-786	SB-786	SB-786
SAMPLE ID							
SAMPLE DATE							
4-NITROPHENOL							
ACENAPHTHENE							
ACENAPHTHYLENE							
ACETOPHENONE							
ANTHRACENE							
ATRAZINE							
BAP EQUIVALENT-HALFND							
BAP EQUIVALENT-POS							
BENZALDEHYDE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
BIS(2-CHLOROETHOXY)METHANE							
BIS(2-CHLOROETHYL)ETHER							
BIS(2-ETHYLHEXYL)PHTHALATE							
BUTYL BENZYL PHTHALATE							
CAPROLACTAM							
CARBAZOLE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
DIBENZOFURAN							
DIETHYL PHTHALATE							
DIMETHYL PHTHALATE							
DI-N-BUTYL PHTHALATE							
DI-N-OCTYL PHTHALATE							
FLUORANTHENE							
FLUORENE							
HEXACHLOROBENZENE							
HEXACHLOROBUTADIENE							
HEXACHLOROCYCLOPENTADIENE							
HEXACHLOROETHANE							
INDENO(1,2,3-CD)PYRENE							
ISOPHORONE							
NAPHTHALENE							
NITROBENZENE							
N-NITROSODIMETHYLAMINE							
N-NITROSO-DI-N-PROPYLAMINE							
N-NITROSODIPHENYLAMINE							
PENTACHLOROPHENOL							
PHENANTHRENE							
PHENOL							
PYRENE							
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE							
1,1,1,2-TETRACHLOROETHANE							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1,2-TRICHLOROTRIFLUOROETHANE							

APPENDIX C

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-787	SB-787	SB-787	SB-787	SB-787	SB-787	SB-787
SAMPLE ID	D-SB-787-07	D-SS-787-01					
SAMPLE DATE							
METALS (MG/KG)							
ANTIMONY							
ARSENIC							
BARIUM							
BERYLLIUM							
CADMIUM							
CHROMIUM							
COBALT							
COPPER							
IRON							
LEAD							
MANGANESE							
MERCURY							
MOLYBDENUM							
NICKEL							
SELENIUM							
SILVER							
THALLIUM							
VANADIUM							
ZINC							
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)							
HEXAVALENT CHROMIUM (MG/KG)							
MERCURY (METHYL) (UG/KG)							
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL							
1,4-DIOXANE							
2,2'-OXYBIS(1-CHLOROPROPANE)							
2,4,5-TRICHLOROPHENOL							
2,4,6-TRICHLOROPHENOL							
2,4-DICHLOROPHENOL							
2,4-DIMETHYLPHENOL							
2,4-DINITROPHENOL							
2,4-DINITROTOLUENE							
2,6-DINITROTOLUENE							
2-CHLORONAPHTHALENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE							
2-METHYLPHENOL							
2-NITROANILINE							
2-NITROPHENOL							
3&4-METHYLPHENOL							
3,3'-DICHLOROBENZIDINE							
3-NITROANILINE							
4,6-DINITRO-2-METHYLPHENOL							
4-BROMOPHENYL PHENYL ETHER							
4-CHLORO-3-METHYLPHENOL							
4-CHLOROANILINE							
4-CHLOROPHENYL PHENYL ETHER							
4-METHYLPHENOL							
4-NITROANILINE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-787	SB-787	SB-787	SB-787	SB-787	SB-787	SB-787
SAMPLE ID	D-SB-787-07	D-SS-787-01	D-SB-787-03	D-SB-787-05	D-SB-787-09	D-SB-787-11	D-SB-787-13
SAMPLE DATE	9/3/2010	9/3/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010
DISILOXANE, HEXAMETHYL-	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	0.2 U [MDL=0.2]	0.2 U [MDL=0.2]	0.17 U [MDL=0.17]	0.21 U [MDL=0.21]	0.19 U [MDL=0.19]	0.18 U [MDL=0.18]	0.18 U [MDL=0.18]
ETHYLBENZENE	0.23 U [MDL=0.23]	0.24 U [MDL=0.24]	0.2 U [MDL=0.2]	0.24 U [MDL=0.24]	0.22 U [MDL=0.22]	0.21 U [MDL=0.21]	0.22 U [MDL=0.22]
HEXACHLOROBUTADIENE	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	0.93 U [MDL=0.93]	1.1 U [MDL=1.1]	1 U [MDL=1]	0.97 U [MDL=0.97]	1 U [MDL=1]
INDANE	--	--	--	--	--	--	--
ISOPROPYLBENZENE	0.14 U [MDL=0.14]	0.15 U [MDL=0.15]	0.12 U [MDL=0.12]	0.15 U [MDL=0.15]	0.14 U [MDL=0.14]	0.13 U [MDL=0.13]	0.13 U [MDL=0.13]
M+P-XYLENES	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	0.93 U [MDL=0.93]	1.1 U [MDL=1.1]	1 U [MDL=1]	0.97 U [MDL=0.97]	1 U [MDL=1]
METHYL ACETATE	--	--	--	--	--	--	--
METHYL CYCLOHEXANE	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	0.38 U [MDL=0.38]	0.39 U [MDL=0.39]	0.33 UJ [MDL=0.33]	0.4 UJ [MDL=0.4]	0.37 UJ [MDL=0.37]	0.35 UJ [MDL=0.35]	0.36 UJ [MDL=0.36]
METHYLENE CHLORIDE	3.1 B [MDL=0.6]	2.8 B [MDL=0.61]	0.52 U [MDL=0.52]	0.63 U [MDL=0.63]	0.57 U [MDL=0.57]	0.54 U [MDL=0.54]	0.56 U [MDL=0.56]
NAPHTHALENE	0.92 B [MDL=0.17]	1.7 B [MDL=0.17]	0.99 B [MDL=0.15]	0.92 B [MDL=0.18]	0.78 B [MDL=0.16]	0.76 B [MDL=0.15]	0.77 B [MDL=0.16]
N-BUTYLBENZENE	0.21 U [MDL=0.21]	0.21 U [MDL=0.21]	0.18 U [MDL=0.18]	0.22 U [MDL=0.22]	0.2 U [MDL=0.2]	0.19 U [MDL=0.19]	0.19 U [MDL=0.19]
N-PROPYLBENZENE	0.36 U [MDL=0.36]	0.37 U [MDL=0.37]	0.31 U [MDL=0.31]	0.37 U [MDL=0.37]	0.34 U [MDL=0.34]	0.32 U [MDL=0.32]	0.34 U [MDL=0.34]
O-XYLENE	0.31 U [MDL=0.31]	0.32 U [MDL=0.32]	0.27 U [MDL=0.27]	0.33 U [MDL=0.33]	0.3 U [MDL=0.3]	0.28 U [MDL=0.28]	0.29 U [MDL=0.29]
SEC-BUTYLBENZENE	0.16 U [MDL=0.16]	0.16 U [MDL=0.16]	0.14 U [MDL=0.14]	0.17 U [MDL=0.17]	0.15 U [MDL=0.15]	0.15 U [MDL=0.15]	0.15 U [MDL=0.15]
STYRENE	0.13 U [MDL=0.13]	0.14 U [MDL=0.14]	0.12 U [MDL=0.12]	0.14 U [MDL=0.14]	0.13 U [MDL=0.13]	0.12 U [MDL=0.12]	0.13 U [MDL=0.13]
TERT-AMYL METHYL ETHER	0.33 U [MDL=0.33]	0.34 U [MDL=0.34]	0.29 UJ [MDL=0.29]	0.35 UJ [MDL=0.35]	0.32 UJ [MDL=0.32]	0.3 UJ [MDL=0.3]	0.31 UJ [MDL=0.31]
TERT-BUTYLBENZENE	0.26 U [MDL=0.26]	0.27 U [MDL=0.27]	0.23 U [MDL=0.23]	0.27 U [MDL=0.27]	0.25 U [MDL=0.25]	0.23 U [MDL=0.23]	0.24 U [MDL=0.24]
TERTIARY-BUTYL ALCOHOL	47 B [MDL=6.8]	48 B [MDL=7]	42 B [MDL=5.9]	56 B [MDL=7.1]	48 B [MDL=6.5]	6.2 UR [MDL=6.2]	45 B [MDL=6.4]
TETRACHLOROETHENE	0.46 U [MDL=0.46]	0.48 U [MDL=0.48]	0.4 U [MDL=0.4]	0.49 U [MDL=0.49]	0.45 U [MDL=0.45]	0.42 U [MDL=0.42]	0.44 U [MDL=0.44]
TOLUENE	0.24 U [MDL=0.24]	0.25 U [MDL=0.25]	0.26 J [MDL=0.21]	0.25 U [MDL=0.25]	0.23 U [MDL=0.23]	0.22 U [MDL=0.22]	0.23 U [MDL=0.23]
TOTAL XYLENES	0.6 U [MDL=0.6]	0.61 U [MDL=0.61]	0.52 U [MDL=0.52]	0.63 U [MDL=0.63]	0.57 U [MDL=0.57]	0.54 U [MDL=0.54]	0.56 U [MDL=0.56]
TRANS-1,2-DICHLOROETHENE	0.37 U [MDL=0.37]	0.38 U [MDL=0.38]	0.32 U [MDL=0.32]	0.38 U [MDL=0.38]	0.35 U [MDL=0.35]	0.33 U [MDL=0.33]	0.34 U [MDL=0.34]
TRANS-1,3-DICHLOROPROPENE	0.48 U [MDL=0.48]	0.49 U [MDL=0.49]	0.42 U [MDL=0.42]	0.5 U [MDL=0.5]	0.46 U [MDL=0.46]	0.44 U [MDL=0.44]	0.45 U [MDL=0.45]
TRICHLOROETHENE	0.37 U [MDL=0.37]	0.38 U [MDL=0.38]	0.33 U [MDL=0.33]	0.39 U [MDL=0.39]	0.36 U [MDL=0.36]	0.34 U [MDL=0.34]	0.35 U [MDL=0.35]
TRICHLOROFLUOROMETHANE	0.3 U [MDL=0.3]	0.31 U [MDL=0.31]	0.26 U [MDL=0.26]	0.32 U [MDL=0.32]	0.29 U [MDL=0.29]	0.28 U [MDL=0.28]	0.29 U [MDL=0.29]
VINYL ACETATE	0.22 U [MDL=0.22]	0.23 U [MDL=0.23]	0.19 U [MDL=0.19]	0.23 U [MDL=0.23]	0.21 U [MDL=0.21]	0.2 U [MDL=0.2]	0.21 U [MDL=0.21]
VINYL CHLORIDE	0.35 U [MDL=0.35]	0.36 U [MDL=0.36]	0.3 U [MDL=0.3]	0.36 U [MDL=0.36]	0.33 U [MDL=0.33]	0.32 U [MDL=0.32]	0.33 U [MDL=0.33]
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)							
2-METHYLNAPHTHALENE	4 U [MDL=4]	3.8 U [MDL=3.8]	50 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
ACENAPHTHENE	4 U [MDL=4]	11 [MDL=3.8]	230 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
ACENAPHTHYLENE	4 U [MDL=4]	3.8 U [MDL=3.8]	7.5 U [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
ANTHRACENE	4 U [MDL=4]	20 [MDL=3.8]	430 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
BAP EQUIVALENT-HALFND	4 U [MDL=NaN]	72.364 [MDL=NaN]	771.78 [MDL=NaN]	4.2 U [MDL=NaN]	3.9 U [MDL=NaN]	3.8 U [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-POS	4 U [MDL=NaN]	72.364 [MDL=NaN]	771.78 [MDL=NaN]	4.2 U [MDL=NaN]	3.9 U [MDL=NaN]	3.8 U [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	4 U [MDL=4]	49 [MDL=3.8]	720 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
BENZO(A)PYRENE	4 U [MDL=4]	40 [MDL=3.8]	520 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
BENZO(B)FLUORANTHENE	4 U [MDL=4]	58 [MDL=3.8]	680 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
BENZO(G,H,I)PERYLENE	4 U [MDL=4]	26 [MDL=3.8]	250 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
BENZO(K)FLUORANTHENE	4 U [MDL=4]	22 [MDL=3.8]	310 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
CHRYSENE	1.3 U [MDL=1.3]	44 [MDL=1.3]	680 [MDL=2.5]	1.4 U [MDL=1.4]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	4 U [MDL=4]	19 [MDL=3.8]	85 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
FLUORANTHENE	4 U [MDL=4]	93 [MDL=3.8]	1700 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
FLUORENE	4 U [MDL=4]	9.8 [MDL=3.8]	230 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
INDENO(1,2,3-CD)PYRENE	4 U [MDL=4]	24 [MDL=3.8]	230 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
NAPHTHALENE	4 U [MDL=4]	3.8 U [MDL=3.8]	75 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
PHENANTHRENE	4 U [MDL=4]	53 [MDL=3.8]	1600 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]
PYRENE	4 U [MDL=4]	73 [MDL=3.8]	1100 [MDL=7.5]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-787	SB-787	SB-787	SB-787	SB-787	SB-787	SB-787
SAMPLE ID	D-SB-787-07	D-SS-787-01	D-SB-787-03	D-SB-787-05	D-SB-787-09	D-SB-787-11	D-SB-787-13
SAMPLE DATE	9/3/2010	9/3/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010
TOTAL PAHS	0 U [MDL=NaN]	541.8 [MDL=NaN]	8890 [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PCBS (UG/KG)							
AROCLOR-1016	26 U [MDL=26]	24 U [MDL=24]	24 U [MDL=24]	27 U [MDL=27]	25 U [MDL=25]	24 U [MDL=24]	25 U [MDL=25]
AROCLOR-1221	20 U [MDL=20]	19 U [MDL=19]	18 U [MDL=18]	20 U [MDL=20]	19 U [MDL=19]	18 U [MDL=18]	19 U [MDL=19]
AROCLOR-1232	17 U [MDL=17]	16 U [MDL=16]	16 U [MDL=16]	18 U [MDL=18]	17 U [MDL=17]	16 U [MDL=16]	16 U [MDL=16]
AROCLOR-1242	16 U [MDL=16]	15 U [MDL=15]	15 U [MDL=15]	17 U [MDL=17]	15 U [MDL=15]	15 U [MDL=15]	15 U [MDL=15]
AROCLOR-1248	21 U [MDL=21]	20 U [MDL=20]	19 U [MDL=19]	22 U [MDL=22]	20 U [MDL=20]	19 U [MDL=19]	20 U [MDL=20]
AROCLOR-1254	21 U [MDL=21]	20 U [MDL=20]	19 U [MDL=19]	22 U [MDL=22]	20 U [MDL=20]	19 U [MDL=19]	20 U [MDL=20]
AROCLOR-1260	21 U [MDL=21]	20 U [MDL=20]	19 U [MDL=19]	22 U [MDL=22]	20 U [MDL=20]	19 U [MDL=19]	20 U [MDL=20]
TOTAL AROCLOR	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PESTICIDES (UG/KG)							
4,4'-DDD	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--
ALDRIN	--	--	--	--	--	--	--
ALPHA-BHC	--	--	--	--	--	--	--
ALPHA-CHLORDANE	--	--	--	--	--	--	--
BETA-BHC	--	--	--	--	--	--	--
DELTA-BHC	--	--	--	--	--	--	--
DIELDRIN	--	--	--	--	--	--	--
ENDOSULFAN I	--	--	--	--	--	--	--
ENDOSULFAN II	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	--	--	--	--	--	--	--
ENDRIN	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	--	--	--	--	--	--	--
ENDRIN KETONE	--	--	--	--	--	--	--
GAMMA-BHC (LINDANE)	--	--	--	--	--	--	--
GAMMA-CHLORDANE	--	--	--	--	--	--	--
HEPTACHLOR	--	--	--	--	--	--	--
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	--	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD	0.76 U [MDL=0.76]	0.72 U [MDL=0.72]	0.71 UJ [MDL=0.71]	0.79 UJ [MDL=0.79]	0.74 UJ [MDL=0.74]	0.71 UJ [MDL=0.71]	0.72 UJ [MDL=0.72]
4,4'-DDE	0.48 UJ [MDL=0.48]	0.45 UJ [MDL=0.45]	0.45 U [MDL=0.45]	0.5 U [MDL=0.5]		0.5 U [MMDL=0..76]	0.72 [
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-787	SB-787	SB-787	SB-787	SB-787	SB-787	SB-787
SAMPLE ID	D-SB-787-07	D-SS-787-01	D-SB-787-03	D-SB-787-05	D-SB-787-09	D-SB-787-11	D-SB-787-13
SAMPLE DATE	9/3/2010	9/3/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010
HEPTACHLOR EPOXIDE							
METHOXYCHLOR							
TOXAPHENE							
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)							
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS							
GASOLINE RANGE ORGANICS							
TPH (C06-C10)							

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

U = The chemical was not detected.

< = The chemical was not detected.

R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
METALS (MG/KG)
ANTIMONY
ARSENIC
BARIUM
BERYLLIUM
CADMIUM
CHROMIUM
COBALT
COPPER
IRON
LEAD
MANGANESE
MERCURY
MOLYBDENUM
NICKEL
SB[(M)12(A)-5(N)5(G)2ESE
5(G)2ESE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE

MNH

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE
1,2,3-TRICHLOROBENZENE
1,2,3-TRICHLOROPROPANE
1[redacted]3-TRIMETHYLBENZENE
1[redacted]4-TRICHLOROBENZENE
1[redacted]4-TRIMETHYLBENZENE
1[redacted]-DIBROMO-3-CHLOROPROPANE
1[redacted]-DIBROMOETHANE
1[redacted]-DICHLOROBENZENE
1[redacted]-DICHLOROETHANE
1[redacted]-DICHLOROPROPANE
1[redacted]5-TRIMETHYLBENZENE
1[redacted]-DICHLOROBENZENE
1[redacted]-DICHLOROPROPANE
1[redacted]-DICHLOROBENZENE
1[redacted]-METHANONAPHTHALENE, 1,4-DIHYDRO-
1[redacted]UTANOL
1[redacted]ETHYLNAPHTHALENE
2[redacted]-DICHLOROPROPANE
2[redacted]UTANONE
2[redacted]HLOROETHYL VINYL ETHER
2[redacted]HLOROTOLUENE
2[redacted]EXANONE
2[redacted]ETHYLNAPHTHALENE
4[redacted]HLOROTOLUENE
4[redacted]SOPROPYLTOLUENE
4[redacted]ETHYL-2-PENTANONE
A[redacted]ETONE
B[redacted]NZENE
B[redacted]YCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE
B[redacted]OMOBENZENE
B[redacted]OMOCHLOROMETHANE
B[redacted]OMODICHLOROMETHANE
B[redacted]OMOFORM
B[redacted]OMOMETHANE
C[redacted]RBON DISULFIDE
C[redacted]RBON TETRACHLORIDE
C[redacted]LOROBENZENE
C[redacted]LORODIBROMOMETHANE
C[redacted]LOROETHANE
C[redacted]LOROFORM
C[redacted]LOROMETHANE
C[redacted]-1,2-DICHLOROETHENE
C[redacted]-1,3-DICHLOROPROPENE
C[redacted]CLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (
D[redacted]ROMOMETHANE
D[redacted]HLORODIFLUOROMETHANE
D[redacted]SOPROPYL ETHER

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
TOTAL PAHS	
PCBS (UG/KG)	
AROCLOR-1016	
AROCLOR-1221	
AROCLOR-1232	
AROCLOR-1242	
AROCLOR-1248	
AROCLOR-1254	
AROCLOR-1260	
TOTAL AROCLOR	
PESTICIDES (UG/KG)	
4,4'-DDD	
4,4'-DDE	
4,4'-DDT	
ALDRIN	
ALPHA-BHC	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PETROLEUM HYDROCARBONS (MG/KG)
TPH (C10-C32)
PETROLEUM HYDROCARBONS (UG/KG)
DIESEL RANGE ORGANICS
GASOLINE RANGE ORGANICS
TPH (C06-C10)

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank .

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
4-NITROPHENOL	
ACENAPHTHENE	
ACENAPHTHYLENE	
ACETOPHENONE	
ANTHRACENE	
ATRAZINE	
BAP EQUIVALENT-HALFND	
BAP EQUIVALENT-POS	
BENZALDEHYDE	
BENZO(A)ANTHRACENE	
BENZO(A)PYRENE	
BENZO(B)FLUORANTHENE	
BENZO(G,H,I)PERYLENE	
BENZO(K)FLUORANTHENE	
BIS(2-CHLOROETHOXY)METHANE	
BIS(2-CHLOROETHYL)ETHER	
BIS(2-ETHYLHEXYL)PHTHALATE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-788	SB-788	SB-789	SB-789	SB-789	SB-789	SB-789
SAMPLE ID	D-SB-788-15						
SAMPLE DATE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,1-DICHLOROPROPENE							
1,2,3-TRICHLOROBENZENE							
1,2,3-TRICHLOROPROPANE							
1,2,3-TRIMETHYLBENZENE							
1,2,4-TRICHLOROBENZENE							
1,2,4-TRIMETHYLBENZENE							
1,2-DIBROMO-3-CHLOROPROPANE							
1,2-DIBROMOETHANE							
1,2-DICHLOROBENZENE							
1,2-DICHLOROETHANE							
1,2-DICHLOROPROPANE							
1,3,5-TRIMETHYLBENZENE							
1,3-DICHLOROBENZENE							
1,3-DICHLOROPROPANE							
1,4-DICHLOROBENZENE							
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-							
1-BUTANOL							
1-METHYLNAPHTHALENE							
2,2-DICHLOROPROPANE							
2-BUTANONE							
2-CHLOROETHYL VINYL ETHER							
2-CHLOROTOLUENE							
2-HEXANONE							
2-METHYLNAPHTHALENE							
4-CHLOROTOLUENE							
4-ISOPROPYLTOLUENE							
4-METHYL-2-PENTANONE							
ACETONE							
BENZENE							
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE							
BROMOBENZENE							
BROMOCHLOROMETHANE							
BROMODICHLOROMETHANE							
BROMOFORM							
BROMOMETHANE							
CARBON DISULFIDE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLORODIBROMOMETHANE							
CHLOROETHANE							
CHLOROFORM							
CHLOROMETHANE							
CIS-1,2-DICHLOROETHENE							
CIS-1,3-DICHLOROPROPENE							
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (							
DIBROMOMETHANE							
DICHLORODIFLUOROMETHANE							
DIISOPROPYL ETHER							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-788	SB-788	SB-789	SB-789	SB-789	SB-789	SB-789
SAMPLE ID	D-SB-788-15	D-SB-788-SS	D-SB-789-03	D-SB-789-05	D-SB-789-07	D-SB-789-09	D-SB-789-11
SAMPLE DATE	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010
DISILOXANE, HEXAMETHYL-	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	0.18 U [MDL=0.18]	0.19 U [MDL=0.19]	0.18 U [MDL=0.18]	0.18 U [MDL=0.18]	0.22 U [MDL=0.22]	0.2 U [MDL=0.2]	0.18 U [MDL=0.18]
ETHYLBENZENE	0.21 U [MDL=0.21]	0.23 U [MDL=0.23]	0.21 U [MDL=0.21]	0.22 U [MDL=0.22]	0.26 U [MDL=0.26]	0.24 U [MDL=0.24]	0.21 U [MDL=0.21]
HEXACHLOROBUTADIENE	0.96 U [MDL=0.96]	1 U [MDL=1]	0.97 U [MDL=0.97]	1 U [MDL=1]	1.2 U [MDL=1.2]	1.1 U [MDL=1.1]	0.98 U [MDL=0.98]
INDANE	--	--	--	--	--	--	--
ISOPROPYLBENZENE	0.13 U [MDL=0.13]	0.14 U [MDL=0.14]	0.13 U [MDL=0.13]	0.13 U [MDL=0.13]	0.16 U [MDL=0.16]	0.15 U [MDL=0.15]	0.13 U [MDL=0.13]
M+P-XYLENES	0.96 U [MDL=0.96]	1 U [MDL=1]	0.97 U [MDL=0.97]	1 U [MDL=1]	1.2 U [MDL=1.2]	1.1 U [MDL=1.1]	0.98 U [MDL=0.98]
METHYL ACETATE	--	--	--	--	--	--	--
METHYL CYCLOHEXANE	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	0.34 UJ [MDL=0.34]	0.38 UJ [MDL=0.38]	0.35 U [MDL=0.35]	0.36 U [MDL=0.36]	0.42 U [MDL=0.42]	0.39 U [MDL=0.39]	0.35 U [MDL=0.35]
METHYLENE CHLORIDE	0.53 U [MDL=0.53]	0.59 U [MDL=0.59]	0.54 U [MDL=0.54]	0.56 U [MDL=0.56]	0.66 U [MDL=0.66]	0.61 U [MDL=0.61]	0.55 U [MDL=0.55]
NAPHTHALENE	0.73 B [MDL=0.15]	0.17 U [MDL=0.17]	2.2 B [MDL=0.15]	0.16 U [MDL=0.16]	0.19 U [MDL=0.19]	0.17 U [MDL=0.17]	0.16 U [MDL=0.16]
N-BUTYLBENZENE	0.18 U [MDL=0.18]	0.2 U [MDL=0.2]	0.19 U [MDL=0.19]	0.19 U [MDL=0.19]	0.23 U [MDL=0.23]	0.21 U [MDL=0.21]	0.19 U [MDL=0.19]
N-PROPYLBENZENE	0.32 U [MDL=0.32]	0.35 U [MDL=0.35]	0.32 U [MDL=0.32]	2.6 J [MDL=0.33]	0.39 U [MDL=0.39]	0.37 U [MDL=0.37]	0.33 U [MDL=0.33]
O-XYLENE	0.28 U [MDL=0.28]	0.31 U [MDL=0.31]	0.28 U [MDL=0.28]	0.29 U [MDL=0.29]	0.34 U [MDL=0.34]	0.32 U [MDL=0.32]	0.29 U [MDL=0.29]
SEC-BUTYLBENZENE	0.14 U [MDL=0.14]	0.16 U [MDL=0.16]	0.14 U [MDL=0.14]	0.15 U [MDL=0.15]	0.18 U [MDL=0.18]	0.16 U [MDL=0.16]	0.15 U [MDL=0.15]
STYRENE	0.12 U [MDL=0.12]	0.13 U [MDL=0.13]	0.12 U [MDL=0.12]	0.12 U [MDL=0.12]	0.15 U [MDL=0.15]	0.14 U [MDL=0.14]	0.12 U [MDL=0.12]
TERT-AMYL METHYL ETHER	0.3 UJ [MDL=0.3]	0.32 U [MDL=0.32]	0.3 U [MDL=0.3]	0.31 U [MDL=0.31]	0.36 U [MDL=0.36]	0.34 U [MDL=0.34]	0.3 U [MDL=0.3]
TERT-BUTYLBENZENE	0.23 U [MDL=0.23]	0.25 U [MDL=0.25]	0.23 U [MDL=0.23]	0.24 U [MDL=0.24]	0.29 U [MDL=0.29]	0.27 U [MDL=0.27]	0.24 U [MDL=0.24]
TERTIARY-BUTYL ALCOHOL	6.1 UR [MDL=6.1]	6.6 UR [MDL=6.6]	6.1 UR [MDL=6.1]	6.3 UR [MDL=6.3]	7.5 UR [MDL=7.5]	6.9 UR [MDL=6.9]	6.2 UR [MDL=6.2]
TETRACHLOROETHENE	0.41 U [MDL=0.41]	0.45 U [MDL=0.45]	0.42 U [MDL=0.42]	0.43 U [MDL=0.43]	0.51 U [MDL=0.51]	0.48 U [MDL=0.48]	0.43 U [MDL=0.43]
TOLUENE	0.22 U [MDL=0.22]	0.24 U [MDL=0.24]	0.22 U [MDL=0.22]	0.32 J [MDL=0.22]	0.27 U [MDL=0.27]	0.25 U [MDL=0.25]	0.22 U [MDL=0.22]
TOTAL XYLENES	0.53 U [MDL=0.53]	0.59 U [MDL=0.59]	0.54 U [MDL=0.54]	0.56 U [MDL=0.56]	0.66 U [MDL=0.66]	0.61 U [MDL=0.61]	0.55 U [MDL=0.55]
TRANS-1,2-DICHLOROETHENE	0.33 U [MDL=0.33]	0.36 U [MDL=0.36]	0.33 U [MDL=0.33]	0.34 U [MDL=0.34]	0.4 U [MDL=0.4]	0.37 U [MDL=0.37]	0.34 U [MDL=0.34]
TRANS-1,3-DICHLOROPROPENE	0.43 U [MDL=0.43]	0.47 U [MDL=0.47]	0.43 U [MDL=0.43]	0.45 U [MDL=0.45]	0.53 U [MDL=0.53]	0.49 U [MDL=0.49]	0.44 U [MDL=0.44]
TRICHLOROETHENE	0.33 U [MDL=0.33]	0.37 U [MDL=0.37]	0.34 U [MDL=0.34]	0.35 U [MDL=0.35]	0.41 U [MDL=0.41]	0.38 U [MDL=0.38]	0.34 U [MDL=0.34]
TRICHLOROFLUOROMETHANE	0.27 U [MDL=0.27]	0.3 U [MDL=0.3]	0.27 U [MDL=0.27]	0.28 U [MDL=0.28]	0.33 U [MDL=0.33]	0.31 U [MDL=0.31]	0.28 U [MDL=0.28]
VINYL ACETATE	0.2 U [MDL=0.2]	0.22 U [MDL=0.22]	0.2 U [MDL=0.2]	0.21 U [MDL=0.21]	0.25 U [MDL=0.25]	0.23 U [MDL=0.23]	0.21 U [MDL=0.21]
VINYL CHLORIDE	0.31 U [MDL=0.31]	0.34 U [MDL=0.34]	0.31 U [MDL=0.31]	0.32 U [MDL=0.32]	0.38 U [MDL=0.38]	0.36 U [MDL=0.36]	0.32 U [MDL=0.32]
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)							
2-METHYLNAPHTHALENE	3.8 U [MDL=3.8]	10 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
ACENAPHTHENE	3.8 U [MDL=3.8]	16 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
ACENAPHTHYLENE	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
ANTHRACENE	3.8 U [MDL=3.8]	20 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
BAP EQUIVALENT-HALFND	3.8 U [MDL=NaN]	105.452 [MDL=NaN]	17.2786 [MDL=NaN]	4 U [MDL=NaN]	4.1 U [MDL=NaN]	3.9 U [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-POS	3.8 U [MDL=NaN]	105.452 [MDL=NaN]	15.1 [MDL=NaN]	4 U [MDL=NaN]	4.1 U [MDL=NaN]	3.9 U [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	3.8 U [MDL=3.8]	53 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(A)PYRENE	3.8 U [MDL=3.8]	63 [MDL=3.5]	14 [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(B)FLUORANTHENE	3.8 U [MDL=3.8]	83 [MDL=3.5]	11 [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(G,H,I)PERYLENE	3.8 U [MDL=3.8]	36 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
BENZO(K)FLUORANTHENE	3.8 U [MDL=3.8]	29 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
CHRYSENE	1.3 U [MDL=1.3]	62 [MDL=1.2]	1.2 U [MDL=1.2]	1.3 U [MDL=1.3]	1.4 U [MDL=1.4]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	3.8 U [MDL=3.8]	24 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
FLUORANTHENE	3.8 U [MDL=3.8]	110 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
FLUORENE	3.8 U [MDL=3.8]	18 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
INDENO(1,2,3-CD)PYRENE	3.8 U [MDL=3.8]	45 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
NAPHTHALENE	3.8 U [MDL=3.8]	19 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
PHENANTHRENE	3.8 U [MDL=3.8]	87 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]
PYRENE	3.8 U [MDL=3.8]	93 [MDL=3.5]	3.6 U [MDL=3.6]	4 U [MDL=4]	4.1 U [MDL=4.1]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-788	SB-788	SB-789	SB-789	SB-789	SB-789	SB-789
SAMPLE ID	D-SB-788-15	D-SB-788-SS	D-SB-789-03	D-SB-789-05	D-SB-789-07	D-SB-789-09	D-SB-789-11
SAMPLE DATE	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010	9/8/2010 Page A-0361-78.79.87 2133 212.16 ·
TOTAL PAHS							
PCBS (UG/KG)							
AROCLOR-1016							
AROCLOR-1221							
AROCLOR-1232							
AROCLOR-1242							
AROCLOR-1248							
AROCLOR-1254							
AROCLOR-1260							
TOTAL AROCLOR							
PESTICIDES (UG/KG)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							
HEPTACHLOR EPOXIDE							
METHOXYCHLOR							
TOXAPHENE							
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-788**	**SB-788**	**SB-789**	**SB-789**	**SB-789**	**SB-789**	**SB-789**
SAMPLE ID	**D-SB-788-15**	**D-SB-788-SS**	**D-SB-789-03**	**D-SB-789-05**	**D-SB-789-07**	**D-SB-789-09**	**D-SB-789-11**
SAMPLE DATE	**9/8/2010**	**9/8/2010**	**9/8/2010**	**9/8/2010**	**9/8/2010**	**9/8/2010**	**9/8/2010**
HEPTACHLOR EPOXIDE	0.92 U [MDL=0.92]	1.7 U [MDL=1.7]	0.88 U [MDL=0.88]	0.97 U [MDL=0.97]	1 U [MDL=1]	0.95 U [MDL=0.95]	0.94 U [MDL=0.94]
METHOXYCHLOR	1.7 UJ [MDL=1.7]	3.2 UJ [MDL=3.2]	1.7 UJ [MDL=1.7]	1.8 UJ [MDL=1.8]	1.9 UJ [MDL=1.9]	1.8 UJ [MDL=1.8]	1.8 UJ [MDL=1.8]
TOXAPHENE	22 U [MDL=22]	40 U [MDL=40]	21 U [MDL=21]	23 U [MDL=23]	24 U [MDL=24]	23 U [MDL=23]	22 U [MDL=22]
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS	3200 U [MDL=3.2]	24000 [MDL=3]	17000 [MDL=3.1]	15000 [MDL=3.4]	10000 J [MDL=3.5]	4700 J [MDL=3.3]	3700 J [MDL=3.3]
GASOLINE RANGE ORGANICS	53 U [MDL=53]	49 U [MDL=49]	51 U [MDL=51]	56 U [MDL=56]	57 U [MDL=57]	55 U [MDL=55]	54 U [MDL=54]
TPH (C06-C10)	--	--	--	--	--	--	--

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

U = The chemical was not detected.

< = The chemical was not detected.

R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
METALS (MG/KG)	
ANTIMONY	
ARSENIC	
BARIUM	
BERYLLIUM	
CADMIUM	
CHROMIUM	
COBALT	
COPPER	
IRON	
LEAD	
MANGANESE	
MERCURY	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
4-NITROPHENOL	
ACENAPHTHENE	
ACENAPHTHYLENE	
ACETOPHENONE	
ANTHRACENE	
ATRAZINE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE
1,2,3-TRICHLOROBENZENE
1,2,3-TRICHLOROPROPANE
1,2,3-TRIMETHYLBENZENE
1,2,4-TRICHLOROBENZENE
1,2,4-TRIMETHYLBENZENE
1,2-DIBROMO-3-CHLOROPROPANE
1,2-DIBROMOETHANE
1,2-DICHLOROBENZENE
1,2-DICHLOROETHANE
1,2-DICHLOROPROPANE
1,3,5-TRIMETHYLBENZENE
1,3-DICHLOROBENZENE
1,3-DICHLOROPROPANE
1,4-DICHLOROBENZENE
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-
1-BUTANOL
1-METHYLNAPHTHALENE
2,2-DICHLOROPROPANE
2-BUTANONE
2-CHLOROETHYL VINYL ETHER
2-CHLOROTOLUENE
2-HEXANONE
2-METHYLNAPHTHALENE
4-CHLOROTOLUENE
4-ISOPROPYLTOLUENE
4-METHYL-2-PENTANONE
ACETONE
BENZENE

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
TOTAL PAHS
PCBS (UG/KG)
AROCLOR-1016
AROCLOR-1221
AROCLOR-1232
AROCLOR-1242
AROCLOR-1248
AROCLOR-1254
AROCLOR-1260
TOTAL AROCLOR
PESTICIDES (UG/KG)
4,4'-DDD
4,4'-DDE
4,4'-DDT
ALDRIN
ALPHA-BHC
ALPHA-CHLORDANE
BETA-BHC
DELTA-BHC
DIELDRIN
ENDOSULFAN I
ENDOSULFAN II
ENDOSULFAN SULFATE
ENDRIN
ENDRIN ALDEHYDE
ENDRIN KETONE
GAMMA-BHC (LINDANE)
GAMMA-CHLORDANE
HEPTACHLOR
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PESTICIDES/PCBS (UG/KG)
4,4'-DDD
4,4'-DDE
4,4'-DDT
ALDRIN
ALPHA-BHC
ALPHA-CHLORDANE
BETA-BHC
DELTA-BHC
DIELDRIN
ENDOSULFAN I
ENDOSULFAN II
ENDOSULFAN SULFATE
ENDRIN
ENDRIN ALDEHYDE
ENDRIN KETONE
GAMMA-BHC (LINDANE)
GAMMA-CHLORDANE
HEPTACHLOR

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
HEPTACHLOR EPOXIDE	
METHOXYCHLOR	
TOXAPHENE	
PETROLEUM HYDROCARBONS (MG/KG)	
TPH (C10-C32)	
PETROLEUM HYDROCARBONS (UG/KG)	
DIESEL RANGE ORGANICS	
GASOLINE RANGE ORGANICS	
TPH (C06-C10)	

SOIL Footnotes:

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION[redacted]
SAMPLE I[redacted]
SAMPLE D[redacted]TE
4-NITROP[redacted]NOL
ACENAPH[redacted]ENE
ACENAPH[redacted]YLENE
ACETOPH[redacted]ONE
ANTHRAC[redacted]E
ATRAZINE[redacted]
BAP EQUI[redacted]LENT-HALFND
BAP EQUI[redacted]LENT-POS
BENZALD[redacted]YDE
BENZO(A)[redacted]THRACENE
BENZO(A)[redacted]RENE
BENZO(B)[redacted]UORANTHENE
BENZO(G,[redacted])PERYLENE
BENZO(K)[redacted]UORANTHENE
BIS(2-CHL[redacted]ROETHOXY)METHANE
BIS(2-CHL[redacted]ROETHYL)ETHER
BIS(2-ETH[redacted]HEXYL)PHTHALATE
BUTYL BE[redacted]YL PHTHALATE
CAPROLA[redacted]AM
CARBAZO[redacted]
CHRYSEN[redacted]
DIBENZO([redacted]H)ANTHRACENE
DIBENZOF[redacted]RAN
DIETHYL [redacted]THALATE
DIMETHYL[redacted]HTHALATE
DI-N-BUTY[redacted]PHTHALATE
DI-N-OCTY[redacted]PHTHALATE
FLUORAN[redacted]ENE
FLUOREN[redacted]
HEXACHL[redacted]OBENZENE
HEXACHL[redacted]OBUTADIENE
HEXACHL[redacted]OCYCLOPENTADIENE
HEXACHL[redacted]OETHANE
INDENO(1[redacted]3-CD)PYRENE
ISOPHOR[redacted]E
NAPHTHA[redacted]NE
NITROBEN[redacted]ENE
N-NITROS[redacted]IMETHYLAMINE
N-NITROS[redacted]DI-N-PROPYLAMINE
N-NITROS[redacted]IPHENYLAMINE
PENTACH[redacted]ROPHENOL
PHENANT[redacted]ENE
PHENOL
PYRENE
VOLATILE[redacted]UG/KG)
.BETA.-SE[redacted]UIPHELLANDRENE
1,1,1,2-TE[redacted]ACHLOROETHANE
1,1,1-TRIC[redacted]OROETHANE
1,1,2,2-TE[redacted]ACHLOROETHANE
1,1,2-TRIC[redacted]OROETHANE
1,1,2-TRIC[redacted]OROTRIFLUOROETHANE

APPENDIX C

LOCATION SAMPLE ID SAMPLE DATE	SB-790 D-SB-790-11 9/8/2010	SB-790 D-SB-790-13 9/8/2010	SB-790 D-SB-790-15 9/8/2010	SB-790 D-SB-790-SS 9/8/2010	SB-791 D-SB-791-03 9/9/2010	SB-791 D-SB-791-05 9/9/2010	SB-791 D-SB-791-07 9/9/2010
DISILOXANE, HEXAMETHYL-	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	0.2 U [MDL=0.2]	0.2 U [MDL=0.2]	0.18 U [MDL=0.18]	0.2 U [MDL=0.2]	0.2 U [MDL=0.2]	0.24 U [MDL=0.24]	0.19 U [MDL=0.19]
ETHYLBENZENE	0.24 U [MDL=0.24]	0.23 U [MDL=0.23]	0.22 U [MDL=0.22]	0.24 U [MDL=0.24]	0.23 U [MDL=0.23]	0.28 U [MDL=0.28]	0.22 U [MDL=0.22]
HEXACHLOROBUTADIENE	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	0.99 U [MDL=0.99]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.3 U [MDL=1.3]	1 U [MDL=1]
INDANE	--	--	--	--	--	--	--
ISOPROPYLBENZENE	0.15 U [MDL=0.15]	0.14 U [MDL=0.14]	0.13 U [MDL=0.13]	0.15 U [MDL=0.15]	0.14 U [MDL=0.14]	0.17 U [MDL=0.17]	0.14 U [MDL=0.14]
M+P-XYLENES	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	0.99 U [MDL=0.99]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.3 U [MDL=1.3]	1 U [MDL=1]
METHYL ACETATE	--	--	--	--	--	--	--
METHYL CYCLOHEXANE	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	0.4 U [MDL=0.4]	0.38 U [MDL=0.38]	0.36 U [MDL=0.36]	0.4 U [MDL=0.4]	0.39 UJ [MDL=0.39]	0.46 UJ [MDL=0.46]	0.37 UJ [MDL=0.37]
METHYLENE CHLORIDE	0.62 U [MDL=0.62]	0.6 U [MDL=0.6]	0.55 U [MDL=0.55]	0.62 U [MDL=0.62]	0.84 B [MDL=0.6]	1.1 B [MDL=0.72]	0.9 B [MDL=0.57]
NAPHTHALENE	0.18 U [MDL=0.18]	0.17 U [MDL=0.17]	0.16 U [MDL=0.16]	0.18 U [MDL=0.18]	1.6 B [MDL=0.17]	1.1 B [MDL=0.21]	0.75 B [MDL=0.16]
N-BUTYLBENZENE	0.21 U [MDL=0.21]	0.2 U [MDL=0.2]	0.19 U [MDL=0.19]	0.21 U [MDL=0.21]	0.21 U [MDL=0.21]	0.25 U [MDL=0.25]	0.2 U [MDL=0.2]
N-PROPYLBENZENE	0.37 U [MDL=0.37]	0.36 U [MDL=0.36]	0.33 U [MDL=0.33]	0.37 U [MDL=0.37]	0.36 U [MDL=0.36]	0.43 U [MDL=0.43]	0.34 U [MDL=0.34]
O-XYLENE	0.32 U [MDL=0.32]	0.31 U [MDL=0.31]	0.29 U [MDL=0.29]	0.32 U [MDL=0.32]	0.31 U [MDL=0.31]	0.38 U [MDL=0.38]	0.3 U [MDL=0.3]
SEC-BUTYLBENZENE	0.17 U [MDL=0.17]	0.16 U [MDL=0.16]	0.15 U [MDL=0.15]	0.17 U [MDL=0.17]	0.16 U [MDL=0.16]	0.19 U [MDL=0.19]	0.15 U [MDL=0.15]
STYRENE	0.14 U [MDL=0.14]	0.13 U [MDL=0.13]	0.12 U [MDL=0.12]	0.14 U [MDL=0.14]	0.13 U [MDL=0.13]	0.16 U [MDL=0.16]	0.13 U [MDL=0.13]
TERT-AMYL METHYL ETHER	0.34 U [MDL=0.34]	0.33 U [MDL=0.33]	0.31 U [MDL=0.31]	0.34 U [MDL=0.34]	0.33 U [MDL=0.33]	0.4 U [MDL=0.4]	0.32 UJ [MDL=0.32]
TERT-BUTYLBENZENE	0.27 U [MDL=0.27]	0.26 U [MDL=0.26]	0.24 U [MDL=0.24]	0.27 U [MDL=0.27]	0.26 U [MDL=0.26]	0.31 U [MDL=0.31]	0.25 U [MDL=0.25]
TERTIARY-BUTYL ALCOHOL	7 UR [MDL=7]	6.8 UR [MDL=6.8]	6.3 UR [MDL=6.3]	7 UR [MDL=7]	48 B [MDL=6.8]	8.2 UR [MDL=8.2]	47 B [MDL=6.5]
TETRACHLOROETHENE	0.48 U [MDL=0.48]	0.46 U [MDL=0.46]	0.43 U [MDL=0.43]	0.48 U [MDL=0.48]	0.47 U [MDL=0.47]	0.56 U [MDL=0.56]	0.44 U [MDL=0.44]
TOLUENE	0.25 U [MDL=0.25]	0.24 U [MDL=0.24]	0.22 U [MDL=0.22]	0.25 U [MDL=0.25]	0.24 U [MDL=0.24]	0.29 U [MDL=0.29]	0.23 U [MDL=0.23]
TOTAL XYLENES	0.62 U [MDL=0.62]	0.6 U [MDL=0.6]	0.55 U [MDL=0.55]	0.62 U [MDL=0.62]	0.6 U [MDL=0.6]	0.72 U [MDL=0.72]	0.57 U [MDL=0.57]
TRANS-1,2-DICHLOROETHENE	0.38 U [MDL=0.38]	0.36 U [MDL=0.36]	0.34 U [MDL=0.34]	0.38 U [MDL=0.38]	0.37 U [MDL=0.37]	0.44 U [MDL=0.44]	0.35 U [MDL=0.35]
TRANS-1,3-DICHLOROPROPENE	0.5 U [MDL=0.5]	0.48 U [MDL=0.48]	0.45 U [MDL=0.45]	0.5 U [MDL=0.5]	0.48 U [MDL=0.48]	0.58 U [MDL=0.58]	0.46 U [MDL=0.46]
TRICHLOROETHENE	0.39 U [MDL=0.39]	0.37 U [MDL=0.37]	0.35 U [MDL=0.35]	0.39 U [MDL=0.39]	0.38 U [MDL=0.38]	0.45 U [MDL=0.45]	0.36 U [MDL=0.36]
TRICHLOROFLUOROMETHANE	0.31 U [MDL=0.31]	0.3 U [MDL=0.3]	0.28 U [MDL=0.28]	0.31 U [MDL=0.31]	0.3 U [MDL=0.3]	0.37 U [MDL=0.37]	0.29 U [MDL=0.29]
VINYL ACETATE	0.23 U [MDL=0.23]	0.22 U [MDL=0.22]	0.21 U [MDL=0.21]	0.23 U [MDL=0.23]	0.22 U [MDL=0.22]	0.27 U [MDL=0.27]	0.21 U [MDL=0.21]
VINYL CHLORIDE	0.36 U [MDL=0.36]	0.35 U [MDL=0.35]	0.32 U [MDL=0.32]	0.36 U [MDL=0.36]	0.35 U [MDL=0.35]	0.42 U [MDL=0.42]	0.33 U [MDL=0.33]

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

2-METHYLNAPHTHALENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	8.6 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
ACENAPHTHENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	17 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
ACENAPHTHYLENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	4 U [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
ANTHRACENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	16 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
BAP EQUIVALENT-HALFND	4.1 U [MDL=NaN]	4 U [MDL=NaN]	3.8 U [MDL=NaN]	18.5181 [MDL=NaN]	60.191 [MDL=NaN]	4.2 U [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-POS	4.1 U [MDL=NaN]	4 U [MDL=NaN]	3.8 U [MDL=NaN]	16.4 [MDL=NaN]	58.191 [MDL=NaN]	4.2 U [MDL=NaN]	3.9 U [MDL=NaN]
BAP EQUIVALENT-UCL	--	--	--	--	--	--	--
BENZO(A)ANTHRACENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	46 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
BENZO(A)PYRENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	15 [MDL=3.5]	44 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
BENZO(B)FLUORANTHENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	14 [MDL=3.5]	65 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
BENZO(G,H,I)PERYLENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	33 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
BENZO(K)FLUORANTHENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	24 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
CHRYSENE	1.4 U [MDL=1.4]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.2 U [MDL=1.2]	51 [MDL=1.3]	1.4 U [MDL=1.4]	1.3 U [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	4 U [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
FLUORANTHENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	8.5 [MDL=3.5]	95 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
FLUORENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	15 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
INDENO(1,2,3-CD)PYRENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	28 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
NAPHTHALENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	13 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
PHENANTHRENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	3.5 U [MDL=3.5]	76 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]
PYRENE	4.1 U [MDL=4.1]	4 U [MDL=4]	3.8 U [MDL=3.8]	9.6 [MDL=3.5]	75 [MDL=4]	4.2 U [MDL=4.2]	3.9 U [MDL=3.9]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
TOTAL PAHS	
PCBS (UG/KG)	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-790 D-SB-790-11 9/8/2010	SB-790 D-SB-790-13 9/8/2010	SB-790 D-SB-790-15 9/8/2010	SB-790 D-SB-790-SS 9/8/2010	SB-791 D-SB-791-03 9/9/2010	SB-791 D-SB-791-05 9/9/2010	SB-791 D-SB-791-07 9/9/2010
HEPTACHLOR EPOXIDE	0.98 U [MDL=0.98]	0.96 U [MDL=0.96]	0.93 U [MDL=0.93]	0.86 U [MDL=0.86]	1.9 U [MDL=1.9]	1 U [MDL=1]	0.95 U [MDL=0.95]
METHOXYCHLOR	1.8 U [MDL=1.8]	1.8 U [MDL=1.8]	1.7 UJ [MDL=1.7]	1.6 UJ [MDL=1.6]	3.6 UJ [MDL=3.6]	1.9 UJ [MDL=1.9]	1.8 UJ [MDL=1.8]
TOXAPHENE	23 U [MDL=23]	23 U [MDL=23]	22 U [MDL=22]	20 U [MDL=20]	46 U [MDL=46]	24 U [MDL=24]	23 U [MDL=23]
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS	3400 J [MDL=3.4]	3400 U [MDL=3.4]	3300 U [MDL=3.3]	33000 [MDL=3]	41000 [MDL=3.4]	22000 [MDL=3.6]	5400 J [MDL=3.3]
GASOLINE RANGE ORGANICS	57 U [MDL=57]	55 U [MDL=55]	54 U [MDL=54]	49 U [MDL=49]	56 U [MDL=56]	59 U [MDL=59]	55 U [MDL=55]
TPH (C06-C10)	--	--	--	--	--	--	--

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

U = The chemical was not detected.

< = The chemical was not detected.

R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-791	SB-791	SB-791	SB-791	SB-791	SB-792	SB-792
SAMPLE ID	D-SB-791-09	D-SB-791-11	D-SB-791-13	D-SB-791-15	D-SB-791-SS	D-SB-792-03	D-SB-792-05
SAMPLE DATE	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010
4-NITROPHENOL	92 U [MDL=92]	93 U [MDL=93]	95 U [MDL=95]	99 U [MDL=99]	85 U [MDL=85]	94 U [MDL=94]	97 U [MDL=97]
ACENAPHTHENE	--	--	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--	--	--
ACETOPHENONE	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	9.7 U [MDL=9.7]	11 U [MDL=11]	11 U [MDL=11]
ANTHRACENE	--	--	--	--	--	--	--
ATRAZINE	10 U [MDL=10]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	9.6 U [MDL=9.6]	11 U [MDL=11]	11 U [MDL=11]
BAP EQUIVALENT-HALFND	--	--	--	--	--	--	--
BAP EQUIVALENT-POS	--	--	--	--	--	--	--
BENZALDEHYDE	14 U [MDL=14]	14 U [MDL=14]	14 U [MDL=14]	15 U [MDL=15]	13 U [MDL=13]	14 U [MDL=14]	14 U [MDL=14]
BENZO(A)ANTHRACENE	--	--	--	--	--	--	--
BENZO(A)PYRENE	--	--	--	--	--	--	--
BENZO(B)FLUORANTHENE	--	--	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	25 U [MDL=25]	25 U [MDL=25]	26 U [MDL=26]	27 U [MDL=27]	23 U [MDL=23]	26 U [MDL=26]	27 U [MDL=27]
BIS(2-CHLOROETHYL)ETHER	2.3 U [MDL=2.3]	2.3 U [MDL=2.3]	2.4 U [MDL=2.4]	2.5 U [MDL=2.5]	2.1 U [MDL=2.1]	2.3 U [MDL=2.3]	2.4 U [MDL=2.4]
BIS(2-ETHYLHEXYL)PHTHALATE	22 U [MDL=22]	22 U [MDL=22]	23 J [MDL=23]	23 U [MDL=23]	20 U [MDL=20]	22 U [MDL=22]	23 U [MDL=23]
BUTYL BENZYL PHTHALATE	11 U [MDL=11]	12 U [MDL=12]	12 U [MDL=12]	12 U [MDL=12]	11 U [MDL=11]	12 U [MDL=12]	12 U [MDL=12]
CAPROLACTAM	42 U [MDL=42]	43 U [MDL=43]	44 U [MDL=44]	46 U [MDL=46]	39 U [MDL=39]	43 U [MDL=43]	45 U [MDL=45]
CARBAZOLE	31 U [MDL=31]	31 U [MDL=31]	32 U [MDL=32]	33 U [MDL=33]	29 U [MDL=29]	32 U [MDL=32]	33 U [MDL=33]
CHRYSENE	--	--	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--	--	--
DIBENZOFURAN	3.8 U [MDL=3.8]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	4.1 U [MDL=4.1]	3.5 U [MDL=3.5]	3.9 U [MDL=3.9]	4 U [MDL=4]
DIETHYL PHTHALATE	18 U [MDL=18]	19 U [MDL=19]	19 U [MDL=19]	20 U [MDL=20]	17 U [MDL=17]	19 U [MDL=19]	19 U [MDL=19]
DIMETHYL PHTHALATE	19 U [MDL=19]	20 U [MDL=20]	20 U [MDL=20]	21 U [MDL=21]	18 U [MDL=18]	20 U [MDL=20]	21 U [MDL=21]
DI-N-BUTYL PHTHALATE	17 U [MDL=17]	17 U [MDL=17]	18 U [MDL=18]	19 U [MDL=19]	16 U [MDL=16]	18 U [MDL=18]	18 U [MDL=18]
DI-N-OCTYL PHTHALATE	31 U [MDL=31]	31 U [MDL=31]	32 U [MDL=32]	33 U [MDL=33]	29 U [MDL=29]	32 U [MDL=32]	33 U [MDL=33]
FLUORANTHENE	--	--	--	--	--	--	--
FLUORENE	--	--	--	--	--	--	--
HEXACHLOROBENZENE	2.4 U [MDL=2.4]	2.4 U [MDL=2.4]	2.5 U [MDL=2.5]	2.6 U [MDL=2.6]	2.2 U [MDL=2.2]	2.5 U [MDL=2.5]	2.5 U [MDL=2.5]
HEXACHLOROBUTADIENE	31 U [MDL=31]	31 U [MDL=31]	32 U [MDL=32]	33 U [MDL=33]	29 U [MDL=29]	32 U [MDL=32]	33 U [MDL=33]
HEXACHLOROCYCLOPENTADIENE	31 U [MDL=31]	31 U [MDL=31]	32 U [MDL=32]	33 U [MDL=33]	29 U [MDL=29]	32 U [MDL=32]	33 U [MDL=33]
HEXACHLOROETHANE	10 U [MDL=10]	10 U [MDL=10]	11 U [MDL=11]	11 U [MDL=11]	9.5 U [MDL=9.5]	11 U [MDL=11]	11 U [MDL=11]
INDENO(1,2,3-CD)PYRENE	--	--	--	--	--	--	--
ISOPHORONE	15 U [MDL=15]	15 U [MDL=15]	15 U [MDL=15]	16 U [MDL=16]	14 U [MDL=14]	15 U [MDL=15]	16 U [MDL=16]
NAPHTHALENE	--	--	--	--	--	--	--
NITROBENZENE	2.5 U [MDL=2.5]	2.5 U [MDL=2.5]	2.6 U [MDL=2.6]	2.7 U [MDL=2.7]	2.3 U [MDL=2.3]	2.6 U [MDL=2.6]	2.7 U [MDL=2.7]
N-NITROSODIMETHYLAMINE	18 U [MDL=18]	19 U [MDL=19]	19 U [MDL=19]	20 U [MDL=20]	17 U [MDL=17]	19 U [MDL=19]	19 U [MDL=19]
N-NITROSO-DI-N-PROPYLAMINE	31 U [MDL=31]	31 U [MDL=31]	32 U [MDL=32]	33 U [MDL=33]	29 U [MDL=29]	32 U [MDL=32]	33 U [MDL=33]
N-NITROSODIPHENYLAMINE	24 U [MDL=24]	24 U [MDL=24]	25 U [MDL=25]	26 U [MDL=26]	22 U [MDL=22]	25 U [MDL=25]	25 U [MDL=25]
PENTACHLOROPHENOL	92 U [MDL=92]	93 U [MDL=93]	95 U [MDL=95]	99 U [MDL=99]	85 U [MDL=85]	94 UR [MDL=94]	97 U [MDL=97]
PHENANTHRENE	--	--	--	--	--	--	--
PHENOL	31 U [MDL=31]	31 U [MDL=31]	32 U [MDL=32]	33 U [MDL=33]	29 U [MDL=29]	32 U [MDL=32]	33 U [MDL=33]
PYRENE	--	--	--	--	--	--	--
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE	--	--	--	--	--	--	--
1,1,1,2-TETRACHLOROETHANE	0.62 U [MDL=0.62]	0.53 U [MDL=0.53]	0.65 U [MDL=0.65]	0.57 U [MDL=0.57]	0.64 U [MDL=0.64]	0.52 U [MDL=0.52]	0.55 U [MDL=0.55]
1,1,1-TRICHLOROETHANE	0.56 U [MDL=0.56]	0.48 U [MDL=0.48]	0.59 U [MDL=0.59]	0.51 U [MDL=0.51]	0.58 U [MDL=0.58]	0.47 U [MDL=0.47]	0.5 U [MDL=0.5]
1,1,2,2-TETRACHLOROETHANE	0.34 U [MDL=0.34]	0.29 U [MDL=0.29]	0.36 U [MDL=0.36]	0.31 U [MDL=0.31]	0.35 U [MDL=0.35]	0.29 U [MDL=0.29]	0.3 U [MDL=0.3]
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	1.3 U [MDL=1.3]	1.1 U [MDL=1.1]	1.4 U [MDL=1.4]	1.2 U [MDL=1.2]	1.3 U [MDL=1.3]	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-791**	**SB-791**	**SB-791**	**SB-791**	**SB-791**	**SB-792**	**SB-792**
SAMPLE ID	**D-SB-791-09**	**D-SB-791-11**	**D-SB-791-13**	**D-SB-791-15**	**D-SB-791-SS**	**D-SB-792-03**	**D-SB-792-05**
SAMPLE DATE	**9/9/2010**	**9/9/2010**	**9/9/2010**	**9/9/2010**	**9/9/2010**	**9/9/2010**	**9/9/2010**
1,1-DICHLOROETHANE	0.36 U [MDL=0.36]	0.31 U [MDL=0.31]	0.38 U [MDL=0.38]	0.33 U [MDL=0.33]	0.37 U [MDL=0.37]	0.3 U [MDL=0.3]	0.32 U [MDL=0.32]
1,1-DICHLOROETHENE	0.52 U [MDL=0.52]	0.45 U [MDL=0.45]	0.54 U [MDL=0.54]	0.48 U [MDL=0.48]	0.54 U [MDL=0.54]	0.44 U [MDL=0.44]	0.46 U [MDL=0.46]
1,1-DICHLOROPROPENE	0.3 U [MDL=0.3]	0.26 U [MDL=0.26]	0.31 U [MDL=0.31]	0.27 U [MDL=0.27]	0.31 U [MDL=0.31]	0.25 U [MDL=0.25]	0.27 U [MDL=0.27]
1,2,3-TRICHLOROBENZENE	0.38 U [MDL=0.38]	0.33 U [MDL=0.33]	0.4 U [MDL=0.4]	0.35 U [MDL=0.35]	0.39 U [MDL=0.39]	0.32 U [MDL=0.32]	0.34 U [MDL=0.34]
1,2,3-TRICHLOROPROPANE	0.9 U [MDL=0.9]	0.77 U [MDL=0.77]	0.94 U [MDL=0.94]	0.82 U [MDL=0.82]	0.93 U [MDL=0.93]	0.76 U [MDL=0.76]	0.8 U [MDL=0.8]
1,2,3-TRIMETHYLBENZENE	0.17 U [MDL=0.17]	0.15 U [MDL=0.15]	0.18 U [MDL=0.18]	0.16 U [MDL=0.16]	0.18 U [MDL=0.18]	0.21 J [MDL=0.14]	0.15 U [MDL=0.15]
1,2,4-TRICHLOROBENZENE	0.27 U [MDL=0.27]	0.23 U [MDL=0.23]	0.28 U [MDL=0.28]	0.25 U [MDL=0.25]	0.28 U [MDL=0.28]	0.23 U [MDL=0.23]	0.24 U [MDL=0.24]
1,2,4-TRIMETHYLBENZENE	0.65 U [MDL=0.65]	0.56 U [MDL=0.56]	0.68 U [MDL=0.68]	0.59 U [MDL=0.59]	0.67 U [MDL=0.67]	0.55 U [MDL=0.55]	0.58 U [MDL=0.58]
1,2-DIBROMO-3-CHLOROPROPANE	1.3 U [MDL=1.3]	1.1 U [MDL=1.1]	1.4 U [MDL=1.4]	1.2 U [MDL=1.2]	1.3 U [MDL=1.3]	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]
1,2-DIBROMOETHANE	0.5 U [MDL=0.5]	0.43 U [MDL=0.43]	0.52 U [MDL=0.52]	0.46 U [MDL=0.46]	0.52 U [MDL=0.52]	0.42 U [MDL=0.42]	0.45 U [MDL=0.45]
1,2-DICHLOROBENZENE	0.36 U [MDL=0.36]	0.31 U [MDL=0.31]	0.38 U [MDL=0.38]	0.33 U [MDL=0.33]	0.37 U [MDL=0.37]	0.3 U [MDL=0.3]	0.32 U [MDL=0.32]
1,2-DICHLOROETHANE	0.34 U [MDL=0.34]	0.29 U [MDL=0.29]	0.36 U [MDL=0.36]	0.31 U [MDL=0.31]	0.35 U [MDL=0.35]	0.29 U [MDL=0.29]	0.3 U [MDL=0.3]
1,2-DICHLOROPROPANE	0.69 U [MDL=0.69]	0.59 U [MDL=0.59]	0.72 U [MDL=0.72]	0.63 U [MDL=0.63]	0.71 U [MDL=0.71]	0.58 U [MDL=0.58]	0.62 U [MDL=0.62]
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	0.35 U [MDL=0.35]	0.3 U [MDL=0.3]	0.37 U [MDL=0.37]	0.32 U [MDL=0.32]	0.36 U [MDL=0.36]	0.29 U [MDL=0.29]	0.31 U [MDL=0.31]
1,3-DICHLOROPROPANE	0.34 U [MDL=0.34]	0.29 U [MDL=0.29]	0.36 U [MDL=0.36]	0.31 U [MDL=0.31]	0.35 U [MDL=0.35]	0.29 U [MDL=0.29]	0.3 U [MDL=0.3]
1,4-DICHLOROBENZENE	0.66 U [MDL=0.66]	0.57 U [MDL=0.57]	0.69 U [MDL=0.69]	0.6 U [MDL=0.6]	0.68 U [MDL=0.68]	0.56 U [MDL=0.56]	0.59 U [MDL=0.59]
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-	--	--	--	--	--	--	--
1-BUTANOL	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	0.94 U [MDL=0.94]	0.8 U [MDL=0.8]	0.98 U [MDL=0.98]	0.86 U [MDL=0.86]	0.97 U [MDL=0.97]	0.79 U [MDL=0.79]	0.84 U [MDL=0.84]
2-BUTANONE	1.4 U [MDL=1.4]	1.2 U [MDL=1.2]	4 J [MDL=1.5]	1.3 U [MDL=1.3]	1.7 J [MDL=1.5]	52 [MDL=1.2]	3.7 J [MDL=1.3]
2-CHLOROETHYL VINYL ETHER	1.4 U [MDL=1.4]	1.2 U [MDL=1.2]	1.5 U [MDL=1.5]	1.3 U [MDL=1.3]	1.5 U [MDL=1.5]	1.2 U [MDL=1.2]	1.3 U [MDL=1.3]
2-CHLOROTOLUENE	0.4 U [MDL=0.4]	0.34 U [MDL=0.34]	0.42 U [MDL=0.42]	0.37 U [MDL=0.37]	0.41 U [MDL=0.41]	0.34 U [MDL=0.34]	0.36 U [MDL=0.36]
2-HEXANONE	0.63 U [MDL=0.63]	0.54 U [MDL=0.54]	0.66 U [MDL=0.66]	0.58 U [MDL=0.58]	0.65 U [MDL=0.65]	0.53 U [MDL=0.53]	0.56 U [MDL=0.56]
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
4-CHLOROTOLUENE	0.41 U [MDL=0.41]	0.35 U [MDL=0.35]	0.43 U [MDL=0.43]	0.37 U [MDL=0.37]	0.42 U [MDL=0.42]	0.35 U [MDL=0.35]	0.37 U [MDL=0.37]
4-ISOPROPYLTOLUENE	0.21 U [MDL=0.21]	0.18 U [MDL=0.18]	0.22 U [MDL=0.22]	0.19 U [MDL=0.19]	0.22 U [MDL=0.22]	0.18 U [MDL=0.18]	0.19 U [MDL=0.19]
4-METHYL-2-PENTANONE	0.54 U [MDL=0.54]	0.46 U [MDL=0.46]	0.56 U [MDL=0.56]	0.49 U [MDL=0.49]	0.56 U [MDL=0.56]	0.45 U [MDL=0.45]	0.48 U [MDL=0.48]
ACETONE	68 B5 -811.985 -12.36 Td [(6)4(8)-563 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BENZENE							
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE							
BROMOBENZENE							
BROMOCHLOROMETHANE							
BROMODICHLOROMETHANE							
BROMOFORM							
BROMOMETHANE							
CARBON DISULFIDE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLORODIBROMOMETHANE							
CHLOROETHANE							
CHLOROFORM							
CHLOROMETHANE							
CIS-1,2-DICHLOROETHENE							
CIS-1,3-DICHLOROPROPENE							
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (							
DIBROMOMETHANE							
DICHLORODIFLUOROMETHANE							
DIISOPROPYL ETHER							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
DISILOXANE, HEXAMETHYL-
ETHYL TERT-BUTYL ETHER
ETHYLBENZENE
HEXACHLOROBUTADIENE
INDANE
ISOPROPYLBENZENE
M+P-XYLENES
METHYL ACETATE
METHYL CYCLOHEXANE
METHYL TERT-BUTYL ETHER
METHYLENE CHLORIDE
NAPHTHALENE
N-BUTYLBENZENE
N-PROPYLBENZENE
O-XYLENE
SEC-BUTYLBENZENE
STYRENE
TERT-AMYL METHYL ETHER
TERT-BUTYLBENZENE
TERTIARY-BUTYL ALCOHOL
TETRACHLOROETHENE
TOLUENE
TOTAL XYLENES

[redacted]

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
METALS (MG/KG)	
ANTIMONY	
ARSENIC	
BARIUM	
BERYLLIUM	
CADMIUM	
CHROMIUM	
COBALT	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
4-NITROPHENOL
ACENAPHTHENE
ACENAPHTHYLENE
ACETOPHENONE
ANTHRACENE
ATRAZINE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
BENZALDEHYDE
BENZO(A)ANTHRACENE
BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
BENZO(G,H,I)PERYLENE
BENZO(K)FLUORANTHENE
BIS(2-CHLOROETHOXY)METHANE
BIS(2-CHLOROETHYL)ETHER
BIS(2-ETHYLHEXYL)PHTHALATE
BUTYL BENZYL PHTHALATE
CAPROLACTAM
CARBAZOLE
CHRYSENE
DIBENZO(A,H)ANTHRACENE
DIBENZOFURAN
DIETHYL PHTHALATE
DIMETHYL PHTHALATE
DI-N-BUTYL PHTHALATE
DI-N-OCTYL PHTHALATE
FLUORANTHENE
FLUORENE
HEXACHLOROBENZENE
HEXACHLOROBUTADIENE
HEXACHLOROCYCLOPENTADIENE
HEXACHLOROETHANE
INDENO(1,2,3-CD)PYRENE
ISOPHORONE
NAPHTHALENE
NITROBENZENE
N-NITROSODIMETHYLAMINE
N-NITROSO-DI-N-PROPYLAMINE
N-NITROSODIPHENYLAMINE
PENTACHLOROPHENOL
PHENANTHRENE
PHENOL
PYRENE
VOLATILES (UG/KG)
.BETA.-SESQUIPHELLANDRENE
1,1,1,2-TETRACHLOROETHANE
1,1,1-TRICHLOROETHANE
1,1,2,2-TETRACHLOROETHANE
1,1,2-TRICHLOROETHANE
1,1,2-TRICHLOROTRIFLUOROETHANE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE

[redacted] C
[redacted] S INVESTIGATIONS
[redacted] ANDLE
[redacted] LE RIVER, MARYLAND

[redacted]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION

LOCATION	
SAMPLE ID	
SAMPLE DATE	
HEPTACHLOR EPOXIDE	
METHOXYCHLOR	
TOXAPHENE	
PETROLEUM HYDROCARBONS (MG/KG)	
TPH (C10-C32)	
PETROLEUM HYDROCARBONS (UG/KG)	
DIESEL RANGE ORGANICS	
GASOLINE RANGE ORGANICS	
TPH (C06-C10)	

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.
Data Qualifiers:
Blank (i.e., no qualifier) = the chemical was detected.
> = The chemical was detected.
J = The chemical was detected but the concentration reported is an
U = The chemical was not detected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
METALS (MG/KG)	
ANTIMONY	
ARSENIC	
BARIUM	
BERYLLIUM	
CADMIUM	
CHROMIUM	
COBALT	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-793 D-SB-793-05 9/9/2010	SB-793 D-SB-793-07 9/9/2010	SB-793 D-SB-793-09 9/9/2010	SB-793 D-SB-793-11 9/9/2010	SB-793 D-SB-793-13 9/9/2010	SB-793 D-SB-793-15 9/9/2010	SB-793 D-SB-793-SS 9/9/2010
4-NITROPHENOL	98 U [MDL=98]	98 U [MDL=98]	95 U [MDL=95]	95 U [MDL=95]	94 U [MDL=94]	98 U [MDL=98]	91 U [MDL=91]
ACENAPHTHENE	--	--	--	--	--	--	--
ACENAPHTHYLENE	--	--	--	--	--	--	--
ACETOPHENONE	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]
ANTHRACENE	--	--	--	--	--	--	--
ATRAZINE	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	10 U [MDL=10]
BAP EQUIVALENT-HALFND	--	--	--	--	--	--	--
BAP EQUIVALENT-POS	--	--	--	--	--	--	--
BENZALDEHYDE	15 U [MDL=15]	15 U [MDL=15]	14 U [MDL=14]	14 U [MDL=14]	14 U [MDL=14]	15 U [MDL=15]	14 U [MDL=14]
BENZO(A)ANTHRACENE	--	--	--	--	--	--	--
BENZO(A)PYRENE	--	--	--	--	--	--	--
BENZO(B)FLUORANTHENE	--	--	--	--	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	--	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	--	--	--	--
BIS(2-CHLOROETHOXY)METHANE	27 U [MDL=27]	27 U [MDL=27]	26 U [MDL=26]	26 U [MDL=26]	26 U [MDL=26]	27 U [MDL=27]	25 U [MDL=25]
BIS(2-CHLOROETHYL)ETHER	2.5 U [MDL=2.5]	2.4 U [MDL=2.4]	2.4 U [MDL=2.4]	2.4 U [MDL=2.4]	2.4 U [MDL=2.4]	2.5 U [MDL=2.5]	2.3 U [MDL=2.3]
BIS(2-ETHYLHEXYL)PHTHALATE	23 U [MDL=23]	23 U [MDL=23]	32 J [MDL=23]	23 U [MDL=23]	22 U [MDL=22]	23 U [MDL=23]	22 U [MDL=22]
BUTYL BENZYL PHTHALATE	12 U [MDL=12]	12 U [MDL=12]	12 U [MDL=12]	12 U [MDL=12]	12 U [MDL=12]	28 J [MDL=12]	11 U [MDL=11]
CAPROLACTAM	46 U [MDL=46]	45 U [MDL=45]	44 U [MDL=44]	44 U [MDL=44]	43 U [MDL=43]	45 U [MDL=45]	42 U [MDL=42]
CARBAZOLE	33 U [MDL=33]	33 U [MDL=33]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	33 U [MDL=33]	31 U [MDL=31]
CHRYSENE	--	--	--	--	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--	--	--
DIBENZOFURAN	4.1 U [MDL=4.1]	4 U [MDL=4]	3.9 U [MDL=3.9]	3.9 U [MDL=3U6(.)-6(1)4(])]T6 -12.36 4Td [(4)]TJ 0 Tc 0 Tw 13.563(U)-278([)-6(M)12(D)5(L)4(=)2(4)4(.)-6(1)4(])]TJ 143.008 U [MDL=3U6(.)84(=)2(4)4(5).289 0 Td [			
DIETHYL PHTHALATE 33 U [MDL=33]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	33 U [MDL=33]			
DIMETHYL PHTHALATE							
DI-N-BUTYL PHTHALATE							
DI-N-OCTYL PHTHALATE							
FLUORANTHENE							
FLUORENE							
HEXACHLOROBENZENE							
HEXACHLOROBUTADIENE							
HEXACHLOROCYCLOPENTADIENE							
HEXACHLOROETHANE							
INDENO(1,2,3-CD)PYRENE							
ISOPHORONE							
NAPHTHALENE							
NITROBENZENE							
N-NITROSODIMETHYLAMINE							
N-NITROSO-DI-N-PROPYLAMINE							
N-NITROSODIPHENYLAMINE							
PENTACHLOROPHENOL							
PHENANTHRENE							
PHENOL							
PYRENE							

VOLATILES (UG/KG)

.BETA.-SESQUIPHELLANDRENE							
1,1,1,2-TETRACHLOROETHANE							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1,2-TRICHLOROTRIFLUOROETHANE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-793	SB-793	SB-793	SB-793	SB-793	SB-793	SB-793
SAMPLE ID	D-SB-793-05	D-SB-793-07	D-SB-793-09	D-SB-793-11	D-SB-793-13	D-SB-793-15	D-SB-793-SS
SAMPLE DATE	9/9/2010	36 Td [(9)4(/)-6(9)4(/)-6(2)4(0)4(1)4(0)]TJ 136.29 0 Td [(36 Td [(9)4(/)-6(9)4(/)-6(2)4(0)4(1)4(0)]TJ 136.29 0 Td [(36 Td [(9)4(/)-6(9)4(/)-6(2)4(0)4(1)4(0)]TJ 136.29 0 Td [(36 Td [(9)4(/)-6(9)4(/)-6(2)4(0)4(1)4(0)]TJ 136.29 0 Td [(3					
DISILOXANE, HEXAMETHYL-							
ETHYL TERT-BUTYL ETHER							
ETHYLBENZENE							
HEXACHLOROBUTADIENE							
INDANE							
ISOPROPYLBENZENE							
M+P-XYLENES							
METHYL ACETATE							
METHYL CYCLOHEXANE							
METHYL TERT-BUTYL ETHER							
METHYLENE CHLORIDE							
NAPHTHALENE							
N-BUTYLBENZENE							
N-PROPYLBENZENE							
O-XYLENE							
SEC-BUTYLBENZENE							
STYRENE							
TERT-AMYL METHYL ETHER							
TERT-BUTYLBENZENE							
TERTIARY-BUTYL ALCOHOL							
TETRACHLOROETHENE							
TOLUENE							
TOTAL XYLENES							
TRANS-1,2-DICHLOROETHENE							
TRANS-1,3-DICHLOROPROPENE							
TRICHLOROETHENE							
TRICHLOROFLUOROMETHANE							
VINYL ACETATE							
VINYL CHLORIDE							

POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)

2-METHYLNAPHTHALENE							
ACENAPHTHENE							
ACENAPHTHYLENE							
ANTHRACENE							
BAP EQUIVALENT-HALFND							
BAP EQUIVALENT-POS							
BAP EQUIVALENT-UCL							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
FLUORANTHENE							
FLUORENE							
INDENO(1,2,3-CD)PYRENE							
NAPHTHALENE							
PHENANTHRENE							
PYRENE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-793	SB-793	SB-793	SB-793	SB-793	SB-793	SB-793
SAMPLE ID	D-SB-793-05	D-SB-793-07	D-SB-793-09	D-SB-793-11	D-SB-793-13	D-SB-793-15	D-SB-793-SS
SAMPLE DATE	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010
TOTAL PAHS	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	132.7 [MDL=NaN]
PCBS (UG/KG)							
AROCLOR-1016	26 U [MDL=26]	26 U [MDL=26]	25 U [MDL=25]	25 U [MDL=25]	25 U [MDL=25]	26 U [MDL=26]	24 U [MDL=24]
AROCLOR-1221	20 U [MDL=20]	20 U [MDL=20]	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]	20 U [MDL=20]	18 U [MDL=18]
AROCLOR-1232	17 U [MDL=17]	17 U [MDL=17]	17 U [MDL=17]	17 U [MDL=17]	16 U [MDL=16]	17 U [MDL=17]	16 U [MDL=16]
AROCLOR-1242	16 U [MDL=16]	16 U [MDL=16]	15 U [MDL=15]	15 U [MDL=15]	15 U [MDL=15]	16 U [MDL=16]	15 U [MDL=15]
AROCLOR-1248	21 U [MDL=21]	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]	21 U [MDL=21]	19 U [MDL=19]
AROCLOR-1254	21 U [MDL=21]	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]	21 U [MDL=21]	19 U [MDL=19]
AROCLOR-1260	21 U [MDL=21]	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]	21 U [MDL=21]	19 U [MDL=19]
TOTAL AROCLOR	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PESTICIDES (UG/KG)							
4,4'-DDD	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--
ALDRIN	--	--	--	--	--	--	--
ALPHA-BHC	--	--	--	--	--	--	--
ALPHA-CHLORDANE	--	--	--	--	--	--	--
BETA-BHC	--	--	--	--	--	--	--
DELTA-BHC	--	--	--	--	--	--	--
DIELDRIN	--	--	--	--	--	--	--
ENDOSULFAN I	--	--	--	--	--	--	--
ENDOSULFAN II	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	--	--	--	--	--	--	--
ENDRIN	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	--	--	--	--	--	--	--
ENDRIN KETONE	--	--	--	--	--	--	--
GAMMA-BHC (LINDANE)	--	--	--	--	--	--	--
GAMMA-CHLORDANE	--	--	--	--	--	--	--
HEPTACHLOR	--	--	--	--	--	--	--
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	--	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD	7.6 U [MDL=7.6]	0.76 U [MDL=0.76]	0.74 U [MDL=0.74]	0.74 U [MDL=0.74]	0.73 U [MDL=0.73]	0.76 U [MDL=0.76]	3.5 U [MDL=3.5]
4,4'-DDE	4.8 U [MDL=4.8]	0.48 U [MDL=0.48]	0.46 U [MDL=0.46]	0.46 U [MDL=0.46]	0.46 U [MDL=0.46]	0.48 U [MDL=0.48]	2.2 U [MDL=2.2]
4,4'-DDT	7.8 U [MDL=7.8]	0.77 U [MDL=0.77]	0.75 U [MDL=0.75]	0.75 U [MDL=0.75]	0.74 U [MDL=0.74]	0.77 U [MDL=0.77]	3.6 U [MDL=3.6]
ALDRIN	15 U [MDL=15]	1.5 U [MDL=1.5]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	1.5 U [MDL=1.5]	6.9 U [MDL=6.9]
ALPHA-BHC	9 U [MDL=9]	0.89 U [MDL=0.89]	0.87 UJ [MDL=0.87]	0.87 UJ [MDL=0.87]	0.86 UJ [MDL=0.86]	0.9 UJ [MDL=0.9]	4.2 UJ [MDL=4.2]
ALPHA-CHLORDANE	12 U [MDL=12]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.2 U [MDL=1.2]	5.4 U [MDL=5.4]
BETA-BHC	14 U [MDL=14]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	6.3 U [MDL=6.3]
DELTA-BHC	15 U [MDL=15]	1.5 U [MDL=1.5]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	1.5 U [MDL=1.5]	6.9 U [MDL=6.9]
DIELDRIN	5.8 U [MDL=5.8]	0.57 U [MDL=0.57]	0.56 U [MDL=0.56]	0.56 U [MDL=0.56]	0.55 U [MDL=0.55]	0.58 U [MDL=0.58]	2.7 U [MDL=2.7]
ENDOSULFAN I	6.4 U [MDL=6.4]	0.63 U [MDL=0.63]	0.62 U [MDL=0.62]	0.62 U [MDL=0.62]	0.61 U [MDL=0.61]	0.64 U [MDL=0.64]	3 U [MDL=3]
ENDOSULFAN II	10 U [MDL=10]	1 U [MDL=1]	0.98 U [MDL=0.98]	0.98 U [MDL=0.98]	0.96 U [MDL=0.96]	1 U [MDL=1]	4.7 U [MDL=4.7]
ENDOSULFAN SULFATE	11 U [MDL=11]	1.1 U [MDL=1.1]	1 U [MDL=1]	1 U [MDL=1]	1 U [MDL=1]	1.1 U [MDL=1.1]	5 U [MDL=5]
ENDRIN	6.2 U [MDL=6.2]	0.61 U [MDL=0.61]	0.6 U [MDL=0.6]	0.59 U [MDL=0.59]	0.59 U [MDL=0.59]	0.61 U [MDL=0.61]	2.9 U [MDL=2.9]
ENDRIN ALDEHYDE	12 U [MDL=12]	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]	1.2 U [MDL=1.2]	5.7 U [MDL=5.7]
ENDRIN KETONE	7.8 U [MDL=7.8]	0.77 U [MDL=0.77]	0.75 U [MDL=0.75]	0.75 U [MDL=0.75]	0.74 U [MDL=0.74]	0.77 U [MDL=0.77]	3.6 U [MDL=3.6]
GAMMA-BHC (LINDANE)	9.1 U [MDL=9.1]	0.9 U [MDL=0.9]	0.88 U [MDL=0.88]	0.88 U [MDL=0.88]	0.87 U [MDL=0.87]	0.91 U [MDL=0.91]	4.2 U [MDL=4.2]
GAMMA-CHLORDANE	5.2 U [MDL=5.2]	0.51 U [MDL=0.51]	0.5 U [MDL=0.5]	0.5 U [MDL=0.5]	0.49 U [MDL=0.49]	0.52 U [MDL=0.52]	2.4 U [MDL=2.4]
HEPTACHLOR	14 UJ [MDL=14]	1.3 UJ [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	6.3 UJ [MDL=6.3]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PETROLEUM HYDROCARBONS (MG/KG)
TPH (C10-C32)
PETROLEUM HYDROCARBONS (UG/KG)
DIESEL RANGE ORGANICS
GASOLINE RANGE ORGANICS
TPH (C06-C10)

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-794	SB-794	SB-794	SB-794	SB-794	SB-794	SB-794
SAMPLE ID	D-SB-794-03	D-SB-794-05	D-SB-794-07	D-SB-794-09	D-SB-794-11	D-SB-794-13	D-SB-794-15
SAMPLE DATE	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010
METALS (MG/KG)							
ANTIMONY	0.28 B [MDL=0.14]	0.18 B [MDL=0.03]	0.3 B [MDL=0.03]	0.075 B [MDL=0.028]	0.074 B [MDL=0.028]	0.36 J [MDL=0.029]	0.17 B [MDL=0.028]
ARSENIC	5.5 J [MDL=0.073]	7 J [MDL=0.077]	6.1 J [MDL=0.077]	5.6 J [MDL=0.071]	1.5 J [MDL=0.073]	7 J [MDL=0.075]	2.3 J [MDL=0.073]
BARIUM	40.2 [MDL=0.27]	11.3 [MDL=0.057]	8.1 [MDL=0.057]	11.6 [MDL=0.053]	15.3 [MDL=0.054]	20.9 [MDL=0.056]	14.7 [MDL=0.054]
BERYLLIUM	2.3 J [MDL=0.055]	1 J [MDL=0.058]	1.1 J [MDL=0.058]	0.46 J [MDL=0.054]	0.78 J [MDL=0.055]	2.7 J [MDL=0.057]	1.4 J [MDL=0.055]
CADMIUM	0.2 B [MDL=0.0092]	0.02 B [MDL=0.0097]	0.0097 UL [MDL=0.0097]	0.009 UL [MDL=0.009]	0.014 B [MDL=0.0092]	0.033 B [MDL=0.0095]	0.02 B [MDL=0.0092]
CHROMIUM	19.4 J [MDL=0.047]	25.9 J [MDL=0.05]	29.7 J [MDL=0.05]	8.1 J [MDL=0.046]	9.6 J [MDL=0.047]	26.4 J [MDL=0.049]	22.6 J [MDL=0.047]
COBALT	30049]	22.0049]	22.0048,5L=0.49]	22.6 J [MD8.0]	22.6 J [MD=0.]	1 J [MD [MDL1.0]	
COPPER							
IRON							
LEAD							
MANGANESE							
MERCURY							
MOLYBDENUM							
NICKEL							
SELENIUM							
SILVER							
THALLIUM							
VANADIUM							
ZINC							
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)							
HEXAVALENT CHROMIUM (MG/KG)							
MERCURY (METHYL) (UG/KG)							
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL							
1,4-DIOXANE							
2,2'-OXYBIS(1-CHLOROPROPANE)							
2,4,5-TRICHLOROPHENOL							
2,4,6-TRICHLOROPHENOL							
2,4-DICHLOROPHENOL							
2,4-DIMETHYLPHENOL							
2,4-DINITROPHENOL							
2,4-DINITROTOLUENE							
2,6-DINITROTOLUENE							
2-CHLORONAPHTHALENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE							
2-METHYLPHENOL							
2-NITROANILINE							
2-NITROPHENOL							
3&4-METHYLPHENOL							
3,3'-DICHLOROBENZIDINE							
3-NITROANILINE							
4,6-DINITRO-2-METHYLPHENOL							
4-BROMOPHENYL PHENYL ETHER							
4-CHLORO-3-METHYLPHENOL							
4-CHLOROANILINE							
4-CHLOROPHENYL PHENYL ETHER							
4-METHYLPHENOL							
4-NITROANILINE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE
1,2,3-TRICHLOROBENZENE
1,2,3-TRICHLOROPROPANE
1,2,3-TRIMETHYLBENZENE
1,2,4-TRICHLOROBENZENE
1,2,4-TRIMETHYLBENZENE
1,2-DIBROMO-3-CHLOROPROPANE
1,2-DIBROMOETHANE
1,2-DICHLOROBENZENE
1,2-DICHLOROETHANE
1,2-DICHLOROPROPANE
1,3,5-TRIMETHYLBENZENE
1,3-DICHLOROBENZENE
1,3-DICHLOROPROPANE
1,4-DICHLOROBENZENE
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-
1-BUTANOL
1-METHYLNAPHTHALENE
2,2-DICHLOROPROPANE
2-BUTANONE
2-CHLOROETHYL VINYL ETHER
2-CHLOROTOLUENE
2-HEXANONE
2-METHYLNAPHTHALENE
4-CHLOROTOLUENE
4-ISOPROPYLTOLUENE
4-METHYL-2-PENTANONE
ACETONE
BENZENE
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE
BROMOBENZENE
BROMOCHLOROMETHANE
BROMODICHLOROMETHANE
BROMOFORM
BROMOMETHANE
CARBON DISULFIDE
CARBON TETRACHLORIDE
CHLOROBENZENE
CHLORODIBROMOMETHANE
CHLOROETHANE
CHLOROFORM
CHLOROMETHANE
CIS-1,2-DICHLOROETHENE
CIS-1,3-DICHLOROPROPENE
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (
DIBROMOMETHANE
DICHLORODIFLUOROMETHANE
DIISOPROPYL ETHER

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-794	SB-794	SB-794	SB-794	SB-794	SB-794	SB-794
SAMPLE ID	D-SB-794-03	D-SB-794-05	D-SB-794-07	D-SB-794-09	D-SB-794-11	D-SB-794-13	D-SB-794-15
SAMPLE DATE	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010
DISILOXANE, HEXAMETHYL-	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	0.17 U [MDL=0.17]	0.18 U [MDL=0.18]	0.2 U [MDL=0.2]	0.19 U [MDL=0.19]	0.19 U [MDL=0.19]	0.19 U [MDL=0.19]	0.19 U [MDL=0.19]
ETHYLBENZENE	0.2 U [MDL=0.2]	0.22 U [MDL=0.22]	0.24 U [MDL=0.24]	0.22 U [MDL=0.22]	0.23 U [MDL=0.23]	0.23 U [MDL=0.23]	0.23 U [MDL=0.23]
HEXACHLOROBUTADIENE	0.93 U [MDL=0.93]	1 U [MDL=1]	1.1 U [MDL=1.1]	1 U [MDL=1]	1 U [MDL=1]	1 U [MDL=1]	1.1 U [MDL=1.1]
INDANE	--	--	--	--	--	--	--
ISOPROPYLBENZENE	0.12 U [MDL=0.12]	0.13 U [MDL=0.13]	0.15 U [MDL=0.15]	0.14 U [MDL=0.14]	0.14 U [MDL=0.14]	0.14 U [MDL=0.14]	0.14 U [MDL=0.14]
M+P-XYLENES	0.93 U [MDL=0.93]	1 U [MDL=1]	1.1 U [MDL=1.1]	1 U [MDL=1]	1 U [MDL=1]	1 U [MDL=1]	1.1 U [MDL=1.1]
METHYL ACETATE	--	--	--	--	--	--	--
[redacted]						--	--
						0.38 UJ [MDL=0.38]	0.38 UJ [MDL=0.38]
						0.59 U [MDL=0.59]	0.59 U [MDL=0.59]
						0.75 B [MDL=0.17]	0.77 B [MDL=0.17]
						0.2 U [MDL=0.2]	0.2 U [MDL=0.2]
						0.35 U [MDL=0.35]	0.35 U [MDL=0.35]
						0.31 U [MDL=0.31]	0.31 U [MDL=0.31]
						0.16 U [MDL=0.16]	0.16 U [MDL=0.16]
						0.13 U [MDL=0.13]	0.13 U [MDL=0.13]
						0.32 UJ [MDL=0.32]	0.33 UJ [MDL=0.33]
						0.25 U [MDL=0.25]	0.26 U [MDL=0.26]
						46 B [MDL=6.6]	6.7 UR [MDL=6.7]
						0.45 U [MDL=0.45]	0.46 U [MDL=0.46]
						0.24 U [MDL=0.24]	0.24 U [MDL=0.24]
						0.59 U [MDL=0.59]	0.59 U [MDL=0.59]
						0.36 U [MDL=0.36]	0.36 U [MDL=0.36]
						0.47 U [MDL=0.47]	0.48 U [MDL=0.48]
						0.37 U [MDL=0.37]	0.37 U [MDL=0.37]
						0.3 U [MDL=0.3]	0.3 U [MDL=0.3]
						0.22 U [MDL=0.22]	0.22 U [MDL=0.22]
						0.34 U [MDL=0.34]	0.34 U [MDL=0.34]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=NaN]	3.9 U [MDL=NaN]
						4 U [MDL=NaN]	3.9 U [MDL=NaN]
						--	--
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						1.3 U [MDL=1.3]	1.3 U [MDL=1.3]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]
						4 U [MDL=4]	3.9 U [MDL=3.9]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-794**	**SB-794**	**SB-794**	**SB-794**	**SB-794**	**SB-794**	**SB-794**
SAMPLE ID	**D-SB-794-03**	**D-SB-794-05**	**D-SB-794-07**	**D-SB-794-09**	**D-SB-794-11**	**D-SB-794-13**	**D-SB-794-15**
SAMPLE DATE	**9/9/2010**	**9/9/2010**	**9/9/2010**	**9/9/2010**	**9/9/2010**	**9/9/2010**	**9/9/2010**
TOTAL PAHS	1516 [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PCBS (UG/KG)							
AROCLOR-1016	25 U [MDL=25]	26 U [MDL=26]	26 U [MDL=26]	24 U [MDL=24]	25 U [MDL=25]	25 U [MDL=25]	25 U [MDL=25]
AROCLOR-1221	19 U [MDL=19]	20 U [MDL=20]	20 U [MDL=20]	18 U [MDL=175(L)4(=)2(1)4(75(L)4(=)24(5)4(D4(25)24(8)263(71-)14(M)12(D)5(L)0(2)4(0=4(5)]T2-6(M)12(D)5(L)4(=)2(2)4(5(])]12(D)5(L)4(=)2(2)4(5(])]			
AROCLOR-1232							
AROCLOR-1242							
AROCLOR-1248							
AROCLOR-1254							
AROCLOR-1260							
TOTAL AROCLOR							
PESTICIDES (UG/KG)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							
HEPTACHLOR EPOXIDE							
METHOXYCHLOR							
TOXAPHENE							
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-794	SB-795	SB-795	SB-795	SB-795	SB-795	SB-795
SAMPLE ID	D-SB-794-SS	D-SB-795-03	D-SB-795-05	D-SB-795-07	D-SB-795-09	D-SB-795-11	D-SB-795-13
SAMPLE DATE	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010	9/9/2010
METALS (MG/KG)							
ANTIMONY	0.41 J [MDL=0.14]	0.29 B [MDL=0.029]	0.087 B [MDL=0.035]	0.24 B [MDL=0.03]	0.3 B [MDL=0.028]	0.085 B [MDL=0.029]	0.42 J [MDL=0.029]
ARSENIC	4.3 J [MDL=0.072]	5.8 J [MDL=0.075]	3.9 J [MDL=0.091]	5.7 J [MDL=0.077]	4.4 J [MDL=0.073]	2.3 J [MDL=0.074]	4.2 J [MDL=0.076]
BARIUM	54.4 [MDL=0.27]	25.3 [MDL=0.056]	20.5 [MDL=0.068]	23.7 [MDL=0.057]	12.6 [MDL=0.054]	12.2 [MDL=0.055]	15 [MDL=0.056]
BERYLLIUM	1.6 J [MDL=0.055]	6.6 J [MDL=0.057]	0.97 J [MDL=0.069]	4.2 J [MDL=0.059]	1.3 J [MDL=0.055]	0.38 J [MDL=0.056]	2.4 J [MDL=0.057]
CADMIUM	0.27 B [MDL=0.0091]	0.042 B [MDL=0.0094]	0.015 B [MDL=0.012]	0.11 B [MDL=0.0097]	0.012 B [MDL=0.0092]	0.0093 UL [MDL=0.0093]	0.02 B [MDL=0.0095]
CHROMIUM	16.2 J [MDL=0.047]	25.6 J [MDL=0.048]	16.7 J [MDL=0.059]	20.9 J [MDL=0.05]	21.7 J [MDL=0.047]	12.4 J [MDL=0.048]	32.7 J [MDL=0.049]
COBALT	14.1 J [MDL=0.0044]	27.3 J [MDL=0.0046]	6.7 J [MDL=0.0056]	20.7 J [MDL=0.0047]	7.7 J [MDL=0.0045]	1.7 J [MDL=0.0045]	11.8 J [MDL=0.0046]
COPPER	33.6 J [MDL=0.05]	40.9 J [MDL=0.052]	18.1 J [MDL=0.063]	32.9 J [MDL=0.054]	1MDL=0.059]	MDL=0.0045]	1.7 J4(0)4(])]TJ 131.739 0 Td [(0)4(.)-6(0
IRON							
LEAD							
MANGANESE							
MERCURY							
MOLYBDENUM							
NICKEL							
SELENIUM							
SILVER							
THALLIUM							
VANADIUM							
ZINC							
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)							
HEXAVALENT CHROMIUM (MG/KG)							
MERCURY (METHYL) (UG/KG)							
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL							
1,4-DIOXANE							
2,2'-OXYBIS(1-CHLOROPROPANE)							
2,4,5-TRICHLOROPHENOL							
2,4,6-TRICHLOROPHENOL							
2,4-DICHLOROPHENOL							
2,4-DIMETHYLPHENOL							
2,4-DINITROPHENOL							
2,4-DINITROTOLUENE							
2,6-DINITROTOLUENE							
2-CHLORONAPHTHALENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE							
2-METHYLPHENOL							
2-NITROANILINE							
2-NITROPHENOL							
3&4-METHYLPHENOL							
3,3'-DICHLOROBENZIDINE							
3-NITROANILINE							
4,6-DINITRO-2-METHYLPHENOL							
4-BROMOPHENYL PHENYL ETHER							
4-CHLORO-3-METHYLPHENOL							
4-CHLOROANILINE							
4-CHLOROPHENYL PHENYL ETHER							
4-METHYLPHENOL							
4-NITROANILINE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-794 D-SB-794-SS 9/9/2010	SB-795 D-SB-795-03 9/9/2010	SB-795 D-SB-795-05 9/9/2010	SB-795 D-SB-795-07 9/9/2010	SB-795 D-SB-795-09 9/9/2010	SB-795 D-SB-795-11 9/9/2010	SB-795 D-SB-795-13 9/9/2010
4-NITROPHENOL	120 U [MDL=120]	97 U [MDL=97]	120 U [MDL=120]	100 U [MDL=100]	94 U [MDL=94]	96 U [MDL=96]	
ACENAPHTHENE							
ACENAPHTHYLENE							
ACETOPHENONE							
ANTHRACENE							
ATRAZINE							
BAP EQUIVALENT-HALFND							
BAP EQUIVALENT-POS							
BENZALDEHYDE							
BENZO(A)ANTHRACENE							
BENZO(A)PYRENE							
BENZO(B)FLUORANTHENE							
BENZO(G,H,I)PERYLENE							
BENZO(K)FLUORANTHENE							
BIS(2-CHLOROETHOXY)METHANE							
BIS(2-CHLOROETHYL)ETHER							
BIS(2-ETHYLHEXYL)PHTHALATE							
BUTYL BENZYL PHTHALATE							
CAPROLACTAM							
CARBAZOLE							
CHRYSENE							
DIBENZO(A,H)ANTHRACENE							
DIBENZOFURAN							
DIETHYL PHTHALATE							
DIMETHYL PHTHALATE							
DI-N-BUTYL PHTHALATE							
DI-N-OCTYL PHTHALATE							
FLUORANTHENE							
FLUORENE							
HEXACHLOROBENZENE							
HEXACHLOROBUTADIENE							
HEXACHLOROCYCLOPENTADIENE							
HEXACHLOROETHANE							
INDENO(1,2,3-CD)PYRENE							
ISOPHORONE							
NAPHTHALENE							
NITROBENZENE							
N-NITROSODIMETHYLAMINE							
N-NITROSO-DI-N-PROPYLAMINE							
N-NITROSODIPHENYLAMINE							
PENTACHLOROPHENOL							
PHENANTHRENE							
PHENOL							
PYRENE							
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE							
1,1,1,2-TETRACHLOROETHANE							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1,2-TRICHLOROTRIFLUOROETHANE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE
1,2,3-TRICHLOROBENZENE
1,2,3-TRICHLOROPROPANE
1,2,3-TRIMETHYLBENZENE
1,2,4-TRICHLOROBENZENE
1,2,4-TRIMETHYLBENZENE
1,2-DIBROMO-3-CHLOROPROPANE
1,2-DIBROMOETHANE
1,2-DICHLOROBENZENE
1,2-DICHLOROETHANE
1,2-DICHLOROPROPANE
1,3,5-TRIMETHYLBENZENE
1,3-DICHLOROBENZENE
1,3-DICHLOROPROPANE
1,4-DICHLOROBENZENE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
DISILOXANE, HEXAMETHYL-
ETHYL TERT-BUTYL ETHER
ETHYLBENZENE
HEXACHLOROBUTADIENE
INDANE
ISOPROPYLBENZENE
M+P-XYLENES
METHYL ACETATE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
TOTAL PAHS	
PCBS (UG/KG)	

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-795	SB-795	SB-796	SB-796	SB-796	SB-796	SB-796
SAMPLE ID	D-SB-795-15	D-SB-795-SS	D-SB-796-03	D-SB-796-05	D-SB-796-07	D-SB-796-09	D-SB-796-11
SAMPLE DATE	9/9/2010	9/9/2010	9/10/2010	9/10/2010	9/10/2010	9/10/2010	9/10/2010
METALS (MG/KG)							
ANTIMONY	0.24 B [MDL=0.029]	0.085 B [MDL=0.027]	0.19 J [MDL=0.028]	0.2 J [MDL=0.033]	0.21 J [MDL=0.028]	0.19 J [MDL=0.028]	0.065 J [MDL=0.028]
ARSENIC	3.2 J [MDL=0.074]	2.6 J [MDL=0.071]	3.4 [MDL=0.072]	9.4 [MDL=0.085]	3.1 [MDL=0.072]	4.3 [MDL=0.072]	1.3 [MDL=0.072]
BARIUM	14 [MDL=0.055]	12.6 [MDL=0.053]	38.2 [MDL=0.053]	32.5 [MDL=0.063]	9.8 [MDL=0.054]	11.4 [MDL=0.053]	10.5 [MDL=0.053]
BERYLLIUM	1.7 J [MDL=0.056]	0.15 J [MDL=0.054]	1.3 [MDL=0.055]	2.3 [MDL=0.064]	1.3 [MDL=0.055]	2.3 [MDL=0.054]	0.91 [MDL=0.054]
CADMIUM	0.015 B [MDL=0.0093]	0.011 B [MDL=0.0089]	0.24 [MDL=0.0091]	0.016 B [MDL=0.011]	0.016 B [MDL=0.0091]	0.025 B [MDL=0.009]	0.023 B [MDL=0.009]
CHROMIUM	25.5 J [MDL=0.048]	26.2 J [MDL=0.046]	15.3 [MDL=0.046]	32.2 [MDL=0.055]	15.8 [MDL=0.047]	22.7 [MDL=0.046]	17.3 [MDL=0.046]
COBALT	10 J [MDL=0.0046]	1.4 J [MDL=0.0043]	9.3 [MDL=0.0044]	6.7 [MDL=0.0052]	3.5 [MDL=0.0044]	8.9 [MDL=0.0044]	3.9 [MDL=0.0044]
COPPER	17.7 J [MDL=0.052]	4.5 J [MDL=0.049]	16.7 [MDL=0.05]	51.9 [MDL=0.059]	17.4 [MDL=0.05]	30.3 [MDL=0.05]	9.4 [MDL=0.05]
IRON	28500 J [MDL=1.2]	10200 J [MDL=1.1]	15400 [MDL=1.2]	50200 [MDL=1.4]	28100 [MDL=1.2]	36700 [MDL=1.2]	11100 [MDL=1.2]
LEAD	4.4 [MDL=0.016]	2 [MDL=0.015]	17.1 [MDL=0.015]	9.6 [MDL=0.018]	3.4 [MDL=0.015]	3.3 [MDL=0.015]	2.8 [MDL=0.015]
MANGANESE	41.9 J [MDL=0.056]	15.6 J [MDL=0.054]	44.6 [MDL=0.055]	23.5 [MDL=0.064]	20 [MDL=0.055]	20.9 [MDL=0.054]	5 [MDL=0.054]
MERCURY	0.018 U [MDL=0.018]	0.091 J [MDL=0.017]	0.51 [MDL=0.017]	0.021 U [MDL=0.021]	0.018 U [MDL=0.018]	0.017 U [MDL=0.017]	0.017 U [MDL=0.017]
MOLYBDENUM	0.42 [MDL=0.075]	0.26 [MDL=0.072]	0.4 [MDL=0.073]	1.2 [MDL=0.086]	0.57 [MDL=0.074]	0.78 [MDL=0.073]	0.16 J [MDL=0.073]
NICKEL	24.5 J [MDL=0.025]	2.7 J [MDL=0.024]	17.3 [MDL=0.024]	12.1 [MDL=0.029]	10.1 [MDL=0.025]	28.3 [MDL=0.024]	8.5 [MDL=0.024]
SELENIUM	2.2 L [MDL=0.11]	0.29 J [MDL=0.1]	1.3 [MDL=0.1]	1.6 [MDL=0.12]	1.3 [MDL=0.11]	1.4 [MDL=0.1]	1 K [MDL=0.1]
SILVER	0.019 U [MDL=0.019]	0.018 U [MDL=0.018]	0.31 [MDL=0.019]	0.038 J [MDL=0.022]	0.019 U [MDL=0.019]	0.019 U [MDL=0.019]	0.018 U [MDL=0.018]
THALLIUM	0.1 J [MDL=0.016]	0.015 U [MDL=0.015]	0.065 B [MDL=0.015]	0.13 B [MDL=0.018]	0.053 B [MDL=0.015]	0.057 B [MDL=0.015]	0.052 B [MDL=0.015]
VANADIUM	36.4 J [MDL=0.049]	19.4 J [MDL=0.047]	24.8 [MDL=0.048]	57.6 [MDL=0.056]	41.8 [MDL=0.048]	68.5 [MDL=0.047]	26.5 [MDL=0.047]
ZINC	30.6 L [MDL=0.24]	5.4 L [MDL=0.23]	95.4 [MDL=0.23]	44.8 [MDL=0.27]	10.3 [MDL=0.23]	27 [MDL=0.23]	11 [MDL=0.23]
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)	--	--	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	0.32 U [MDL=0.32]	0.31 U [MDL=0.31]	0.31 U [MDL=0.31]	0.37 U [MDL=0.37]	0.32 U [MDL=0.32]	0.37 J [MDL=0.31]	0.56 J [MDL=0.31]
MERCURY (METHYL) (UG/KG)	--	--	--	--	--	--	--
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL	32 U [MDL=32]	31 U [MDL=31]	31 U [MDL=31]	37 U [MDL=37]	32 U [MDL=32]	31 U [MDL=31]	31 U [MDL=31]
1,4-DIOXANE	26 U [MDL=26]	25 U [MDL=25]	26 U [MDL=26]	30 U [MDL=30]	26 U [MDL=26]	25 U [MDL=25]	25 U [MDL=25]
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	13 U [MDL=13]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]
2,4,5-TRICHLOROPHENOL	30 U [MDL=30]	29 U [MDL=29]	29 U [MDL=29]	34 U [MDL=34]	29 U [MDL=29]	29 U [MDL=29]	29 U [MDL=29]
2,4,6-TRICHLOROPHENOL	96 U [MDL=96]	92 U [MDL=92]	93 U [MDL=93]	110 U [MDL=110]	93 U [MDL=93]	93 U [MDL=93]	92 U [MDL=92]
2,4-DICHLOROPHENOL	24 U [MDL=24]	23 U [MDL=23]	23 U [MDL=23]	27 U [MDL=27]	23 U [MDL=23]	23 U [MDL=23]	23 U [MDL=23]
2,4-DIMETHYLPHENOL	24 U [MDL=24]	23 U [MDL=23]	23 U [MDL=23]	27 U [MDL=27]	23 U [MDL=23]	23 U [MDL=23]	23 U [MDL=23]
2,4-DINITROPHENOL	96 U [MDL=96]	92 U [MDL=92]	93 U [MDL=93]	110 U [MDL=110]	93 U [MDL=93]	93 U [MDL=93]	92 U [MDL=92]
2,4-DINITROTOLUENE	2]						
2,6-DINITROTOLUENE							
2-CHLORONAPHTHALENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE							
2-METHYLPHENOL							
2-NITROANILINE							
2-NITROPHENOL							
3&4-METHYLPHENOL							
3,3'-DICHLOROBENZIDINE							
3-NITROANILINE							
4,6-DINITRO-2-METHYLPHENOL							
4-BROMOPHENYL PHENYL ETHER							
4-CHLORO-3-METHYLPHENOL							
4-CHLOROANILINE							
4-CHLOROPHENYL PHENYL ETHER							
4-METHYLPHENOL							
4-NITROANILINE							

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-795	SB-795	SB-796	SB-796	SB-796	SB-796	SB-796
SAMPLE ID	**D-SB-795-15**	**D-SB-795-SS**	**D-SB-796-03**	**D-SB-796-05**	**D-SB-796-07**	**D-SB-796-09**	**D-SB-796-11**
SAMPLE DATE	**9/9/2010**	**9/9/2010**	**9/10/2010**	**9/10/2010**	**9/10/2010**	**9/10/2010**	**9/10/2010**
TOTAL PAHS	0 U [MDL=NaN]	263 [MDL=NaN]	402 [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PCBS (UG/KG)							
AROCLOR-1016	25 U [MDL=25]	24 U [MDL=24]	24 U [MDL=24]	29 U [MDL=29]	25 U [MDL=25]	24 U [MDL=24]	24 U [MDL=24]
AROCLOR-1221	19 U [MDL=19]	18 U [MDL=18]	19 U [MDL=19]	22 U [MDL=22]	19 U [MDL=19]	19 U [MDL=19]	18 U [MDL=18]
AROCLOR-1232	17 U [MDL=17]	16 U [MDL=16]	16 U [MDL=16]	19 U [MDL=19]	16 U [MDL=16]	16 U [MDL=16]	16 U [MDL=16]
AROCLOR-1242	16 U [MDL=16]	15 U [MDL=15]	15 U [MDL=15]	18 U [MDL=18]	15 U [MDL=15]	15 U [MDL=15]	15 U [MDL=15]
AROCLOR-1248	20 U [MDL=20]	19 U [MDL=19]	20 U [MDL=20]	23 U [MDL=23]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]
AROCLOR-1254	20 U [MDL=20]	19 U [MDL=19]	20 U [MDL=20]	23 U [MDL=23]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]
AROCLOR-1260	20 U [MDL=20]	19 U [MDL=19]	20 U [MDL=20]	23 U [MDL=23]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]
TOTAL AROCLOR	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]	0 U [MDL=NaN]
PESTICIDES (UG/KG)							
4,4'-DDD	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--
ALDRIN	--	--	--	--	--	--	--
ALPHA-BHC	--	--	--	--	--	--	--
ALPHA-CHLORDANE	--	--	--	--	--	--	--
BETA-BHC	--	--	--	--	--	--	--
DELTA-BHC	--	--	--	--	--	--	--
DIELDRIN	--	--	--	--	--	--	--
ENDOSULFAN I	--	--	--	--	--	--	--
ENDOSULFAN II	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	--	--	--	--	--	--	--
ENDRIN	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	--	--	--	--	--	--	--
ENDRIN KETONE	--	--	--	--	--	--	--
GAMMA-BHC (LINDANE)	--	--	--	--	--	--	--
GAMMA-CHLORDANE	--	--	--	--	--	--	--
HEPTACHLOR	--	--	--	--	--	--	--
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	0.73 5 [1.4]	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD	0.74 UJ [MDL=0.74]	3.5 UJ [MDL=3.5]	1.4 U [MDL=1.4]	4.2 U [MDL=4.2]	0.72 U [MDL=0.72]	0.72 U [MDL=0.72]	0.72 U [MDL=0.72]
4,4'-DDE	0.47 UJ [MDL=0.47]	2.2 UJ [MDL=2.2]	0.91 U [MDL=0.91]	2.7 U [MDL=2.7]	0.46 U [MDL=0.46]	0.45 U [MDL=0.45]	0.45 U [MDL=0.45]
4,4'-DDT	0.75 U [MDL=0.75]	3.6 U [MDL=3.6]	1.5 U [MDL=1.5]	4.3 U [MDL=4.3]	0.74 U [MDL=0.74]	0.73 U [MDL=0.73]	0.73 U [MDL=0.73]
ALDRIN	1.4 UJ [MDL=1.4]	6.9 UJ [MDL=6.9]	2.8 U [MDL=2.8]	8.2 U [MDL=8.2]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]
ALPHA-BHC	0.87 UJ [MDL=0.87]	4.2 UJ [MDL=4.2]	1.7 U [MDL=1.7]	5 U [MDL=5]	0.85 U [MDL=0.85]	0.85 U [MDL=0.85]	0.84 U [MDL=0.84]
ALPHA-CHLORDANE	1.1 UJ [MDL=1.1]	5.4 UJ [MDL=5.4]	2.2 U [MDL=2.2]	6.4 U [MDL=6.4]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]	1.1 U [MDL=1.1]
BETA-BHC	1.3 UJ [MDL=1.3]	6.3 UJ [MDL=6.3]	2.6 U [MDL=2.6]	7.5 U [MDL=7.5]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]
DELTA-BHC	1.4 UJ [MDL=1.4]	6.9 UJ [MDL=6.9]	2.8 U [MDL=2.8]	8.2 U [MDL=8.2]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]	1.4 U [MDL=1.4]
DIELDRIN	0.56 U [MDL=0.56]	2.7 U [MDL=2.7]	1.1 U [MDL=1.1]	3.2 U [MDL=3.2]			
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PETROLEUM HYDROCARBONS (MG/KG)
TPH (C10-C32)
PETROLEUM HYDROCARBONS (UG/KG)
DIESEL RANGE ORGANICS
GASOLINE RANGE ORGANICS
TPH (C06-C10)

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.
Data Qualifiers:
Blank (i.e., no qualifier) = the chemical was detected.
> = The chemical was detected.
J = The chemical was detected but the concentration reported is an
U = The chemical was not detected.
< = The chemical was not detected.
R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-796**	**SB-796**	**SB-796**	**SB-872**	**SB-872**	**SB-872**	**SB-872**
SAMPLE ID	**D-SB-796-13**	**D-SB-796-15**	**D-SB-796-SS**	**D-SB-872-0-1**	**D-SB-872-1-2**	**D-SB-872-2-4**	**D-SB-872-4-6**
SAMPLE DATE	**9/10/2010**	**9/10/2010**	**9/10/2010**	**4/24/2012**	**4/24/2012**	**4/24/2012**	**4/24/2012**
METALS (MG/KG)							
ANTIMONY	0.029 U [MDL=0.029]	0.2 J [MDL=0.027]	0.37 J [MDL=0.14]	0.39 UL [MDL=0.39]	0.43 UL [MDL=0.43]	0.54 B [MDL=0.34]	0.44 UL [MDL=0.44]
ARSENIC	0.43 J [MDL=0.076]	7.3 [MDL=0.071]	4.9 [MDL=0.074]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BERYLLIUM							
CADMIUM							
CHROMIUM							
COBALT							
COPPER							
IRON							
LEAD							
MANGANESE							
MERCURY							
MOLYBDENUM							
NICKEL							
SELENIUM							
SILVER							
THALLIUM							
VANADIUM							
ZINC							
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)							
HEXAVALENT CHROMIUM (MG/KG)							
MERCURY (METHYL) (UG/KG)							
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL							
1,4-DIOXANE							
2,2'-OXYBIS(1-CHLOROPROPANE)							
2,4,5-TRICHLOROPHENOL							
2,4,6-TRICHLOROPHENOL							
2,4-DICHLOROPHENOL							
2,4-DIMETHYLPHENOL							
2,4-DINITROPHENOL							
2,4-DINITROTOLUENE							
2,6-DINITROTOLUENE							
2-CHLORONAPHTHALENE							
[redacted]							
2-NITROANILINE							
2-NITROPHENOL							
3&4-METHYLPHENOL							
3,3'-DICHLOROBENZIDINE							
3-NITROANILINE							
4,6-DINITRO-2-METHYLPHENOL							
4-BROMOPHENYL PHENYL ETHER							
4-CHLORO-3-METHYLPHENOL							
4-CHLOROANILINE							
4-CHLOROPHENYL PHENYL ETHER							
4-METHYLPHENOL							
4-NITROANILINE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-796	SB-796	SB-796	SB-872	SB-872	SB-872	SB-872
SAMPLE ID	D-SB-796-13	D-SB-796-15	D-SB-796-SS	D-SB-872-0-1	D-SB-872-1-2	D-SB-872-2-4	D-SB-872-4-6
SAMPLE DATE	9/10/2010	9/10/2010	9/10/2010	4/24/2012	4/24/2012	4/24/2012	4/24/2012
4-NITROPHENOL	98 U [MDL=98]	91 U [MDL=91]	96 U [MDL=96]	170 U [MDL=170]	180 U [MDL=180]	230 U [MDL=230]	190 U [MDL=190]
ACENAPHTHENE	--	--	--	52 [MDL=6.8]	160 [MDL=7.2]	160 [MDL=9.6]	480 [MDL=7.8]
ACENAPHTHYLENE	--	--	--	6.8 U [MDL=6.8]	27 [MDL=7.2]	9.6 U [MDL=9.6]	7.8 U [MDL=7.8]
ACETOPHENONE	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	19 U [MDL=19]	20 U [MDL=20]	27 U [MDL=27]	22 U [MDL=22]
ANTHRACENE	--	--	--	87 [MDL=6.8]	200 [MDL=7.2]	38 [MDL=9.6]	110 [MDL=7.8]
ATRAZINE	11 U [MDL=11]	10 U [MDL=10]	11 U [MDL=11]	19 U [MDL=19]	20 U [MDL=20]	27 U [MDL=27]	21 U [MDL=21]
BAP EQUIVALENT-HALFND	--	--	--	133.84 [MDL=NaN]	1480.2 [MDL=NaN]	279.26 [MDL=NaN]	178.02 [MDL=NaN]
BAP EQUIVALENT-POS	--	--	--	130.44 [MDL=NaN]	1476.6 [MDL=NaN]	274.46 [MDL=NaN]	174.12 [MDL=NaN]
BENZALDEHYDE	15 U [MDL=15]	14 U [MDL=14]	14 U [MDL=14]	25 UJ [MDL=25]	26 UJ [MDL=26]	35 U [MDL=35]	28 U [MDL=28]
BENZO(A)ANTHRACENE	--	--	--	140 [MDL=6.8]	1200 [MDL=7.2]	150 [MDL=9.6]	250 [MDL=7.8]
BENZO(A)PYRENE	--	--	--	96 [MDL=6.8]	1100 [MDL=7.2]	210 [MDL=9.6]	120 [MDL=7.8]
BENZO(B)FLUORANTHENE	--	--	--	150 [MDL=6.8]	1900 [MDL=7.2]	350 [MDL=9.6]	220 [MDL=7.8]
BENZO(G,H,I)PERYLENE	--	--	--	57 [MDL=6.8]	700 [MDL=7.2]	170 [MDL=9.6]	69 [MDL=7.8]
BENZO(K)FLUORANTHENE	--	--	--	67 [MDL=6.8]	650 [MDL=7.2]	120 [MDL=9.6]	110 [MDL=7.8]
BIS(2-CHLOROETHOXY)METHANE	27 U [MDL=27]	25 U [MDL=25]	26 U [MDL=26]	46 U [MDL=46]	48 U [MDL=48]	64 U [MDL=64]	52 U [MDL=52]
BIS(2-CHLOROETHYL)ETHER	2.4 U [MDL=2.4]	2.3 U [MDL=2.3]	2.4 U [MDL=2.4]	4.1 U [MDL=4.1]	4.4 U [MDL=4.4]	5.8 U [MDL=5.8]	4.7 U [MDL=4.7]
BIS(2-ETHYLHEXYL)PHTHALATE	23 U [MDL=23]	22 U [MDL=22]	23 U [MDL=23]	39 U [MDL=39]	42 U [MDL=42]	55 U [MDL=55]	45 U [MDL=45]
BUTYL BENZYL PHTHALATE	12 U [MDL=12]	11 U [MDL=11]	12 U [MDL=12]	21 U [MDL=21]	22 U [MDL=22]	29 U [MDL=29]	23 U [MDL=23]
CAPROLACTAM	45 U [MDL=45]	42 U [MDL=42]	44 U [MDL=44]	77 U [MDL=77]	81 U [MDL=81]	110 U [MDL=110]	87 U [MDL=87]
CARBAZOLE	33 U [MDL=33]	31 U [MDL=31]	32 U [MDL=32]	56 U [MDL=56]	59 U [MDL=59]	280 [MDL=79]	350 [MDL=63]
CHRYSENE	--	--	--	170 [MDL=2.3]	1100 [MDL=2.4]	260 [MDL=3.2]	320 [MDL=2.6]
DIBENZO(A,H)ANTHRACENE	--	--	--	6.8 U [MDL=6.8]	7.2 U [MDL=7.2]	9.6 U [MDL=9.6]	7.8 U [MDL=7.8]
DIBENZOFURAN	4 U [MDL=4]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	30 J [MDL=6.8]	78 J [MDL=7.2]	55 J [MDL=9.6]	210 [MDL=7.8]
DIETHYL PHTHALATE	20 U [MDL=20]	18 U [MDL=18]	19 U [MDL=19]	33 U [MDL=33]	35 U [MDL=35]	47 U [MDL=47]	38 U [MDL=38]
DIMETHYL PHTHALATE	21 U [MDL=21]	19 U [MDL=19]	20 U [MDL=20]	35 U [MDL=35]	37 U [MDL=37]	50 U [MDL=50]	40 U [MDL=40]
DI-N-BUTYL PHTHALATE	18 U [MDL=18]	17 U [MDL=17]	18 U [MDL=18]	31 U [MDL=31]	33 U [MDL=33]	44 U [MDL=44]	35 U [MDL=35]
DI-N-OCTYL PHTHALATE	33 U [MDL=33]	31 U [MDL=31]	32 U [MDL=32]	56 U [MDL=56]	59 U [MDL=59]	79 U [MDL=79]	63 U [MDL=63]
FLUORANTHENE	--	--	--	360 [MDL=6.8]	2100 [MDL=7.2]	340 [MDL=9.6]	1100 [MDL=7.8]
FLUORENE	--	--	--	33 [MDL=6.8]	91 [MDL=7.2]	70 [MDL=9.6]	160 [MDL=7.8]
HEXACHLOROBENZENE	2.6 U [MDL=2.6]	2.4 U [MDL=2.4]	2.5 U [MDL=2.5]	4.4 U [MDL=4.4]	4.6 U [MDL=4.6]	6.33]	
HEXACHLOROBUTADIENE							
HEXACHLOROCYCLOPENTADIENE							
HEXACHLOROETHANE							
INDENO(1,2,3-CD)PYRENE							
ISOPHORONE							
NAPHTHALENE							
NITROBENZENE							
N-NITROSODIMETHYLAMINE							
N-NITROSO-DI-N-PROPYLAMINE							
N-NITROSODIPHENYLAMINE							
PENTACHLOROPHENOL							
PHENANTHRENE							
PHENOL							
PYRENE							
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE							
1,1,1,2-TETRACHLOROETHANE							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1,2-TRICHLOROTRIFLUOROETHANE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE

APPENDIX C

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-796 D-SB-796-13 9/10/2010	SB-796 D-SB-796-15 9/10/2010	SB-796 D-SB-796-SS 9/10/2010	SB-872 D-SB-872-0-1 4/24/2012	SB-872 D-SB-872-1-2 4/24/2012	SB-872 D-SB-872-2-4 4/24/2012	SB-872 D-SB-872-4-6 4/24/2012
HEPTACHLOR EPOXIDE	0.98 U [MDL=0.98]	0.91 U [MDL=0.91]	0.96 U [MDL=0.96]	--	--	--	--
METHOXYCHLOR	1.8 U [MDL=1.8]	1.7 U [MDL=1.7]	1.8 U [MDL=1.8]	--	--	--	--
TOXAPHENE	23 U [MDL=23]	22 U [MDL=22]	23 U [MDL=23]	--	--	--	--
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)	--	--	--	1100 [MDL=48]	270 [MDL=10]	260 [MDL=11]	110 [MDL=11]
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS	3400 J [MDL=3.4]	3200 U [MDL=3.2]	64000 [MDL=3.3]	--	--	--	--
GASOLINE RANGE ORGANICS	56 U [MDL=56]	53 U [MDL=53]	55 U [MDL=55]	--	--	--	--
TPH (C06-C10)	--	--	--	48 U [MDL=48]	51 U [MDL=51]	94 J [MDL=54]	280 [MDL=110]

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.

Data Qualifiers:

Blank (i.e., no qualifier) = the chemical was detected.

> = The chemical was detected.

J = The chemical was detected but the concentration reported is an

U = The chemical was not detected.

< = The chemical was not detected.

R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-872	SB-873	SB-873	SB-873	SB-873	SB-873	SB-874	
SAMPLE ID	D-SB-872-6-8	D-SB-873-0-1	D-SB-873-1-2	D-SB-873-2-4	D-SB-873-4-6	D-SB-873-6-8	D-SB-874-0-1	
SAMPLE DATE	4/24/2012	4/23/2012	4/23/2012	4/23/2012	4/23/2012	4/23/2012	4/24/2012	
METALS (MG/KG)								
ANTIMONY	1.6 UL [MDL=1.6]	0.43 UJ [MDL=0.43]	2 UJ [MDL=2]	0.40 UJ [MDL=0.4]	0.42 UJ [MDL=0.42]	2.1 J [MDL=2]	0.45 B [MDL=0.44]	
ARSENIC	5.1 J [MDL=1.2]	3.5 [MDL=0.33]	6.7 J [MDL=1.6]	6.3 [MDL=0.31]	4.9 [MDL=0.32]	3.2 J [MDL=1.5]	1.9 [MDL=0.34]	
BARIUM	18 J [MDL=0.29]	22 J [MDL=0.078]	28 J [MDL=0.37]	17 J [MDL=0.072]	6.7 J [MDL=0.076]	5.3 J [MDL=0.072]	15 J [MDL=0.08]	
BERYLLIUM	3.8 [MDL=0.18]	1.1 [MDL=0.047]	1.5 J [MDL=0.22]	1.3 [MDL=0.044]	1.1 [MDL=0.046]	0.61 [MDL=0.044]	0.048 U [MDL=0.048]	
CADMIUM	0.38 J [MDL=0.15]	0.29 J [MDL=0.04]	0.19 U [MDL=0.19]	0.067 J [MDL=0.037]	0.069 J [MDL=0.039]	0.18 U [MDL=0.18]	0.21 J [MDL=0.04]	
CHROMIUM	24 [MDL=0.82]	18 J [MDL=0.22]	21 J [MDL=1]	24 J [MDL=0.2]	22 J [MDL=0.22]	16 J [MDL=0.2]	13 [MDL=0.22]	
COBALT	12 [MDL=0.66]	9.1 [MDL=0.18]	8.8 [MDL=0.84]	6.6 [MDL=0.16]	4 [MDL=0.17]	1.9 [MDL=0.16]	1.7 L [MDL=0.18]	
COPPER	29 [MDL=3]	11 [MDL=0.82]	20 [MDL=3.9]	16 [MDL=0.76]	11 [MDL=0.8]	9.3 [MDL=0.75]	4.3 [MDL=0.83]	
IRON	--	--	--	--	--	--	--	
LEAD	15 [MDL=0.78]	8.7 [MDL=0.21]	17 [MDL=0.99]	8.4 [MDL=0.19]	4.8 [MDL=0.2]	7.5 [MDL=0.96]	4 [MDL=0.21]	
MANGANESE	--	--	--	--	--	--	--	
MERCURY	0.34 [MDL=0.02]	0.19 [MDL=0.017]	0.27 [MDL=0.019]		0.([)-6(M)1(0)4(.)-36.75]	0.215 [M(=)24(=)2(0)4(.1)4(9)4(])].75]		2
MOLYBDENUM								
NICKEL								
SELENIUM								
SILVER								
THALLIUM								
VANADIUM								
ZINC								
MISCELLANEOUS PARAMETERS								
PERCENT SOLIDS (%)								
HEXAVALENT CHROMIUM (MG/KG)								
MERCURY (METHYL) (UG/KG)								
SEMIVOLATILES (UG/KG)								
1,1-BIPHENYL								
1,4-DIOXANE								
2,2'-OXYBIS(1-CHLOROPROPANE)								
2,4,5-TRICHLOROPHENOL								
2,4,6-TRICHLOROPHENOL								
2,4-DICHLOROPHENOL								
2,4-DIMETHYLPHENOL								
2,4-DINITROPHENOL								
2,4-DINITROTOLUENE								
2,6-DINITROTOLUENE								
2-CHLORONAPHTHALENE								
2-CHLOROPHENOL								
2-METHYLNAPHTHALENE								
2-METHYLPHENOL								
2-NITROANILINE								
2-NITROPHENOL								
3&4-METHYLPHENOL								
3,3'-DICHLOROBENZIDINE								
3-NITROANILINE								
4,6-DINITRO-2-METHYLPHENOL								
4-BROMOPHENYL PHENYL ETHER								
4-CHLORO-3-METHYLPHENOL								
4-CHLOROANILINE								
4-CHLOROPHENYL PHENYL ETHER								
4-METHYLPHENOL								
4-NITROANILINE								

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-872	SB-873	SB-873	SB-873	SB-873	SB-873	SB-874
SAMPLE ID	D-SB-872-6-8	D-SB-873-0-1	D-SB-873-1-2	D-SB-873-2-4	D-SB-873-4-6	D-SB-873-6-8	D-SB-874-0-1
SAMPLE DATE	4/24/2012	4/23/2012	4/23/2012	4/23/2012	4/23/2012	4/23/2012	4/24/2012
4-NITROPHENOL	200 U [MDL=200]	93 U [MDL=93]	95 U [MDL=95]	90 U [MDL=90]	98 U [MDL=98]	92 U [MDL=92]	620 UR [MDL=620]
ACENAPHTHENE	57 [MDL=8.1]	13 [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	49 J [MDL=25]
ACENAPHTHYLENE	8.1 U [MDL=8.1]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	25 U [MDL=25]
ACETOPHENONE	22 U [MDL=22]	11 U [MDL=11]	11 U [MDL=11]	10 U [MDL=10]	11 U [MDL=11]	11 U [MDL=11]	71 U [MDL=71]
ANTHRACENE	94 [MDL=8.1]	38 [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	88 [MDL=25]
ATRAZINE	22 U [MDL=22]	11 U [MDL=11]	11 U [MDL=11]	10 U [MDL=10]	11 U [MDL=11]	10 U [MDL=10]	70 U [MDL=70]
BAP EQUIVALENT-HALFND	124.08 [MDL=NaN]	61.162 [MDL=NaN]	5.5205 [MDL=NaN]	4.9185 [MDL=NaN]	4 U [MDL=NaN]	3.8 U [MDL=NaN]	132.87 [MDL=NaN]
BAP EQUIVALENT-POS	120.03 [MDL=NaN]	59.072 [MDL=NaN]	1.211 [MDL=NaN]	0.83 [MDL=NaN]	4 U [MDL=NaN]	3.8 U [MDL=NaN]	120.37 [MDL=NaN]
BENZALDEHYDE	29 UJ [MDL=29]	14 U [MDL=14]	14 U [MDL=14]	14 U [MDL=14]	27 J [MDL=15]	14 U [MDL=14]	93 UJ [MDL=93]
BENZO(A)ANTHRACENE	140 [MDL=8.1]	82 [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	92 [MDL=25]
BENZO(A)PYRENE	87 [MDL=8.1]	45 [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	86 [MDL=25]
BENZO(B)FLUORANTHENE	140 [MDL=8.1]	51 [MDL=3.8]	12 [MDL=3.9]	8.2 [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	180 [MDL=25]
BENZO(G,H,I)PERYLENE	36 [MDL=8.1]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	93 [MDL=25]
BENZO(K)FLUORANTHENE	80 [MDL=8.1]	69 [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	79 [MDL=25]
BIS(2-CHLOROETHOXY)METHANE	54 U [MDL=54]	26 U [MDL=26]	26 U [MDL=26]	25 U [MDL=25]	27 U [MDL=27]	25 U [MDL=25]	170 U [MDL=170]
BIS(2-CHLOROETHYL)ETHER	4.9 U [MDL=4.9]	2.3 U [MDL=2.3]	2.4 U [MDL=2.4]	2.3 U [MDL=2.3]	2.4 U [MDL=2.4]	2.3 U [MDL=2.3]	15 U [MDL=15]
BIS(2-ETHYLHEXYL)PHTHALATE	46 U [MDL=46]	27 B [MDL=22]	22 U [MDL=22]	21 U [MDL=21]	27 B [MDL=23]	22 U [MDL=22]	150 U [MDL=150]
BUTYL BENZYL PHTHALATE	24 U [MDL=24]	12 U [MDL=12]	12 U [MDL=12]	11 U [MDL=11]	12 U [MDL=12]	12 U [MDL=12]	77 U [MDL=77]
CAPROLACTAM	90 U [MDL=90]	43 U [MDL=43]	44 U [MDL=44]	42 U [MDL=42]	45 U [MDL=45]	43 U [MDL=43]	290 U [MDL=290]
CARBAZOLE	96 J [MDL=66]	31 U [MDL=31]	32 U [MDL=32]	30 U [MDL=30]	33 U [MDL=33]	31 U [MDL=31]	210 U [MDL=210]
CHRYSENE	230 [MDL=2.7]	82 [MDL=1.3]	11 [MDL=1.3]	10 [MDL=1.2]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	180 [MDL=8.5]
DIBENZO(A,H)ANTHRACENE	8.1 U [MDL=8.1]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	25 U [MDL=25]
DIBENZOFURAN	47 J [MDL=8.1]	10 J [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	25 U [MDL=25]
DIETHYL PHTHALATE	39 U [MDL=39]	19 U [MDL=19]	19 U [MDL=19]	18 U [MDL=18]	20 U [MDL=20]	18 U [MDL=18]	120 U [MDL=120]
DIMETHYL PHTHALATE	41 U [MDL=41]	20 U [MDL=20]	20 U [MDL=20]	19 U [MDL=19]	21 U [MDL=21]	20 U [MDL=20]	130 U [MDL=130]
DI-N-BUTYL PHTHALATE	37 U [MDL=37]	17 U [MDL=17]	18 U [MDL=18]	17 U [MDL=17]	18 U [MDL=18]	17 U [MDL=17]	120 U [MDL=120]
DI-N-OCTYL PHTHALATE	66 U [MDL=66]	31 U [MDL=31]	32 U [MDL=32]	30 U [MDL=30]	33 U [MDL=33]	31 U [MDL=31]	210 U [MDL=210]
FLUORANTHENE	650 [MDL=8.1]	160 [MDL=3.8]	11 [MDL=3.9]	10 [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	230 [MDL=25]
FLUORENE	72 [MDL=8.1]	14 [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	25 U [MDL=25]
HEXACHLOROBENZENE	5.1 U [MDL=5.1]	2.4 U [MDL=2.4]	2.5 U [MDL=2.5]	2.4 U [MDL=2.4]	2.6 U [MDL=2.6]	2.4 U [MDL=2.4]	16 U [MDL=16]
HEXACHLOROBUTADIENE	66 U [MDL=66]	31 U [MDL=31]	32 U [MDL=32]	30 U [MDL=30]	33 U [MDL=33]	31 U [MDL=31]	210 U [MDL=210]
HEXACHLOROCYCLOPENTADIENE	66 U [MDL=66]	31 U [MDL=31]	32 U [MDL=32]	30 U [MDL=30]	33 U [MDL=33]	31 U [MDL=31]	210 UR [MDL=210]
HEXACHLOROETHANE	22 U [MDL=22]	10 U [MDL=10]	11 U [MDL=11]	10 U [MDL=10]	11 U [MDL=11]	10 U [MDL=10]	69 U [MDL=69]
INDENO(1,2,3-CD)PYRENE	40 [MDL=8.1]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	62 [MDL=25]
ISOPHORONE	32 U [MDL=32]	15 U [MDL=15]	15 U [MDL=15]	15 U [MDL=15]	16 U [MDL=16]	15 U [MDL=15]	100 U [MDL=100]
NAPHTHALENE	1200 [MDL=8.1]	9 [MDL=3.8]	3.9 U [MDL=3.9]	3.7 U [MDL=3.7]	4 U [MDL=4]	3.8 U [MDL=3.8]	1000 [MDL=25]
NITROBENZENE	5.4 U [MDL=5.4]	2.6 U [MDL=2.6]	2.6 U [MDL=2.6]	2.5 U [MDL=2.5]	2.7 U [MDL=2.7]	2.5 U [MDL=2.5]	17 U [MDL=17]
N-NITROSODIMETHYLAMINE	39 U [MDL=39]	19 U [MDL=19]	19 U [MDL=19]	18 U [MDL=18]	20 U [MDL=20]	18 U [MDL=18]	120 U [MDL=120]
N-NITROSO-DI-N-PROPYLAMINE	66 U [MDL=66]	31 U [MDL=31]	32 U [MDL=32]	30 U [MDL=30]	33 U [MDL=33]	31 U [MDL=31]	210 U [MDL=210]
N-NITROSODIPHENYLAMINE	51 U [MDL=51]	24 U [MDL=24]	25 U [MDL=25]	24 U [MDL=24]	26 U [MDL=26]	24 U [MDL=24]	160 U [MDL=160]
PENTACHLOROPHENOL	200 U [MDL=200]	93 U [MDL=93]	95 U [MDL=95]	090 (U)-278([)-6(M)12(0U)-8.9781 36 3.457]-12.36 Td 163(U)-270U 93.97840=92] [illegible]			
PHENANTHRENE							
PHENOL							
PYRENE							
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE							
1,1,1,2-TETRACHLOROETHANE							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1,2-TRICHLOROTRIFLUOROETHANE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-872	SB-873	SB-873	SB-873	SB-873	SB-873	SB-874
SAMPLE ID	SB-872-6-8						
SAMPLE DATE							
1,1-DICHLOROETHANE							
1,1-DICHLOROETHENE							
1,1-DICHLOROPROPENE							
1,2,3-TRICHLOROBENZENE							
1,2,3-TRICHLOROPROPANE							
1,2,3-TRIMETHYLBENZENE							
1,2,4-TRICHLOROBENZENE							
1,2,4-TRIMETHYLBENZENE							
1,2-DIBROMO-3-CHLOROPROPANE							
1,2-DIBROMOETHANE							
1,2-DICHLOROBENZENE							
1,2-DICHLOROETHANE							
1,2-DICHLOROPROPANE							
1,3,5-TRIMETHYLBENZENE							
1,3-DICHLOROBENZENE							
1,3-DICHLOROPROPANE							
1,4-DICHLOROBENZENE							
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-							
1-BUTANOL							
1-METHYLNAPHTHALENE							
2,2-DICHLOROPROPANE							
2-BUTANONE							
2-CHLOROETHYL VINYL ETHER							
2-CHLOROTOLUENE							
2-HEXANONE							
2-METHYLNAPHTHALENE							
4-CHLOROTOLUENE							
4-ISOPROPYLTOLUENE							
4-METHYL-2-PENTANONE							
ACETONE							
BENZENE							
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE							
BROMOBENZENE							
BROMOCHLOROMETHANE							
BROMODICHLOROMETHANE							
BROMOFORM							
BROMOMETHANE							
CARBON DISULFIDE							
CARBON TETRACHLORIDE							
CHLOROBENZENE							
CHLORODIBROMOMETHANE							
CHLOROETHANE							
CHLOROFORM							
CHLOROMETHANE							
CIS-1,2-DICHLOROETHENE							
CIS-1,3-DICHLOROPROPENE							
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (							
DIBROMOMETHANE							
DICHLORODIFLUOROMETHANE							
DIISOPROPYL ETHER							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
DISILOXANE, HEXAMETHYL-
ETHYL TERT-BUTYL ETHER
ETHYLBENZENE
HEXACHLOROBUTADIENE
INDANE
ISOPROPYLBENZENE
M+P-XYLENES
METHYL ACETATE
METHYL CYCLOHEXANE
METHYL TERT-BUTYL ETHER
METHYLENE CHLORIDE
NAPHTHALENE
N-BUTYLBENZENE
N-PROPYLBENZENE
O-XYLENE
SEC-BUTYLBENZENE
STYRENE
TERT-AMYL METHYL ETHER
TERT-BUTYLBENZENE
TERTIARY-BUTYL ALCOHOL
TETRACHLOROETHENE
TOLUENE
TOTAL XYLENES
TRANS-1,2-DICHLOROETHENE
TRANS-1,3-DICHLOROPROPENE
TRICHLOROETHENE
TRICHLOROFLUOROMETHANE
VINYL ACETATE
VINYL CHLORIDE
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)
2-METHYLNAPHTHALENE
ACENAPHTHENE
ACENAPHTHYLENE
ANTHRACENE
BAP EENE
BAP EENE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-872 D-SB-872-6-8 4/24/2012	SB-873 D-SB-873-0-1 4/23/2012	SB-873 D-SB-873-1-2 4/23/2012	SB-873 D-SB-873-2-4 4/23/2012	SB-873 D-SB-873-4-6 4/23/2012	SB-873 D-SB-873-6-8 4/23/2012	SB-874 D-SB-874-0-1 4/24/2012
TOTAL PAHS	--	--	--	--	--	--	--
PCBS (UG/KG)							
AROCLOR-1016	26 U [MDL=26]	25 U [MDL=25]	25 U [MDL=25]	24 U [MDL=24]	26 U [MDL=26]	24 U [MDL=24]	24 U [MDL=24]
AROCLOR-1221	20 U [MDL=20]	19 U [MDL=19]	19 U [MDL=19]	18 U [MDL=18]	20 U [MDL=20]	18 U [MDL=18]	19 U [MDL=19]
AROCLOR-1232	17 U [MDL=17]	16 U [MDL=16]	17 U [MDL=17]	16 U [MDL=16]	17 U [MDL=17]	16 U [MDL=16]	16 U [MDL=16]
AROCLOR-1242	16 U [MDL=16]	15 U [MDL=15]	15 U [MDL=15]	15 U [MDL=15]	16 U [MDL=16]	15 U [MDL=15]	15 U [MDL=15]
AROCLOR-1248	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]	19 U [MDL=19]	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]
AROCLOR-1254	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]	19 U [MDL=19]	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]
AROCLOR-1260	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]	19 U [MDL=19]	21 U [MDL=21]	20 U [MDL=20]	20 U [MDL=20]
TOTAL AROCLOR	--	--	--	--	--	--	--
PESTICIDES (UG/KG)							
4,4'-DDD	7.6 UJ [MDL=7.6]	72 U [MDL=72]	7.3 U [MDL=7.3]	14 U [MDL=14]	15 U [MDL=15]	0.71 U [MDL=0.71]	36 U [MDL=36]
4,4'-DDE	4.8 U [MDL=4.8]	46 U [MDL=46]	4.6 U [MDL=4.6]	8.8 U [MDL=8.8]	9.5 U [MDL=9.5]	0.45 U [MDL=0.45]	23 U [MDL=23]
4,4'-DDT	7.7 U [MDL=7.7]	74 U [MDL=74]	7.4 U [MDL=7.4]	14 U [MDL=14]	15 U [MDL=15]	0.73 U [MDL=0.73]	37 U [MDL=37]
ALDRIN	15 U [MDL=15]	140 U [MDL=140]	14 U [MDL=14]	27 U [MDL=27]	29 U [MDL=29]	1.4 U [MDL=1.4]	70 U [MDL=70]
ALPHA-BHC	8.9 U [MDL=8.9]	85 U [MDL=85]	8.6 U [MDL=8.6]	16 U [MDL=16]	18 U [MDL=18]	0.84 U [MDL=0.84]	43 U [MDL=43]
ALPHA-CHLORDANE	11 U [MDL=11]	110 U [MDL=110]	11 U [MDL=11]	21 U [MDL=21]	23 U [MDL=23]	1.1 U [MDL=1.1]	55 U [MDL=55]
BETA-BHC	13 U [MDL=13]	130 U [MDL=130]	13 U [MDL=13]	25 U [MDL=25]	27 U [MDL=27]	1.3 U [MDL=1.3]	64 U [MDL=64]
DELTA-BHC	15 U [MDL=15]	140 U [MDL=140]	14 U [MDL=14]	27 U [MDL=27]	29 U [MDL=29]	1.4 U [MDL=1.4]	70 U [MDL=70]
DIELDRIN	5.7 U [MDL=5.7]	55 U [MDL=55]	5.6 U [MDL=5.6]	11 U [MDL=11]	11 U [MDL=11]	0.54 U [MDL=0.54]	27 U [MDL=27]
ENDOSULFAN I	6.4 UJ [MDL=6.4]	61 U [MDL=61]	6.1 U [MDL=6.1]	12 U [MDL=12]	13 U [MDL=13]	0.60 U [MDL=0.6]	30 U [MDL=30]
ENDOSULFAN II	10 U [MDL=10]	96 U [MDL=96]	9.7 U [MDL=9.7]	19 U [MDL=19]	20 U [MDL=20]	0.94 U [MDL=0.94]	48 U [MDL=48]
ENDOSULFAN SULFATE	11 U [MDL=11]	100 U [MDL=100]	10 U [MDL=10]	20 U [MDL=20]	21 U [MDL=21]	1 U [MDL=1]	51 U [MDL=51]
ENDRIN	6.1 U [MDL=6.1]	58 U [MDL=58]	5.9 U [MDL=5.9]	11 U [MDL=11]	12 U [MDL=12]	0.58 U [MDL=0.58]	29 U [MDL=29]
ENDRIN ALDEHYDE	12 U [MDL=12]	120 U [MDL=120]	12 U [MDL=12]	23 U [MDL=23]	24 U [MDL=24]	1.2 U [MDL=1.2]	58 U [MDL=58]
ENDRIN KETONE	7.7 U [MDL=7.7]	74 U [MDL=74]	7.4 U [MDL=7.4]	14 U [MDL=14]	15 U [MDL=15]	0.73 U [MDL=0.73]	37 U [MDL=37]
GAMMA-BHC (LINDANE)	9 UJ [MDL=9]	86 U [MDL=86]	8.7 U [MDL=8.7]	17 U [MDL=17]	18 U [MDL=18]	0.85 U [MDL=0.85]	43 U [MDL=43]
GAMMA-CHLORDANE	5.1 U [MDL=5.1]	49 U [MDL=49]	5 U [MDL=5]	9.5 U [MDL=9.5]	10 U [MDL=10]	0.48 U [MDL=0.48]	24 U [MDL=24]
HEPTACHLOR	13 UJ [MDL=13]	130 U [MDL=130]	13 U [MDL=13]	25 UJ [MDL=25]	286.29 0 Td [(2)4(86.29 0 Td [(2)4(86.26-563(U)-27[(7)4(4)-563(U)-278([)-9729517J 134.023(U)-278([)-6(M)12(D)5(L		
HEPTACHLOR EPOXIDE							
METHOXYCHLOR							
TOXAPHENE							
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PETROLEUM HYDROCARBONS (MG/KG)
TPH (C10-C32)
PETROLEUM HYDROCARBONS (UG/KG)
DIESEL RANGE ORGANICS
GASOLINE RANGE ORGANICS
TPH (C06-C10)

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.
Data Qualifiers:
Blank (i.e., no qualifier) = the chemical was detected.
> = The chemical was detected.
J = The chemical was detected but the concentration reported is an
U = The chemical was not detected.
< = The chemical was not detected.
R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
METALS (MG/KG)
ANTIMONY
ARSENIC
BARIUM
BERYLLIUM
CADMIUM
CHROMIUM
COBALT
COPPER
IRON
LEAD
MANGANESE
MERCURY
MOLYBDENUM
NICKEL
SELENIUM
SILVER
THALLIUM
VANADIUM
ZINC
MISCELLANEOUS PARAMETERS
PERCENT SOLIDS (%)
HEXAVALENT CHROMIUM (MG/KG)
MERCURY (METHYL) (UG/KG)

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-874 D-SB-874-1-2 4/24/2012	SB-874 D-SB-874-2-4 4/24/2012	SB-874 D-SB-874-4-6 4/24/2012	SB-874 D-SB-874-6-8 4/24/2012	SB-875 D-SB-875-0-1 4/23/2012	SB-875 D-SB-875-1-2 4/23/2012	SB-875 D-SB-875-2-4 4/23/2012
4-NITROPHENOL	4600 UR [MDL=4600]	1900 U [MDL=1900]	2400 U [MDL=2400]	94 U [MDL=94]	830 U [MDL=830]	84 U [MDL=84]	98 U [MDL=98]
ACENAPHTHENE	9700 [MDL=190]	4200 [MDL=78]	6200 [MDL=100]	38 [MDL=3.9]	34 U [MDL=34]	18 [MDL=3.5]	15 [MDL=4]
ACENAPHTHYLENE	190 U [MDL=190]	78 U [MDL=78]	100 U [MDL=100]	3.9 U [MDL=3.9]	34 U [MDL=34]	3.5 U [MDL=3.5]	4 U [MDL=4]
ACETOPHENONE	530 U [MDL=530]	220 U [MDL=220]	280 U [MDL=280]	11 U [MDL=11]	96 U [MDL=96]	9.6 U [MDL=9.6]	11 U [MDL=11]
ANTHRACENE	4600 [MDL=190]	2600 [MDL=78]	2000 [MDL=100]	16 [MDL=3.9]	34 U [MDL=34]	42 [MDL=3.5]	54 [MDL=4]
ATRAZINE	530 U [MDL=530]	210 U [MDL=210]	280 U [MDL=280]	11 U [MDL=11]	95 U [MDL=95]	9.5 U [MDL=9.5]	11 U [MDL=11]
BAP EQUIVALENT-HALFND	6008 [MDL=NaN]	1672.7 [MDL=NaN]	965.1 [MDL=NaN]	21.881 [MDL=NaN]	34 U [MDL=NaN]	67.23 [MDL=NaN]	36.257 [MDL=NaN]
BAP EQUIVALENT-POS	5913 [MDL=NaN]	1633.7 [MDL=NaN]	915.1 [MDL=NaN]	19.931 [MDL=NaN]	34 U [MDL=NaN]	65.48 [MDL=NaN]	34.057 [MDL=NaN]
BENZALDEHYDE	700 UJ [MDL=700]	280 UJ [MDL=280]	360 UJ [MDL=360]	14 UJ [MDL=14]	130 U [MDL=130]	13 U [MDL=13]	15 U [MDL=15]
BENZO(A)ANTHRACENE	6900 [MDL=190]	1800 [MDL=78]	980 [MDL=100]	16 [MDL=3.9]	34 U [MDL=34]	85 [MDL=3.5]	43 [MDL=4]
BENZO(A)PYRENE	4300 [MDL=190]	1200 [MDL=78]	670 [MDL=100]	15 [MDL=3.9]	34 U [MDL=34]	42 [MDL=3.5]	25 [MDL=4]
BENZO(B)FLUORANTHENE	7200 [MDL=190]	1900 [MDL=78]	1100 [MDL=100]	25 [MDL=3.9]	34 U [MDL=34]	110 [MDL=3.5]	45 [MDL=4]
BENZO(G,H,I)PERYLENE	1900 [MDL=190]	600 [MDL=78]	320 [MDL=100]	8.3 [MDL=3.9]	34 U [MDL=34]	41 [MDL=3.5]	4 U [MDL=4]
BENZO(K)FLUORANTHENE	2900 [MDL=190]	860 [MDL=78]	570 [MDL=100]	12 [MDL=3.9]	34 U [MDL=34]	45 [MDL=3.5]	20 [MDL=4]
BIS(2-CHLOROETHOXY)METHANE	1300 U [MDL=1300]	520 U [MDL=520]	670 U [MDL=670]	26 U [MDL=26]	230 U [MDL=230]	23 U [MDL=23]	27 U [MDL=27]
BIS(2-CHLOROETHYL)ETHER	120 U [MDL=120]	47 U [MDL=47]	61 U [MDL=61]	2.3 U [MDL=2.3]	21 U [MDL=21]	2.1 U [MDL=2.1]	2.4 U [MDL=2.4]
BIS(2-ETHYLHEXYL)PHTHALATE	1100 U [MDL=1100]	450 U [MDL=450]	580 U [MDL=580]	22 U [MDL=22]	200 U [MDL=200]	34 B [MDL=20]	40 B [MDL=23]
BUTYL BENZYL PHTHALATE	580 U [MDL=580]	240 U [MDL=240]	300 U [MDL=300]	12 U [MDL=12]	100 U [MDL=100]	10 U [MDL=10]	12 U [MDL=12]
CAPROLACTAM	2100 U [MDL=2100]	870 U [MDL=870]	1100 U [MDL=1100]	43 U [MDL=43]	390 U [MDL=390]	39 U [MDL=39]	45 U [MDL=45]
CARBAZOLE	2500 J [MDL=1600]	2700 [MDL=630]	11000 [MDL=820]	49 J [MDL=32]	280 U [MDL=280]	28 U [MDL=28]	33 U [MDL=33]
CHRYSENE	4000 [MDL=64]	2100 [MDL=26]	1400 [MDL=33]	31 [MDL=1.3]	11 U [MDL=11]	130 [MDL=1.2]	57 [MDL=1.3]
DIBENZO(A,H)ANTHRACENE	190 U [MDL=190]	78 U [MDL=78]	100 U [MDL=100]	3.9 U [MDL=3.9]	34 U [MDL=34]	3.5 U [MDL=3.5]	4 U [MDL=4]
DIBENZOFURAN	6800 [MDL=190]	2600 [MDL=78]	4300 [MDL=100]	26 J [MDL=3.9]	34 U [MDL=34]	44 J [MDL=3.5]	23 J [MDL=4]
DIETHYL PHTHALATE	930 U [MDL=930]	380 U [MDL=380]	480 U [MDL=480]	19 U [MDL=19]	170 U [MDL=170]	17 U [MDL=17]	20 U [MDL=20]
DIMETHYL PHTHALATE	990 U [MDL=990]	400 U [MDL=400]	510 U [MDL=510]	20 U [MDL=20]	180 U [MDL=180]	18 U [MDL=18]	21 U [MDL=21]
DI-N-BUTYL PHTHALATE	870 U [MDL=870]	350 U [MDL=350]	450 U [MDL=450]	18 U [MDL=18]	160 U [MDL=160]	16 U [MDL=16]	18 U [MDL=18]
DI-N-OCTYL PHTHALATE	1600 U [MDL=1600]	630 U [MDL=630]	820 U [MDL=820]	32 U [MDL=32]	280 U [MDL=280]	28 U [MDL=28]	33 U [MDL=33]
FLUORANTHENE	27000 [MDL=190]	10000 [MDL=78]	3900 [MDL=100]	77 [MDL=3.9]	34 U [MDL=34]	130 [MDL=3.5]	120 [MDL=4]
FLUORENE	9600 [MDL=190]	4000 [MDL=78]	4900 [MDL=100]	31 [MDL=3.9]	34 U [MDL=34]	25 [MDL=3.5]	44 [MDL=4]
HEXACHLOROBENZENE	120 U [MDL=120]	49 U [MDL=49]	64 U [MDL=64]	2.5 U [MDL=2.5]	22 U [MDL=22]	2.2 U [MDL=2.2]	2.6 U [MDL=2.6]
HEXACHLOROBUTADIENE	1600 U [MDL=1600]	630 U [MDL=630]	820 U [MDL=820]	32 U [MDL=32]	280 U [MDL=280]	28 U [MDL=28]	33 U [MDL=33]
HEXACHLOROCYCLOPENTADIENE	1600 U [MDL=1600]	630 U [MDL=630]	820 U [MDL=820]	32 U [MDL=32]	280 U [MDL=280]	28 U [MDL=28]	33 U [MDL=33]
HEXACHLOROETHANE	520 U [MDL=520]	210 U [MDL=210]	270 U [MDL=270]	11 U [MDL=11]	94 U [MDL=94]	9.4 U [MDL=9.4]	11 U [MDL=11]
INDENO(1,2,3-CD)PYRENE	1700 [MDL=190]	530 [MDL=78]	300 [MDL=100]	6.8 J [MDL=3.9]	34 U [MDL=34]	34 [MDL=3.5]	4 U [MDL=4]
ISOPHORONE	750 U [MDL=750]	310 U [MDL=310]	390 U [MDL=390]	15 U [MDL=15]	140 U [MDL=140]	14 U [MDL=14]	16 U [MDL=16]
NAPHTHALENE	21000 [MDL=190]	27000 [MDL=78]	34000 [MDL=100]	270 [MDL=3.9]	34 U [MDL=34]	58 [MDL=3.5]	34 [MDL=4]
NITROBENZENE	130 U [MDL=130]	52 U [MDL=52]	67 U [MDL=67]	2.6 U [MDL=2.6]	23 U [MDL=23]	2.3 U [MDL=2.3]	2.7 U [MDL=2.7]
N-NITROSODIMETHYLAMINE	930 U [MDL=930]						
N-NITROSO-DI-N-PROPYLAMINE							
N-NITROSODIPHENYLAMINE							
PENTACHLOROPHENOL							
PHENANTHRENE							
PHENOL							
PYRENE							
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE							
1,1,1,2-TETRACHLOROETHANE							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1,2-TRICHLOROTRIFLUOROETHANE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
TOTAL PAHS
PCBS (UG/KG)
AROCLOR-1016
AROCLOR-1221
AROCLOR-1232
AROCLOR-1242
AROCLOR-1248
AROCLOR-1254
AROCLOR-1260
TOTAL AROCLOR
PESTICIDES (UG/KG)
4,4'-DDD
4,4'-DDE
4,4'-DDT
ALDRIN
ALPHA-BHC
ALPHA-CHLORDANE
BETA-BHC
DELTA-BHC
DIELDRIN
ENDOSULFAN I
ENDOSULFAN II
ENDOSULFAN SULFATE
ENDRIN
ENDRIN ALDEHYDE
ENDRIN KETONE
GAMMA-BHC (LINDANE)
GAMMA-CHLORDANE
HEPTACHLOR
HEPTACHLOR EPOXIDE
METHOXYCHLOR
TOXAPHENE
PESTICIDES/PCBS (UG/KG)
4,4'-DDD
4,4'-DDE
4,4'-DDT
ALDRIN
ALPHA-BHC
ALPHA-CHLORDANE
BETA-BHC
DELTA-BHC
DIELDRIN
ENDOSULFAN I
ENDOSULFAN II
ENDOSULFAN SULFATE
ENDRIN
ENDRIN ALDEHYDE
ENDRIN KETONE
GAMMA-BHC (LINDANE)
GAMMA-CHLORDANE
HEPTACHLOR

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-875SB-875**
SAMPLE ID	
SAMPLE DATE	
4-NITROPHENOL	
ACENAPHTHENE	
ACENAPHTHYLENE	
ACETOPHENONE	
ANTHRACENE	
ATRAZINE	
BAP EQUIVALENT-HALFND	
BAP EQUIVALENT-POS	
BENZALDEHYDE	
BENZO(A)ANTHRACENE	
BENZO(A)PYRENE	
BENZO(B)FLUORANTHENE	
BENZO(G,H,I)PERYLENE	
BENZO(K)FLUORANTHENE	
BIS(2-CHLOROETHOXY)METHANE	
BIS(2-CHLOROETHYL)ETHER	
BIS(2-ETHYLHEXYL)PHTHALATE	
BUTYL BENZYL PHTHALATE	
CAPROLACTAM	
CARBAZOLE	
CHRYSENE	
DIBENZO(A,H)ANTHRACENE	
DIBENZOFURAN	
DIETHYL PHTHALATE	
DIMETHYL PHTHALATE	
DI-N-BUTYL PHTHALATE	
DI-N-OCTYL PHTHALATE	
FLUORANTHENE	
FLUORENE	
HEXACHLOROBENZENE	
HEXACHLOROBUTADIENE	
HEXACHLOROCYCLOPENTADIENE	
HEXACHLOROETHANE	
INDENO(1,2,3-CD)PYRENE	
ISOPHORONE	
NAPHTHALENE	
NITROBENZENE	
N-NITROSODIMETHYLAMINE	
N-NITROSO-DI-N-PROPYLAMINE	
N-NITROSODIPHENYLAMINE	
PENTACHLOROPHENOL	
PHENANTHRENE	
PHENOL	
PYRENE	
VOLATILES (UG/KG)	
.BETA.-SESQUIPHELLANDRENE	
1,1,1,2-TETRACHLOROETHANE	
1,1,1-TRICHLOROETHANE	
1,1,2,2-TETRACHLOROETHANE	
1,1,2-TRICHLOROETHANE	
1,1,2-TRICHLOROTRIFLUOROETHANE	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE
1,2,3-TRICHLOROBENZENE
1,2,3-TRICHLOROPROPANE
1,2,3-TRIMETHYLBENZENE
1,2,4-TRICHLOROBENZENE
1,2,4-TRIMETHYLBENZENE
1,2-DIBROMO-3-CHLOROPROPANE
1,2-DIBROMOETHANE
1,2-DICHLOROBENZENE
1,2-DICHLOROETHANE
1,2-DICHLOROPROPANE
1,3,5-TRIMETHYLBENZENE
1,3-DICHLOROBENZENE
1,3-DICHLOROPROPANE
1,4-DICHLOROBENZENE
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-
1-BUTANOL
1-METHYLNAPHTHALENE
2,2-DICHLOROPROPANE
2-BUTANONE
2-CHLOROETHYL VINYL ETHER
2-CHLOROTOLUENE
2-HEXANONE
2-METHYLNAPHTHALENE
4-CHLOROTOLUENE
4-ISOPROPYLTOLUENE
4-METHYL-2-PENTANONE
ACETONE
BENZENE
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE
BROMOBENZENE
BROMOCHLOROMETHANE
BROMODICHLOROMETHANE
BROMOFORM
BROMOMETHANE
CARBON DISULFIDE
CARBON TETRACHLORIDE
CHLOROBENZENE
CHLORODIBROMOMETHANE
CHLOROETHANE
CHLOROFORM

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
DISILOXANE, HEXAMETHYL-
ETHYL TERT-BUTYL ETHER
ETHYLBENZENE
HEXACHLOROBUTADIENE
INDANE
ISOPROPYLBENZENE
M+P-XYLENES
METHYL ACETATE
METHYL CYCLOHEXANE
METHYL TERT-BUTYL ETHER
METHYLENE CHLORIDE
NAPHTHALENE
N-BUTYLBENZENE
N-PROPYLBENZENE
O-XYLENE
SEC-BUTYLBENZENE
STYRENE
TERT-AMYL METHYL ETHER
TERT-BUTYLBENZENE
TERTIARY-BUTYL ALCOHOL
TETRACHLOROETHENE
TOLUENE
TOTAL XYLENES
TRANS-1,2-DICHLOROETHENE
TRANS-1,3-DICHLOROPROPENE
TRICHLOROETHENE
TRICHLOROFLUOROMETHANE
VINYL ACETATE
VINYL CHLORIDE
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)
2-METHYLNAPHTHALENE
ACENAPHTHENE
ACENAPHTHYLENE
ANTHRACENE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
BAP EQUIVALENT-UCL
BENZO(A)ANTHRACENE
BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
BENZO(G,H,I)PERYLENE
BENZO(K)FLUORANTHENE
CHRYSENE
DIBENZO(A,H)ANTHRACENE
FLUORANTHENE
FLUORENE
INDENO(1,2,3-CD)PYRENE
NAPHTHALENE
PHENANTHRENE
PYRENE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
TOTAL PAHS	

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-875 D-SB-875-4-6 4/23/2012	SB-875 D-SB-875-6-8 4/23/2012	SB-876 D-SB-876-0-1 4/23/2012	SB-876 D-SB-876-1-2 4/23/2012
HEPTACHLOR EPOXIDE	--	--	--	--
METHOXYCHLOR	--	--	--	--
TOXAPHENE	--	--	--	--
PETROLEUM HYDROCARBONS (MG/KG)				
TPH (C10-C32)	11 U [MDL=11]	11 U [MDL=11]	730 [MDL=52]	51 [MDL=10]
PETROLEUM HYDROCARBONS (UG/KG)				
DIESEL RANGE ORGANICS	--	--	--	--
GASOLINE RANGE ORGANICS	--	--	--	--
TPH (C06-C10)	56 U [MDL=56]	54 U [MDL=54]	52 U [MDL=52]	52 U [MDL=52]

SOIL Footnotes:

-- = The chemical was not analyzed or no value was available.
Data Qualifiers:
Blank (i.e., no qualifier) = the chemical was detected.
> = The chemical was detected.
J = The chemical was detected but the concentration reported is an
U = The chemical was not detected.
< = The chemical was not detected.
R = The chemical was rejected.

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-876	SB-876	SB-876	SB-877	SB-877	SB-877	SB-877
SAMPLE ID	D-SB-876-2-4	D-SB-876-4-6	D-SB-876-6-8	D-SB-877-0-1	D-SB-877-1-2	D-SB-877-2-4	D-SB-877-4-6
SAMPLE DATE	4/23/2012	4/23/2012	4/23/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-876**	**SB-876**	**SB-876**	**SB-877**	**SB-877**	**SB-877**	**SB-877**
SAMPLE ID	**D-SB-876-2-4**	**D-SB-876-4-6**	**D-SB-876-6-8**	**D-SB-877-0-1**	**D-SB-877-1-2**	**D-SB-877-2-4**	**D-SB-877-4-6**
SAMPLE DATE	**4/23/2012**	**4/23/2012**	**4/23/2012**	**4/25/2012**	**4/25/2012**	**4/25/2012**	**4/25/2012**

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-876	SB-876	SB-876	SB-877	SB-877	SB-877	SB-877
SAMPLE ID	D-SB-876-2-4	D-SB-876-4-6	D-SB-876-6-8	D-SB-877-0-1	D-SB-877-1-2	D-SB-877-2-4	D-SB-877-4-6
SAMPLE DATE	4/23/2012	4/23/2012	4/23/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012
DISILOXANE, HEXAMETHYL-	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	0.18 U [MDL=0.18]	0.27 U [MDL=0.27]	0.20 U [MDL=0.2]	0.26 U [MDL=0.26]	0.20 U [MDL=0.2]	0.26 U [MDL=0.26]	0.21 U [MDL=0.21]
ETHYLBENZENE	0.21 U [MDL=0.21]	0.32 U [MDL=0.32]	0.23 U [MDL=0.23]	0.31 U [MDL=0.31]	0.23 U [MDL=0.23]	0.31 U [MDL=0.31]	0.24 U [MDL=0.24]
HEXACHLOROBUTADIENE	0.99 U [MDL=0.99]	1.5 U [MDL=1.5]	1.1 U [MDL=1.1]	1.4 U [MDL=1.4]	1.1 U [MDL=1.1]	1.4 U [MDL=1.4]	1.1 U [MDL=1.1]
INDANE	--	--	--	--	--	--	--
ISOPROPYLBENZENE	0.13 U [MDL=0.13]	0.20 U [MDL=0.2]	0.14 U [MDL=0.14]	0.19 U [MDL=0.19]	0.14 U [MDL=0.14]	0.19 U [MDL=0.19]	0.15 U [MDL=0.15]
M+P-XYLENES	0.99 U [MDL=0.99]	1.5 U [MDL=1.5]	1.1 U [MDL=1.1]	1.4 U [MDL=1.4]	1.1 U [MDL=1.1]	1.4 U [MDL=1.4]	1.1 U [MDL=1.1]
METHYL ACETATE	--	--	--	--	2.2 NJ [MDL=1.2]	--	--
METHYL CYCLOHEXANE	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	0.36 U [MDL=0.36]	0.54 U [MDL=0.54]	0.39 U [MDL=0.39]	0.51 U [MDL=0.51]	0.38 U [MDL=0.38]	0.51 U [MDL=0.51]	0.40 U [MDL=0.4]
METHYLENE CHLORIDE	0.55 U [MDL=0.55]	0.84 U [MDL=0.84]	1.1 J [MDL=0.6]	0.80 U [MDL=0.8]	0.63 B [MDL=0.6]	0.9 B [MDL=0.8]	2.3 B [MDL=0.63]
NAPHTHALENE	0.16 U [MDL=0.16]	0.24 U [MDL=0.24]	0.17 U [MDL=0.17]	0.23 U [MDL=0.23]	0.17 U [MDL=0.17]	0.23 U [MDL=0.23]	0.18 U [MDL=0.18]
N-BUTYLBENZENE	0.19 U [MDL=0.19]	0.29 U [MDL=0.29]	0.21 U [MDL=0.21]	0.27 U [MDL=0.27]	0.20 U [MDL=0.2]	0.27 U [MDL=0.27]	0.22 U [MDL=0.22]
N-PROPYLBENZENE	0.33 U [MDL=0.33]	0.50 U [MDL=0.5]	0.36 U [MDL=0.36]	0.48 U [MDL=0.48]	0.36 U [MDL=0.36]	0.48 U [MDL=0.48]	0.37 U [MDL=0.37]
O-XYLENE	0.29 U [MDL=0.29]	0.44 U [MDL=0.44]	0.32 U [MDL=0.32]	0.42 U [MDL=0.42]	0.31 U [MDL=0.31]	0.42 U [MDL=0.42]	0.33 U [MDL=0.33]
SEC-BUTYLBENZENE	0.15 U [MDL=0.15]	0.22 U [MDL=0.22]	0.16 U [MDL=0.16]	0.21 U [MDL=0.21]	0.16 U [MDL=0.16]	0.21 U [MDL=0.21]	0.17 U [MDL=0.17]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-876**	**SB-876**	**SB-876**	**SB-877**	**SB-877**	**SB-877**	**SB-877**
SAMPLE ID	**D-SB-876-2-4**	**D-SB-876-4-6**	**D-SB-876-6-8**	**D-SB-877-0-1**	**D-SB-877-1-2**	**D-SB-877-2-4**	**D-SB-877-4-6**
SAMPLE DATE	**4/23/2012**	**4/23/2012**	**4/23/2012**	**4/25/2012**	**4/25/2012**	**4/25/2012**	**4/25/2012**
TOTAL PAHS	--	--	--	--	--	--	--
PCBS (UG/KG)							
AROCLOR-1016	26 U [MDL=26]	29 U [MDL=29]	24 U [MDL=24]	23 U [MDL=23]	24 U [MDL=24]	24 U [MDL=24]	25 U [MDL=25]
AROCLOR-1221	19 U [MDL=19]	22 U [MDL=22]	18 U [MDL=18]	18 U [MDL=18]	19 U [MDL=19]	18 U [MDL=18]	19 U [MDL=19]
AROCLOR-1232	17 U [MDL=17]	19 U [MDL=19]	16 U [MDL=16]	16 U [MDL=16]	16 U [MDL=16]	16 U [MDL=16]	17 U [MDL=17]
AROCLOR-1242	16 U [MDL=16]	18 U [MDL=18]	15 U [MDL=15]	15 U [MDL=15]	15 U [MDL=15]	15 U [MDL=15]	16 U [MDL=16]
AROCLOR-1248	21 U [MDL=21]	24 U [MDL=24]	20 U [MDL=20]	19 U [MDL=19]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]
AROCLOR-1254	21 U [MDL=21]	24 U [MDL=24]	20 U [MDL=20]	19 U [MDL=19]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]
AROCLOR-1260	21 U [MDL=21]	24 U [MDL=24]	20 U [MDL=20]	19 U [MDL=19]	50 [MDL=20]	20 U [MDL=20]	20 U [MDL=20]
TOTAL AROCLOR	--	--	--	--	--	--	--
PESTICIDES (UG/KG)							
4,4'-DDD	7.5 U [MDL=7.5]	17 U [MDL=17]	0.71 U [MDL=0.71]	14 U [MDL=14]	36 U [MDL=36]	7.1 U [MDL=7.1]	3.7 U [MDL=3.7]
4,4'-DDE	4.7 U [MDL=4.7]	11 U [MDL=11]	0.45 U [MDL=0.45]	8.7 U [MDL=8.7]	66 J [MDL=23]	4.5 U [MDL=4.5]	2.3 U [MDL=2.3]
4,4'-DDT	7.7 U [MDL=7.7]	17 U [MDL=17]	0.73 U [MDL=0.73]	14 U [MDL=14]	37 U [MDL=37]	7.3 U [MDL=7.3]	3.8 U [MDL=3.8]
ALDRIN	15 U [MDL=15]	33 U [MDL=33]	1.4 U [MDL=1.4]	27 U [MDL=27]	70 U [MDL=70]	14 U [MDL=14]	7.2 U [MDL=7.2]
ALPHA-BHC	8.9 U [MDL=8.9]	20 U [MDL=20]	0.84 U [MDL=0.84]	16 U [MDL=16]	42 U [MDL=42]	8.4 U [MDL=8.4]	4.4 U [MDL=4.4]
ALPHA-CHLORDANE	11 U [MDL=11]	26 U [MDL=26]	1.1 U [MDL=1.1]	21 U [MDL=21]	55 U [MDL=55]	11 U [MDL=11]	5.7 U [MDL=5.7]
BETA-BHC	13 U [MDL=13]	31 U [MDL=31]	1.3 U [MDL=1.3]	25 U [MDL=25]	64 U [MDL=64]	13 U [MDL=13]	6.6 U [MDL=6.6]
DELTA-BHC	15 U [MDL=15]	33 U [MDL=33]	1.4 U [MDL=1.4]	27 U [MDL=27]	70 U [MDL=70]	14 U [MDL=14]	7.2 U [MDL=7.2]
DIELDRIN	5.7 U [MDL=5.7]	13 U [MDL=13]	0.54 U [MDL=0.54]	10 U [MDL=10]	27 U [MDL=27]	5.4 U [MDL=5.4]	2.8 U [MDL=2.8]
ENDOSULFAN I	6.3 U [MDL=6.3]	14 U [MDL=14]	0.60 U [MDL=0.6]	12 U [MDL=12]	30 U [MDL=30]	6 U [MDL=6]	3.1 U [MDL=3.1]
ENDOSULFAN II	10 U [MDL=10]	23 U [MDL=23]	0.95 U [MDL=0.95]	18 U [MDL=18]	48 U [MDL=48]	9.4 U [MDL=9.4]	4.9 U [MDL=4.9]
ENDOSULFAN SULFATE	11 U [MDL=11]	24 U [MDL=24]	1 U [MDL=1]	19 U [MDL=19]	51 U [MDL=51]	10 U [MDL=10]	5.2 U [MDL=5.2]
ENDRIN	6.1 U [MDL=6.1]	14 U [MDL=14]	0.58 U [MDL=0.58]	11 U [MDL=11]	29 U [MDL=29]	5.8 U [MDL=5.8]	3 U [MDL=3]
ENDRIN ALDEHYDE	12 U [MDL=12]	28 U [MDL=28]	1.2 U [MDL=1.2]	22 U [MDL=22]	58 U [MDL=58]	12 U [MDL=12]	6 U [MDL=6]
ENDRIN KETONE	7.7 U [MDL=7.7]	17 U [MDL=17]	0.73 U [MDL=0.73]	14 U [MDL=14]	37 U [MDL=37]	7.3 U [MDL=7.3]	3.8 U [MDL=3.8]
GAMMA-BHC (LINDANE)	9 U [MDL=9]	21 U [MDL=21]	0.85 U [MDL=0.85]	17 U [MDL=17]	43 U [MDL=43]	8.5 U [MDL=8.5]	4.5 U [MDL=4.5]
GAMMA-CHLORDANE	5.1 U [MDL=5.1]	12 U [MDL=12]	0.48 U [MDL=0.48]	9.4 U [MDL=9.4]	24 U [MDL=24]	4.8 U [MDL=4.8]	2.5 U [MDL=2.5]
HEPTACHLOR	13 UJ [MDL=13]	31 UJ [MDL=31]	1.3 U [MDL=1.3]	25 U [MDL=25]	64 U [MDL=64]	13 U [MDL=13]	6.6 U [MDL=6.6]
HEPTACHLOR EPOXIDE	9.7 U [MDL=9.7]	22 U [MDL=22]	0.92 U [MDL=0.92]	18 U [MDL=18]	46 U [MDL=46]	9.2 U [MDL=9.2]	4.8 U [MDL=4.8]
METHOXYCHLOR	18 U [MDL=18]	42 U [MDL=42]	1.7 U [MDL=1.7]	34 U [MDL=34]	87 U [MDL=87]	17 U [MDL=17]	9 U [MDL=9]
TOXAPHENE	230 U [MDL=230]	530 U [MDL=530]	22 U [MDL=22]	420 U [MDL=420]	1100 U [MDL=1100]	220 U [MDL=220]	110 U [MDL=110]
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD	--	--	--	--	--	--	--
4,4'-DDE	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--
ALDRIN	--	--	--	--	--	--	--
ALPHA-BHC	--	--	--	--	--	--	--
ALPHA-CHLORDANE	--	--	--	--	--	--	--
BETA-BHC	--	--	--	--	--	--	--
DELTA-BHC	--	--	--	--	--	--	--
DIELDRIN	--	--	--	--	--	--	--
ENDOSULFAN I	--	--	--	--	--	--	--
ENDOSULFAN II	--	--	--	--	--	--	--
ENDOSULFAN SULFATE	--	--	--	--	--	--	--
ENDRIN	--	--	--	--	--	--	--
ENDRIN ALDEHYDE	--	--	--	--	--	--	--
ENDRIN KETONE	--	--	--	--	--	--	--
GAMMA-BHC (LINDANE)	--	--	--	--	--	--	--
GAMMA-CHLORDANE	--	--	--	--	--	--	--
HEPTACHLOR	--	--	--	--	--	--	--

APPENDIX

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
METALS (MG/KG)
ANTIMONY
ARSENIC
BARIUM
BERYLLIUM
CADMIUM
CHROMIUM
COBALT
COPPER
IRON
LEAD
MANGANESE
MERCURY
MOLYBDENUM
NICKEL
SELENIUM
SILVER
THALLIUM
VANADIUM
ZINC
MISCELLANEOUS PARAMETERS
PERCENT SOLIDS (%)
HEXAVALENT CHROMIUM (MG/KG)
MERCURY (METHYL) (UG/KG)

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION SAMPLE ID SAMPLE DATE	SB-877 D-SB-877-6-8 4/25/2012	SB-878 D-SB-878-0-1 4/24/2012	SB-878 D-SB-878-1-2 4/24/2012	SB-878 D-SB-878-2-4 4/24/2012	SB-878 D-SB-878-4-6 4/24/2012	SB-878 D-SB-878-6-8 4/24/2012	SB-879 D-SB-879-0-1 4/25/2012
4-NITROPHENOL	98 U [MDL=98]	110 U [MDL=110]	95 U [MDL=95]	93 U [MDL=93]	94 U [MDL=94]	570 U [MDL=570]	90 U [MDL=90]
ACENAPHTHENE	10 [MDL=4]	4.4 U [MDL=4.4]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	3.7 U [MDL=3.7]
ACENAPHTHYLENE	4 U [MDL=4]	25 [MDL=4.4]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	12 [MDL=3.7]
ACETOPHENONE	11 U [MDL=11]	12 U [MDL=12]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	66 U [MDL=66]	10 U [MDL=10]
ANTHRACENE	19 [MDL=4]	25 [MDL=4.4]	10 [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	15 [MDL=3.7]
ATRAZINE	11 U [MDL=11]	12 U [MDL=12]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	65 U [MDL=65]	10 U [MDL=10]
BAP EQUIVALENT-HALFND	45.652 [MDL=NaN]	67.65 [MDL=NaN]	28.955 [MDL=NaN]	3.8 U [MDL=NaN]	3.9 U [MDL=NaN]	24 U [MDL=NaN]	50.707 [MDL=NaN]
BAP EQUIVALENT-POS	43.652 [MDL=NaN]	65.23 [MDL=NaN]	27.005 [MDL=NaN]	3.8 U [MDL=NaN]	3.9 U [MDL=NaN]	24 U [MDL=NaN]	48.857 [MDL=NaN]
BENZALDEHYDE	15 U [MDL=15]	16 UJ [MDL=16]	14 U [MDL=14]	14 U [MDL=14]	14 U [MDL=14]	86 J [MDL=86]	13 U [MDL=13]
BENZO(A)ANTHRACENE	42 [MDL=4]	71 [MDL=4.4]	24 [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	24 [MDL=3.7]
BENZO(A)PYRENE	33 [MDL=4]	48 [MDL=4.4]	21 [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	38 [MDL=3.7]
BENZO(B)FLUORANTHENE	39 [MDL=4]	96 [MDL=4.4]	23 [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	56 [MDL=3.7]
BENZO(G,H,I)PERYLENE	25 [MDL=4]	4.4 U [MDL=4.4]	14 [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	32 [MDL=3.7]
BENZO(K)FLUORANTHENE	21 [MDL=4]	45 [MDL=4.4]	18 [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	22 [MDL=3.7]
BIS(2-CHLOROETHOXY)METHANE	27 U [MDL=27]	29 U [MDL=29]	26 U [MDL=26]	26 U [MDL=26]	26 U [MDL=26]	160 U [MDL=160]	25 U [MDL=25]
BIS(2-CHLOROETHYL)ETHER	2.4 U [MDL=2.4]	2.7 U [MDL=2.7]	2.4 U [MDL=2.4]	2.3 U [MDL=2.3]	2.4 U [MDL=2.4]	14 U [MDL=14]	2.2 U [MDL=2.2]
BIS(2-ETHYLHEXYL)PHTHALATE	23 U [MDL=23]	45 J [MDL=25]	36 B [MDL=22]	56 B [MDL=22]	34 B [MDL=22]	140 U [MDL=140]	61 B [MDL=21]
BUTYL BENZYL PHTHALATE	12 U [MDL=12]	13 U [MDL=13]	12 U [MDL=12]	12 U [MDL=12]	12 U [MDL=12]	72 U [MDL=72]	11 U [MDL=11]
CAPROLACTAM	45 U [MDL=45]	49 U [MDL=49]	44 U [MDL=44]	43 U [MDL=43]	44 U [MDL=44]	270 U [MDL=270]	42 U [MDL=42]
CARBAZOLE	33 U [MDL=33]	36 U [MDL=36]	32 U [MDL=32]	31 U [MDL=31]	32 U [MDL=32]	190 U [MDL=190]	30 U [MDL=30]
CHRYSENE	42 [MDL=1.3]	80 [MDL=1.5]	25 [MDL=1.3]	1.3 U [MDL=1.3]	1.3 U [MDL=1.3]	7.9 U [MDL=7.9]	37 [MDL=1.2]
DIBENZO(A,H)ANTHRACENE	4 U [MDL=4]	4.4 U [MDL=4.4]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	3.7 U [MDL=3.7]
DIBENZOFURAN	4 U [MDL=4]	4.4 U [MDL=4.4]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	3.7 U [MDL=3.7]
DIETHYL PHTHALATE	20 U [MDL=20]	21 U [MDL=21]	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]	110 U [MDL=110]	18 U [MDL=18]
DIMETHYL PHTHALATE	21 U [MDL=21]	23 U [MDL=23]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]	120 U [MDL=120]	19 U [MDL=19]
DI-N-BUTYL PHTHALATE	18 U [MDL=18]	290 J [MDL=20]	18 U [MDL=18]	17 U [MDL=17]	18 U [MDL=18]	110 U [MDL=110]	17 U [MDL=17]
DI-N-OCTYL PHTHALATE	33 U [MDL=33]	36 U [MDL=36]	32 U [MDL=32]	31 U [MDL=31]	32 U [MDL=32]	190 U [MDL=190]	30 U [MDL=30]
FLUORANTHENE	80 [MDL=4]	120 [MDL=4.4]	49 [MDL=3.9]	7.9 [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	42 [MDL=3.7]
FLUORENE	11 [MDL=4]	4.4 U [MDL=4.4]	3.9 U [MDL=3.9]	3.8 U [MDL=3.8]	3.9 U [MDL=3.9]	24 U [MDL=24]	3.7 U [MDL=3.7]
HEXACHLOROBENZENE	2.6 U [MDL=2.6]	2.8 U [MDL=2.8]	2.5 U [MDL=2.5]	2.4 U [MDL=2.4]	2.5 U [MDL=2.5]	15 U [MDL=15]	2.4 U [MDL=2.4]
HEXACHLOROBUTADIENE	33 U [MDL=33]	36 U [MDL=36]	32 U [MDL=32]	31 U [MDL=31]	32 U [MDL=32]	190 U [MDL=190]	30 U [MDL=30]
HEXACHLOROCYCLOPENTADIENE	33 UR [MDL=33]	36 U [MDL=36]	32 U [MDL=32]	31 U [MDL=31]	32 U [MDL=32]	190 U [MDL=190]	30 U [MDL=30]
HEXACHLOROETHANE	11 U [MDL=11]	12 U [MDL=12]	DL=30]				
INDENO(1,2,3-CD)PYRENE							
ISOPHORONE							
NAPHTHALENE							
NITROBENZENE							
N-NITROSODIMETHYLAMINE							
N-NITROSO-DI-N-PROPYLAMINE							
N-NITROSODIPHENYLAMINE							
PENTACHLOROPHENOL							
PHENANTHRENE							
PHENOL							
PYRENE							
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE							
1,1,1,2-TETRACHLOROETHANE							
1,1,1-TRICHLOROETHANE							
1,1,2,2-TETRACHLOROETHANE							
1,1,2-TRICHLOROETHANE							
1,1,2-TRICHLOROTRIFLUOROETHANE							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
1,1-DICHLOROETHANE	
1,1-DICHLOROETHENE	
1,1-DICHLOROPROPENE	
1,2,3-TRICHLOROBENZENE	
1,2,3-TRICHLOROPROPANE	
1,2,3-TRIMETHYLBENZENE	
1,2,4-TRICHLOROBENZENE	
1,2,4-TRIMETHYLBENZENE	
1,2-DIBROMO-3-CHLOROPROPANE	
1,2-DIBROMOOETHENE	
1,IBROMLOROBENZENE	
1,2,ICHLOROETHANE	
1,1,ICHLOROEROPANE	
1,2325TRIMETHYLBENZENE	

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-877	SB-878	SB-878	SB-878	SB-878	SB-878	SB-879
SAMPLE ID	D-SB-877-6-8	D-SB-878-0-1	D-SB-878-1-2	D-SB-878-2-4	D-SB-878-4-6	D-SB-878-6-8	D-SB-879-0-1
SAMPLE DATE	4/25/2012	4/24/2012	4/24/2012	4/24/2012	4/24/2012	4/24/2012	4/25/2012
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	--	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)	20 B [MDL=11]	48 [MDL=12]	19 J [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	220 [MDL=27]	59 B [MDL=10]
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS	--	--	--	--	--	--	--
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--
TPH (C06-C10)	56 U [MDL=56]	61 U [MDL=61]	54 U [MDL=54]	53 U [MDL=53]	54 U [MDL=54]	130 U [MDL=130]	52 U [MDL=52]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-879	SB-879	SB-879	SB-879	SB-880	SB-880	SB-880
SAMPLE ID	D-SB-879-1-2	D-SB-879-2-4	D-SB-879-4-6	D-SB-879-6-8	D-SB-880-0-1	D-SB-880-1-2	D-SB-880-2-4
SAMPLE DATE	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/24/2012	4/24/2012	4/24/2012
METALS (MG/KG)							
ANTIMONY	0.41 UL [MDL=0.41]	0.41 UL [MDL=0.41]	2.1 UL [MDL=2.1]	4.1 UL [MDL=4.1]	0.42 UL [MDL=0.42]	0.35 UL [MDL=0.35]	0.44 UL [MDL=0.44]
ARSENIC	2.9 [MDL=0.31]	3.8 [MDL=0.32]	4.9 J [MDL=1.6]	6.4 J [MDL=3.2]	3 [MDL=0.32]	2.7 [MDL=0.27]	3.4 [MDL=0.34]
BARIUM	33 J [MDL=0.074]	12 J [MDL=0.075]	50 J [MDL=0.39]	29 J [MDL=0.75]	46 [MDL=0.077]	43 [MDL=0.063]	20 J [MDL=0.08]
BERYLLIUM	0.91 [MDL=0.045]	1.2 [MDL=0.046]	1.7 J [MDL=0.24]	2.6 J [MDL=0.46]	0.64 B [MDL=0.047]	1.1 [MDL=0.038]	2 [MDL=0.048]
CADMIUM	0.1 J [MDL=0.038]	0.065 J [MDL=0.038]	0.20 U [MDL=0.2]	0.38 U [MDL=0.38]	0.065 J [MDL=0.039]	0.14 J [MDL=0.032]	0.15 J [MDL=0.041]
CHROMIUM	14 J [MDL=0.21]	16 J [MDL=0.21]	17 J [MDL=1.1]	22 J [MDL=2.1]	12 [MDL=0.22]	13 [MDL=0.18]	23 [MDL=0.23]
COBALT	6.2 [MDL=0.17]	8.9 [MDL=0.17]	19 [MDL=0.87]	21 L [MDL=1.7]	3.8 [MDL=0.17]	11 [MDL=0.14]	19 [MDL=0.18]
COPPER	12 [MDL=0.77]	26 [MDL=0.79]	23 L [MDL=4]	28 L [MDL=7.8]	7.4 [MDL=0.8]	12 [MDL=0.66]	28 [MDL=0.83]
IRON	--	--	--	--	--	--	--
LEAD	13 J [MDL=0.2]	6.9 J [MDL=0.2]	20 J [MDL=1]	26 J [MDL=2]	5.2 [MDL=0.21]	15 [MDL=0.17]	5.7 [MDL=0.21]
MANGANESE	--	--	--	--	--	--	--
MERCURY	0.043 J [MDL=0.015]	0.018 U [MDL=0.018]	0.089 J [MDL=0.02]	0.42 [MDL=0.018]	0.029 B [MDL=0.019]	0.045 B [MDL=0.016]	0.018 U [MDL=0.018]
MOLYBDENUM	0.34 J [MDL=0.28]	0.29 J [MDL=0.29]	1.5 U [MDL=1.5]	2.9 U [MDL=2.9]	0.29 U [MDL=0.29]	0.29 J [MDL=0.24]	0.3 J [MDL=0.3]
NICKEL	11 [MDL=0.28]	21 [MDL=0.29]	28 [MDL=1.5]	46 [MDL=2.9]	8.8 [MDL=0.29]	12 [MDL=0.24]	38 [MDL=0.3]
SELENIUM	0.47 U [MDL=0.47]	0.48 U [MDL=0.48]	2.5 U [MDL=2.5]	4.8 U [MDL=4.8]	0.55 J [MDL=0.49]	0.40 U [MDL=0.4]	0.51 U [MDL=0.51]
SILVER	0.10 UL [MDL=0.1]	0.11 UL [MDL=0.11]	0.55 UL [MDL=0.55]	1.1 UL [MDL=1.1]	0.11 U [MDL=0.11]	0.089 U [MDL=0.089]	0.11 U [MDL=0.11]
THALLIUM	0.57 U [MDL=0.57]	0.58 U [MDL=0.58]	3 U [MDL=3]	5.8 U [MDL=5.8]	0.60 U [MDL=0.6]	0.49 U [MDL=0.49]	0.62 U [MDL=0.62]
VANADIUM	28 J [MDL=0.13]	28 J [MDL=0.13]	28 J [MDL=0.66]	28 J [MDL=1.3]	28 [MDL=0.13]	28 [MDL=0.11]	43 [MDL=0.14]
ZINC	33 [MDL=1]	27 [MDL=1.1]	53 [MDL=5.5]	140 [MDL=11]	18 [MDL=1.1]	42 [MDL=0.89]	54 [MDL=1.1]
MISCELLANEOUS PARAMETERS							
PERCENT SOLIDS (%)	--	--	--	--	--	--	--
HEXAVALENT CHROMIUM (MG/KG)	0.71 J [MDL=0.3]	0.32 U [MDL=0.32]	0.47 J [MDL=0.32]	0.33 U [MDL=0.33]	0.30 U [MDL=0.3]	0.29 U [MDL=0.29]	0.31 U [MDL=0.31]
MERCURY (METHYL) (UG/KG)	--	--	--	--	--	--	--
SEMIVOLATILES (UG/KG)							
1,1-BIPHENYL	120 U [MDL=120]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	30 UJ [MDL=30]	29 U [MDL=29]	31 U [MDL=31]
1,4-DIOXANE	97 U [MDL=97]	26 U [MDL=26]	26 U [MDL=26]	26 U [MDL=26]	25 UJ [MDL=25]	24 U [MDL=24]	25 U [MDL=25]
2,2'-OXYBIS(1-CHLOROPROPANE)	42 U [MDL=42]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	11 UJ [MDL=11]	10 U [MDL=10]	11 U [MDL=11]
2,4,5-TRICHLOROPHENOL	110 U [MDL=110]	30 U [MDL=30]	30 U [MDL=30]	30 U [MDL=30]	28 UJ [MDL=28]	27 U [MDL=27]	28 U [MDL=28]
2,4,6-TRICHLOROPHENOL	350 U [MDL=350]	95 U [MDL=95]	96 U [MDL=96]	96 U [MDL=96]	89 UJ [MDL=89]	86 U [MDL=86]	91 U [MDL=91]
2,4-DICHLOROPHENOL	88 U [MDL=88]	24 U [MDL=24]	24 U [MDL=24]	24 U [MDL=24]	22 UJ [MDL=22]	22 U [MDL=22]	
2,4-DIMETHYLPHENOL							
2,4-DINITROPHENOL							
2,4-DINITROTOLUENE							
2,6-DINITROTOLUENE							
2-CHLORONAPHTHALENE							
2-CHLOROPHENOL							
2-METHYLNAPHTHALENE							
2-METHYLPHENOL							
2-NITROANILINE							
2-NITROPHENOL							
3&4-METHYLPHENOL							
3,3'-DICHLOROBENZIDINE							
3-NITROANILINE							
4,6-DINITRO-2-METHYLPHENOL							
4-BROMOPHENYL PHENYL ETHER							
4-CHLORO-3-METHYLPHENOL							
4-CHLOROANILINE							
4-CHLOROPHENYL PHENYL ETHER							
4-METHYLPHENOL							
4-NITROANILINE							

LOCATION	SB-879	SB-879	SB-879	SB-879	SB-880	SB-880	SB-880
SAMPLE ID	D-SB-879-1-2	D-SB-879-2-4	D-SB-879-4-6	D-SB-879-6-8	D-SB-880-0-1	D-SB-880-1-2	D-SB-880-2-4
SAMPLE DATE	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/24/2012	4/24/2012	4/24/2012
4-NITROPHENOL	350 U [MDL=350]	95 U [MDL=95]	96 U [MDL=96]	96 U [MDL=96]	89 UJ [MDL=89]	86 U [MDL=86]	91 U [MDL=91]
ACENAPHTHENE	15 U [MDL=15]	3.9 U [MDL=3.9]	12 [MDL=3.9]	11 [MDL=4]	3.7 UJ [MDL=3.7]	3.6 U [MDL=3.6]	3.7 U [MDL=3.7]
ACENAPHTHYLENE	48 [MDL=15]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4 U [MDL=4]	6.3 J [MDL=3.7]	4.4 J [MDL=3.6]	6.4 J [MDL=3.7]
ACETOPHENONE	41 U [MDL=41]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	10 UJ [MDL=10]	9.9 U [MDL=9.9]	10 U [MDL=10]
ANTHRACENE	49 [MDL=15]	3.9 U [MDL=3.9]	20 [MDL=3.9]	14 [MDL=4]	8.7 J [MDL=3.7]	5.3 J [MDL=3.6]	6.1 J [MDL=3.7]
ATRAZINE	40 U [MDL=40]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	10 UJ [MDL=10]	9.8 U [MDL=9.8]	10 U [MDL=10]
BAP EQUIVALENT-HALFND	226.33 [MDL=NaN]	3.9 U [MDL=NaN]	65.916 [MDL=NaN]	28.264 [MDL=NaN]	28.468 [MDL=NaN]	15.298 [MDL=NaN]	6.3145 [MDL=NaN]
BAP EQUIVALENT-POS	218.83 [MDL=NaN]	3.9 U [MDL=NaN]	63.966 [MDL=NaN]	26.264 [MDL=NaN]	26.618 [MDL=NaN]	13.12 [MDL=NaN]	2.226 [MDL=NaN]
BENZALDEHYDE	53 U [MDL=53]	14 U [MDL=14]	14 U [MDL=14]	14 U [MDL=14]	13 UJ [MDL=13]	13 UJ [MDL=13]	14 UJ [MDL=14]
BENZO(A)ANTHRACENE	66 [MDL=15]	3.9 U [MDL=3.9]	49 [MDL=3.9]	18 [MDL=4]	20 J [MDL=3.7]	11 [MDL=3.6]	22 [MDL=3.7]
BENZO(A)PYRENE	170 [MDL=15]	3.9 U [MDL=3.9]	49 [MDL=3.9]	20 [MDL=4]	21 J [MDL=3.7]	12 [MDL=3.6]	3.7 U [MDL=3.7]
BENZO(B)FLUORANTHENE	300 [MDL=15]	3.9 U [MDL=3.9]	64 [MDL=3.9]	28 [MDL=4]	26 J [MDL=3.7]	3.6 U [MDL=3.6]	3.7 U [MDL=3.7]
BENZO(G,H,I)PERYLENE	130 [MDL=15]	3.9 U [MDL=3.9]	37 [MDL=3.9]	17 [MDL=4]	12 J [MDL=3.7]	3.6 U [MDL=3.6]	3.7 U [MDL=3.7]
BENZO(K)FLUORANTHENE	110 [MDL=15]	3.9 U [MDL=3.9]	31 [MDL=3.9]	14 [MDL=4]	11 J [MDL=3.7]	3.6 U [MDL=3.6]	3.7 U [MDL=3.7]
BIS(2-CHLOROETHOXY)METHANE	97 U [MDL=97]	26 U [MDL=26]	26 U [MDL=26]	26 U [MDL=26]	25 UJ [MDL=25]	24 U [MDL=24]	25 U [MDL=25]
BIS(2-CHLOROETHYL)ETHER	8.8 U [MDL=8.8]	2.4 U [MDL=2.4]	2.4 U [MDL=2.4]	2.4 U [MDL=2.4]	2.2 UJ [MDL=2.2]	2.2 U [MDL=2.2]	2.3 U [MDL=2.3]
BIS(2-ETHYLHEXYL)PHTHALATE	97 B [MDL=84]	39 B [MDL=22]	40 B [MDL=23]	41 B [MDL=23]	21 UJ [MDL=21]	21 U [MDL=21]	22 U [MDL=22]
BUTYL BENZYL PHTHALATE	44 U [MDL=44]	12 U [MDL=12]	12 U [MDL=12]	12 U [MDL=12]	11 UJ [MDL=11]	11 U [MDL=11]	11 U [MDL=11]
CAPROLACTAM	160 U [MDL=160]	44 U [MDL=44]	44 U [MDL=44]	44 U [MDL=44]	41 UJ [MDL=41]	40 U [MDL=40]	42 U [MDL=42]
CARBAZOLE	120 U [MDL=120]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	30 UJ [MDL=30]	29 U [MDL=29]	31 U [MDL=31]
CHRYSENE	130 [MDL=4.8]	1.3 U [MDL=1.3]	56 [MDL=1.3]	24 [MDL=1.3]	28 J [MDL=1.2]	20 [MDL=1.2]	26 [MDL=1.2]
DIBENZO(A,H)ANTHRACENE	15 U [MDL=15]	3.9 U [MDL=3.9]	3.9 U [MDL=3.9]	4 U [MDL=4]	3.7 UJ [MDL=3.7]	3.6 U [MDL=3.6]	3.7 U [MDL=3.7]
DIBENZOFURAN	15 U [MDL=15]	3.9 U [MDL=3.9]	8.2 J [MDL=3.9]	13 J [MDL=4]	3.7 UJ [MDL=3.7]	3.6 U [MDL=3.6]	3.7 U [MDL=3.7]
DIETHYL PHTHALATE	70 U [MDL=70]	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]	18 UJ [MDL=18]	17 U [MDL=17]	18 U [MDL=18]
DIMETHYL PHTHALATE	75 U [MDL=75]	20 U [MDL=20]	20 U [MDL=20]	20 U [MDL=20]	19 UJ [MDL=19]	18 U [MDL=18]	19 U [MDL=19]
DI-N-BUTYL PHTHALATE	66 U [MDL=66]	18 U [MDL=18]	18 U [MDL=18]	18 U [MDL=18]	17 UJ [MDL=17]	16 U [MDL=16]	17 U [MDL=17]
DI-N-OCTYL PHTHALATE	120 U [MDL=120]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	30 UJ [MDL=30]	29 U [MDL=29]	31 U [MDL=31]
FLUORANTHENE	81 [MDL=15]	3.9 U [MDL=3.9]	96 [MDL=3.9]	43 [MDL=4]	34 J [MDL=3.7]	19 [MDL=3.6]	34 [MDL=3.7]
FLUORENE	15 U [MDL=15]	3.9 U [MDL=3.9]	12 [MDL=3.9]	14 [MDL=4]	3.7 UJ [MDL=3.7]	3.6 U [MDL=3.6]	3.7 U [MDL=3.7]
HEXACHLOROBENZENE	9.3 U [MDL=9.3]	2.5 U [MDL=2.5]	2.5 U [MDL=2.5]	2.5 U [MDL=2.5]	2.3 UJ [MDL=2.3]	2.3 U [MDL=2.3]	2.4 U [MDL=2.4]
HEXACHLOROBUTADIENE	120 U [MDL=120]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	30 UJ [MDL=30]	29 U [MDL=29]	31 U [MDL=31]
HEXACHLOROCYCLOPENTADIENE	120 U [MDL=120]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	30 UJ [MDL=30]	29 U [MDL=29]	31 U [MDL=31]
HEXACHLOROETHANE	40 U [MDL=40]	11 U [MDL=11]	11 U [MDL=11]	11 U [MDL=11]	10 UJ [MDL=10]	9.7 U [MDL=9.7]	10 U [MDL=10]
INDENO(1,2,3-CD)PYRENE	110 [MDL=15]	3.9 U [MDL=3.9]	33 [MDL=3.9]	15 [MDL=4]	8.8 J [MDL=3.7]	3.6 U [MDL=3.6]	3.7 U [MDL=3.7]
ISOPHORONE	57 U [MDL=57]	15 U [MDL=15]	16 U [MDL=16]	16 U [MDL=16]	15 UJ [MDL=15]	14 U [MDL=14]	15 U [MDL=15]
NAPHTHALENE	15 U [MDL=15]	3.9 U [MDL=3.9]	12 [MDL=3.9]	17 [MDL=4]	11 J [MDL=3.7]	3.6 U [MDL=3.6]	4.2 J [MDL=3.7]
NITROBENZENE	9.7 U [MDL=9.7]	2.6 U [MDL=2.6]	2.6 U [MDL=2.6]	2.6 U [MDL=2.6]	2.5 UJ [MDL=2.5]	2.4 U [MDL=2.4]	2.5 U [MDL=2.5]
N-NITROSODIMETHYLAMINE	70 U [MDL=70]	19 U [MDL=19]	19 U [MDL=19]	19 U [MDL=19]	18 UJ [MDL=18]	17 U [MDL=17]	18 U [MDL=18]
N-NITROSO-DI-N-PROPYLAMINE	120 U [MDL=120]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	30 UJ [MDL=30]	29 U [MDL=29]	31 U [MDL=31]
N-NITROSODIPHENYLAMINE	93 U [MDL=93]	25 U [MDL=25]	25 U [MDL=25]	25 U [MDL=25]	23 UJ [MDL=23]	23 U [MDL=23]	24 U [MDL=24]
PENTACHLOROPHENOL	350 U [MDL=350]	95 U [MDL=95]	96 U [MDL=96]	96 U [MDL=96]	89 UJ [MDL=89]	86 U [MDL=86]	91 U [MDL=91]
PHENANTHRENE	34 [MDL=15]	3.9 U [MDL=3.9]	79 [MDL=3.9]	52 [MDL=4]	20 J [MDL=3.7]	9.8 [MDL=3.6]	11 [MDL=3.7]
PHENOL	120 U [MDL=120]	32 U [MDL=32]	32 U [MDL=32]	32 U [MDL=32]	30 UJ [MDL=30]	29 U [MDL=29]	31 U [MDL=31]
PYRENE	120 [MDL=15]	3.9 U [MDL=3.9]	76 [MDL=3.9]	35 [MDL=4]	34 J [MDL=3.7]	23 [MDL=3.6]	31 [MDL=3.7]
VOLATILES (UG/KG)							
.BETA.-SESQUIPHELLANDRENE	--	--	--	--	--	--	--
1,1,1,2-TETRACHLOROETHANE	0.74 U [MDL=0.74]	0.56 U [MDL=0.56]	0.63 U [MDL=0.63]	0.58 U [MDL=0.58]	0.90 U [MDL=0.9]	0.72 U [MDL=0.72]	0.55 U [MDL=0.55]
1,1,1-TRICHLOROETHANE	0.67 U [MDL=0.67]	0.50 U [MDL=0.5]	0.57 U [MDL=0.57]	0.52 U [MDL=0.52]	0.81 U [MDL=0.81]	0.65 U [MDL=0.65]	0.50 U [MDL=0.5]
1,1,2,2-TETRACHLOROETHANE	0.41 U [MDL=0.41]	0.31 U [MDL=0.31]	0.34 U [MDL=0.34]	0.32 U [MDL=0.32]	0.49 U [MDL=0.49]	0.39 U [MDL=0.39]	0.30 U [MDL=0.3]
1,1,2-TRICHLOROETHANE	--	--	--	--	--	--	--
1,1,2-TRICHLOROTRIFLUOROETHANE	1.6 U [MDL=1.6]	1.2 U [MDL=1.2]	1.3 U [MDL=1.3]	1.2 U [MDL=1.2]	1.9 U [MDL=1.9]	1.5 U [MDL=1.5]	1.1 U [MDL=1.1]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-879	SB-879	SB-879	SB-879	SB-880	SB-880	SB-880
SAMPLE ID	D-SB-879-1-2	D-SB-879-2-4	D-SB-879-4-6	D-SB-879-6-8	D-SB-880-0-1	D-SB-880-1-2	D-SB-880-2-4
SAMPLE DATE	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/24/2012	4/24/2012	4/24/2012
1,1-DICHLOROETHANE	0.43 U [MDL=0.43]	0.32 U [MDL=0.32]	0.37 U [MDL=0.37]	0.34 U [MDL=0.34]	0.52 U [MDL=0.52]	0.42 U [MDL=0.42]	0.32 U [MDL=0.32]
1,1-DICHLOROETHENE	0.62 U [MDL=0.62]	0.47 U [MDL=0.47]	0.53 U [MDL=0.53]	0.49 U [MDL=0.49]	0.76 U [MDL=0.76]	0.60 U [MDL=0.6]	0.46 U [MDL=0.46]
1,1-DICHLOROPROPENE	0.36 U [MDL=0.36]	0.27 U [MDL=0.27]	0.30 U [MDL=0.3]	0.28 U [MDL=0.28]	0.44 U [MDL=0.44]	0.35 U [MDL=0.35]	0.27 U [MDL=0.27]
1,2,3-TRICHLOROBENZENE	0.45 U [MDL=0.45]	0.34 U [MDL=0.34]	0.39 U [MDL=0.39]	0.35 U [MDL=0.35]	0.55 U [MDL=0.55]	0.44 U [MDL=0.44]	0.34 U [MDL=0.34]
1,2,3-TRICHLOROPROPANE	1.1 U [MDL=1.1]	0.81 U [MDL=0.81]	0.91 U [MDL=0.91]	0.84 U [MDL=0.84]	1.3 U [MDL=1.3]	1 U [MDL=1]	0.80 U [MDL=0.8]
1,2,3-TRIMETHYLBENZENE	0.20 U [MDL=0.2]	0.15 U [MDL=0.15]	0.17 U [MDL=0.17]	0.16 U [MDL=0.16]	0.25 U [MDL=0.25]	0.20 U [MDL=0.2]	0.15 U [MDL=0.15]
1,2,4-TRICHLOROBENZENE	0.32 U [MDL=0.32]	0.24 U [MDL=0.24]	0.27 U [MDL=0.27]	0.25 U [MDL=0.25]	0.39 U [MDL=0.39]	0.31 U [MDL=0.31]	0.24 U [MDL=0.24]
1,2,4-TRIMETHYLBENZENE	0.78 U [MDL=0.78]	0.58 U [MDL=0.58]	0.66 U [MDL=0.66]	0.61 U [MDL=0.61]	0.95 U [MDL=0.95]	0.75 U [MDL=0.75]	0.57 U [MDL=0.57]
1,2-DIBROMO-3-CHLOROPROPANE	1.6 U [MDL=1.6]	1.2 U [MDL=1.2]	1.3 U [MDL=1.3]	1.2 U [MDL=1.2]	1.9 U [MDL=1.9]	1.5 U [MDL=1.5]	1.1 U [MDL=1.1]
1,2-DIBROMOETHANE	0.60 U [MDL=0.6]	0.45 U [MDL=0.45]	0.51 U [MDL=0.51]	0.47 U [MDL=0.47]	0.73 U [MDL=0.73]	0.58 U [MDL=0.58]	0.44 U [MDL=0.44]
1,2-DICHLOROBENZENE	0.43 U [MDL=0.43]	0.32 U [MDL=0.32]	0.37 U [MDL=0.37]	0.34 U [MDL=0.34]	0.52 U [MDL=0.52]	0.42 U [MDL=0.42]	0.32 U [MDL=0.32]
1,2-DICHLOROETHANE	0.41 U [MDL=0.41]	0.31 U [MDL=0.31]	0.34 U [MDL=0.34]	0.32 U [MDL=0.32]	0.49 U [MDL=0.49]	0.39 U [MDL=0.39]	0.30 U [MDL=0.3]
1,2-DICHLOROPROPANE	0.82 U [MDL=0.82]	0.62 U [MDL=0.62]	0.70 U [MDL=0.7]	0.64 U [MDL=0.64]	1 U [MDL=1]	0.80 U [MDL=0.8]	0.61 U [MDL=0.61]
1,3,5-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	0.42 U [MDL=0.42]	0.31 U [MDL=0.31]	0.35 U [MDL=0.35]	0.33 U [MDL=0.33]	0.51 U [MDL=0.51]	0.41 U [MDL=0.41]	0.31 U [MDL=0.31]
1,3-DICHLOROPROPANE	0.41 U [MDL=0.41]	0.31 U [MDL=0.31]	0.34 U [MDL=0.34]	0.32 U [MDL=0.32]	0.49 U [MDL=0.49]	0.39 U [MDL=0.39]	0.30 U [MDL=0.3]
1,4-DICHLOROBENZENE	0.79 U [MDL=0.79]	0.59 U [MDL=0.59]	0.67 U [MDL=0.67]	0.62 U [MDL=0.62]	0.96 U [MDL=0.96]	0.76 U [MDL=0.76]	0.58 U [MDL=0.58]
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-	--	--	--	--	--	--	--
1-BUTANOL	--	--	--	--	--	--	--
1-METHYLNAPHTHALENE	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	1.1 U [MDL=1.1]	0.84 U [MDL=0.84]	0.95 U [MDL=0.95]	0.88 U [MDL=0.88]	1.4 U [MDL=1.4]	1.1 U [MDL=1.1]	0.83 U [MDL=0.83]
2-BUTANONE	1.7 U [MDL=1.7]	1.3 U [MDL=1.3]	1.7 J [MDL=1.4]	4.9 J [MDL=1.3]	2 U [MDL=2]	1.6 U [MDL=1.6]	1.2 U [MDL=1.2]
2-CHLOROETHYL VINYL ETHER	1.7 U [MDL=1.7]	1.3 U [MDL=1.3]	1.4 U [MDL=1.4]	1.3 U [MDL=1.3]	2 U [MDL=2]	1.6 U [MDL=1.6]	1.2 U [MDL=1.2]
2-CHLOROTOLUENE	0.48 U [MDL=0.48]	0.36 U [MDL=0.36]	0.41 U [MDL=0.41]	0.37 U [MDL=0.37]	0.58 U [MDL=0.58]	0.46 U [MDL=0.46]	0.35 U [MDL=0.35]
2-HEXANONE	0.75 U [MDL=0.75]	0.57 U [MDL=0.57]	0.64 U [MDL=0.64]	0.59 U [MDL=0.59]	0.92 U [MDL=0.92]	0.73 U [MDL=0.73]	0.56 U [MDL=0.56]
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
4-CHLOROTOLUENE	0.49 U [MDL=0.49]	0.37 U [MDL=0.37]	0.42 U [MDL=0.42]	0.38 U [MDL=0.38]	0.60 U [MDL=0.6]	0.48 U [MDL=0.48]	0.36 U [MDL=0.36]
4-ISOPROPYLTOLUENE	0.25 U [MDL=0.25]	0.19 U [MDL=0.19]	0.21 U [MDL=0.21]	0.20 U [MDL=0.2]	0.31 U [MDL=0.31]	0.24 U [MDL=0.24]	0.19 U [MDL=0.19]
4-METHYL-2-PENTANONE	0.65 U [MDL=0.65]	0.48 U [MDL=0.48]	0.55 U [MDL=0.55]	0.50 U [MDL=0.5]	0.79 U [MDL=0.79]	0.63 U [MDL=0.63]	0.48 U [MDL=0.48]
ACETONE	7.5 U [MDL=7.5]	5.7 B [MDL=5.7]	20 B [MDL=6.4]	34 B [MDL=5.9]	9.2 U [MDL=9.2]	7.3 U [MDL=7.3]	5.6 U [MDL=5.6]
BENZENE	0.27 U [MDL=0.27]	0.21 U [MDL=0.21]	0.23 U [MDL=0.23]	0.21 U [MDL=0.21]	0.33 U [MDL=0.33]	0.27 U [MDL=0.27]	0.20 U [MDL=0.2]
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE	--	--	--	--	--	--	--
BROMOBENZENE	0.39 U [MDL=0.39]	0.30 U [MDL=0.3]	0.33 U [MDL=0.33]	0.31 U [MDL=0.31]	0.48 U [MDL=0.48]	0.38 U [MDL=0.38]	0.29 U [MDL=0.29]
BROMOCHLOROMETHANE	0.85 U [MDL=0.85]	0.64 U [MDL=0.64]	0.72 U [MDL=0.72]	0.66 U [MDL=0.66]	1 U [MDL=1]	0.82 U [MDL=0.82]	0.63 U [MDL=0.63]
BROMODICHLOROMETHANE	0.33 U [MDL=0.33]	0.25 U [MDL=0.25]	0.28 U [MDL=0.28]	0.26 U [MDL=0.26]	0.41 U [MDL=0.41]	0.32 U [MDL=0.32]	0.25 U [MDL=0.25]
BROMOFORM	0.39 U [MDL=0.39]	0.30 U [MDL=0.3]	0.33 U [MDL=0.33]	0.31 U [MDL=0.31]	0.48 U [MDL=0.48]	0.38 U [MDL=0.38]	0.29 U [MDL=0.29]
BROMOMETHANE	0.65 U [MDL=0.65]	0.48 U [MDL=0.48]	0.55 U [MDL=0.55]	0.50 U [MDL=0.5]	0.79 U [MDL=0.79]	0.63 U [MDL=0.63]	0.48 U [MDL=0.48]
CARBON DISULFIDE	0.53 U [MDL=0.53]	0.40 U [MDL=0.4]	1.8 J [MDL=0.45]	1.7 J [MDL=0.41]	0.64 U [MDL=0.64]	2.1 J [MDL=0.51]	0.39 U [MDL=0.39]
CARBON TETRACHLORIDE	0.44 U [MDL=0.44]	0.33 U [MDL=0.33]	0.38 U [MDL=0.38]	0.35 U [MDL=0.35]	0.54 U [MDL=0.54]	0.43 U [MDL=0.43]	0.33 U [MDL=0.33]
CHLOROBENZENE	0.39 U [MDL=0.39]	0.30 U [MDL=0.3]	0.33 U [MDL=0.33]	0.31 U [MDL=0.31]	0.48 U [MDL=0.48]	0.38 U [MDL=0.38]	0.29 U [MDL=0.29]
CHLORODIBROMOMETHANE	0.66 U [MDL=0.66]	0.49 U [MDL=0.49]	0.56 U [MDL=0.56]	0.51 U [MDL=0.51]	0.80 U [MDL=0.8]	0.64 U [MDL=0.64]	0.49 U [MDL=0.49]
CHLOROETHANE	1 U [MDL=1]	0.77 U [MDL=0.77]	0.87 U [MDL=0.87]	0.80 U [MDL=0.8]	1.3 U [MDL=1.3]	1 U [MDL=1]	0.76 U [MDL=0.76]
CHLOROFORM	0.35 U [MDL=0.35]	0.26 U [MDL=0.26]	0.29 U [MDL=0.29]	0.27 U [MDL=0.27]	0.42 U [MDL=0.42]	0.34 U [MDL=0.34]	0.26 U [MDL=0.26]
CHLOROMETHANE	0.49 U [MDL=0.49]	0.37 U [MDL=0.37]	0.42 U [MDL=0.42]	0.38 U [MDL=0.38]	0.60 U [MDL=0.6]	0.48 U [MDL=0.48]	0.36 U [MDL=0.36]
CIS-1,2-DICHLOROETHENE	0.43 U [MDL=0.43]	0.32 U [MDL=0.32]	0.37 U [MDL=0.37]	0.34 U [MDL=0.34]	0.52 U [MDL=0.52]	0.42 U [MDL=0.42]	0.32 U [MDL=0.32]
CIS-1,3-DICHLOROPROPENE	0.41 U [MDL=0.41]	0.31 U [MDL=0.31]	0.34 U [MDL=0.34]	0.32 U [MDL=0.32]	0.49 U [MDL=0.49]	0.39 U [MDL=0.39]	0.30 U [MDL=0.3]
CYCLOHEXENE, 1-METHYL-4-(1-METHYLETHENYL)-, (	--	--	--	--	--	--	--
DIBROMOMETHANE	0.75 U [MDL=0.75]	0.57 U [MDL=0.57]	0.64 U [MDL=0.64]	0.59 U [MDL=0.59]	0.92 U [MDL=0.92]	0.73 U [MDL=0.73]	0.56 U [MDL=0.56]
DICHLORODIFLUOROMETHANE	0.60 U [MDL=0.6]	0.45 U [MDL=0.45]	0.51 U [MDL=0.51]	0.47 U [MDL=0.47]	0.73 U [MDL=0.73]	0.58 U [MDL=0.58]	0.44 U [MDL=0.44]
DIISOPROPYL ETHER	1.8 U [MDL=1.8]	1.3 U [MDL=1.3]	1.5 U [MDL=1.5]	1.4 U [MDL=1.4]	2.2 U [MDL=2.2]	1.7 U [MDL=1.7]	1.3 U [MDL=1.3]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
DISILOXANE, HEXAMETHYL-
ETHYL TERT-BUTYL ETHER
ETHYLBENZENE
HEXACHLOROBUTADIENE
INDANE
ISOPROPYLBENZENE
M+P-XYLENES
METHYL ACETATE
METHYL CYCLOHEXANE
METHYL TERT-BUTYL ETHER
METHYLENE CHLORIDE
NAPHTHALENE
N-BUTYLBENZENE
N-PROPYLBENZENE
O-XYLENE
SEC-BUTYLBENZENE
STYRENE
TERT-AMYL METHYL ETHER
TERT-BUTYLBENZENE
TERTIARY-BUTYL ALCOHOL
TETRACHLOROETHENE
TOLUENE
TOTAL XYLENES
TRANS-1,2-DICHLOROETHENE
TRANS-1,3-DICHLOROPROPENE
TRICHLOROETHENE
TRICHLOROFLUOROMETHANE
VINYL ACETATE
VINYL CHLORIDE
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)
2-METHYLNAPHTHALENE
ACENAPHTHENE
ACENAPHTHYLENE
ANTHRACENE
BAP EQUIVALENT-HALFND
BAP EQUIVALENT-POS
[illegible]H -2-D--5Z)-2-1.

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	**SB-879**	**SB-879**	**SB-879**	**SB-879**	**SB-880**	**SB-880**	**SB-880**
SAMPLE ID	**D-SB-879-1-2**	**D-SB-879-2-4**	**D-SB-879-4-6**	**D-SB-879-6-8**	**D-SB-880-0-1**	**D-SB-880-1-2**	**D-SB-880-2-4**
SAMPLE DATE	**4/25/2012**	**4/25/2012**	**4/25/2012**	**4/25/2012**	**4/24/2012**	**4/24/2012**	**4/24/2012**
HEPTACHLOR EPOXIDE	--	--	--	--	--	--	--
METHOXYCHLOR	--	--	--	--	--	--	--
TOXAPHENE	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (MG/KG)							
TPH (C10-C32)	29 B [MDL=10]	11 U [MDL=11]	15 B [MDL=11]	2000 [MDL=110]	250 [MDL=52]	82 [MDL=10]	25 [MDL=11]
PETROLEUM HYDROCARBONS (UG/KG)							
DIESEL RANGE ORGANICS	--	--	--	--	--	--	--
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--
TPH (C06-C10)	51 U [MDL=51]	54 U [MDL=54]	55 U [MDL=55]	55 U [MDL=55]	52 U [MDL=52]	50 U [MDL=50]	52 U [MDL=52]

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
METALS (MG/KG)
ANTIMONY
ARSENIC
BARIUM
BERYLLIUM
CADMIUM
CHROMIUM
COBALT
COPPER
IRON
LEAD
MANGANESE
MERCURY
MOLYBDENUM
NICKEL
SELENIUM
SILVER
THALLIUM
VANADIUM
ZINC
MISCELLANEOUS PARAMETERS
PERCENT SOLIDS (%)
HEXAVALENT CHROMIUM (MG/KG)
MERCURY (METHYL) (UG/KG)
SEMIVOLATILES (UG/KG)
1,1-BIPHENYL
1,4-DIOXANE
2,2'-OXYBIS(1-CHLOROPROPANE)
2,4,5-TRICHLOROPHENOL
2,4,6-TRICHLOROPHENOL
[redacted]
2-CHLOROPHENOL
2-METHYLNAPHTHALENE
2-METHYLPHENOL
2-NITROANILINE
2-NITROPHENOL
3&4-METHYLPHENOL
3,3'-DICHLOROBENZI5(H)5(T)-1(H)ENE

APPENDIX C

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION
SAMPLE ID
SAMPLE DATE
1,1-DICHLOROETHANE
1,1-DICHLOROETHENE
1,1-DICHLOROPROPENE
1,2,3-TRICHLOROBENZENE
1,2,3-TRICHLOROPROPANE
1,2,3-TRIMETHYLBENZENE
1,2,4-TRICHLOROBENZENE
1,2,4-TRIMETHYLBENZENE
1,2-DIBROMO-3-CHLOROPROPANE
1,2-DIBROMOETHANE
1,2-DICHLOROBENZENE
1,2-DICHLOROETHANE
1,2-DICHLOROPROPANE
1,3,5-TRIMETHYLBENZENE
1,3-DICHLOROBENZENE
1,3-DICHLOROPROPANE
1,4-DICHLOROBENZENE
1,4-METHANONAPHTHALENE, 1,4-DIHYDRO-
1-BUTANOL
1-METHYLNAPHTHALENE
2,2-DICHLOROPROPANE
2-BUTANONE
2-CHLOROETHYL VINYL ETHER
2-CHLOROTOLUENE
2-HEXANONE
2-METHYLNAPHTHALENE
4-CHLOROTOLUENE
4-ISOPROPYLTOLUENE
4-METHYL-2-PENTANONE
ACETONE
BENZENE
BICYCLO[4.4.1]UNDECA-1,3,5,7,9-PENTAENE
BROMOBENZENE
BROMOCHLOROMETHANE
BROMODICHLOROMETHANE
BROMOFORM
BROMOMETHANE
CARBON DISULFIDE
CARBON TETRACHLORIDE
CHLOROBENZENE
CHLORODIBROMOMETHANE
COMETHANE
BROMO
2-ME4E
4-MLORIMZENE
CHDE
ABROMOMETHA1]UNDECATOLUENE

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION						
SAMPLE ID						
SAMPLE DATE						
DISILOXANE, HEXAMETHYL-						
ETHYL TERT-BUTYL ETHER						
ETHYLBENZENE						
HEXACHLOROBUTADIENE						
INDANE						
ISOPROPYLBENZENE						
M+P-XYLENES						
METHYL ACETATE						
METHYL CYCLOHEXANE						
METHYL TERT-BUTYL ETHER						
METHYLENE CHLORIDE						
NAPHTHALENE						
N-BUTYLBENZENE						
N-PROPYLBENZENE						
O-XYLENE						
SEC-BUTYLBENZENE						
STYRENE						
TERT-AMYL METHYL ETHER						
TERT-BUTYLBENZENE						
TERTIARY-BUTYL ALCOHOL						
TETRACHLOROETHENE						
TOLUENE						
TOTAL XYLENES						
TRANS-1,2-DICHLOROETHENE						
TRANS-1,3-DICHLOROPROPENE						
TRICHLOROETHENE						
TRICHLOROFLUOROMETHANE						
VINYL ACETATE						
VINYL CHLORIDE						
POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)						
2-ROFLUOR(UG/KG)2-ROFLUORG)KG)						

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	SB-880	SB-880	SB-881	SB-881	SB-881	SB-881	SB-881
SAMPLE ID	D-SB-880-4-6	D-SB-880-6-8	D-SB-881-0-1	D-SB-881-1-2	D-SB-881-2-4	D-SB-881-4-6	D-SB-881-6-8
SAMPLE DATE	4/24/2012	4/24/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012
TOTAL PAHS	--	--	--	--	--	--	--
PCBS (UG/KG)							
AROCLOR-1016	25 U [MDL=25]	25 U [MDL=25]	23 U [MDL=23]	22 U [MDL=22]	25 U [MDL=25]	24 U [MDL=24]	30 U [MDL=30]
AROCLOR-1221	19 U [MDL=19]	19 U [MDL=19]	18 U [MDL=18]	17 U [MDL=17]	19 U [MDL=19]	19 U [MDL=19]	23 U [MDL=23]
AROCLOR-1232	17 U [MDL=17]	16 U [MDL=16]	15 U [MDL=15]	15 U [MDL=15]	17 U [MDL=17]	16 U [MDL=16]	20 U [MDL=20]
AROCLOR-1242	15 U [MDL=15]	15 U [MDL=15]	14 U [MDL=14]	14 U [MDL=14]	16 U [MDL=16]	15 U [MDL=15]	18 U [MDL=18]
AROCLOR-1248	20 U [MDL=20]	20 U [MDL=20]	19 U [MDL=19]	18 U [MDL=18]	20 U [MDL=20]	20 U [MDL=20]	24 U [MDL=24]
AROCLOR-1254	20 U [MDL=20]	20 U [MDL=20]	19 U [MDL=19]	18 U [MDL=18]	20 U [MDL=20]	20 U [MDL=20]	24 U [MDL=24]
AROCLOR-1260	20 U [MDL=20]	20 U [MDL=20]	19 U [MDL=19]	18 U [MDL=18]	20 U [MDL=20]	20 U [MDL=20]	24 U [MDL=24]
TOTAL AROCLOR							
PESTICIDES (UG/KG)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							
HEPTACHLOR EPOXIDE							
METHOXYCHLOR							
TOXAPHENE							
PESTICIDES/PCBS (UG/KG)							
4,4'-DDD							
4,4'-DDE							
4,4'-DDT							
ALDRIN							
ALPHA-BHC							
ALPHA-CHLORDANE							
BETA-BHC							
DELTA-BHC							
DIELDRIN							
ENDOSULFAN I							
ENDOSULFAN II							
ENDOSULFAN SULFATE							
ENDRIN							
ENDRIN ALDEHYDE							
ENDRIN KETONE							
GAMMA-BHC (LINDANE)							
GAMMA-CHLORDANE							
HEPTACHLOR							

APPENDIX C
SOIL DATA FROM PREVIOUS INVESTIGATIONS
BLOCK D PANHANDLE
MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

LOCATION	
SAMPLE ID	
SAMPLE DATE	
HEPTACHLOR EPOXIDE	

APPENDIX D—RESIDUAL-RISK ANALYSIS

Residual Risk Analysis Conducted to Support Remedial Action Plans for Tax Block E Soils Lockheed Martin Middle River Complex 2323 Eastern Boulevard Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

October 31, 2013

Michael Martin, P.G.
Regional Manager

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ACRONYMS

As	Arsenic
BaPEq	benzo(a)pyrene equivalents
bgs	below ground surface
COC	Chemical(s) of concern
COPC	Chemical(s) of potential concern
EPC	exposure point concentration
HI	hazard index
HHRA	human health risk assessment
MDE	Maryland Department of the Environment
µg/kg	micrograms per kilogram
mg/kg	milligram per kilogram
Nap	Naphthalene
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PRG	preliminary remedial goal
RAO	Remedial action objective
RAP	remedial action plan
RRA	residual risk analysis
RSL	regional screening level
TCB	Trichlorobenzene
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency

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limit (UCL) on the arithmetic mean. A 95% UCL is defined as a value that, when repeatedly calculated for randomly drawn subsets of size n, equals or exceeds the true population mean 95% of the time. The 95% UCL provides a measure of uncertainty in the mean.

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Section 2
Methodology

The residual risk analysis (RRA) was conducted in the six steps described in the following narrative. The “main” portion of Tax Block D (i.e., Tax Block D minus the panhandle portion that extends to the southeast) was evaluated separately from the “panhandle" portion of Tax Block D.:

Step 1: Identification of Chemicals of Concern.

BrA Bect43 0 Td [(r4(n)35ti6(ho 0u05 0 Td1 [(w)-2(as)-5(E)-l)q T1w w]T1j6

The HHRA results

associated calculation spreadsheets are in Attachment A. Attachment A also includes histograms that display the distribution of BaPEq concentrations in Tax Block D soils. The histograms demonstrate that risk estimates are strongly influenced by elevated concentrations detected at relatively few sampling locations within the tax block.

<u>Step 3: Ranking of Locations</u>

Sample locations in Block D were ranked according to BaPEq concentrations (and thus also according to risk). Surface soil (i.e., soils from the ground surface to two feet in depth) locations were ranked separately from subsurface (vadose zone) soil (i.e., soil between two feet below ground surface [bgs] and the typical depth to groundwater in a particular soil block). If more than one soil sample was available for the depth interval, the maximum concentration was used to rank the location. The results of the ranking for surface and subsurface soils are presented in the detailed residual risk analysis tables provided in Attachment B. Total cancer risk estimates (i.e., for all COC, not just the PAHs) are also provided, by sample location, for the hypothetical typical industrial worker and hypothetical resident.

Additional risk-estimate information is provided for recreational users for Block D because Lockheed Martin Corporation is currently evaluating the possibility of transferring the panhandle portion of Block D to the local community for use as a park. As noted above, the panhandle is a portion of Block D extending to the southeast of the main portion of Block D. Because of this potential division of Block D, this analysis evaluated the main portion of Block D separately from the panhandle portion of Block D. (Note that cancer risk estimates presented in the HHRA

Step 4: Iteratively Remove Samples and Recalculate Exposure Point Concentration

The information presented for Tax Block D in the Attachment B tables was reviewed to select an initial set of locations for RRA. Locations 3(ous-4(t)-1tio)1( )g2(on3t)-6( )-13ressTiBl jludgm4(nt)-(oe)4(ew))3 targeted for remediation, but demonstrated an elevated COC concentration (i.e., one that exceeds the preliminary remedial goal), then sample location "Y" may have been added to the list of targeted locations. Professional judgment factors used to select additional sample locations targeted for remediation were based on several factors, including professional judgment. Primary factors considered include concentrations at non-targeted locations near (horizontally or vertically) targeted locations, and the spatial distribution of data (e.g., the sample density [or lack thereof]) in an area where exceedances of PRGs occur. Comments in Table 2-1 indicate if professional judgment was used to add locations. Table 2-1 also indicates when a location meets the MDE definition of an industrial "hot spot": a location with a cancer risk estimate exceeding $1x10^{-4}$ (i.e., a one-in-ten thousand probability of developing cancer) or an HI greater than 100. All locations meeting the MDE "hot spot" definition (see Section 1) were also targeted for remediation.

Table 2-1

Summary of Residual Risk Analysis Results
Lockheed Martin, Middle River Complex
Middle River, Maryland

BLOCK D EXCLUDING PANHANDLE		
Location	**Industrial - Recommended for Removal**	**Comments**
		Surface Soil (See detailed Table B-1)
SB-060	X	Necessary to meet industrial preliminary remedial goals
SB-060A	X	Necessary to meet industrial preliminary remedial goals
SB-060D	X	Added because of co-location with SB-060 and SB-060A
SB-240B	X	Necessary to meet industrial preliminary remedial goals
SB-067	X	Added because of co-location with SB-240B.
SB-062D	X	Necessary to meet industrial preliminary remedial goals
SB-062	X	Added because of co-location with SB-062D.
SB-771	X	Added to address single elevated data point
SB-774	X	Added because of subsurface soil contamination at this location
SB-781	X	Added to address single elevated data point
SB-058	X	Added because surface soil impacts in an easily assessable cluster
SB-058B	X	Added because surface soil impacts in an easily assessable cluster
SB-058C	X	Added because surface soil impacts in an easily assessable cluster
13 of the 73 sampling locations (18 percent) and 18 of 101 samples (18 percent) are recommended for removal if the industrial worker is the receptor of concern. The remedial goal for the industrial worker for the BaPeqs is 2.9 mg/kg. The residual site 95% UCL for BaPeqs would be 0.63 mg/kg.		
		Subsurface Soil (See Detailed Table B-2)
SB-774	X	Added to address single elevated data point
No samples need to be removed to meet remedial goals for the industrial receptor. However, one of the 80 sampling locations (1.3 percent) and 1 of 90 samples (1.1 percent) is *recommended* for removal if the industrial worker is the receptor of concern. The remedial goal for the industrial worker for the BaPeqs is 2.9 mg/kg. The residual site 95% UCL for BaPeqs would be 190 ug/kg.		

Only sampling locations located in the vadose zone are included in the tables. Depth to groundwater is 4 feet at Blocks D.

Table 2-1

Summary of Residual Risk Analysis Results
Lockheed Martin, Middle River Complex
Middle River, Maryland

BLOCK D PANHANDLE

Location	Residential/ Recreational Recommended for Removal

Only sampling locations located in the vadose zone are included in the tables. Depth to groundwater is 4 feet at Blocks D.

Section 3

Results and Conclusions

The results of the residual risk analysis (RRA) described in Section 2 are summarized in Table 2-1. The locations potentially targeted for remediation in the main portion of Block D, based on the residual risk analysis for the industrial worker (or on professional judgment considerations), are included in this table. The locations potentially targeted for the Block D panhandle based on the residual risk analysis for the recreational user are also identified in Table 2-1. All locations meeting the Maryland Department of the Environment [illegible]

Tables B-1 and B-2 show residual risk analysis results for Block D excluding the panhandle soils; results are summarized on Table 2-1. Four surface soil samples are targeted for remediation in order to achieve the MDE cumulative cancer risk goal of 1×10^{-5} for an industrial worker (Table B-1). An additional nine locations are targeted based on considerations specified above in Step 6.

The residual risk analysis indicates that Block D panhandle soils do not need remediation.

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Attachment A
Data HistogrisSt

Figure A-1

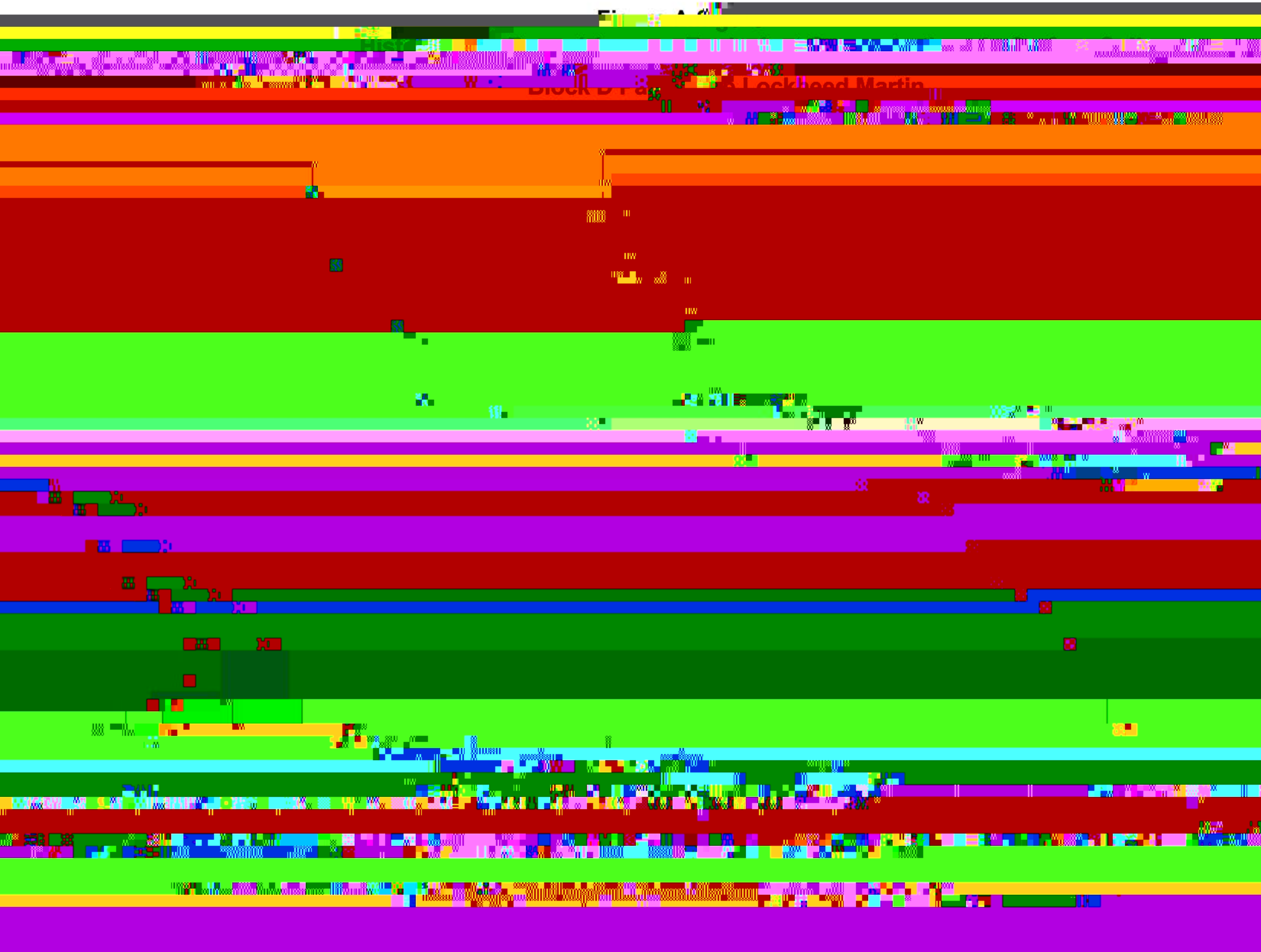
Lockheed Martin

Figure A-3

Histogram of Benzo(a)pyrene Equivalent Concentrations in Subsurface Soil

Block D Panhandle Lockheed Martin

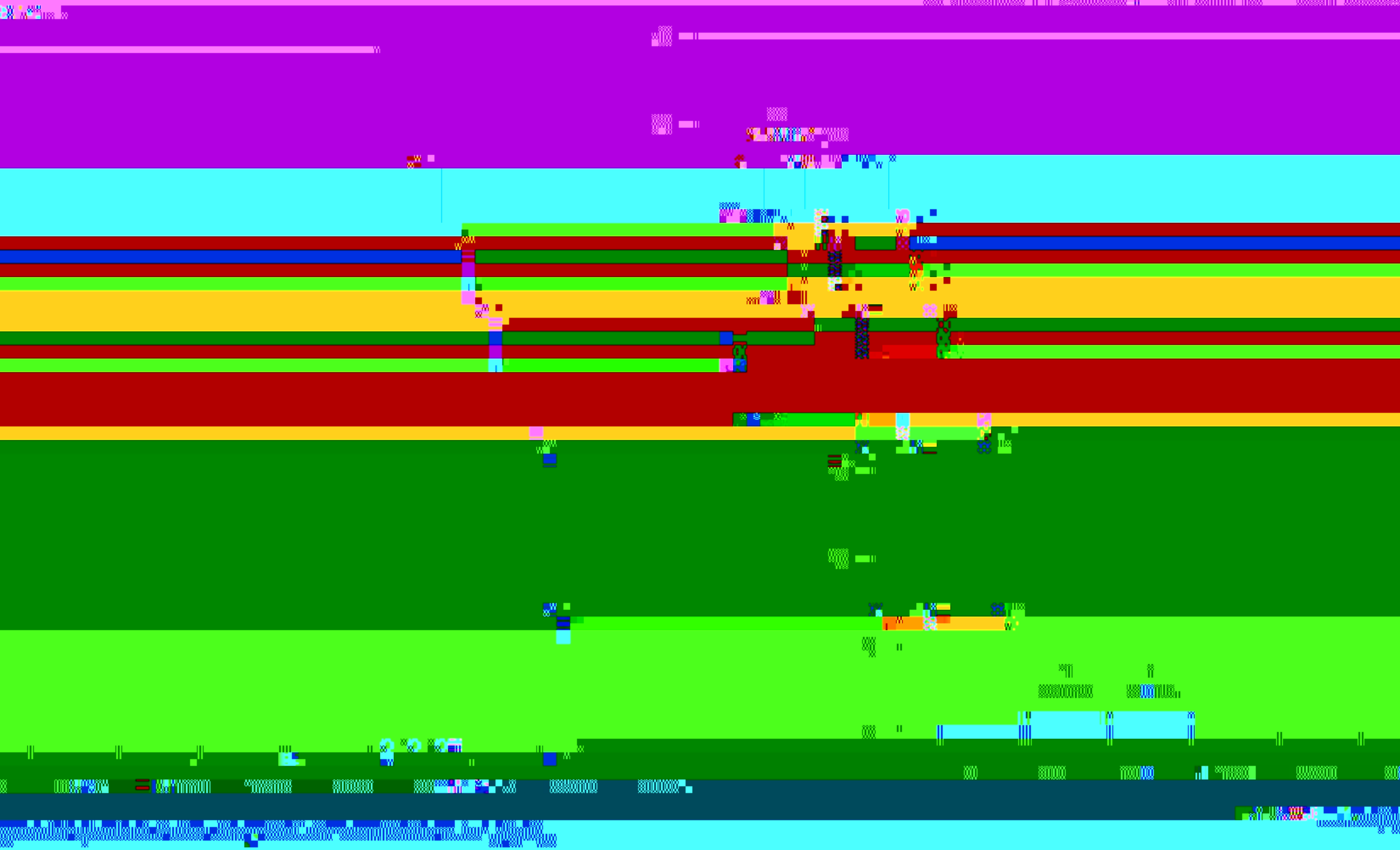

Figure A-1

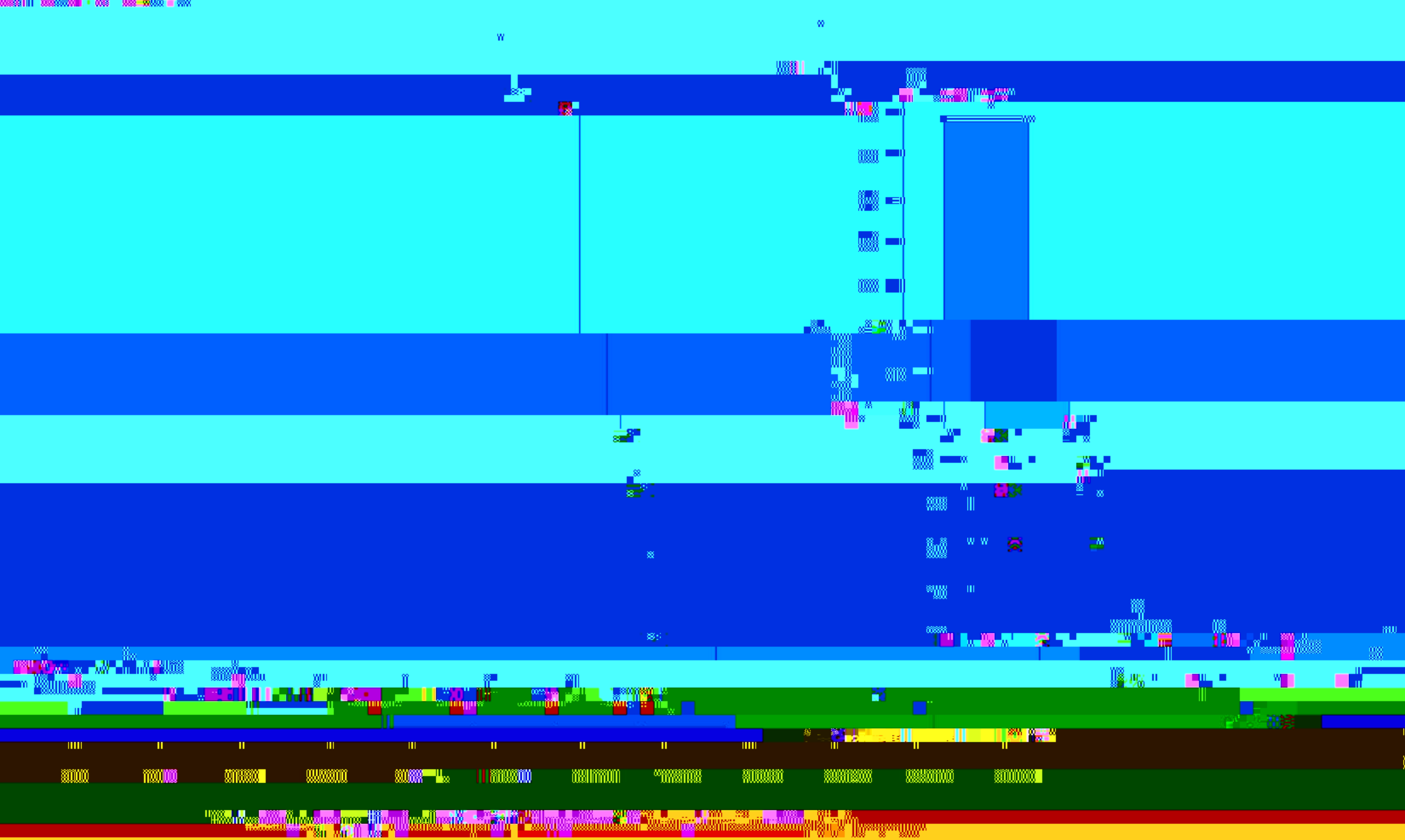

Figure A-7

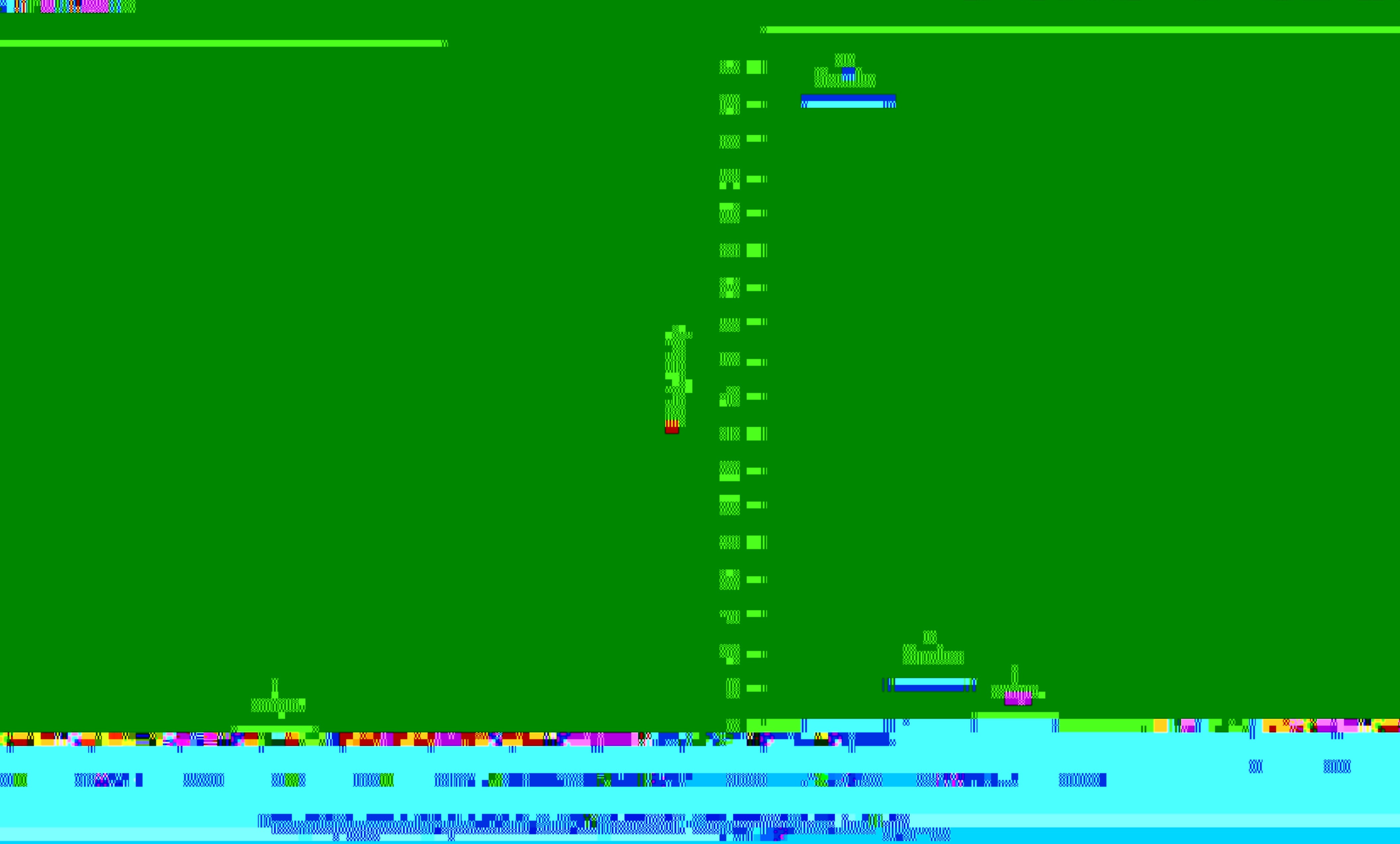

Figure A-[illegible]

Site-specific

Composite Worker Equation Inputs for Soil

Variable	Value
TR (target cancer risk) unitless	0.00001
THQ (target hazard quotient) unitless	1
AT_w (averaging time)	365
EF_w (exposure frequency) d/yr	250
ED_w (exposure duration) yr	25
ET_w (exposure time) hr	8
LT (lifetime) yr	70
BW_w (body weight)	70
IR_w (soil ingestion rate) mg/day	50
SA_w (surface area) cm^2/day	3300
AF_w (skin adhereence factor) mg/cm^2	0.2
City (Climate Zone) PEF Selection	Philadelphia, P
A_s (acres) PEF Selection	0.5
Q/C_{wp} (g/m^2-s per kg/m^3) PEF Selection	87.36898
V (fraction of vegetative cover) unitless	0.5
U_m (mean annual wind speed) m/s	4.29
U_t (equivalent threshold value)	11.32
F(x) (function dependant on U_m/U_t) unitless	0.0993
City (Climate Zone) VF Selection	Philadelphia, P
A_s (acres) VF Selection	0.5
Q/C_{wp} (g/m^2-s per kg/m^3) VF Selection	87.36898
foc (fraction organic carbon in soil) g/g	0.006
ρ$_b$ (dry soil bulk density) g/cm^3	1.5
ρ$_s$ (soil particle density) g/cm^3	2.65
θ$_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15
T (exposure interval) s	950000000

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Table B-1

Residual Risk Analysis Results - Block D Excluding Panhandle Area - Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Table B-1

Residual Risk Analysis Results - Block D Excluding Panhandle Area - Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Location(1)	Sample ID	Depth (feet)	BapEq Concentration(2) (µg/kg)	Total Incremental Lifetime Cancer Risk(3)				Comments
				Industrial	Commercial	Recreational	Residential	
SB-242	SB-242-SS[6]	0.5 - 0.5	180	6E-07	5E-06	9E-06	1E-05	
	SB-242-SS[12]	1 - 1	150	5E-07	4E-06	8E-06	1E-05	
	SB-242-SS[18]	1.5 - 1.5	161 U	3E-07	2E-06	4E-06	6E-06	
SB-241	SB-241-SS[6]	0.5 - 0.5	160	6E-07	5E-06	8E-06	1E-05	
	SB-241-SS[12]	1 - 1	160	5E-07	4E-06	8E-06	1E-05	
SB-061A	D-SB-61REA-1	1 - 1	150	5E-07	4E-06	8E-06	1E-05	
SB-063	SB-63-SS	0 - 0	0.53	1E-06	5E-06	9E-06	1E-05	
	D-SB-63RE-1	1 - 1	140	5E-07	4E-06	7E-06	1E-05	
	D-SB-63RE-2-AVG	2 - 2	67	2E-07	2E-06	3E-06	5E-06	
SB-241	SB-241-SS[18]	1.5 - 1.5	140	5E-07	4E-06	7E-06	1E-05	
SB-243A	D-SB-243REA-2	2 - 2	130	5E-07	4E-06	7E-06	1E-05	
SB-058D	F-SB-58RED-2	2 - 2	130	5E-07	4E-06	7E-06	1E-05	
SB-058A	F-SB-58REA-2-AVG	2 - 2	120	4E-07	3E-06	6E-06	9E-06	
SB-594	D-SB-594-2	2 - 2	92	3E-07	3E-06	5E-06	7E-06	
SB-595	D-SB-595-2	2 - 2	85	3E-07	2E-06	4E-06	6E-06	
SB-061D	D-SB-61RED-1	1 - 1	82	3E-07	2E-06	4E-06	6E-06	
SB-768	D-SS-768-01	0 - 1	78	3E-07	2E-06	4E-06	6E-06	
SB-592D	D-SB-592D-2	2 - 2	53	2E-07	1E-06	3E-06	4E-06	
SB-772	D-SS-772-01	0 - 1	45	2E-07	1E-06	2E-06	3E-06	
SB-062A	D-SB-62REA-1	1 - 1	45	2E-07	1E-06	2E-06	3E-06	
SB-240D	D-SB-240RED-1	1 - 1	45	2E-07	1E-06	2E-06	3E-06	
SB-240C	D-SB-240REC-1	1 - 1	44	2E-07	1E-06	2E-06	3E-06	
SB-769	D-SS-769-01	0 - 1	39	1E-07	1E-06	2E-06	3E-06	
SB-066C	D-SB-66REC-2	2 - 2	38	1E-07	1E-06	2E-06	3E-06	
SB-592	D-SB-592-2	2 - 2	37	1E-07	1E-06	2E-06	3E-06	
SB-593	D-SB-593-2	2 - 2	33	1E-07	9E-07	2E-06	2E-06	
SB-592B	D-SB-592B-2	2 - 2	31	1E-07	9E-07	2E-06	2E-06	
SB-767	D-SS-767-01	0 - 1	31	1E-07	9E-07	2E-06	2E-06	
SB-060B	D-SB-60REB-1	1 - 1	24	8E-08	7E-07	1E-06	2E-06	
SB-061B	D-SB-61REB-1	1 - 1	23	8E-08	6E-07	1E-06	2E-06	
SB-057	SB-57-SS	0 - 0	0.06	1E-06	4E-06			

Table B-2

Residual Risk Analysis Results - Block D - Excluding Panhandle Area - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland
Page 1 of 4

				Total Incremental Lifetime Cancer Risk[4]				
				Industrial	**Commercial**	**Recreational**	**Residential**	
SB-774	D-SB-774-03	3 - 3	24,000	8E-05	7E-04	1E-05 1E-03 SB-330	2E-03 S	Samples needing removal to meet lifetime commercial preliminary remedial goal (PRG) of 360 micrograms per kilogram (µg/kg). Site 95% upper confidence limit on arithmetic mean (95% UCL) is 290 µg/kg.
SB-777	D-SB-777-03	3 - 3	1,000	4E-06	3E-05	5E-05	8E-05	
SB-321	SB-321-0203	2 - 3	940	3E-06	3E-05	5E-05	7E-05	
SB-592	D-SB-592-3	3 - 3	850	3E-06	2E-05	4E-05	6E-05	
	D-SB-592-4	4 - 4	930	3E-06	3E-05	5E-05	7E-05	
SB-060A	D-SB-60REA-3-AVG	3 - 3	850	3E-06	2E-05	4E-05	6E-05	Samples needing removal to meet lifetime residential PRG of 140 ug/kg. Site 95% UCL would be 130 ug/kg.
SB-770	D-SB-770-03	3 - 3	670	2E-06	2E-05	3E-05	5E-05	
SB-063	D-SB-63RE-3	3 - 3	380	1E-06	1E-05	2E-05	3E-05	
	D-SB-63RE-4	4 - 4	160	5E-07	4E-06	8E-06	1E-05	
SB-240	D-SB-240RE-3	3 - 3	200	7E-07	6E-06	1E-05	2E-05	
	D-SB-240RE-4	4 - 4	130	5E-07	4E-06	7E-06	1E-05	
SB-060D	D-SB-60RED-3	3 - 3	200	7E-07	6E-06	1E-05	2E-05	
	D-SB-60RED-5	5 - 5	42	1E-07	1E-06	2E-06 1E-07	3E-06	
SB-592B	D-SB-592B-4	4 - 4	190	6E-07	5E-06	1E-05	1E-05	
SB-062C	D-SB-62REC-3	3 - 3	170	6E-07	5E-06	9E-06	1E-05	
SB-328	SB-328-0203	2 - 3	170	6E-07	5E-06	9E-06	1E-05	
SB-771	D-SB-771-03	3 - 3	130	5E-07	4E-06	7E-06	1E-05	
SB-327	SB-327-0203	2 - 3	130	5E-07	4E-06	7E-06	1E-05	
SB-330	SB-330-0203	2 - 3	110	4E-07	3E-06	]TJ EMC /P <</MCID 437 >>BDC 6.587 0TJ EMC /P <</MCID 503 >>BDC 6.587 0 T.001 T4 Td [(S)-at6(		

Table B-2

Residual Risk Analysis Results - Block D - Excluding Panhandle Area - Subsurface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland

Total Incremental Lifetime Cancer Risk(4)

Industrial	Commercial	Recreational	Resiu4f9(ea)-5Dof9(ea7(n)7(a)-1(l)]TJ EMC /P <</7(C <<-1(k)]TJ -0.00-52.19)]T93J 11.222 -1

Table B-2

Table B-3

Residual Risk Analysis Results - -Block D Panhandle- Surface Soil
Lockheed Martin, Middle River Complex
Middle River, Maryland
Page 1 of 2

Location[1]	Sample ID	Depth (feet)	Concentration			Total Incremental Lifetime Cancer Risk[3]				Comments
			BaPEq (µg/kg)	Arsenic (mg/kg)	Cr^{+6} (mg/kg)	Industrial	Commercial	Recreational	Residential	
SB-874	D-SB-874-0-1	0 - 1	130	1.9	0.31 U	1E-06	6E-06	1E-05	2E-05	Samples that need to be removed to meet recreational preliminary remedial goal for BaPEq (200 µg/kg) and background levels of 1.0 mg/kg for Cr+6 and 12 mg/kg for arsenic. Site 95% upper confidence limits (UCLs) would be as follows: BaPEq (120 µg/kg), hexavalent chromium (0.39 mg/kg) and arsenic (5.9 mg/kg).
	D-SB-874-1-2	1 - 2	6,000	4.2	0.31 U	2E-05	2E-04	3E-04	5E-04	
SB-872	D-SB-872-0-1	0 - 1	130	2.1	0.28 U	1E-06	6E-06	1E-05	2E-05	
	D-SB-872-1-2	1 - 2	1,500	2.2	0.3 U	6E-06	4E-05	8E-05	1E-04	
SB-875	D-SB-875-0-1	0 - 1	34 U	1.8	0.28 U	8E-07	3E-06	5E-06	8E-06	
	D-SB-875-1-2	1 - 2	67	***24***	0.28 U	9E-06	3E-05	5E-05	7E-05	
SB-784	D-SS-784-01	0 - 1	40	2.8 J	***1.3***	2E-06	8E-06	1E-05	2E-05	
SB-794	D-SB-794-SS	0 - 1	710	4.3 J	0.31 U	4E-06	2E-05	5E-05	7E-05	
SB-786	D-SS-786-01	0 - 1	570	6	0.32 U	4E-06	2E-05	4E-05	6E-05	
SB-879	D-SB-879-0-1	0 - 1	51	3	0.3 U	1E-06	5E-06	1E-05	1E-05	
	D-SB-879-1-2	1 - 2	230	2.9	0.71 J	2E-06	1E-05	2E-05	3E-05	
SB-783	D-SS-783-01	0 - 1	220	2.4 J	0.3 U	2E-06	9E-06	2E-05	2E-05	
	D-SB-873-1-2	1 - 2	5.5	6.7 J	0.32 U	3E-06	7E-06	1E-05	2E-05	
SB-876	D-SB-876-0-1	0 - 1	18 U	3	0.3 U	1E-06	4E-06	7E-06	1E-05	
	D-SB-876-1-2	1 - 2	130	3.7	0.3 U	2E-06	8E-06	2E-05	2E-05	
SB-782	D-SS-782-01	0 - 1	130	2.2 J	0.28 U	1E-06	6E-06	1E-05	2E-05	
SB-881	D-SB-881-0-1	0 - 1	120	2.5	0.75 J	2E-06	8E-06	2E-05	2E-05	
	D-SB-881-1-2	1 - 2	70 U	2.3	0.29 U	1E-06	4E-06	7E-06	1E-05	
SB-788	D-SB-788-SS	0 - 1	110	0.95	0.53 J	1E-06	5E-06	1E-05	2E-05	
SB-796	D-SB-796-SS	0 - 1	79	4.9	0.36 J	2E-06	8E-06	2E-05	2E-05	
SB-787	D-SS-787-01	0 - 1	72	5.3	0.31 U	2E-06	8E-06	2E-05	2E-05	
SB-878	D-SB-878-0-1	0 - 1	68	3.8	0.36 U	2E-06	6E-06	1E-05	2E-05	
	D-SB-878-1-2	1 - 2	29	3.3	0.32 U	1E-06	4E-06	9E-06	1E-05	
SB-877	D-SB-877-0-1	0 - 1	17	3.9	0.31 J	2E-06	5E-06	1E-05	1E-05	
	D-SB-877-1-2	1 - 2	67	4.2	0.31 U	2E-06	6E-06	1E-05	2E-05	
SB-873	D-SB-873-0-1	0 - 1	61	3.5	0.32 U	2E-06	6E-06	1E-05	2E-05	
SB-795	D-SB-795-SS	0 - 1	39	2.6 J	0.31 U	1E-06	4E-06	8E-06	1E-05	
SB-880	D-SB-880-0-1	0 - 1	28	3	0.3 U	1E-06	4E-06	8E-06	1E-05	
	D-SB-880-1-2	1 - 2	15	2.7	0.29 U	1E-06	3E-06	7E-06	1E-05	
SB-789	D-SB-789-SS	0 - 1	22	1.7	0.57 J	1E-06	4E-06	8E-06	1E-05	
SB-790	D-SB-790-SS	0 - 1	19	0.71	0.8 J	8E-07	4E-06	7E-06	1E-05	
SB-065	D-SB-65RE-1	1 - 1	1.4 U			2E-09	2E-08	4E-08	5E-08	
	D-SB-65RE-2	2 - 2	19			6E-08	5E-07	1E-06	1E-06	
SB-793	D-SB-793-SS	0 - 1	17	4.5 L	0.62 J	2E-06	7E-06	1E-05	2E-05	
SB-792	D-SB-792-SS	0 - 1	4.2	2.3 L	0.32 J	1E-06	3E-06	7E-06	1E-05	
SB-033	SB-33A-SS	0 - 0	3600 U	1 L	0.355 K	7E-06	5E-05	1E-04	1E-04	
SB-785	D-SS-785-01	0 - 1	3.6 U	1.6	0.52 J	9E-07	3E-06	6E-06	9E-06	
SB-791	D-SB-791-SS	0 - 1	3.5 U	0.72 L	0.54 J	6E-07	2E-06	5E-06	7E-06	

Table B-4
Residual Risk Analysis Results - Block D Panhandle- Subsurface Soil (0 - 4 ft)
Lockheed Martin, Middle River Complex
Middle River, Maryland

			Concentration			Industrial	Commercial	Recreational	Residential
SB-874	D-SB-874-2-4	2 - 4	1,700	3	0.32 U	8E-06	5E-05	9E-05	1E-04
SB-787	D-SB-787-03	3 - 3	770	4.6 L	0.31 U	4E-06	3E-05	5E-05	7E-05
SB-872	D-SB-872-2-4	2 - 4	280	4	0.32 U	3E-06	1E-05	2E-05	3E-05
SB-790	D-SB-790-03	3 - 3	220	4.5	0.31 U	3E-06	1E-05	2E-05	3E-05
SB-786	D-SB-786-03	3 - 3	160	3.9	0.32 U	2E-06	9E-06	2E-05	3E-05
SB-794	D-SB-794-03	3 - 3	140	5.5 J	0.32 U	3E-06	1E-05	2E-05	3E-05
SB-340	SB-340-0203	2 - 3	110			4E-07	3E-06	6E-06	8E-06
SB-342	SB-342-0203	2 - 3	78			3E-07	2E-06	4E-06	6E-06
SB-796	D-SB-796-03	3 - 3	75	3.4	0.31 U	2E-06	6E-06	1E-05	2E-05
SB-876	D-SB-876-2-4	2 - 4	67	9 J	0.33 U	4E-06	1E-05	2E-05	3E-05
SB-791	D-SB-791-03	3 - 3	60	5.4 L	0.33 U	2E-06	7E-06	2E-05	2E-05
SB-782	D-SB-782-03	3 - 3	60	2.1 J	0.36 J	1E-06	5E-06	9E-06	1E-05
SB-788	D-SB-788-03	3 - 3	53	1.9	1.1	1E-06	7E-06	1E-05	2E-05
SB-338	SB-338-0203	2 - 3	40			1E-07	1E-06	2E-06	3E-06

Attachment C

Tax Block D   Excluding Pan Handle

TABLE 3.1.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Block D Excluding Pan Handle	Benzo(a)pyrene Equivalents	mg/kg	1.10	2.7 (NP)	11.4	2.7	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL 4.1.01
	Antimony	mg/kg	1.56	(1)	3 J	3	mg/kg	Maximum Detected Concentration	(1)
	Arsenic	mg/kg	1.39	2.1 (G)	4.9	2.1	mg/kg	95% KM (BCA) UCL	ProUCL 4.1.01
	Nickel	mg/kg	10.4	12.5 (N)	16 K	12.5	mg/kg	95% Student's-t UCL	ProUCL 4.1.01
	Hexavalent Chromium	mg/kg	0.876	1.1 (N)	1.8 J	1.1	mg/kg	95% Student's-t UCL	ProUCL 4.1.01

G = Gamma
N = Normal
NP = Non-parametric

TABLE 3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil
Exposure Medium: Subsurface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration Value	Exposure Point Concentration Units	Exposure Point Concentration Statistic	Rationale
Block D	Benzo(a)pyrene Equivalents	mg/kg	0.360	2.0 (L)	24.4	2	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL 4.1.01
Excluding	Naphthalene	mg/kg	0.029	0.057 (G)	0.26	0.057	mg/kg	95% KM (t) UCL	ProUCL 4.1.01
Pan Handle	Mercury	mg/kg	0.097						

TABLE 4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Industrial Workers	Adult	Block D	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
			Excluding Pan Handle	IR-S	Ingestion Rate	50	mg/day	USEPA, 2002b	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 2002b	BW x AT
				EF	Exposure Frequency	250	days/year	USEPA, 2002b	
				ED	Exposure Duration	25	years	USEPA, 2002b	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	
Dermal	Industrial Workers	Adult	Block D	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
			Excluding Pan Handle	CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3300	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	250	days/year		

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future

Medium: Surface/Subsurface Soil

Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Industrial Workers	Adult	Block D	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m

TABLE 5.1
NON-CANCER TOXICITY DATA -- ORAL/DERMAL
BLOCK D - EXCLUDING PAN HANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal[1]	Absorbed RfD for Dermal[2]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons										
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	

TABLE 5.2
NON-CANCER TOXICITY DATA -- INHALATION
BLOCK D - EXCLUDING PAN HANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD(1)		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons									
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Chronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Respiratory	3000/1	IRIS	6/20/2013
Metals									
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury(2)	Chronic	3.0E-05	mg/m^3	8.6E-06	(mg/kg/day)	Autoimmune	NA	Cal EPA	11/2010
Miscellaneous Parameters									
Hexavalent Chromium	Chronic	1.0E-04	mg/m^3	2.9E-05	(mg/kg/day)	Lungs	300/1	IRIS	6/20/2013

Notes:
1 - Extrapolated RfD = RfC *20m^3/day / 70 kg
2 - Value is for mercuric chloride.
Definitions:
Cal EPA = California Environmental Protection Agency.
IRIS = Integrated Risk Information System.
NA = Not available.

TABLE 6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
BLOCK D - EXCLUDING PAN HANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency	Absorbed Cancer Slope Factor for Dermal(2)	Weight of Evidence/ Cancer Guideline	Oral CSF
	Value	7ne7nTT18	r			

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of	EPC

7 Medium0 Td [(-)-28-07 No5(0.)5-446.5Hr7 al 1E-05

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block D	Benzo(a)pyrene Equivalents	3E-06	--	6E-06	--	9E-06	NA	--	--	--	--
			Antimony	- -	--	- -	--	- -	Blood	0.004	--	0.003	0.007
			Arsenic	6E-07	--	2E-07	--	8E-07	Skin, CVS	0.003	--	0.001	0.005
			Nickel	- -	--	- -	--	- -	Body Weight	0.0003	--	0.001	0.001
			Hexavalent Chromium	1E-07	--	5E-07	--	6E-07	None Specified	0.0002	--	0.0009	0.001
			Chemical Total	4E-06	--	7E-06	--	1E-05		0.008	--	0.007	0.01
		Exposure Point Total						1E-05					0.01
	Exposure Medium Total							1E-05					0.01
	Air	Block D	Benzo(a)pyrene Equivalents	--	7E-11	--	--	7E-11	NA	--	--	--	--

Antimony [(0.)-11(01)]TJ -516.013 -7.44-516.0(uop(erd [(0.)-11(01)]TJ -516.0132gan(sr 35 0.001r7)-3[ir)Tj 89.9710 Td [(Bloc)-11(k)NA78(D)-4591(Benz)12(o)Tj 89.97)7E-11

Chemical TChemic --

TABLE 3.1.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Block D Panhandle	Benzo(a)pyrene Equivalents	mg/kg	0.170	0.12 (G)	0.7	0.12	mg/kg	95% KM (BCA) UCL	ProUCL 4.1
	Aroclor-1260	mg/kg	0.025	(1)	0.02 J	0.02	mg/kg	Maximum Detected Concentration	(1)
	Antimony	mg/kg	0.249	0.23 (G)	1.3 J	0.230	mg/kg	95% KM (t) UCL	ProUCL 4.1
	Cadmium	mg/kg	0.184	0.16 (N)	0.4 L	0.16	mg/kg	95% KM (t) UCL	ProUCL 4.1
	Cobalt	mg/kg	6.04	7.8 (G)	27.5	7.8	mg/kg	95% Approximate Gamma UCL	ProUCL 4.1
	Iron	mg/kg	11700	16300 (G)	25400 J	16300	mg/kg	95% Approximate Gamma UCL	ProUCL 4.1
	Manganese	mg/kg	56.3	90 (G)	183 J	90	mg/kg	95% Approximate Gamma UCL	ProUCL 4.1
	Mercury	mg/kg	0.135	0.44 (L)	1.7	0.44	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL 4.1
	Molybdenum	mg/kg	0.401	0.46 (G)	1.2 J	0.46	mg/kg	95% KM (Percentile Bootstrap) UCL	ProUCL 4.1
	Nickel	mg/kg	12.3	16 (G)	40.6 J	16	mg/kg	95% Approximate Gamma UCL	ProUCL 4.1
	Vanadium	mg/kg	26.9	31 (G)	71 J	31	mg/kg	95% Approximate Gamma UCL	ProUCL 4.1
	Hexavalent Chromium	mg/kg	0.298	0.37 (N)	1	0.37	mg/kg	95% KM (t) UCL	ProUCL 4.1

G = Gamma
L = Lognormal
N = Normal
NP = Non-parametric

1 - USEPA Guidance recommends using the average concentration for the exposure point concentration for lead.

TABLE 3.2.RME

TABLE 4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future

Medium: Surface Soil/Subsurface Soil

Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter	Parameter Definition	Value	Units

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future

Medium: Surface/Subsurface Soil

Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Industrial Workers	Adult	Block D Pan Handle	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24 \text{ hours/day}}$
				EF	Exposure Frequency	250	days/year	USEPA, 2002a	
				ED	Exposure Duration	25	years	USEPA, 2002a	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2013	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA 2013	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2013	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2013	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2013	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2013	

Notes:

1 - Length of typical work day1(elocn)-288(annuv)-11(eget)-10(at)-11(iv)-12(e)-99(1989)300(w)-u(m)-12r4SL5-12(pic)-RFelocnoneshGuida.677 0 -11(er)f903 0 Td1(er)Su.08f77 0 und.h0(ad1(er)12(pic)-3.501u678 0 le)]TJ 63.501eal-300(t)-11(y)E(t)-11(hua-12(e)nden)1(t)-289(9nua5-1l,(pic)-ulat)-ic2013

TABLE 4.4.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RECREATIONAL USERS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Recreational User	Child	Block D Pan Handle	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	CA x ET x EF x ED / AT x 24 hours/day
				EF	Exposure Frequency	250	days/year	(1)	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(2), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(2), USEPA, 1989, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2013	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA 2013	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2013	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2013	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2013	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2013	

Notes:

1 - Assume on site for 8 hours per day 250 days per year.

2 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, children recreational users will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2013: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 6) = 1.96E-02 Noncancer Inhalation Intake = 2.28E-01

Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 2) = 6.52E-03

Cancer Inhalation Intake (Age 2 - 6) = 1.30E-02

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.6.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT RECREATIONAL USERS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future

Medium: Surface/Subsurface Soil

Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Recreational User	Adolescent	Block D Pan Handle	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24 \text{ hours/day}}$
				EF	Exposure Frequency	250	days/year	(1)	
				ED	Exposure Duration (Age 6 - 16)	10	years	(2), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(2), USEPA, 1989, 2005	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2013	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	USEA,2013	USEA111(i(2013)]TJ -2-11(iz)10(atr)-11(ion)-578]T-2123(90esulat))-11(C)ge299(2011(ure)]vaging)-288(T89(x)-2)-11(C)-(Canc3800 149.69(19892997),380un6.966 0(s)			

TABLE 4.7.RME

TABLE 4.8.RME

TABLE 5.1

TABLE 5.2
NON-CANCER TOXICITY DATA -- INHALATION
BLOCK D - PAN HANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD[1]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Polycyclic Aromatic Hydrocarbons									
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Chronic	3.0E-03	(mg/m)TJ E6]TJ /TT[(mTj2 4.Q B.36 Td e)-5(n)-358.0)Bronchioli Cto71 -10.8 TNA	NA	NA	NA	NA	NA	NA
			NNA	NA		Nd60688 -5(r)3(gTd Td 7(Be7-10.88 -5(r)3(gA-5(r)S-3(sRd 7(Be1.7T(N)3)-279 [l)-3(i)l 0 -10.8 10.8 8			

TABLE 6.1
CANCER TOXICITY DATA -- ORAL/DERMAL
BLOCK D - PAN HANDLE
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal[1]	Absorbed Cancer Slope Factor for Dermal[2]		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	**Units**		**Value**	**Units**		**Source(s)**	**Date(s) (MM/DD/YYYY)**
Polycyclic Aromatic Hydrocarbons								
Benzo(a)pyrene[3]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	04/30/2013
Naphthalene	NA	NA	NA	NA	NA	C / Possible human carcinogen	IRIS	04/30/2013
Polychlorinated Biphenyls								
Aroclor-1260	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA(1)	9/1996
Metals								
Antimony	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	B1 / Probable human carcinogen	IRIS	04/30/2013
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	D / Not classifiable as to human carcinogenicity	IRIS	04/30/2013
Mercury	NA	NA	NA	NA	NA	C / Possible human carcinogen	IRIS	04/30/2013
Molybdenum	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous Parameters								
Hexavalent Chromium[3]	5.0E-01	$(mg/kg/day)^{-1}$	0.025	2.0E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	NJ	4/8/2009

Notes:
1 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.
2 - Adjusted cancer slope factor for dermal = Oral cancer slope factor / Oral Absorption Efficiency for Dermal.
3 - Several PAHs and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).
Cal EPA = California Environmental Protection Agency.
IRIS = Integrated Risk Information System.
NA = Not available.
NJ = New Jersey.
PPRTV = Provisional Peer Reviwed Toxicity Value.
USEPA(1) = USEPA, PCBsals a9(i)-287(=)-276(23(PC)3(B)-9(s)-9(aB4(a)-5(i)10.68 TD [-D)-3(V)-2n.52 Td [(N)3(J)-289(=87(=)-276(23(PC)3(B)-9(s)-9(aB4(a)-5(i)n87(=)-276(23W n B5(n)-5(c)-9(e)-286(f)-3(o)-5(r)-281(Su)-5(p)-5(e(s)-9(i)-6(d)-5(

[illegible]E 6.2
CANCER TO[illegible] DATA -- INHALATION
BL[illegible] - PAN HANDLE
LOCKHEED M[illegible], MIDDLE RIVER C[illegible]LEX
MI[illegible]RIVER, MARYLAND

[illegible]cal [illegible]tial [illegible]rn	Unit Risk Value	Unit Risk Un[illegible]	Inh[illegible] Cancer S[illegible]ctor(1) Value	Units	[illegible]ht of Evidence/ [illegible]cer Guideline [illegible]escription	Unit Risk : Inhala[illegible] Source(s)	[illegible]s) ([illegible]YYYY)
Polycycl[illegible]tic Hydrocarbons							
Benzo(a)[illegible]	1.1E-03	[illegible]	3.9E+0[illegible]	(mg/kg/day)$^{-1}$	NA	Cal EPA	[illegible]9
Naphthal[illegible]	3.4E-05	[illegible]	1.2E-01	(mg/kg/day)$^{-1}$	C [illegible]e Human Carcinogen	Cal EPA	[illegible]4
Polychlo[illegible]Biphenyls							
Aroclor-1[illegible]	5.7[illegible]	[illegible]g/m^3)$^{-1}$	2.0E+00	[illegible]mg/kg/day)$^{-1}$	B2 [illegible]ble human carcinogen	USEPA(1)	[illegible]6
Metals							
Antimony[illegible]							

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURES

LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		Rf 93rapE8		
					Value		Units	Value	Units		Value	Units	Value	Units		
SubsurpEace Soil	SubsurpEace Soil															

TABLE 7.2.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	

TABLE 7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil															

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block D - Panhandle	Benzo(a)pyrene Equivalents	4E-06	--	1E-06	--	5E-06	NA	--	--	--	--
			Aroclor-1260	3E-08	--	1E-08	--	4E-08	NA	--	--	--	--
			Antimony										

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	Block D - Panhandle	Benzo(a)pyrene Equivalents	8E-07	--	3E-07	--	1E-06	NA	--	--	--	--
			Aroclor-1260	1E-08	--	5E-09	--	2E-08	NA	--	--	--	--
			Antimony	- -	--	- -	--	- -	Blood	0.0010	--	0.0002	0.001
			Cadmium	- -	--	- -	--	- -	Kidney	0.0003	--	0.00003	0.0003
			Cobalt	- -	--	- -	--	- -	Thyroid	0.04	--	0.001	0.05
			Iron	- -	--	- -	--	- -	GS	0.04	--	0.001	0.04
			Manganese	- -	--	- -	--	- -	CNS	0.006	--	0.005	0.01
			Mercury	- -	--	- -	--	- -	CNS	0.003	--	0.001	0.004
			Molybdenum	- -	--	- -	--	- -	Gout	0.0002	--	0.000005	0.0002
			Nickel	- -	--	- -	--	- -	Body Weight	0.001	--	0.001	0.002
			Vanadium	- -	--	- -	--	- -	Kidney	0.01	--	0.0003	0.01
			Hexavalent Chromium	2E-07	--	2E-07	--	4E-07	None Specified	0.0002	--	0.0003	0.0005
			Chemical Total	9E-07	--	5E-07	--	1E-06		0.1	--	0.01	0.1
		Exposure Point Total						1E-06					0.1
	Exposure Medium Total							1E-06					0.1
	Air	Block D - Panhandle	Benzo(a)pyrene Equivalents	--	5E-12	--	--	5E-12	NA	--	--	--	--
			Aroclor-1260	--	1E-13	--	--	1E-13	NA	--	--	--	--
			Antimony	--	- -	--	--	- -	NA	--	--	--	--
			Cadmium	--	3E-12	--	--	3E-12	Kidney, Respiratory	--	0.0000006	--	0.0000006
			Cobalt	--	9E-10	--	--	9E-10	Respiratory	--	0.00009	--	0.00009
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0001	--	

9E-10 Respiratory 0.00001D9irat-60.000108ao (--)Tj 35.9474

TABLE 9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Receptor Population: Recreational User
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient
				Ingestion	Inhalation	Dermal	osIngestion	Inhalatiical	

TABLE 9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future

APPENDIX E—BaPEq CALCULATION

Appendix E

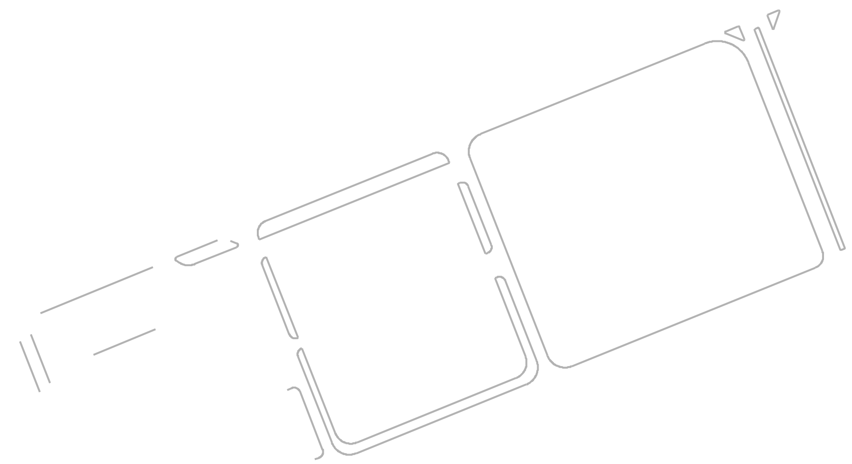
resulting BaPEq values estimated using this method are referred to as "BaPEq-Half ND" when used in risk calculations or reported in data tables and figures.

Alternatively, sample calculations for BaPEq may be performed using ***only*** positive results as the product of the reported analyte concentrations and the respective TEF's for each of the seven reported PAHs. Non detected results within a given sample are entirely ignored and only positively reported concentrations are considered for use in summation when this latter calculation method is employed. This calculated value, referred to as "BaPEq-POS", has typically been used in reporting data from Block F for the purposes of presenting and screening data.

The reported concentration of the benzo(a)pyrene detection limit is used as the default representative value of the BaPEq in cases where ***all*** of the seven PAHs are reported as non-detected results.

Currently, there are only seven PAHs which are included in the calculation of the BaPEq. It is expected the United States Environmental Protection Agency will be adding additional PAHs to the calculation process likely beginning sometime in 2013.

APPENDIX F—BLOCK D PANHANDLE DEPTH-TO-WATER CONTOURS



APPENDIX G

Environmental Footprint Evaluation

Feasibility Study

Block D Panhandle

Middle River, Maryland

July 2013

OBJECTIVE

This Environmental Footprint Evaluation of remedial alternatives is provided as an Appendix to the

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 3 is 50.72 metric tons of CO_2e.

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 4 is 57.60 metric tons of CO_2e.

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 5 is 135.03 metric tons of CO_2e.

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 6 is 29.96 metric tons of CO_2e.

The total amount of GHG emissions released to the atmosphere resulting from the activities during Alternative 7 is 118.19 metric tons of CO_2e.

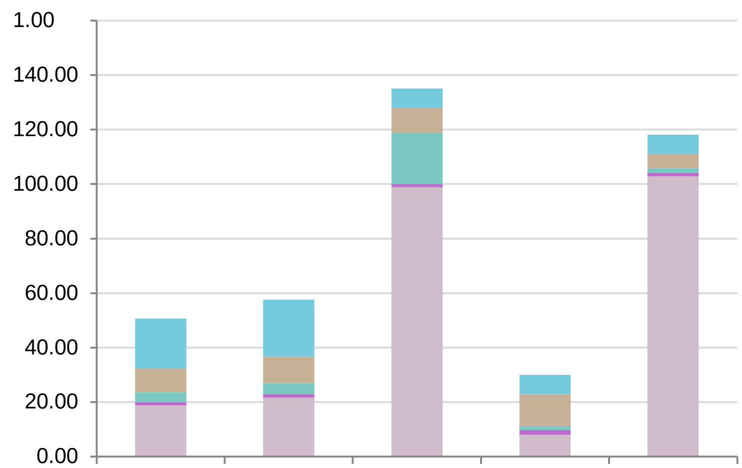


Figure G1: GHG Emissions for Alternatives at Block D Panhandle, Middle River Complex

Figure G2 shows the breakdown of the percent that each of main activities of each alternative (x-axis) contributes to the GHG emissions (y-axis).

Figure G2: GHG Emissions percentage breakdown for Alternatives at Block D Panhandle, Middle River Complex

Criteria Pollutant Emissions

NO_X

Figure G3 shows the breakdown of the NO_X emissions for the four alternatives evaluated. T72 341d

The total amount of NO_X released to the atmosphere resulting from the activities during Alternative 7 is 0.035 metric ton of NO_X.

Figure G3 NO_X

Figure G4: NO_X Emissions percentage breakdown for Alternatives at Block D Panhandle, Middle River Complex

SO_X

Figure G5 contains the distribution of the SO_X emissions resulting from the activities related to all proposed Alternatives. The x-axis of this graph represents the four Alternatives evaluated; the y-axis represents the SO_X emissions in metric ton.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 3 is 0.017 metric ton of SO_X.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 4 is 0.020 metric ton of SO_X.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 5 is 0.018 metric ton of SO_X.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 6 is 0.014 metric ton of SO_X.

The total amount of SO_X released to the atmosphere resulting from the activities during Alternative 7 is 0.013 metric ton of SO_X.

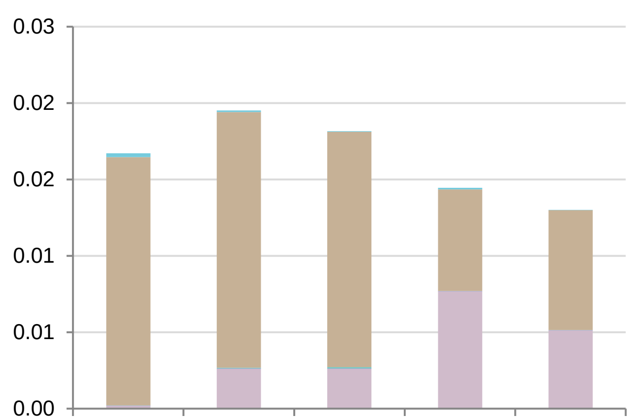


Figure G5: SO_X Emissions for Alternatives at Block D Panhandle, Middle River Complex

Figure G6 shows the percentage breakdown of the activities contributing to SO_X emissions.

Figure G6: SO_X

The total amount of PM_{10} released to the atmosphere resulting from the activities during Alternative 6 is 0.009 metric ton of PM_{10}.

The total amount of PM_{10}

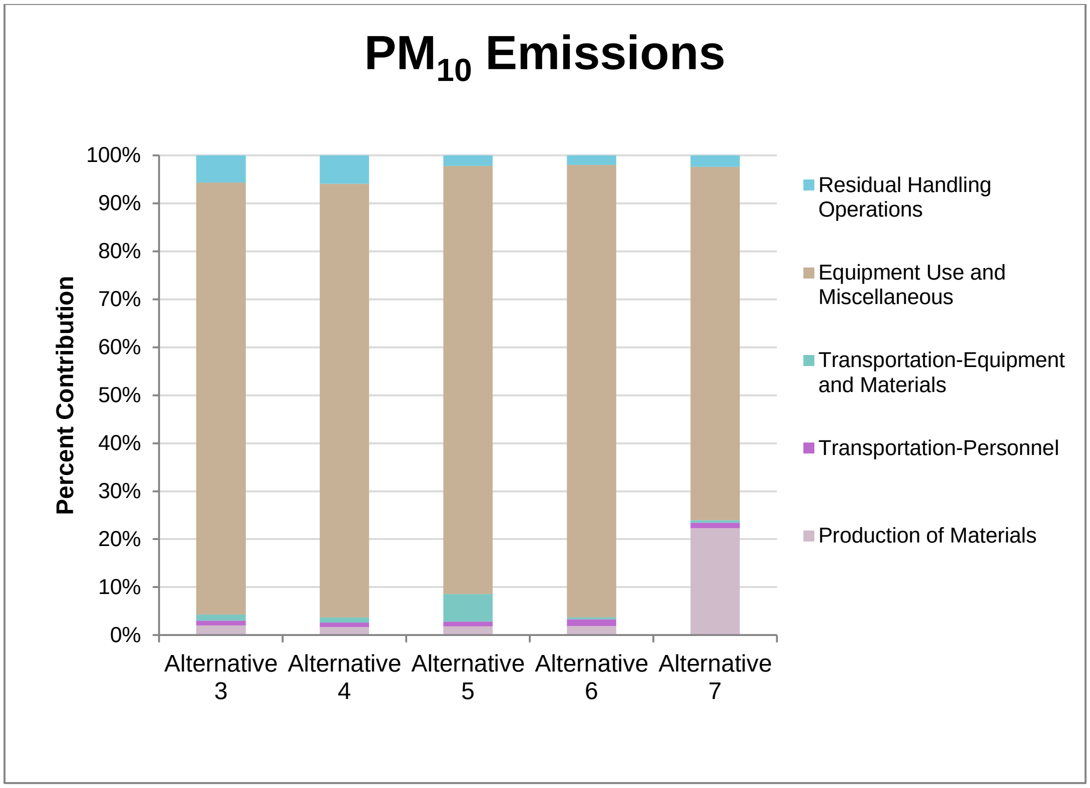


Figure G8: PM_{10} Emissions percentage breakdown for Alternatives at Block D Panhandle, Middle River Complex

Energy Consumption

The energy consumption for each of the alternatives evaluated is shown in Figure G9. The x-axis shows the four alternatives evaluated, and the y-axis shows the amount of energy consumed in units of million British Thermal Units (MMBTU).

The total amount of energy used resulting from the activities during Alternative 3 is 2,014 MMBTU.

The total amount of energy used resulting from the activities during Alternative 4 is 2,295 MMBTU.

The total amount of energy used resulting from the activities during Alternative 5 is 9,270 MMBTU.

The total amount of energy used resulting from the activities during Alternative 6 is 1,046 MMBTU.

The total amount of energy used resulting from the activities during Alternative 7 is 2,968 MMBTU.

Figure G9

The total amount of water use resulting from the activities during Alternative 7 is 23,354 gallons of water. The activity that has the highest water consumption during Alternative 7 is water added to the stabilization agent.

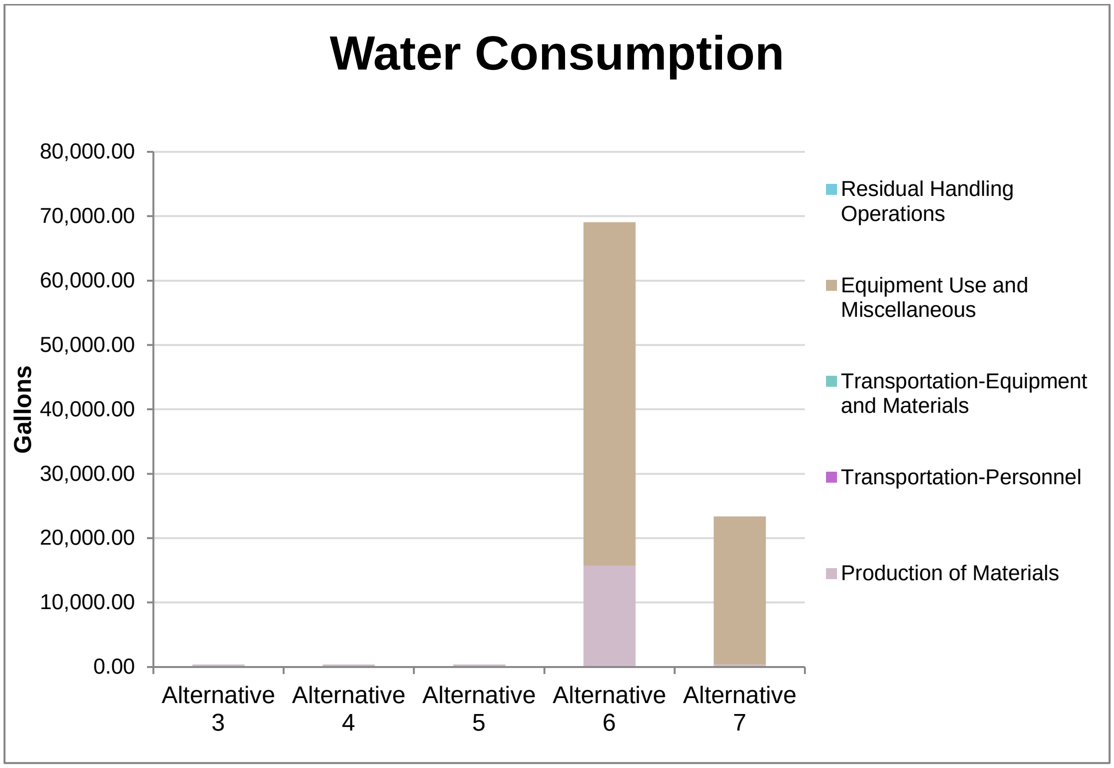


Figure G11: Water Consumption for Alternatives at Block D Panhandle, Middle River Complex

Figure G12 has a representation of the percentage breakdown of the contribution of the different sectors of the water use through the lifetime of the alternatives.

For Alternative 7, the activity with the highest risk of fatality is the equipment use, followed by transportation of personnel.

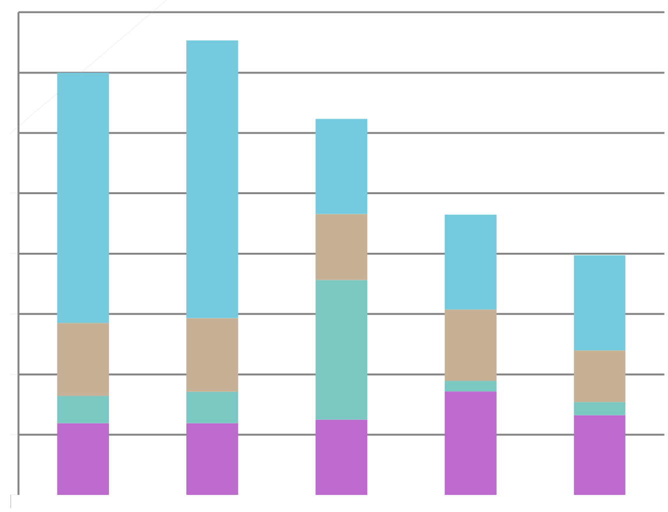


Figure G13 Risk of Fatality for Alternatives at Block D Panhandle, Middle River Complex

Accident Risk Injury

Figure G14 shows the risk of injury between the evaluated alternatives. The x-axis represents the four alternatives evaluated, and the y-axis represents the risk of injury.

For Alternative 3, the activity with the highest risk of injury is the transportation of personnel, followed by the equipment use.

For Alternative 4, the activity with the highest risk of injury is the transportation of personnel followed by equipment use.

For Alternative 5, the activity with the highest risk of injury is the transportation of personnel, followed by the transportation of equipment.

For Alternative 6, the activity with the highest risk of injury is the transportation of personnel, followed by the transportation of equipment.

For Alternative 7, the activity with the highest risk of injury is the transportation of personnel, followed by the residual handing operations.

Figure G14 Risk

All Alternatives: Consider the use of alternative transportation of wastes (if possible) to transport such material to the disposal facilities.

Alternatives 3, 4, and 5: Consider optimization of the amount of soil that needs to be used as backfill. The amount of soil used during these Alternatives is one of the main drivers of the environmental metrics.

All Alternatives: Consider a more efficient mode of transportation of materials such as rail. Consider an optimization schedule in order to take advantage to transport materials to the site the best way possible.

All Alternatives: Some reduction of the environmental footprint, particularly air emissions, could be obtained for all alternatives through the possible use of emission control measures such as alternate fuel sources (e.g. biodiesel), equipment exhaust controls (e.g. diesel), and equipment idle reduction.

Alternative 6: Consider the optimization of the amount of amendments used during the treatment stage.

Alternative 7: Consider optimization of the amount of stabilizing chemicals during the treatment stage.

All Alternatives: Consider optimizing of the use of equipment, particularly the use of the excavators, and even the type of equipment used during operations. An optimized operation schedule might be able to reduce the environmental impacts, specially the NO_X emissions.

All Alternatives: Opti

Table G1

Table G2
Environmental Impact Drivers
Block D Panhandle, Middle River Complex
Middle River, MD

Alternatives	GHG Emissions	Energy Use	Water Consumption	NO_X Emissions	SO_X Emissions	PM_{10} Emissions	Risk of injury	Risk of fatality
Alternative 3	Low to moderate	Low to moderate	Low	Moderate to high	High	High	High	High
Alternative 4	Moderate	Low to moderate	Low	High	High	High	High	High
Alternative 5	High	High	Low	Moderate to high	High	High	High	High
Alternative 6	Low to moderate	Low	High	High	Moderate to high	High	Moderate to high	Moderate to high
Alternative 7	High	Low to moderate	Low to moderate	Moderate	Moderate to high	High	Moderate	Moderate

APPENDIX H—TOTAL COST ANALYSIS

Alternative 2. Institutional Controls

DATE: _____April 2013___________

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐ DISCOUNT RATE: 7% ESCALATION RATE

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																									
2										Implementation	OM&M	Closure	TOTAL (O+P+Q)	Implementation	OM&M	Closure	1	2	3	4	5	6	7	8	9
3	Remedial Design																								

AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

s linking to, and distributing the appropriate total costs in column I, or with zeros.

$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
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$0	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

s linking to, and distributing the appropriate total costs in column I, or with zeros.

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$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
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$0	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

nbers or equations.

$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500
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nbers or equations.

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$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
$200	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**	**$200**
$2,700	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**

$2,700	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**	**$2,700**
100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

TEMPLATE 6.3

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block D Panhandle

ALTERNATIVE : 4. Excavation & Disposal of All Impacted Surface Soils to the groundwater table + ICs

DATE: _____August, 2012____________

LEVEL OF ESTIMATE: Screening ☐

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

TEMPLATE 6.3

COST ESTIMATES FOR REMEDY SELECTION

TEMPLATE 6.3
COST ESTIMATES FOR REMEDY SELECTION

[redacted]

TEMPLATE 6.3
COST ESTIMATES FOR REMEDY SELECTION

TEMPLATE 6.3
COST ESTIMATES FOR REMEDY SELECTION

TEMPLAoia6tion

TEMPLATE 6.3
COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block D Panhandle

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐

TEMPLATE 6.3
COST ESTIMATES FOR REMEDY SELECTION

SITE: **MRC Block D Panhandle**

LEVEL OF ESTIMATE: **Screening ☐ or Detailed ☐**

TEMPLATE 6.3
COST ESTIMATES FOR REMEDY SELECTION

De aaz: Tsuiss11(l)33(i)33(t)8(i)33(o)-11(n)-281(o)-1188 Td [(D)ee lay

SITE: MRC Block D Panhandle
ALTERNATIVE : 7. In-Situ Stabilization Of All Impacted Soilsto the groundwater table + ICs
DATE: ____August, 2012___________

LEVEL OF ESTIMATE: Screening ☐ or Detailed ☐
DISCOUNT RATE: 7%
ESCALATION RATE
BACKUP REFERENCE[2]: ________________

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
4																				
5					,03.421(S)]TJ 4gepa					Implementation	OM&M	Closure	TOTAL (O+P+Q)	Implementation	OM&M	Closure	1	2	3	4
6	**Remedial Design**																Note: Make sure there are no blanks in these cells. All sl			
7	Bench/Pilot Testing				1	LS or V	$15,000	$15,000		$15,000			$15,000	$15,000			$15,000	$0	$0	$0
	Pre-remedial sampling	VOCs + SVOCs + Metals ; 1 sample per 10,000 SF			4	Sample	$2,000	$8,275		$8,275			$8,275	$8,275			$8,275			
1	Modeling				0	LS		$0		$0			$0	$0			$0	$0	$0	$0
2	Reporting/Deliverables				0	LS		$0		$0			$0	$0			$0	$0	$0	$0
11	Total Remedial Design Effort (Alternative to above sub-topics)				12%	%	Of Remedy Implementation (Excluding NRDs)	$89,189		$89,189			$89,189	$89,189			$89,189	$0	$0	$0
12	Subtotal							$112,463.536		$112,463.536			$112,464	$112,464			$112,464	$0	$0	$0
13	**Remedy Implementation**																Note: Make sure there are no blanks in these cells. All sl			
14	Mobilization				1	LS or %	$63,009	$63,009		$63,009			$63,009	$63,009			$63,009	$0	$0	$0
15	Implementation					V or UC		$0		$0			$0	$0			$0	$0	$0	$0
	Sediment & Erosion Control & Stormwater Control				1	LS	$50,000	$50,000		$50,000			$50,000	$50,000			$50,000			
	Bulkhead repair - Panhandle section only	Based on Bulkhead reconnaissance			1	LS	$30,000	$30,000		$30,000			$30,000	$30,000			$30,000			
	Demolition of Concrete/Asphalt Slab	Concrete slab size: Trapezoidal - 96-ft x 154-ft x 331-ft			41,375	SF	$4	$165,500		$165,500			$165,500	$165,500			$165,500			
	Disposal of Concrete/Asphalt Slab	6-inch thick			766	CY	$150	$114,931		$114,931			$114,931	$114,931			$114,931			
	Impacted soils (surface and subsurface) stabilization including mixblaImBased "H -5.88 Tdl8 Tdl8(s)14(e)06((e)16(pe)16(pe)16(-50)13(x)4C.h(b)"1(a)6(c)-13(e)-25(p)-11(h)-y1(m)(a)16(b)-2s(i)33(c)-137(Y)]TJ 4($)-1191(1)-11)-11(6)-11(6)]TJ 4 786 0 Td [(C)-7(Y)]TJ 48.824 0 Td [11(,)8(0)-11(3.421(S)]TJ 45.465 0 Td [91)-11(1)-7 Td [11(,)860)-11(0)-11(0)]TJ 57.58 0 Td [910																			

TEMPLATE 6.3
COST ESTIMATES FOR REMEDY SELECTION

SITE: <u>MRC Block D Panhandle</u>

LEVEL OF ESTIMATE: **Screening** ☐ **or Detailed** ☐

A	B	C	D	E
4				
5				
6	**Remedial Design**			

as6(F)-281(E)278(B)-7(l1(E-97113 2--9-Be9r11/Plan-B(st13 2dd16(s10(a)a13 2)-2(37t)3(o)0.12 0 Td <0191>Tj /pa13 26(s)1s)14(6(F)-281(E)2846 2270q 93E-9-11(E)-OTj /C-8(n44 T56(+M)-5(AS)-281(E)-OTj /C-8(n44 T57(+M)-50 /TT1 s10(ad16(7t)3(o)14(44 T57(;)-113 1M)-5(A0 Td <0191>Tj /pa13 26(s)1T1 45 /pa13 2s10(a(o)261 1M)3 20M)3 2,16(0M)3 20M)3 20M)-5(AS)-28F.32 Td (7)Tj /TT0 4.36 213.43)6(i)- 1M[(B)-8(e)16(n)-11(c)-13(h)-11/TT1 4(t)3(da13 2s10(a6(s)1s)14(6(F)-281(E)2d (7)Tj /TT0 4.(c)-1.43)6(i)- 2M[(B)-8(e)16(n)-11(c)-13(h)-11c)-11s10(apa13 24(t)3(-8(:d16(s)14(6(F)-2811(t)-262D)-11s1

TEMPLATE 6.3
COST ESTIMATES FOR REMEDY SELECTION

SITE: MRC Block D Panhandle

LEVEL OF ESTIMATE: **Screening** ☐ **or Detailed** ☐

A	B	C	D	E
4				
5				
6	**Remedial Design**			
7				

APPENDIX I—*CRITERIUM® DECISIONPLUS®* ANALYSIS

Goal Level	Weights

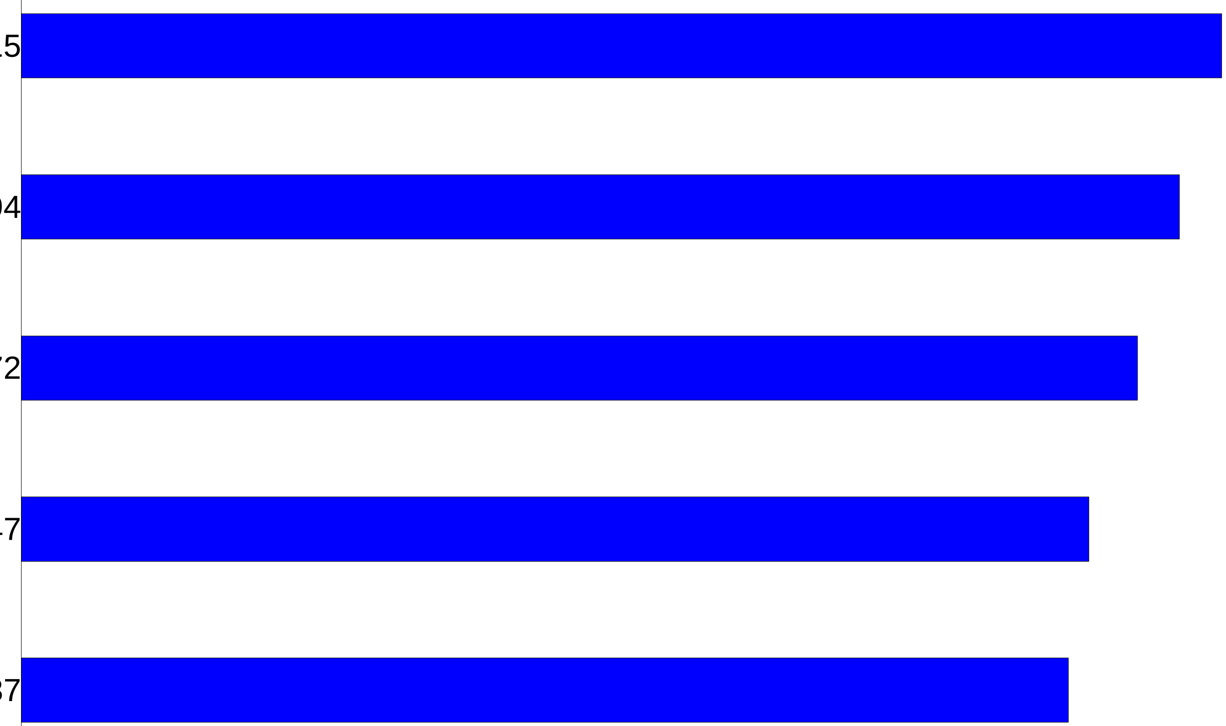
Level 2

Alt-3: Excavation & Disposal of SS (	Alt-4: Excavation to GW & Off-site	Alt-5: Soil Cover Over Impacted Ar	Alt-6: Enhanced Bioremediation (to
7.00	9.00	5.00	6.00
9.00	10.00	9.00	6.00
0.00	0.00	0.00	7.00
8.00	9.00	5.00	8.00
9.00	8.00	9.00	4.00
5.00	3.00	7.00	7.00
3.00	1.00	5.00	7.00
3.00	1.00	5.00	7.00
6.00	6.00	3.00	6.00
8.00	5.00	3.00	7.00
10.00	9.00	10.00	5.00
8.00	8.00	4.00	7.00
6.00	8.00	4.00	6.00
0.00	1.10	6.10	5.10
6.20	5.70	0.00	7.80
2.60	1.60	2.20	0.00
1.50	0.00	1.00	3.00
2.00	0.00	1.00	1.00
9.90	9.90	9.90	0.00
1.90	1.60	2.80	1.90
5.20	5.20	2.30	0.00
8.00	10.00	8.00	6.00
7.00	6.00	5.00	6.00
4.00	6.00	4.00	8.00
6.00	6.00	6.00	8.00
5.00	4.00	8.00	5.00

Alt-7: In Situ Stabilization of soil
6.00
6.00
7.00
5.00
8.00
8.00
7.00
7.00
7.00
7.00
5.00
7.00
6.00
5.20
1.20
5.90
3.50
2.00
6.60
0.00
5.20
6.00
6.00
7.00
6.00
8.00

Alternatives	Value
Alt-4: Excavation to G	0.615
Alt-3: Excavation & Dis	0.594
Alt-7: In Situ Stabilizati	0.572
Alt-6: Enhanced Biore	0.547
Alt-2: Institutional Contr	0.537
Alt-5: Soil Cover Over I	0.534

Decision Scores



Attribute	Alt- 1: No Acti	Alt-2: Instituti	Alt-3: Excavat	Alt-4: Excavat	Alt-5: Soil Co	Alt-6: Enhanc	Alt-7: In Situ
Impact on Water Resources	1.000	1.000	0.990	0.990	0.990	0.000	0.660
Energy Use	1.000	0.900	0.000	0.110	0.610	0.510	0.520
Constructability	1.000	1.000	0.800	0.500	0.300	0.700	0.700
Obtaining Other Approvals	1.000	0.800	0.600	0.600	0.300	0.600	0.700
NO Emissions	1.000	0.900	0.260	0.160	0.220	0.000	0.590
Availability of Experts and Technology	1.000	1.000	1.000	0.900	1.000	0.500	0.500
Irreversibility of Treatment	0.000	0.000	0.800	0.900	0.500	0.800	0.500
State and Local Agency	0.000	0.300	0.800	1.000	0.800	0.600	0.600
Residual Potential Risk	0.000	0.300	0.700	0.900	0.500	0.600	0.600

APPENDIX J—PERMITS

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
Section 404 Clean Water Act (33 U.S.C. 1344) USACE Regulations 33 CFR Part 320-330	Maryland State Programmatic General Permit (MDSPGP-4) or Individual Department of the Army (DA) Permit - Note: Part of "Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland" application.								

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
MDE Tidal Wetlands Protection Act – Environment Article 16 of the Annotated Code of Maryland – COMAR 26.24	Maryland State Programmatic General Permit (MDSPGP-4) or Tidal Wetland License - Note: Part of "Joint Federal/State Application for the Alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland" application.	The following activities in tidal wetlands/waters are regulated by the Department: • Filling of open water and vegetated wetlands • Construction of piers, bulkheads, revetments • Dredging • Marsh establishmentAlteration of Non-tidal Wetlands and other Jurisdictional Waters of the State	See above	A fee of up to $1000 may be assessed by the BPW, depending on the purpose of the project.	See above	Maximum of 3 years	http://www.mde.state.md.us/programs/Water/WetlandsandWaterways/PermitsandApplications/Pages/Programs/WaterPrograms/Wetlands_Waterways/permits_applications/tidal_permits.aspx	MDE Wetlands/Waterways Division	Robert Rushlow - 410-537-4023
Section 106 of the National Historic Preservation Act (Public Law 89-665; 16 U.S.C. 470 et seq)	Maryland Heritage Trust (MHT) Review and Approval is required to comply with the conditions of the MDSPGP-4 or Individual DA Permit	Section 106 regulates any direct or indirect effects on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register	Section 404 permitting triggers the need for review of the project by						

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
Maryland Nongame and Endangered Species Conservation Act (Annotated Code of Maryland 10-2A-01; also, Code of Maryland Regulations 08.03.08	Maryland DNR Review and Approval to comply with the requirements of the MDSPGP-4 or Individual DA Permit	Potential impacts to state listed species need to be evaluated as part of the Joint Permit Application review process	Review request letter is submitted to DNR to request information on listed species in the proejct area. If DNR/Lockheed determine that there is potential impacts on listed species/habitat an evaluation and preliminary determination of afend prelimiaterR-22-11(s)-247(p)2tPoa. If DNR2A-cooceltn(o)23(c)1(t)5(1(.)-500(I)15(f)-237(t)5(h)23(e)-238(p)23(r)-8(o)2j)nd						

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
MDE/Baltimore County – Well Construction Permit		A well construction permit is required before installing any well that will explore for water, obtain or monitor ground water, or inject water into any underground formation from which ground water may be produced. The well construction permit is obtained by the well driller from the local health department	Permits are obtained through a well driller licensed in the State of Maryland	Environment Article Section 9-1307 allows up to $160 per permit. Each county establishes the fee, but may not exceed $160 per permit. Baltimore County indicates cost of $80 per permit.	30 days (This may vary depending on the local health department.)				MDE - Barry Glotfelty Deleg23(e)12(r)-8(E

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact
Section 402 Clean Water Act (33 U.S.C. 1342) and 40 CFR 122.26; Maryland Environment Article, Title 9, Subtitle 3: COMAR 26.08.04	Notice of Intent for Coverage under the Construction General Permit for Stormwater	Required for all construction activity in Maryland with a planned total disturbance of 1 acre or more. Conditions of the permit include compliance with approved erosion/sediment control and stormwater management plans, compliance with water quality standards and TMDLs, self-monitoring and record keeping.	1) Obtain an application form for an individual permit at the website below or by calling the Department at (410)537-3510. Complete the form and mail with payment to: MDE, Water Management Administration P.O. Box 2057 Baltimore, MD 21203-2057 The individual permit can be submitted any time prior to the start of construction activity, but note that the permit issuance process takes 60 to 90 days, and may take longer in some instances. 2) The Department reviews the application to insure completion. 3) The Department then places the NOI on the publicly available database. 4) Following the public database posting period and submission to the department of the approval for erosion and sediment control from the SCD, the Department then sends the applicant a package which includes a letter verifying coverage and issuing the project a unique permit number, a copy of the individual permit, and a receipt card which must be posted at the site.	1 to less than 10 acres - $100 10 to less than 15 acres - $500 15 to less than 20 acres - $1,500 20 acres or more - $2,500	At least 60 to 90 days	Expires five years from			

Regulation/Statute	Permit	Applicability	Permit Process	Cost	Approval Time	Duration	Link	Agency	Contact