HUMAN HEALTH BASELINE RISK ASSESSMENT FOR UPLAND SOILS
(OPERABLE UNIT 3)
LCP CHEMICALS SITE
BRUNSWICK, GEORGIA

Revised Draft
July 2011

Prepared for:

LCP SITE STEERING COMMITTEE

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EXECUTIVE SUMMARY

This report was prepared by Environmental Planning Specialists, Inc. (EPS) on behalf of the LCP Site Steering Committee. The report presents the Human Health Risk Assessment (HHBRA) for the upland soils (Operable Unit (OU) 3) at the former LCP Chemicals facility located in Brunswick, Georgia. This document supersedes the first upland risk assessment prepared by Arcadis Geraghty & Miller (1999); and more recently revised drafts and addenda prepared by EPS (2007, 2008, 2009, 2010).

A comprehensive time-critical removal response action was performed across the uplands over the time period of 1994 to 1997. Contaminated soil over more than 30 acres of the site was excavated, disposed of off-site, and excavations backfilled with clean purchased soil. The purpose of this assessment is to define the magnitude and probability of on-site threats to human health posed by post removal action levels of chemicals in soil at the LCP property, under current and potential future land use options.

The main upland area was subdivided into four approximately equal-area parcels or quadrants, for the purposes of creating the smaller exposure units (EUs) as requested by the U.S. Environmental Protection Agency (USEPA) Region 4 (USEPA, 2006). This assessment also includes a fifth EU comprised of the locations of three former off-site refinery storage tanks (i.e., the "off-site tank farm" or "OST"). Constituents of potential concern (COPC) were selected for each EU, using risk-based screening values from the December 2010 version of the USEPA Regional Screening Level (RSL) Tables (USEPA 2010a). Several organic chemicals and inorganics were added to the COPC list compared to previous drafts of the risk assessment, including additional COPC resulting from General Comments of the August 12, 2010 letter from EPA on the review of the January 2010 revised draft of the human health baseline risk assessment (HHBRA). Quantitative risk characterizations were performed for five exposure scenarios: (1) Commercial/Industrial Worker (current/future scenario), (2) Excavation Worker (future scenario), (3) Trespasser (current scenario), (4) Trespasser (future scenario); and (5) Hypothetical Resident (future scenario). EU-specific exposure point concentrations (EPCs) were

calculated using USEPA's ProUCL software. Toxicity values were taken from the December 2010 RSL Table (USEPA 2010a) and surrogate chemicals provided by USEPA Region 4 for chemicals not listed in the RSL Table.

Risk estimations were performed according to a "reasonable maximum exposure" (RME) and for a "central tendency exposure" (CTE), consistent with USEPA Region 4 guidelines (USEPA, 1995b). RME utilizes more conservative assumptions regarding the exposure and therefore USEPA Region 4 considers RME as the high end values on which the remedial decision are to be based (USEPA, 2000).

For the Industrial Worker scenario, the computed hazard indices (HIs) under the RME approach result in values at or less than unity (1) for all EUs, which is USEPA's threshold for non-cancer risk. The corresponding theoretical excess lifetime cancer risk (ELCR) under the RME approach for all EUs is within or below the USEPA acceptable risk range of 10^{-6} to 10^{-4} (USEPA, 1990).

For the Excavation Worker scenario, the computed HIs under the RME approach result in values at or less than unity for four of the five EUs, and was 2 for Quadrant 4. The corresponding theoretical ELCR under the RME approach for all EUs is at the low end or below USEPA's acceptable risk range of 10^{-6} to 10^{-4} (USEPA, 1990).

The computed RME HIs for both the current and future Trespasser scenario are well below unity for all EUs. The RME HI values for all EUs are well below unity. The corresponding theoretical ELCR under the RME approach is at the low end or below USEPA's acceptable risk range of 10^{-6} to 10^{-4}.

The computed RME HIs for the hypothetical future Resident are below unity for two of the EUs (northeast part of the site, and the off-site tank farm) and are between 4 and 15 for the other EUs. The corresponding theoretical ELCR for four EUs is within the USEPA's acceptable risk range of 10^{-6} to 10^{-4}, while the computed ELCR for Quadrant 4 is 1×10^{-4}. The computed ELCR for the CTE approach is within the USEPA's acceptable risk range for all EUs. The computed CTE HIs are approximately 50% of the RME HIs, but still above unity in Quadrants 2, 3, and 4.

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ACRONYMS AND ABBREVIATIONS

ADD	average daily dose
ALM	adult lead model
ARCO	Atlantic Richfield Company
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
COC	constituent of concern
COPC	constituent of potential concern
CSF	cancer slope factor
CSM	conceptual site model
CTE	central tendency exposure
ELCR	excess lifetime cancer risk
EPC	exposure point concentration
EPS	Environmental Planning Specialists, Inc.
EU	exposure unit
EPD	Georgia Environmental Protection Division
GI	gastrointestinal
HI	hazard index
HEAST	Health Effects Assessment Summary Tables
HHBRA	human health risk assessment
HQ	Hazard Quotient
IEUBK	Integrated Exposure Uptake Biokinetic (Model)
IRIS	Integrated Risk Information System
LADD	lifetime average daily dose
msl	mean sea level
NCEA	National Center for Environmental Assessment
NRC	National Research Council
NOAEL	no-observable-adverse-effect-level
PEF	Particulate Emission Factor
PCBs	polychlorinated biphenyls
PAHs	polycyclic aromatic hydrocarbons
PPRTVs	Provisional Peer Reviewed Toxicity Values
QA/QC	quality assurance/quality control
RAGS	Risk Assessment Guidance for Superfund
RBC	risk-based concentration
RfC	Reference concentration
RfD	Reference dose
RGO	Remedial Goal Options
RI	remedial investigation
RME	reasonable maximum exposure
ROD	Record of Decision
RSL	Regional Screening Level

URF	unit risk factor
USEPA	U.S. Environmental Protection Agency
UCL	upper confidence limit

1 INTRODUCTION

This report, which has been prepared by EPS on behalf of LCP Steering Committee, presents a revised draft of the human health baseline risk assessment (HHBRA) for Upland Soils, Operation Unit 3 of the LCP Chemicals Superfund Site in Brunswick, Georgia. The first HHBRA for the LCP upland soils was prepared by Arcadis Geraghty Miller, Inc. previously prepared a draft HHBRA in 1997 and revised in 1999 (Arcadis, 1999). At that time, however, the upland soils and the estuary were linked as one operable unit (OU). In 2005, the U.S. Environmental Protection Agency (USEPA) segregated these areas into two OUs in late 2005, and subsequently requested a stand-alone HHBRA for the upland soils as Operable Unit 3 (OU3).

EPS prepared a stand alone HHBRA for OU3 in 2007, which largely based on the scenarios and inputs used in the previous (1999) HHBRA, with subsequent addenda to supplement the 2007 document (EPS, 2008, revised 2009). In June 2009, USEPA requested that a new, stand-alone HHBRA be prepared for OU3 in part to incorporate modifications as a result of newer toxicity information available in standard USEPA databases. This HHBRA report represents the third revision of that stand alone HHBRA. This revision incorporates formal comments from the USEPA and the Georgia Environmental Protection Division (EPD) on the previous HHBRA submittal (January 4, 2010) issued in a letter dated August 12, 2010, as well as subsequent communication with the agencies on a variety of methodological issues.

This report consists of the following sections:

1. *Introduction*. Report objectives; general approach.
2. *Purpose.* The overall goals of the report.
3. *Pertinent Background Information.* Summary of historical land uses; description of the physical setting; description of the occurrence of chemicals at the property; and summary of environmental investigations.
4. *Risk Characterization.* Description of risk assessment approach; procedures and methods; data evaluation; exposure assessment; toxicity assessment; risk characterization; and uncertainty analysis.
5. *References.*

2 PURPOSE

The overall goal of this baseline risk assessment is to develop essential scientific information that can be used in decision-making regarding the LCP Chemicals property in support of an evaluation of the need for remedial action. To accomplish this goal, the specific objective of this assessment is to quantitatively evaluate whether COPCs detected in post-removal action soils at the property present a potential exposure[1] and health risk[2] to future industrial workers or hypothetical residential users of the property.

The former LCP site property is traversed by easements and physical features that provide a basis to evaluate mixed land use (*e.g.*, combination of commercial/industrial and perhaps less land use) with respect to the risk characterization and remedial goal options (RGOs) derived within this report. This evaluation will be presented in the forthcoming OU3 Feasibility Study report.

[1] Exposure occurs when a person comes into direct contact with a chemical in an environmental medium (*e.g.,* soil, air). Exposure is quantified as the concentration of a chemical contacted in a medium averaged over the duration of the contact.

[2] Health risk is the probability of one or more harmful health effects occurring at either a measured or assumed level of exposure.

3 PERTINENT BACKGROUND INFORMATION

3.1 Site Background and Operational History

The LCP property is located in Brunswick, Georgia and occupies approximately 813 acres.[3] Approximately 133.5 acres comprised the former manufacturing operations at the site (called the 'upland' area), while 670+ acres is occupied by tidal marshlands (Figure 1). The remaining acreage is isolated upland parcels

The main upland area has been employed for industrial uses since 1919, beginning with the Atlantic Richfield Company (ARCO), who built a petroleum refining operation on the property. In 1937, 1942, and 1950, the Georgia Power Company (Georgia Power) acquired portions of the property. From 1941 to 1955, Dixie Paint and Varnish Company (subsequently the Dixie O'Brien Corporation and eventually a wholly owned subsidiary of the O'Brien Corporation) produced paints and varnishes on a portion of the property south of the Georgia Power site. In the mid 1950's, Allied Chemical (now Honeywell) acquired almost the entire property, and utilized it primarily for the production of caustic solutions, hydrogen gas, and chlorine gas. In 1979, LCP Chemicals-Georgia (LCP) acquired the property and continued the chlor-alkali manufacturing processes until operations ceased in early 1994. Honeywell repurchased the property in 1998 and currently owns the property. Glynn County Planning Commission Land Use Maps show the area as the property zoned as industrial property for both current and future use. Intended future land use for the property is continued commercial/industrial use.

3.2 Upland Removal Response Action: 1994-1997

Between 1994 and 1997, a removal response action was performed on the upland portion of the LCP Site. The removal action included the excavation of contaminated soils and industrial process waste. A total of approximately 167,000 cubic yards of soil and waste was removed for off-site disposal during these actions. The removal areas contained material contaminated with constituents including petroleum hydrocarbons (volatile and semi-volatile organic compounds), mercury, alkaline sludges, polychlorinated biphenyls (PCBs), and lead.

[3] Based upon a 2008 property boundary survey by EMC Engineering Services, Inc.

3.3 Summary of Environmental Investigations

Thousands of surface and/or subsurface soil samples have been collected in the upland area of the LCP site since 1994. The majority of these samples were collected between 1994 and 1999 during the assessment, removal, and post-excavation sampling phases of the upland removal/response action. The samples collected during this period consist of a variety of grab and composite samples, many of which were analyzed by one of two on-site laboratories (TEG and QAL).

Several supplementary soil investigations have been conducted in 2008, 2009, 2010, and 2011. These are described in the following bullets.

- 2008 upland soil sampling – Fifty surface soils samples were collected during the course of two sampling events during 2008. The first event was intended to provide supplemental data the baseline ecological risk assessment for OU3. Surface soil samples were collected from across the site and analyzed for PCBs, PAHs, lead, mercury, and methyl mercury. The other events were intended to provide additional characterization of Aroclors in soil in two areas of Quadrant 2.
- 2009 upland soil sampling – this sampling event was conducted to evaluate the potential leachability of constituents in upland soils. 30 samples were collected from 30 locations across the upland portions of the site. The depth interval of the samples varied somewhat, but most were within the 0 to 2 foot (ft) below ground surface (bgs) interval and all were within the top 5 ft bgs. The samples were analyzed for a comprehensive set of constituents.
- 2010 former drive in theater area sampling – This sampling event was conducted at the request of EPA to provide supplemental soil characterization in the former drive in theater area in the northeastern portion of the property (i.e., Quadrant 1). A total of 10 soil samples were collected from five locations to provide improved spatial coverage of the area when combined with locations of samples previously collected in this area. Soil samples were collected at two depths at each location, the first from 0 to 1 foot bgs, and the second from 2 to 3 ft bgs. The samples were analyzed for a comprehensive set of constituents. The results of this sampling event were summarized in a letter report to USEPA dated February 3, 2011 (EPS, 2011a).
- 2011 dioxin/furan sampling – This sampling event was conducted at the request of EPA to provide soil characterization for polychlorinated dibenzo-*p*-dioxin and polychlorinated dibenzo-*p*-furan congeners (dioxins/furans) for OU3. This sampling event used Incremental Sampling Methodology (ISM), which is consistent with recent USEPA draft guidance related to soils reassessment at dioxin sites (USEPA, 2010b). ISM is a structured composite sampling and processing protocol that is designed to reduce data variability and provides a robust estimate of the mean concentration of an analyte in the area/volume of soil being sampled. The concentrations of dioxins/furans in all of the

ISM samples are below the current EPA soil cleanup levels for these constituents in residential and commercial/industrial soil (USEPA, 1998). However, the COPC screening was conducted using the more conservative interim draft recommended preliminary remediation goal value for dioxins/furans in residential soils (EPA 2009). The results of the COPC screening indicate that only one pair of replicate ISM samples collected in the southeast portion of the site (i.e., Quadrant 2) exceed these conservative residential screening values. Further risk characterization of the ISM sample results for Quadrant 2 demonstrated that the cancer risk estimates and noncancer hazard estimates in that EU are below USEPA regulatory thresholds for these endpoints. Overall, the results dioxins/furans characterization indicates that these constituents do not represent a health concern for future commercial or industrial uses LCP site. The results of this sampling event were summarized in a report to USEPA dated July 2011 (EPS, 2011b).

4 RISK CHARACTERIZATION

4.1 Overview

The risk characterization presented in this section quantifies the magnitude of potential risks, based upon the post-removal action COPC concentrations remaining in the upland soils, under a broad range of land use and exposure considerations. The risk characterization begins with the selection of COPC specific to Exposure Units (EUs) or sub-portions of the site, consistent with the direction given by USEPA and EPD (USEPA, 2006a). This risk characterization also makes use of current toxicity values for COPC as provided in the USEPA December 2010 RSL Tables (USEPA, 2010). If a COPC was not listed on the RSL table, a surrogate chemical was provided from USEPA Region 4. The risk assessment follows the basic procedures outlined in USEPA Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (RAGS; USEPA 1989a).

4.2 Data Evaluation

4.2.1 Subdivision of the Property into Exposure Units

USEPA requested the main portion of the LCP property (about 110 contiguous acres of high ground) be segregated into four approximately equal-area EUs. Two physical boundaries were used to create the EUs: the north-south oriented fenceline that separates the primary operational areas to the west from administrative and light industrial operational areas to the east, and the east-west oriented "B Street" (an asphalt-paved site road maintained throughout all of the industrial uses of the site). This subdivision produces reasonably sized parcels with which to ascertain if sub-areas of the site may contain elevated concentrations of constituents relative to risks associated with potential future commercial/industrial use[4]. A fifth EU is created for the location of three off-site petroleum storage tanks (areas that are now privately owned and used for various commercial operations) and referred to herein as the off-site tank farm (OTF). Figure 2 shows the five EUs used in the HHBRA.

[4] The use of smaller exposure unit areas was evaluated and found to be prone to difficulties in calculation of statistically based exposure unit concentration owing to sparse sampling densities over some portions of the site. USEPA agreed (2006a) that a division of the site into four equal-area quadrants would provide for a useful representation of the exposure point concentration while accomplishing the objective of assessing risk on a multiple exposure unit basis.

4.2.2 Data Evaluation and Selection

Two data sets were considered quantitatively in the HHBRA. In one data set, the soil samples analyzed by an onsite laboratory (TEG) were excluded[5]. For the second data set, all data including records from TEG are used in the risk characterization. The results of the quantitative risk characterization using the second data set (including TEG laboratory data) are provided in Appendix A[6] and discussed in Section 4.9 (Uncertainty Analysis).

All data records were selected from the "master" site database applicable to the exposure scenario evaluated, with the exception of the following qualifiers outlined below:

- No records were extracted with an unknown coordinate position.
- Only samples identified as soil were extracted.
- Soil samples from the following site areas were excluded:
  - MH2O and MHO – former manholes that have since been cleaned and plugged-abandoned;
  - OFF – Off site sample locations except the tank farm area;
  - CRD – Canal Road Samples (these will be assessed with respect to risk-based cleanup goals in the Feasibility Study report); and
  - MSH – samples identified as marsh samples (will be evaluated in OU1).
- Soil samples from remediated (i.e. removed) portions of the site during the 1994-1997 Upland Removal Response Action were excluded.
- Duplicate records (e.g. blind sample duplicates) were excluded.
- Exclusion of select data records that exhibited anomalous detection limits. Review of data for the risk assessment identified a limited number of sample records with abnormally elevated detection limits. The excluded are listed in the table below:

Sample ID	COPC	Result	Detection Limit (mg/kg)
96213-16	Aroclor-1016	ND	418
96289-CPS-06	Aroclor-1016	ND	12
97104-01	Aroclor-1016	ND	27
LC-204-SLA	Aroclor-1016	ND	10
96213-16	Aroclor-1248	ND	418
96289-CPS-06	Aroclor-1248	ND	12

[5] The data records produced by the TEG laboratory were in support of the upland removal response action. Some of these data had anomalous results and were performed using sub-standard quality control (described in Appendix A). For this reason TEG was replaced by QAL labs for the remainder of the removal action. The remainder of the OU3 data records were generated by other off-site commercial laboratories.

[6] The Appendix A tables are numbered A14 through A23 to mirror the numbering convention of the risk calculation tables based on the "without TEG data set presented in the text.

97104-01	Aroclor-1248	ND	27
LC-204-SLA	Aroclor-1248	ND	10
96213-16	Aroclor-1254	ND	418
96289-CPS-06	Aroclor-1254	ND	12
97104-01	Aroclor-1254	ND	27
LC-204-SLA	Aroclor-1254	ND	110
96213-16	Aroclor-1260	ND	418
96289-CPS-06	Aroclor-1260	ND	12
97104-01	Aroclor-1260	ND	27
96213-16	Aroclor-1268	ND	418
LC-642-WAB	Arsenic	ND	66
LC-201-SLA	Benzo(a)anthracene	ND	45
LC-202-SLB	Benzo(a)anthracene	ND	54
LC-201-SLA	Benzo(a)pyrene	ND	45
LC-202-SLB	Benzo(a)pyrene	ND	54
LC-201-SLA	Chrysene	ND	45
LC-202-SLB	Chrysene	ND	54
LC-201-SLA	Dibenzo(a,h)anthracene	ND	45
LC-202-SLB	Dibenzo(a,h)anthracene	ND	54
LC-201-SLA	Indeno(1,2,3-cd)pyrene	ND	45
LC-202-SLB	Indeno(1,2,3-cd)pyrene	ND	54

ND – Non detect

Additional details regarding these data exclusions are provided in Appendix B. The complete data sets (i.e., with and without TEG data) in Microsoft Excel format are on a CD-ROM provided in Appendix C.

4.2.3 Depth Selection Criteria for Exposure Scenarios

From the data sets constructed from the selection process outlined above, the soils data records were selected on the basis of sample depth as follows, where D1 is shallow extent of the soil sample and D2 is the deep extent of the soil sample:

Scenario	Applicable Depth	D1	D2
Commercial/Industrial Site Worker, Onsite Resident and Site Trespasser	Upper 2 ft	<1 ft	≤ 2 ft
Excavation Worker	Upper 5 ft	< 5 ft	≤ 6 ft

4.2.4 COPC Selection

In order to ensure that the HHBRA focuses on substances that contribute the greatest to the overall risk (USEPA, 1989a) the EU-specific OU3 soil data sets were subjected to a "screening" process to identify COPCs. Based on comments from USEPA and EPD on the COPC screening process applied in the previous version of this HHBRA report (EPS, 2010), a new data screening process was developed through extensive communication with USEPA and EPD representatives. Briefly this process entails:

1. elimination of constituents for which the maximum detected concentration in a particular EU did not exceed the applicable USEPA RSL for residential soil obtained from the December 2010 RSL Tables;
2. elimination of six inorganic constituents (calcium, chloride, magnesium, phosphorus, potassium, and sodium) because they are considered essential human nutrients (USEPA, 2000); and
3. elimination of constituents that were detected in fewer than 5% of the relevant samples, with the added provision that no more than 5% of the results for those constituents could have detection limits that exceed the applicable residential RSL.

In step 1 above, for carcinogenic compounds the residential RSLs associated with a 1×10^{-6} cancer risk were utilized for screening. For non-carcinogens, the residential RSLs adjusted to target hazard quotient of 0.1 was used for screening. Per USEPA Region 4 guidance (USEPA, 2000), this adjustment is to account for the potentially additive effects associated with the presence of multiple chemicals that may act on the same organ system. In addition, several constituents detected in site soils do not have USEPA-derived toxicity values and, therefore, no RSL values. For some of these constituents, "surrogate" RSLs were used in the COPC screening process based on a surrogate chemical list provided by USEPA Region 4. The letter containing this list of surrogate chemicals is provided in Appendix D. Tables 1A through 5A provided the results of this COPC screening process for each quadrant.

Constituents that that could not be eliminated in step 3 because of detection limits that exceed the applicable residential RSL in more than 5% of data records were given a "B" flag in Tables 1A through 5A, and were subjected to further screening refinements, including:

1. elimination of constituents with fewer than 5% of Level 4 (i.e., higher quality) data records with detection limits that exceed the relevant residential RSL;
2. elimination of constituents with fewer than 10% of Level 4 data records with detection limits that exceed the relevant USEPA contract required quantitation limits (CRQL);
3. elimination of constituents with no detections in samples from material was excavated in the removal action; and 10 or more Level 4 data with detection limits below the relevant residential RSL; and
4. elimination of constituents for which there is no evidence of historical use at the site.

Tables 1B through 5B provided the results of COPC refinement process for each quadrant. Additional details about the COPC screening process are provided in Appendix E and the uncertainties associated with this refined screening approach are discussed in Section 4.9 (Uncertainty Analysis).

4.2.5 COPC Summary

The final list of COPCs selected for each exposure unit is presented below.

Off Site Tank Farm	Quadrant 1	Quadrant 2	Quadrant 3	Quadrant 4

Off Site Tank Farm	Quadrant 1	Quadrant 2	Quadrant 3	Quadrant 4
Arsenic	Aroclor-1260	Aroclor-1221	1,1,2,2-Tetrachloroethane	1,2,4-Trimethylbenzene
Benzo(a)anthracene	Aroclor-1268	Aroclor-1254	1,2,4-Trimethylbenzene	1-Methyl Naphthalene
Benzo(a)pyrene	Arsenic	Aroclor-1260	1,4-Dichlorobenzene	Aluminum
Benzo(b)fluoranthene	Benzo(a)anthracene	Aroclor-1268	1-Methyl Naphthalene	Antimony
Chromium	Benzo(a)pyrene	Arsenic	2-Methylnaphthalene	Aroclor-1254
Dibenzo(a,h)anthracene	Benzo(b)fluoranthene	Benzo(a)anthracene	Aluminum	Aroclor-1260
Lead	Benzo(b/k)fluoranthene	Benzo(a)pyrene	Antimony	Aroclor-1268
Mercury	bis(2-Ethylhexyl) phthalate	Benzo(b)fluoranthene	Aroclor-1016	Arsenic
	Chromium	Benzo(b/k)fluoranthene	Aroclor-1254	Benzo(a)anthracene
	Dibenzo(a,h)anthracene	Carbazole	Aroclor-1260	Benzo(a)pyrene
	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Aroclor-1268	Benzo(b)fluoranthene
	Iron	Indeno(1,2,3-cd)pyrene	Arsenic	Benzo(k)fluoranthene
	Lead	Iron	Benzene	Chloroform
	Mercury	Mercury	Benzo(a)anthracene	Chrysene
			Benzo(a)pyrene	Cobalt
			Benzo(b)fluoranthene	Dibenzo(a,h)anthracene
			Benzo(k)fluoranthene	Dibenzofuran
			Carbazole	Indeno(1,2,3-cd)pyrene
			Chromium	Iron
			Dibenzofuran	Lead
			Dibromochloromethane	Manganese
			Dichloromethane[1]	Mercury
			Ethyl benzene	Naphthalene
			Indeno(1,2,3-cd)pyrene	n-Butylbenzene
			Iron	Tetrachloroethene
			Lead	Vanadium
			Mercury	Zinc
			Naphthalene	
			n-Butylbenzene	

[1] methylene chloride

4.3 Exposure Assessment

4.3.1 Overview

The exposure assessment step in a risk assessment combines information about the chemical concentrations in site media with assumptions about how a potential receptor could contact the impacted media. The result is an estimation of a receptor's level of intake, or dose, of a chemical.

4.3.2 Identification of Potential Receptors

This risk assessment considers five exposure scenarios: (1) Commercial/Industrial Worker (current/future scenario), (2) Excavation Worker (future scenario), (3) Trespasser (current scenario), (4) Trespasser (future scenario); and (5) Hypothetical Resident (future scenario).

Glynn County Planning Commission Land Use Maps show the area as the property zoned as industrial property for both current and future use. Intended future land use for the property is commercial/industrial use. Under this intended land use, there are two types of non-residential receptor exposure scenarios: commercial/industrial workers (Industrial Workers scenario) and excavation/construction workers (Excavation Worker scenario).

Site workers presently perform site operations and maintenance, comprised of mowing of unimproved site access roads and the operation of a groundwater treatment system. These activities are generally limited to areas of the site which have already been remediated during the removal action (note: all current site O&M personnel are HAZWOPER trained and subscribe to annual remedial monitoring and training, and are versed in the use of personal protective equipment for occasions which require potential exposure to COPC). Therefore, the assessment of the Industrial Worker scenario provided herein can be considered a conservative evaluation of the site workers presently performing the O&M activities described above.

Presently the site is fenced and gated and site access is controlled by the front office administrative staff. Night and weekend security patrol the grounds to control trespassing. As a conservative measure of evaluation, this HHBRA assumes standard exposure conditions in its evaluation of the Trespasser scenario.

Future use of the LCP site is anticipated to remain largely commercial/industrial, although some portions of the site may be amenable to less restrictive future land use. Honeywell has no intention of converting any portion of the property to residential use, and this restriction will be recorded (i.e., deed restriction) in the event the property or portions thereof are sold in the future. It is common practice with any HHBRA to evaluate a scenario involving residential reuse of the site. However, the hypothetical future Resident risk characterization is useful as a conservative surrogate for virtually any type of unrestricted land use and as such, the analysis may be useful to future land planning for various sub-portions of the property.

4.3.3 Potential Exposure Pathways (Conceptual Site Model)

4.3.3.1 Overview of Conceptual Site Model (CSM)

An exposure pathway is a description of the ways in which a person could be exposed to chemicals in the environment and is defined by four elements: (1) a source and mechanism of chemical release to the environment (for example, pesticide application); (2) an environmental

transport medium (*e.g.*, soil, air) for the released chemical; (3) a point of potential contact with the contaminated medium (*e.g.*, surface soil accessible to direct human contact); and (4) an exposure route (*e.g.*, actual ingestion of contaminated soil and subsequent absorption from the gastrointestinal tract into the body). In order for an exposure pathway to be considered complete, all four elements must occur. An illustrated CSM for this HHBRA is presented in Figure 3.

4.3.3.2 Industrial Worker CSM

Exposures by Industrial Workers to impacted media are limited to surficial soil routes. For the purposes of the risk assessment, workers were assumed to be exposed to surficial soil (defined here as 0 to 2 ft below ground surface (bgs)), in the absence of any specific work gear (such as coveralls, gloves, etc.) other than commonly worn clothing. The structural integrity of the majority of buildings remaining on the site is compromised such that demolition or extensive rehabilitation of these buildings would be required prior to their use. Any new construction or rehabilitation of buildings at the site would include vapor barriers, which adheres to customary building practices and will prevent any significant movement of vapors into the buildings. Additionally, air monitoring conducted during removal activities at the site indicated little to no emission of compounds during these activities (except when actual organic process waste material was being disturbed during removal). Therefore, the release of vapors from soils at the site is not expected to occur and vapor migration into buildings is not evaluated in this report[7]. The current/future Industrial Worker scenario includes constituent exposure via incidental ingestion of and dermal contact with surface soil, and inhalation of particulates and vapors in air.

4.3.3.3 Excavation Worker CSM

In the event that any surface or subsurface excavations were to occur at the site, future Excavation Workers potentially could come in contact with constituents in a "mixed soil" interval consisting of both surficial and subsurface soil (defined here as 0 to 5 ft bgs). For the purposes of the risk assessment, Excavation Workers were assumed to be exposed to soil in the absence of any specialized protective equipment or clothing other than commonly worn protective clothing. The Excavation Worker scenario includes potential exposure to constituents via ingestion, dermal contact, and inhalation of particulates and vapors potentially released from the soil during excavation activities.

4.3.3.4 Trespasser CSM

The entrance to the LCP Site and property line along Ross Road are gated and fenced. The north and south property lines are also fenced. Security measures at the site currently include personnel to prevent unauthorized entrance to the site. Access to the site is further restricted by

[7] Pursuant to a request from the USEPA, a vapor intrusion screening assessment will be conducted with site groundwater data and presented in the HHBRA for the Groundwater Operable Unit (OU2).

the adjacent marsh. The structures and vegetative growth on the surface of the site would limit the potential for exposure via ingestion, dermal contact, and inhalation. Nevertheless, the Trespasser scenario conservatively evaluates potential exposure to COPCs via ingestion of and dermal contact with surficial soil, and inhalation of particulates and vapors in air. At the direction of EPA, this revision of the HHBRA includes separate risk calculations for current and potential future trespassers. These scenarios differ only with respect to the assumptions about the frequency with which trespassers might access the property. Under the current scenario, access is assumed to be limited by the security measures described above. Under the future scenario, the exposure frequency is increased, (conservatively) reflecting the possibility that site access might not be controlled as tightly in the future.

4.3.3.5 Future On-Site Resident CSM

As described previously, Honeywell has no intention of converting any portion of the property to residential use, and this restriction will be recorded (i.e., deed restriction) in the event the property or portions thereof are sold in the future. Nevertheless, the Hypothetical Resident scenario conservatively evaluates potential exposure to COPCs via ingestion of and dermal contact with surficial soil, and inhalation of particulates and vapors in air. Potential inhalation exposure to vapors in indoor air was not included as a potential exposure route because any hypothetical homes constructed on the site would include vapor barriers which would prevent vapors from entering such homes.

4.3.4 Exposure Parameters

4.3.4.1 Overview of Exposure Parameters

Quantification of theoretical exposure of workers to COPCs in the on-site soil is a function of COPC concentrations and various exposure parameters that define both the conditions of exposure (*e.g.,* frequency of exposure, duration of exposure) and descriptors of potentially exposed receptors (*e.g.,* body weight, skin surface area). Exposure parameters refer to all of the variables used to calculate a daily human dose or intake level. The average daily dose (ADD) of each non-carcinogenic COPC is averaged over the estimated period of exposure (referred to as the averaging time) that varies for different types of receptors. The ADD is expressed in units of milligrams per kilogram per day (mg/kg-day). The daily dose of a potentially carcinogenic COPC is averaged over the lifetime of the exposed individual. The daily dose of each potentially carcinogenic COPC is referred to as the lifetime average daily dose (LADD) and also has units of mg/kg-d.

In accordance with USEPA guidance (1989), the exposure factors used in this risk assessment are intended to estimate both "reasonable maximum exposure" (RME) and "central tendency exposure" (CTE) for each receptor provide context to the range of possible hypothetical exposures at the site. RME is defined as "the maximum exposure that is reasonably expected to

occur at a site" and USEPA has indicated that individual factors included in estimating exposure for an RME receptor should result in a final exposure estimate that approximates an upper percentile from a range of possible exposure estimates (EPA 1991). The exposure parameters utilized in the assessment are presented in Tables 6 through 9.

4.3.4.2 Industrial Worker Exposure Parameters

The exposure parameters utilized for the Industrial Worker are predominantly default worker exposure parameters from the Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, 2002a) and Supplemental Guidance for Dermal Risk Assessment (USEPA, 2004). The values for these parameters are presented in Table 6A (RME) and Table 6B (CTE).

4.3.4.3 Excavation Worker Exposure Parameters

The exposure parameters utilized for the future site excavation worker are predominantly default excavation worker exposure parameters from the Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, 2002a) and Supplemental Guidance for Dermal Risk Assessment (USEPA, 2004). Non-default parameters related to excavation work include exposure frequency and exposure duration (there are no default values for these parameters).

It is conservatively assumed that a typical excavation worker will work up to 260 days per year (5 days per week × 52 weeks per year). It is further assumed that an excavation worker will spend 6 months (0.5 years) conducting excavation related activities at the site (exposure duration of 0.5 years). It is conservatively assumed that an excavation worker will not utilize personal protective equipment (PPE) as a hazard mitigator in the course of their activity. Non-carcinogenic averaging time is by definition equal to the total number of days within the exposure duration. Subsequently, averaging time for the excavation worker becomes 0.5 years × 52 weeks per year × 7 days per week = 182 days. The values for these parameters are presented in Table 7A (RME) and Table 7B (CTE).

4.3.4.4 Current/Future Trespasser Exposure Parameters

The exposure parameters utilized for both the Current and Future Trespasser scenarios are predominantly values provided in the USEPA Region 4 Human Health Risk Assessment Bulletins (USEPA, 2000), Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, 2002a) and Supplemental Guidance for Dermal Risk Assessment (USEPA, 2004), and the Exposure Factors Handbook (USEPA, 1997).

Access to the site is currently controlled by fencing, a gate, signage, and personnel. Following USEPA Region 4 guidance, the Trespasser scenario is based on an adolescent who might visit the property on an intermittent basis (USEPA, 2000). For the Current Trespasser scenario, exposure frequencies of 24 days/year and 6 days/year are assumed for the RME and CTE

scenarios, respectively, consistent with earlier versions of the HHBRA. As directed by USEPA, a separate Future Trespasser scenario was included in this revision of the HHBRA to reflect the possibility that site access might not be controlled as tightly in the future. An exposure frequency of 52 days/year is assumed for the RME future scenario, which is consistent with the HHBRA for OU1 (EPS, 2011c). The CTE exposure frequency is the same between the current and future scenarios. The values for these parameters are presented in Table 8A (RME) and Table 8B (CTE).

4.3.4.5 Hypothetical Resident Exposure Parameters

The exposure parameters utilized for the Hypothetical Resident scenario are predominantly default exposure parameters from the Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, 2002a) and Supplemental Guidance for Dermal Risk Assessment (USEPA, 2004), and the Exposure Factors Handbook (USEPA, 1997). Separate values are provided for child and adult residents. The values for these parameters are presented in Table 9A (RME) and Table 9B (CTE).

4.3.5 Exposure Point Concentrations (EPCs)

A representative COPC-specific EPC is a COPC- and media-specific value that is incorporated into the exposure assessment equations from which potential human exposures are calculated. USEPA guidance (USEPA, 1992 2002) indicates that the COPC-specific RME EPC shall be the lesser of either the (i) the 95% upper confidence limit (UCL) on the arithmetic mean or (ii) the maximum detected concentration. The purpose for using the 95% UCL instead of the average concentration is to account for "the uncertainty associated with estimating the true average concentration at a site . . . [and] the 95% UCL provides reasonable confidence that the true site average will not be underestimated" (USEPA, 1992). These values are also used to evaluate the CTE exposure scenarios.

The USEPA's ProUCL software package (version 4.00.05) was used to statistically evaluate the "goodness of fit" of the data distribution for each of the EU data sets considering normal, lognormal, gamma, and non-parametric distribution approaches (including non detect data records). The ProUCL-recommended exposure point concentrations (EPCs) were developed from this analysis for each COPC in each EU, and these values are presented in Table 10 (surficial soils; 0-2 ft bgs) and Table 11 (mixed soils; 0-5 ft bgs).

Appendix F contains a CD-ROM with the "input" data files, in Microsoft Excel format, used in the ProUCL calculations and the ProUCL "output" files in Excel.

4.3.5.1 Direct Soil Contact

For direct contact exposures (i.e., incidental ingestion and dermal contact), the EPCs calculated by ProUCL were used as inputs to exposure equations 1 and 2.

4.3.5.2 Indirect Soil Contact

The calculation of inhalation intake requires the estimation of airborne concentrations of COPCs resulting from volatilization of organic COPCs as well as airborne dusts derived from soil. The EPCs calculated by ProUCL were used with the factors described below to estimate these airborne COPC concentrations for use in equation 3.

Ambient air concentrations resulting from volatilization of COPC in surface and subsurface soil were estimated using the USEPA volatilization factor (VF) approach (USEPA, 2002a). This approach combines information about the behavior of volatile COPCs in the soil with other soil property and atmospheric parameters to determine a volatilization factor for each volatile COPC. All VF values used in this assessment were obtained from the December 2010 RSL Tables (USEPA 2010a).

COPCs adsorbed to soil particles can potentially become airborne, resulting in possible inhalation by receptors. Long-term exposure to COPCs bound to dust particles was evaluated using the USEPA's default particulate emission factor (PEF) approach, which relates concentrations of a constituent in soil to the concentration of dust particles in the air (USEPA, 2002a). PEF values are not chemical-specific, but do vary by geographic location. The conservative default PEF value of 1.36E+9 was obtained from the December 2010 RSL Tables (USEPA 2010a) and used in this assessment to estimate concentrations of COPCs in fugitive dust.

4.3.6 Quantification of Exposure

To quantify theoretical exposure of receptors to all COPCs, concentrations of each COPC are combined with the exposure parameters to estimate ADD[8] and LADD[9] for each receptor type. These dosages, which are expressed as milligrams per unit body weight per day (mg/kg-d), are averaged over a defined exposure period (*e.g.,* 25 years) for non-carcinogenic COPCs and over a lifetime (*i.e.,* 70 years) for carcinogenic COPCs. Standard equations are used for calculating ADDs and LADDs (USEPA, 1992a).

The standard equations for calculating the ADDs and LADDs for each exposure pathway have not changed since the 1999 HHBRA and are presented below.

4.3.6.1 Incidental Soil Ingestion

$$\text{ADD or LADD}_{ingestion}(mg/kg-d) = \frac{C_s \times IR_s \times EF \times ED \times CF}{BW \times AT \times 365d/yr} \quad \text{(EQ 1)}$$

where:

[8] ADDs are receptor- and COPC-specific dosages for assessing *non-carcinogenic* effects.
[9] LADDs are receptor- and COPC-specific dosages for assessing theoretical upper-bound *carcinogenic* risks.

C_s = Constituent Concentration in Soil (mg/kg)
IR_s = Soil Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
ABS_o = Oral Absorption Fraction (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - years).

4.3.6.2 Dermal Contact with Soil

$$ADD\ or\ LADD_{dermal}\ (mg/kg-d) = \frac{C_s \times SA \times AF \times EF \times ED \times ABS_d \times CF}{BW \times AT \times 365d/yr} \quad \text{(EQ 2)}$$

where:
C_s = Constituent Concentration in Soil (mg/kg)
CF = Conversion Factor (10-6 kg/mg)
SA = Skin Surface Area Exposed (cm2)
AF = Adherence Factor of Soil (mg/cm2-event)
ABS_d = Dermal Skin Absorption Factor (unitless)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged–years).

4.3.6.3 Inhalation

$$\text{Air Concentration}_{inhalation}\ (mg/m^3) = \frac{C_a \times EF \times ED}{AT \times 365d/yr} \quad \text{(EQ 3)}$$

where:
C_a = Constituent Concentration in Air (mg/m^3)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
AT = Averaging Time (period over which exposure is averaged–years).

4.3.7 Lead Exposure

The quantification of lead exposure differs from other COPCs. Cause-and-effect relationships in humans have been correlated with blood concentrations of lead. Therefore, the preferred risk assessment approach for lead is the estimation of human blood lead concentrations associated with an exposure situation. Exposure of workers to lead and subsequent blood lead

concentrations was estimated by use of the Adult Lead Model (ALM) developed by the USEPA Technical Work Group for Lead (USEPA, 2003). The Work Group recommended that adult lead exposure be evaluated by calculating a blood lead level in a pregnant adult, followed by calculating the resulting blood lead level in a fetus. The model put forth by the Work Group conservatively evaluates the upper end of the distribution of possible blood lead concentrations.

In modeling the blood lead level, the ALM considers a range of parameters. These include:

- The intake rate of lead from the site;
- The initial concentration of lead in the bloodstream of the adult prior to site exposure;
- The fraction of soluble lead that is absorbed into the gastrointestinal system;
- The relative bioavailability of lead in soil;
- A biokinetic slope factor that relates the increase in blood-lead levels to total intake;
- The geometric standard deviation among individual women of child-bearing age that could have exposures to similar on-site lead concentrations, but that have non-uniform responses (intake, biokinetics) to both on-site lead and off-site lead exposures; and
- The ratio between fetal and maternal lead concentrations in the bloodstream.

The following model was used to estimate blood lead levels in identified human receptors as a result of exposure to lead in soils:

$$PbB_{adult,\,central} = PbB_{worker,\,0} + \frac{PbS \times BKSF \times IR_S \times AF_S \times EF_S}{AT} \qquad \text{(EQ 4)}$$

where:

$PbB_{adult,\,central}$	=	Central estimate of blood lead concentration in adults that have site exposure (µg/dl)
$PbB_{worker,\,0}$	=	Typical blood lead concentration in adults in the absence of site exposure (µg/dl)
PbS	=	Arithmetic mean lead concentration in soil (µg/g)
BKSF	=	Biokinetic slope factor relating the increase in the adult blood lead level to the average daily lead uptake under quasi steady-state conditions (µg-lead/dl-blood per µg-lead/day)
IR_S	=	Soil ingestion rate (g/day)
AF_S	=	Absolute gastrointestinal absorption fraction for ingested lead from soil (unitless)
EF_S	=	Exposure frequency (days/year)
AT	=	Averaging time (days/year).

The following equation was used to estimate the 95th percentile blood lead concentration in a fetus from the average estimated adult blood lead concentration, assuming that blood lead levels are distributed lognormally:

$$PbB_{fetal,0.95} = PbB_{adult,\,central} \times GSD_{t,\,adult}^{1.645} \times R_{fetal,\,maternal} \quad \text{(EQ 5)}$$

where:

$PbB_{fetal,\,0.95}$ = 95th percentile blood lead concentration among fetuses born to women exposed to site soil (µg/dl)

$PbB_{adult,\,central}$ = Central estimate of blood lead concentration in adults that have site exposure (µg/dl)

$GSD_{t,adult}^{1.645}$ = Estimated value of the individual geometric standard deviation (unitless). The exponent, 1.645, is the value of the standard normal deviate used to calculate the 95th percentile from a lognormal distribution.

$R_{fetal/maternal}$ = Ratio between fetal blood lead concentration at birth to the maternal blood lead concentration (unitless).

The parameters utilized in the ALM model are presented in Table 12.

4.4 Toxicity Assessment

4.4.1 Overview

The risks associated with estimated exposures to the COPCs detected at the site are a function of the inherent toxicity of each constituent, as well as the estimated exposure dose.

Evaluation of the toxic potential of a constituent involves the examination of available data that relate observed toxic effects to known doses (i.e., dose-response assessment). Generally, there are two categories of information that are considered in this part of a quantitative risk assessment:

- Information on the potential acute or chronic non-cancer effects of constituents; and
- Information on the potential for constituents to initiate or promote cancers.

4.4.2 Non-Carcinogenic Health Effects

The assessment of non-carcinogenic effects is complex. There is a broad interaction of time scales (acute, sub-chronic, and chronic) and routes of exposure (ingestion, inhalation, dermal) with varying kinds of effects. A single constituent may elicit several adverse non-carcinogenic effects depending on the dose, exposure route, and duration of exposure. In addition, there are various levels of "severity" of effect.

For many non-carcinogenic effects, protective mechanisms must be overcome before the effect is manifested. Therefore, a finite dose (threshold) below which adverse effects will not occur is

believed to exist for non-carcinogens. Many toxicological studies focus on identifying where this threshold occurs.

USEPA assumes there is a dose threshold below which adverse effects are not expected to occur. For a given constituent, the dose that elicits no effect when evaluating the most sensitive response (the adverse effect that occurs at the lowest dose) in the most sensitive species is used to establish an acceptable dose (toxicity value) for non-carcinogenic effects. This dose is referred to as the reference dose (RfD) for oral and dermal exposures, and a reference concentration (RfC) for inhalation exposures. A chronic RfD (or RfC) of a constituent is an estimate of a lifetime daily dose to humans that is likely to be without appreciable deleterious non-carcinogenic health effects. Exposure greater than an RfD could possibly cause health effects. A lower RfD implies a more potent toxicant.

The primary source of RfDs is USEPA's Integrated Risk Information System (IRIS), which is an electronic database for selected compounds that was established and maintained by USEPA. This database is based on a compendium of available toxicological data, containing both United States and international studies, and peer-reviewed and non-peer reviewed research. To derive an RfD, USEPA used professional judgment to assess the quality and relevance of the human or animal data and to identify the critical study and the most critical toxic effect. Data typically used by USEPA in developing the RfD are the highest no-observable-adverse-effect-levels (NOAELs) or lowest observed-adverse-effect level (LOAEL) for the critical studies and effects of the non-carcinogen. An uncertainty factor is applied for each factor representing a specific area of uncertainty inherent in the extrapolation from the available data. Uncertainty factors are generally between 3 to 10. While a factor of 10 is commonly used, values less than 10 are sometimes used where data support the application of smaller uncertainty factors (USEPA 2006). Four major types of uncertainty factors are typically applied to NOAELs in the derivation of RfDs:

- 3- to10-fold factor for extrapolation from animals to humans;
- 3- to10-fold factor for variability in the human population;

- 3- to10-fold factor for use of a NOAEL based on a subchronic study instead of a chronic study; and
- 1- to 10-fold factor for extrapolation from a LOAEL to a NOAEL, if necessary.

Although on-going research is directed at the use of physiologically-based pharmacokinetic modeling to conduct interspecies extrapolation, at this time, no specific guidance is provided on the use of this method for developing better extrapolation (from animal to human, and administered versus absorbed) values for application.

In addition, a modifying factor can be used to account for adequacy of the database. Typically, the modifying factor is set equal to one. However, in certain instances, professional judgment can be applied to use the modifying factor to adjust the RfD (*e.g.*, epidemiological evidence). The IRIS database also provides a rating of confidence in the RfD, which refers to a qualitative judgment with regard to the quality of the critical study, the supporting database, and the dose developed.

4.4.3 Carcinogenic Effects

Cancer slope factors (CSFs, for oral and dermal exposures) and unit risk factors (URFs, for inhalation exposures) are constituent-specific, experimentally-derived potency values used to calculate the risk of cancer resulting from exposure to carcinogenic constituents. A higher value implies a more potent carcinogen. Studies of carcinogenicity typically focus on identification of the slope of the linear portion of a curve that relates dose *versus* tumorigenic response. A plausible upper-bound value of the slope is called the CSF (or URF). The product of a CSF and the exposure dose is an estimate of the risk of developing cancer. USEPA develops CSFs from chronic animal studies or, where possible, epidemiological data. Because animal studies use much higher doses over shorter periods of time than the exposures generally expected for humans, the data from these studies are adjusted, typically using a linearized multi-stage (LMS) mathematical model. To ensure protectiveness, CSFs are typically derived from the upper 95th percentile confidence limit of the slope, and thus the actual risks are unlikely to be higher than those predicted using the CSF, and may be considerably lower.

Historically, identification of constituents as known, probable, or possible human carcinogens was based on a USEPA weight-of-evidence classification scheme in which constituents were systematically evaluated for their ability to cause cancer in mammalian species, and conclusions were reached about the potential to cause cancer in humans. The USEPA classification scheme (USEPA, 1989b) contained six classes based on the weight of available evidence, as follows:

- A - Known human carcinogen;
- B1 - Probable human carcinogen – limited evidence in humans;
- B2 - Probable human carcinogen – sufficient evidence in animals and inadequate data in humans;

- C - Possible human carcinogen – limited evidence in animals;
- D - Inadequate evidence to classify; and
- E - Evidence of non-carcinogenicity

USEPA does not develop CSFs for constituents in Classes D and E; therefore, in this risk assessment, carcinogenic risk evaluation was conducted for constituents in Classes A, B1, B2, and C.

4.4.4 Toxicity Values

4.4.4.1 Source of Toxicity Values

For this HHBRA, the USEPA December 2010 RSL Tables was the preferred source of toxicity values (EPA 2010a). The toxicity values used in this HHBRA are summarized in Table 13. The toxicity values used to develop RSLs follow the hierarchy of sources identified below:

1. IRIS;
2. Provisional Peer Reviewed Toxicity Values (PPRTVs) derived by EPA's Superfund Health Risk Technical Support Center;
3. The Agency for Toxic Substances and Disease Registry (ATSDR) minimal risk levels (MRLs);
4. California Environmental Protection Agency Chronic Reference Exposure Levels (RELS);
5. Screening toxicity values in an appendix to certain PPRTV assessments; and
6. Health Effects Summary Tables (HEAST).

4.4.4.2 Surrogate Toxicity Values

Several site COPC lack toxicity criteria from the sources listed above. USEPA Region 4 provided a surrogate chemical list that was applied to this HHBRA. The letter containing this list of surrogate chemicals is provided in Appendix D.

Surrogate toxicity values were also applied to Aroclors for this risk assessment. Specifically, the following extrapolations were applied: (i) the Aroclor 1254 slope factor is extrapolated to Aroclor 1248, Aroclor 1260 and Aroclor 1268, (ii) the Aroclor 1254 reference dose was extrapolated to Aroclor 1248 and Aroclor 1260, and (iii) the Aroclor 1016 reference dose was extrapolated to Aroclor 1268. The uncertainty associated with these extrapolations, specifically, Aroclor 1254 toxicity values to Aroclor 1268 are presented in Section 4.9 (Uncertainty Analysis).

4.4.4.3 Derivation of Dermal Toxicity Values

Although USEPA has developed toxicity criteria for the oral and inhalation routes of exposure, it has not developed toxicity criteria for the dermal route of exposure. Based on USEPA guidance (2004), adjustment of oral toxicity criteria to derive dermal RfDs and CSFs was conducted as follows:

Dermal RfD = Oral RfD × Oral Absorption Efficiency; and
Dermal CSF = Oral SF/Oral Absorption Efficiency.

Values for oral absorption efficiency (i.e., GI absorption factors) were obtained from the December 2010 RSL Tables.

4.5 Risk Characterization

4.5.1 Overview

Risk characterization combines estimated exposure rates (*i.e.,* ADDs and LADDs) and toxicity criteria (*i.e.,* RfDs and CSF) resulting in estimates of theoretical upper-bound cancer risks and non-cancer hazards in hypothetical human receptors.

4.5.2 Methods for Assessing Cancer Risks

Theoretical upper-bound carcinogenic risk is estimated as the incremental probability of an individual developing cancer over a lifetime as a result of an exposure to a potentially carcinogenic COPC. Carcinogenic risks were evaluated by multiplying the estimated average exposure rate (*e.g.,* LADD calculated in the exposure assessment) by the COPC's CSF. The CSF converts estimated daily doses averaged over a lifetime to an incremental risk of an individual developing cancer. Because cancer risks are averaged over a person's lifetime, longer-term exposure to a carcinogen will result in higher risks than a shorter-term exposure to the same carcinogen, if all other exposure assumptions are constant. Theoretical risks associated with low levels of exposure in humans are assumed to be directly related to an observed cancer incidence in animals associated with high levels of exposure. According to USEPA (1989a), this approach is appropriate for theoretical upper-bound ELCR of less than 1×10^{-2}. The following equations were used to calculate COPC-specific risks and total risks:

$$Risk = LADD \times CSF \text{ (dermal contact and ingestion)} \quad \text{(EQ 6)}$$

$$Risk = LAC \times URF \text{ (inhalation)} \quad \text{(EQ 7)}$$

where:

LADD = lifetime average daily dose (mg/kg-d)
CSF = cancer slope factor $(mg/kg\text{-}d)^{-1}$
LAC = lifetime average concentration ($\mu g/m^3$)
URF = unit risk factor (risk per $\mu g/m^3$).

and

Total Carcinogenic Risk = Σ Individual Risk

It is assumed that cancer risks from various exposure routes are additive. Thus, the result of the assessment is a high-end estimate of the total carcinogenic risk. High-end carcinogenic risk estimates were compared to an acceptable risk range of 1 in 10,000 (10^{-4}) to 1 in 1 million (10^{-6}) or lower (USEPA, 1990).

4.5.3 Methods for Assessing Non-Cancer Health Effects

Non-cancer adverse health effects were estimated by comparing the estimated average exposure rate (*i.e.*, ADDs estimated in the exposure assessment) with an exposure level at which no adverse health effects are expected to occur for a long period of exposure (*i.e.*, the RfDs).

ADDs and RfDs were compared by dividing the ADD by the RfD to obtain the ADD:RfD ratio, as follows:

$$Hazard\ Quotient = ADD/RfD \quad \text{(EQ 8)}$$

$$Hazard\ Quotient = ADC/RfC \quad \text{(EQ 9)}$$

where:

ADD = average daily dose (mg/kg-day)
RfD = reference dose (mg/kg-day)
ADC = average daily concentration (mg/m^3)
RfC = reference concentration (mg/m^3).

Unlike carcinogenic risk estimates, a Hazard Quotient (HQ) is not expressed as a probability. If a person's average exposure is less than the RfD or RfC (*i.e.*, if the HQ is less than 1), the COPC is considered unlikely to pose a significant non-carcinogenic health hazard to individuals under the given exposure conditions. While both cancer and non-cancer risk characterizations indicate a relative potential for adverse effects to occur from exposure to a COPC, a non-cancer adverse health effect estimate is not directly comparable with a cancer risk estimate.

If more than one pathway is evaluated, the HQs for each pathway are summed to determine whether exposure to a combination of pathways poses a health concern. This sum of the HQs is known as a Hazard Index (HI):

Hazard Index = Σ Hazard Quotients.

Any HI at or below unity (1) indicates the exposure is unlikely to be associated with a potential health concern. USEPA suggests that if the HI exceeds unity, then target organ-specific HIs should be developed (USEPA, 2000). Note that this same USEPA Region 4 bulletin states HI values (as well as cancer risk values) are to be expressed as one significant figure.

It should be noted that not all COPCs act in a fashion that is additive; some COPC interactions may be antagonistic or have no interactive effect. In general, HQs are added for those COPCs that act similarly on the same target organs. If one COPC affects the kidney and a second COPC affects the lungs, these HQs are not summed. A target organ analysis has been performed where the HI (from all COPCs) exceeds 1, but no individual COPC has an HQ in excess of 1.

4.6 Risk Characterization

4.6.1 Industrial Worker Scenario

4.6.1.1 RME Risk Characterization

As shown in Tables 14A through 14E, when the less conservative RfD for Aroclor 1016 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for Quadrants 1 through 4 are 0.1, 0.4, 0.9 and 0.9 respectively, the calculated HI for the OTF area is 0.01. When the more conservative RfD for Aroclor 1254 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for Quadrants1 through 4 are 0.1, 0.7, 1 and 1, respectively. Aroclor 1268 is not a COPC for the OTF area so there is only one computed HI value. All of these HIs are all less than or equal to the threshold level of 1 (unity).

As shown in Tables 14A through 14E, theoretical upper-bound cancer risk estimates for COPCs in soils for Quadrants 1 through 4 are 3×10^{-6}, 1×10^{-5}, 1×10^{-5} and 3×10^{-5}, respectively. The off-site tank farm theoretical upper-bound cancer risk estimate is 6. These theoretical upper-bound cancer risk estimates are within the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.1.2 CTE Risk Characterization

As shown in Tables 15A through 15E, when the less conservative RfD for Aroclor 1016 is used in the HQ calculation for Aroclor 1268, the summed HI for all COPCs at the property for Quadrants1 through 4 are 0.02, 0.07, 0.2, and 0.2, respectively, while the calculated HI for the

OTF area is 0.002. When the more conservative RfD for Aroclor 1254 is used in the HQ calculation for Aroclor 1268, the summed HI for all COPCs at the property for Quadrants1 through 4 are 0.02, 0.1, 0.2, and 0.3, respectively. These HIs are all less than the threshold level of 1.

As shown in Tables 15A through 15E, theoretical upper-bound cancer risk estimates for COPCs in soils for Quadrants 1 through 4 are 2×10^{-7}, 9×10^{-7}, 8×10^{-7} and 2×10^{-6}, respectively. The off-site tank farm theoretical upper-bound cancer risk estimate is 4×10^{-7}. These theoretical upper-bound cancer risk estimates are below or at the lower end of the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.2 Excavation Worker Scenario

4.6.2.1 RME Risk Characterization

As shown in Tables 16A to 16E, when the less conservative RfD for Aroclor 1016 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for Quadrants 1 through 4 are 0.2, 0.8, 1 and 2, respectively, while the calculated HI for the OTF area is 0.03. When the more conservative RfD for Aroclor 1254 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for Quadrants 1 through 4 are 0.2, 1, 1 and 3, respectively. With the exception of Quadrant 4, these HIs are all less than or equal to the threshold level of 1. The HIs for Quadrant 4 exceed 1 by a small margin.

As shown in Tables 16A through 16E, theoretical upper-bound cancer risk estimates for COPCs in soils for Quadrants 1 through 4 are 2×10^{-7}, 6×10^{-7}, 4×10^{-7} and 1×10^{-6}, respectively. The off-site tank farm theoretical upper-bound cancer risk estimate is 3×10^{-7}. These theoretical upper-bound cancer risk estimates are below or at the lower end of the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.2.2 CTE Risk Characterization

As shown in Tables 17A to 17E, when the less conservative RfD for Aroclor 1016 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for quadrants 1 through 4 are 0.05, 0.2, 0.4 and 0.5, respectively, while the calculated HI for the OTF area is 0.009. When the more conservative RfD for Aroclor 1254 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for Quadrants 1 through 4 are 0.1, 0.4, 0.4 and 0.9, respectively. The HIs for all EUs are less than the threshold level of 1.

As shown in Tables 16A through 16E, theoretical upper-bound cancer risk estimates for COPCs in soils for Quadrants 1 through 4 are 2×10^{-8}, 7×10^{-8}, $6 \times 10^{-7}$and 2×10^{-7}, respectively. The off-site tank farm theoretical upper-bound cancer risk estimate is 4×10^{-8}. These theoretical upper-bound cancer risk estimates are all below the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.3 Lead Risk Characterization for Nonresidential Exposures

Exposure of nonresidential workers to lead and subsequent blood lead concentrations are estimated by use of the ALM developed by the USEPA Technical Work Group for Lead (USEPA, 2003). The ALM model predicts an average soil lead concentration in excess of 1235 mg/kg is required to exceed a 5% probability that fetal blood level surpass a benchmark values determined to be protective of health (USEPA, 2009). The benchmark blood lead value is 10 micrograms lead per a deciliter of blood (µg/dL). In comparison, the IEUBK model for residential exposure predicted an average soil lead concentration of 400 mg/kg to be protective of health.

As shown below, all four quadrants and the OTF exhibited average **arithmetic mean** soil lead concentrations below the nonresidential soil concentration determined to be protective of human health based on a 10 µg/dL blood level (i.e., 1,235 mg/kg). The 95% UCL for the OTF exceeds 1235 mg/kg, but this is driven by a single detect of 3,155 mg/kg. The next highest value is 70 mg/kg.

Average and 95%UCL Soil lead Values for Site Exposure Units

	Mixed Soil (0 to 5 ft bgs)		Surface Soil (0 to 2 ft bgs)	
	Average (mg/kg)	95%UCL (mg/kg)	Average (mg/kg)	95%UCL (mg/kg)
OTF	159	413	280	2536
Quad 1	43	77	44	55
Quad 2	28	40	46	62
Quad 3	155	224	216	340
Quad 4	125	192	175	253

Note: Average and 95% UCL values calculated using ProUCL (Appendix F).

4.6.4 Current Trespasser Scenario

4.6.4.1 RME Risk Characterization

As shown in Tables 18A to 18E, The HI for the current trespasser for all EUs is less than unity. The highest calculated HI is for Quadrant 4 at 0.2. The theoretical upper-bound cancer risk estimates for all EUs are below or at the lower end of the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.4.2 CTE Risk Characterization

As shown in Tables 19A to 19E, the HI for the current trespasser for all EUs is less than unity. The highest calculated HI is for Quadrant 4 at 0.03. The theoretical upper-bound cancer risk estimates for all EUs are below or at the lower end of the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.5 Future Trespasser Scenario

4.6.5.1 RME Risk Characterization

As shown in Tables 20A to 20E, the HI for the current trespasser for all EUs is less than unity. The highest calculated HI is for Quadrant 4 at 0.4. The theoretical upper-bound cancer risk estimates for all EUs are below or at the lower end of the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.5.2 CTE Risk Characterization

As shown in Tables 21A to 21E, the HI for the current trespasser for all EUs is less than unity. The highest calculated HI is for Quadrant 4 at 0.03. The theoretical upper-bound cancer risk estimates for all EUs are below or at the lower end of the USEPA acceptable risk range of 10^{-4} to 10^{-6}. Because the CTE exposure factors for the current and future trespasser are identical between the two scenarios, the theoretical cancer risk and noncancer hazards are the same.

4.6.6 Hypothetical Resident

Unlike the other receptors considered in the HHBRA, the Hypothetical Resident scenario includes separate intake calculations for two different age groupings, child and adult. Because the child receptor has a higher COPC intake and a lower body weight, and because the averaging time for non-carcinogen exposure is equivalent to the exposure duration (i.e., not averaged over a lifetime), the child will always have higher noncancer HQs/HIs than the adult. Therefore, the HI values presented in the following sections are for the child receptor only.

In contrast, intake estimates for carcinogens are averaged over a 70 year lifetime, and consistent with USEPA guidance (USEPA, 1989, 2000, 2002a), cancer risk estimates for residential receptors are time-weighted to incorporate exposure as a child and as an adult. In this HHBRA, the total cancer risk estimate for the adult was multiplied by 0.8 (i.e., 24 years/30years) and added to the total risk estimate for the child. This procedure provides a value for a residential "lifetime" exposure duration of 30 years with 6 years as a child, and 24 years as an adult.

4.6.6.1 RME Risk Characterization

As shown in Tables 22A to 22E, when the less conservative RfD for Aroclor 1016 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for Quadrants 1 through 4 are 1, 4, 9 and 10, respectively, while the calculated HI for the OTF area is 0.1. When the more conservative RfD for Aroclor 1254 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for quadrants 1 through 4 are 1, 7, 10 and 15, respectively. The computed HIs indicate an unacceptable noncancer hazards to hypothetical future residents on Quadrants 2, 3 and 4. Quadrant 1 and the OTF area have HIs less than the threshold level of 1.

Theoretical upper-bound cancer risk estimates for COPCs in soils for Quadrants 1 through 4 are 1×10^{-5}, 5×10^{-5}, 5×10^{-5} and 1×10^{-4}, respectively. The off-site tank farm theoretical upper-bound cancer risk estimate is 2×10^{-5}. These theoretical upper-bound cancer risk estimates are within the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.6.2 CTE Risk Characterization

As shown in Tables 23A to 23E, when the less conservative RfD for Aroclor 1016 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for Quadrants 1 through 4 are 0.7, 2, 5 and 5, respectively, while the calculated HI for the OTF area is 0.06 When the more conservative RfD for Aroclor 1254 is used in the HQ calculation for Aroclor 1268, the summed HIs for all COPCs at the property for Quadrants 1 through 4 are 0.8, 4, 6 and 8, respectively. The computed HIs indicate an unacceptable noncancer hazards to hypothetical future residents on Quadrants 2, 3 and 4. Quadrant 1 and the OTF area have HIs less than the threshold level of 1.

Theoretical upper-bound cancer risk estimates for COPCs in soils for Quadrants 1 through 4 are 3×10^{-6}, 9×10^{-6}, 8×10^{-6} and 2×10^{-5}, respectively. The off-site tank farm theoretical upper-bound cancer risk estimate is 4×10^{-6}. These theoretical upper-bound cancer risk estimates are all within the USEPA acceptable risk range of 10^{-4} to 10^{-6}.

4.6.7 Lead Risk Characterization for Residential Exposure

Potential exposure to lead was evaluated using USEPA's IEUBK model to assume that resident children aged 0 to 6 years could contact lead in soil. The USEPA recommends a benchmark of either 95% of the sensitive population of children having blood lead levels below 10 micrograms per deciliter (µg/dL) or a 95% probability of an individual child having a blood lead level below 10 µg/dL. Based on this requirement, exposure units should exhibit an average soil concentration of less than 400 mg/kg. All quadrants and the off-site tank farm exhibit an arithmetic mean soil lead concentration below 400 mg/kg.

4.7 Identification of Risk Drivers

4.7.1.1 Overview

The percentage of the total HI and ELCR contributed by primary COPC groups (e.g., Aroclors, PAHs and mercury) is summarized below for the RME exposure scenario. The principal drivers of site hazard are Aroclors10 and the principal drivers of site risk are Aroclors and PAHs. The contribution estimates for Aroclors are based on the more conservative evaluation of Aroclor 1268 using the RfD for Aroclor 1254.

4.7.1.2 Industrial Worker Risk Drivers

The percentage of the total HI and ELCR contributed by primary COPC groups (e.g., Aroclors, PAHs and mercury) is summarized below for the RME exposure scenario. The principal drivers of site hazard are Aroclors and the principal drivers of site risk are Aroclors and PAHs.

Principal Risk Drivers for Industrial Worker Assessment

	Aroclors*		PAHs		Mercury	
	%HI	%ELCR	%HI	%ELCR	%HI	%ELCR
Quadrant 1	35	11	0	33	45	0
Quadrant 2	94	68	0	16	4	0
Quadrant 3**	26	31	1	15	1	0
Quadrant 4	94	67	0	20	2	0
OTF	0	0	0	69	16	0

** 4,6-dinitro-2-methylphenol contributed 61% of the HI for the Industrial Worker at Quadrant 3.

4.7.1.3 Excavation Worker Hazard Risk Drivers

The percentage of the total HI and ELCR contributed by primary COPC groups, Aroclors, PAHs and mercury, is summarized below for the RME exposure scenario. The principal drivers of site hazard are Aroclors and the principal drivers of site risk are Aroclors and PAHs.

[10] 4,6-dinitro-2-methylphenol was also a significant contributor to HI estimates in Quadrant 3 for the surface soil receptors, contributing from 37% to 61% of the total HI depending on the receptor scenario. These HI estimates are extremely conservative based on the fact that this constituent was only detected in one of 21 samples, and that single detected concentration (32 mg/kg) was used as the EPC because ProUCL does not generate UCL estimates for data sets consisting of so many non-detects. The highest detection limit value was 3.65 mg/kg.

Principal Risk Drivers for Excavation Worker Assessment

	Aroclors		PAHs		Mercury	
	%HI	%ELCR	%HI	%ELCR	%HI	%ELCR
Quadrant 1	39	10	0	29	35	0
Quadrant 2	94	61	0	19	3	0
Quadrant 3**	40	33	1	21	3	0
Quadrant 4	90	61	<1	35	7	0
OTF	0	0	0	57	19	0

** 4,6-dinitro-2-methylphenol contributed 37% of the HI for the Excavation Worker at Quadrant 3.

4.7.1.4 Current/Future Trespasser Risk Drivers

The percentage of the total HI and ELCR contributed by primary COPC groups (e.g. Aroclors, PAHs and mercury, is summarized below for the RME exposure scenario. The principal drivers of site hazard are Aroclors and the principal drivers of site risk are Aroclors and PAHs.

Principal Risk Drivers for Trespasser Assessment

	Aroclors		PAHs		Mercury	
	%HI	%ELCR	%HI	%ELCR	%HI	%ELCR
Quadrant 1	49	14	0	40	37	0
Quadrant 2	96	72	0	17	2	0
Quadrant 3**	28	37	<1	17	1	0
Quadrant 4	96	71	<1	21	1	0
OTF	0	0	0	76	14	0

** 4,6-dinitro-2-methylphenol contributed 62% of the HI for the Current/Future Trespasser at Quadrant 3.

4.7.1.5 Hypothetical Resident Risk Drivers

The percentage of the total HI and ELCR contributed by primary COPC groups e.g., Aroclors, PAHs and mercury) is summarized below for the RME exposure scenario. The principal drivers of site hazard are Aroclors and the principal drivers of site risk are Aroclors and PAHs.

Principal Risk Drivers for Hypothetical Resident Assessment

	Aroclors		PAHs		Mercury	
	%HI	%ELCR	%HI	%ELCR	%HI	%ELCR
Quadrant 1	25	10	0	29	50	0
Quadrant 2	91	65	0	15	6	0
Quadrant 3**	25	27	<1	13	2	0
Quadrant 4	92	64	<1	19	2	0
OTF	0	0	0	58	17	0

** 4,6-dinitro-2-methylphenol contributed 63% of the HI for the Hypothetical Resident at Quadrant 3.

4.8 Remedial Goal Options

4.8.1 Overview

Health risk-based soil concentrations have been developed from the risk characterization model setup for each receptor for non-cancer effects and cancer endpoints for each of these COPCs. These concentrations may be utilized as remedial goal options (RGOs) for the Feasibility Study in evaluating whether clusters of sample locations exceeding the RGO (USEPA often uses the term "hot spots" to describe this circumstance) warrant consideration for remedial action, even though the cancer risk and non-cancer hazard for that EU is within acceptable range. Consistent with USEPA Region 4 guidance (2002), RGOs were calculated for each COPC identified as a COC. This guidance states:

> *Chemicals of Concern (COCs) are the Chemicals of Potential Concern (COPCs) that significantly contribute to a pathway in a use scenario for a receptor (e.g. hypothetical future child resident, current youth trespasser, current adult construction worker, etc.) that either (a) exceeds a 10-4 cumulative site cancer risk; or (b) exceeds a non-carcinogenic hazard index (HI) of 1. Note: generally, a 10-4 cumulative site risk level and an HI of 1 are used as the remediation "trigger." The exact level used as the "trigger" is at the discretion of the risk manager. The carcinogen "trigger" represents the summed risks to a receptor considering all pathways, media, and routes per land use scenario. The HI represents the total of the hazard quotients (HQs) of all COPCs in all pathways, media, and routes to which the receptor is exposed. If the HI exceeds 1.0, then more specific HIs should be developed by summing HQs of COPCs with Reference Doses (RfDs) based on toxic effects on the same target organs. This specific target-organ based HI should form the basis of COC selection. Chemicals are not considered as significant contributors to risk and therefore are not included as COCs if their individual carcinogenic risk contribution is less than 10-6 and their non-carcinogenic HQ is less than 0.1.*

Consistent with USEPA guidance, the RBCs are calculated based on a progression of hazard indices and cancer risks (i.e., HIs of 0.1, 1.0, and 3.0, and a theoretical upper-bound ELCRs of 1×10^{-6}, 1×10^{-5}, and 1×10^{-4}) for individual chemicals. To calculate RGOs, a simple proportion calculation can be performed:

$$RGO = \frac{EPC_{COPC\,X} \times Target\,HQ / ELCR_{COPC\,X}}{Computed\,HQ / ELCR_{COPC\,X}} \qquad \text{(EQ 10)}$$

Receptor risk estimate summaries are provided in Tables 24, 26, and 26. Examination these tables indicates that the Industrial Worker and Hypothetical Resident are the only receptors for which cancer risk estimates trigger development of RGOs on one or more of the EUs. The noncancer hazard estimates for the Industrial Worker, Excavation Worker, and Hypothetical Resident scenarios trigger the development of RGOs in one or more of the EUs. The calculated RGOs for these scenarios are provided in Table 27.

4.9 Uncertainty Analysis

4.9.1 Overview

All risk estimates have some degree of uncertainty due to the uncertainty and variability in the exposure and toxicity value used to estimate risk. These uncertainties, which arise at every step of a risk assessment, are evaluated to provide an indication of the relative degree of overall uncertainty associated with a risk estimate. In this section, a qualitative discussion of the uncertainties associated with the risk assessment for the site is presented. Table 28 provides a summary of the qualitative evaluation of uncertainty applicable to the receptor scenarios considered.

Risk assessments are not intended to estimate actual risks to a receptor associated with exposure to chemicals in the environment. In fact, estimating actual risks is impossible because of the variability in the exposed or potentially exposed populations. Therefore, risk assessment is a means of estimating the probability that an adverse health effect (*e.g.*, cancer, impaired reproduction) will occur in a receptor. The multitude of conservative assumptions used in risk assessments guard against underestimation of risks.

Risk estimates are calculated by combining site data, assumptions about individual receptor's exposures to impacted media, and toxicity data. The uncertainties in this risk assessment can be grouped into three main categories that correspond to these steps:

- Uncertainties in environmental sampling and analysis;
- Uncertainties in assumptions concerning exposure scenarios;
- Uncertainties in toxicity data; and
- Uncertainties due to background or ubiquitous constituents.

4.9.2 Environmental Sampling and Analysis

This risk assessment is based on the sampling results obtained from the previous investigations at the property. Errors and variability in sampling results can arise from the field sampling, laboratory analyses, and data analyses. Differences in laboratories, analysis procedures and quality of results are variables for this project (*e.g.*, the data set utilizes results of both onsite/mobile laboratory testing and off-site/commercial laboratory testing, although the impacts of these sorts of errors on the risk estimates are likely to be low).

The environmental sampling at a site is one source of uncertainty in the evaluation. However, the number of sampling locations and events is large; and USEPA has concurred that the investigational program is sufficient to support decision making at the property. Therefore, the

sampling and analysis data is deemed sufficient to characterize the impacts and the associated potential risks.

4.9.3 Uncertainties in the COPC Screening Process

Constituents were selected as COPCs based on comparisons between the maximum detected concentration and conservative risk-based screening criteria (i.e., USEPA residential RSLs). A number of detected constituents did not have an RSL. USEPA Region 4 provided toxicological "surrogates" for some of these constituents (Appendix D), and the RSLs for these surrogates were used in the screening process.

There were also a number of constituents with no or limited detected results, but for which more than 5% of the data records have analytical detection limits that exceed the relevant RSL values. These constituents were subjected to a refined screening approach in which the detection limits in Level 4 (i.e., higher quality) data records were compared to the USEPA RSLs and CRQLs. Additional factors such as the presence of the constituent in samples of material excavated in the removal response action and information about historical use of the constituent at the site were also considered for these constituents.

The remaining constituents that could not be completely eliminated as COPC based on this refined screening process were identified as "Qualitative COPC" in Tables 1A through 5A. A complete list of these constituents is provided below:

Off Site Tank Farm	Quadrant 1	Quadrant 2	Quadrant 3	Quadrant 4
Aroclor-1016	bis(2-Chloroethyl) ether	No Qualitative COPC	No Qualitative COPC	bis(2-Chloroethyl) ether
Aroclor-1221	Hexachlorobenzene			Chlordane
Aroclor-1232	N-Nitroso-di-n-propylamine			N-Nitrosodimethylamine
Aroclor-1242	Pyridine			
Aroclor-1248	4-Nitrophenol			
Aroclor-1254	1,2,3-Trichloropropane			
Aroclor-1260				

A factor that significantly influences the identification of these COPC is the application of the refined screening criteria on quadrant-specific basis. If the same set of refined screening criteria were applied to the site-wide OU3 dataset, all of these constituents would be eliminated as COPC because there are a sufficient number of Level 4 data results on a site-wide basis to conclude that these constituents are not present at concentrations that represent a potential human health concern. Further, for these constituents the majority of sample results with data quality issues (i.e., detection limits that exceed CRQLs) were generated by USEPA's Environmental Sciences Division (ESD) laboratory which analyzed a large number of samples during the removal response action.

The use of this conservative screening process in the HHBRA provides a high degree of certainty that the quantitative risk assessment focused on COPCs that had the highest contribution to potential risks. As shown in Section 4.7, even though many COPCs were identified in each of the quadrants, Aroclors, PAHs, and mercury were the primary risk drivers in most of the quadrants. Potential uncertainty associated with the exclusion of constituents is also minimized by the use of highly conservative screening criteria.

4.9.4 Uncertainties in Exposure Assumptions

In this risk assessment, the exposure assessment is based on a number of assumptions with varying degrees of uncertainty. Uncertainties can arise from the types of exposures examined, the points of potential human exposure, the concentrations of COPCs at the points of human exposure, and the intake assumptions. The selection of exposure pathways is a process, often based on best professional judgment that attempts to identify the most probable potentially harmful exposure scenarios. While exposure pathways other than the ones quantified in this HHBRA could exist for a future land use, these exposures are expected to be much lower than the risks associated with the pathways considered in this risk assessment.

The risks calculated depend largely on the assumptions used to calculate the rate of COPC intake. For this assessment, reasonable maximum exposures were used. In the absence of a value for a particular exposure parameter, professional judgment based on site conditions was used. The uncertainties associated with the parameters used in this risk assessment are described below.

Individuals can come into contact with chemicals via a number of different exposure routes. For the reasonable maximum exposure scenarios, standard default rates were used for these exposures. These represent upper-bound values and provide reasonable maximum activity assumptions. The use of these standard default and upper-end values makes it likely that the risk is not underestimated, and may in fact be overestimated.

4.9.5 Uncertainties in Aroclor 1268 Toxicity Data

The IRIS database does not contain an oral cancer slope factor or an oral reference dose specific to Aroclor 1268. Therefore, as a conservative measure, the EPA and EPD required the use of Aroclor 1254 toxicity values (the most toxic form of Aroclor) as a surrogate for Aroclor 1268 in the HHBRA. This conservative measure can reasonably be acknowledged to overestimate the risk imposed by Aroclor 1268 based on recent toxicology studies available in the scientific peer-reviewed literature.

It is understood that the Aroclor 1268 toxicity values from the peer-reviewed literature have not been evaluated by USEPA's IRIS assessment review and are not established Provisional Peer Reviewed Toxicity Values. However, the consensus of the studies is that Aroclor 1268

represents the least toxic scenario and harm of the Aroclors evaluated, which are lower than the values available for either Aroclor 1016 or Aroclor 1254. An analysis of Aroclor 1268 toxicity from the peer-reviewed literature was completed and is presented as an element of uncertainty in the modeling process in Appendix G.

4.9.6 Uncertainties Due to Background or Ubiquitous Constituents

Review of the February 2007 OU3 HHBRA indicated some quadrant risk characterizations were artificially elevated due to soil PAHs which are at concentrations equivalent to the regional condition across the Brunswick peninsula. Consequently, a review of the screening process for soil PAH data was completed to account for background levels, as shown in Appendix H. The review included data at the national scale, from the regional scale and from peer-reviewed literature applicable to coastal soils for the following PAHs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(c,d-123)pyrene.

It is also important to note that the data from all quadrants at the LCP site are dominated by non-detects for PAHs. The inclusion of PAHs in the HHBRA followed standard EPA procedures for non-detects by applying as a surrogate result value of one-half the detection limit. This point is discussed in further detail in Appendix H.

In summary, for all PAHs and in all quadrants, the median value of the background sample developed from literature specific to the Southeast United States was greater than the median value of that individual PAH on the LCP site. In some cases, the mean values in some of the quadrants were higher than the corresponding background mean. In these cases, the difference between the two sets values was assessed with the Wilcoxon Rank Sum test. In all cases in which the quadrant mean was greater than the background mean, the Wilcoxon Rank Sum Test did not show a significant difference between the two data sets. The overall conclusion is that the PAHs that are present at the site are at or below levels consistent with general anthropogenic background for the southeast Atlantic coast. This analysis was complicated by the large number of non-detects in the site sample; however, this number of non-detects suggests on a qualitative basis that site-related concentrations of carcinogenic PAHs are relatively low.

The results of PAH background evaluation suggest the inclusion of PAHs in the HHBRA would include non-site related contributions to the cumulative risk assessment. Therefore, quadrant risk elevated in part by PAHs should be considered as a potential point of uncertainty.

4.9.7 Uncertainties Due to Exclusion of TEG Data Records

As discussed in Section 4.2.2 and in Appendix A, all data generated the TEG onsite laboratory were excluded from the quantitative risk characterization provided in the body of this report. The TEG laboratory was used for a period of time to support the upland removal response action,

but was eventually replaced by another onsite laboratory (QAL) because of unsatisfactory quality control. As directed by USEPA, a separate quantitative risk characterization was conducted based on the OU3 data set including data from the TEG laboratory.

The detailed risk calculation tables associated with this separate analysis are provided in Appendix A. In addition, Tables 10 and 11 provide side-by-side comparisons of the EPCs generated using both data sets and Tables 24 through 26 provide summaries of the theoretical cancer risk and noncancer hazard by quadrant for both data sets. As shown in Tables 6 and 7, the EPCs for most of the COPCs are not significantly different between the two data sets. The inclusion of the TEG data is generally most significant for the Aroclors, for which the EPCs are higher when the TEG data are included. As shown in Tables 24 through 27, when the data sets that include the TEG data are used, the cancer risk and hazard estimates increase by a maximum of about 2 times in Quad 2. The differences in the other EUs are less significant. Overall, these results demonstrate that the exclusion of the TEG data had a minimal effect on the analysis or the conclusions drawn from it.

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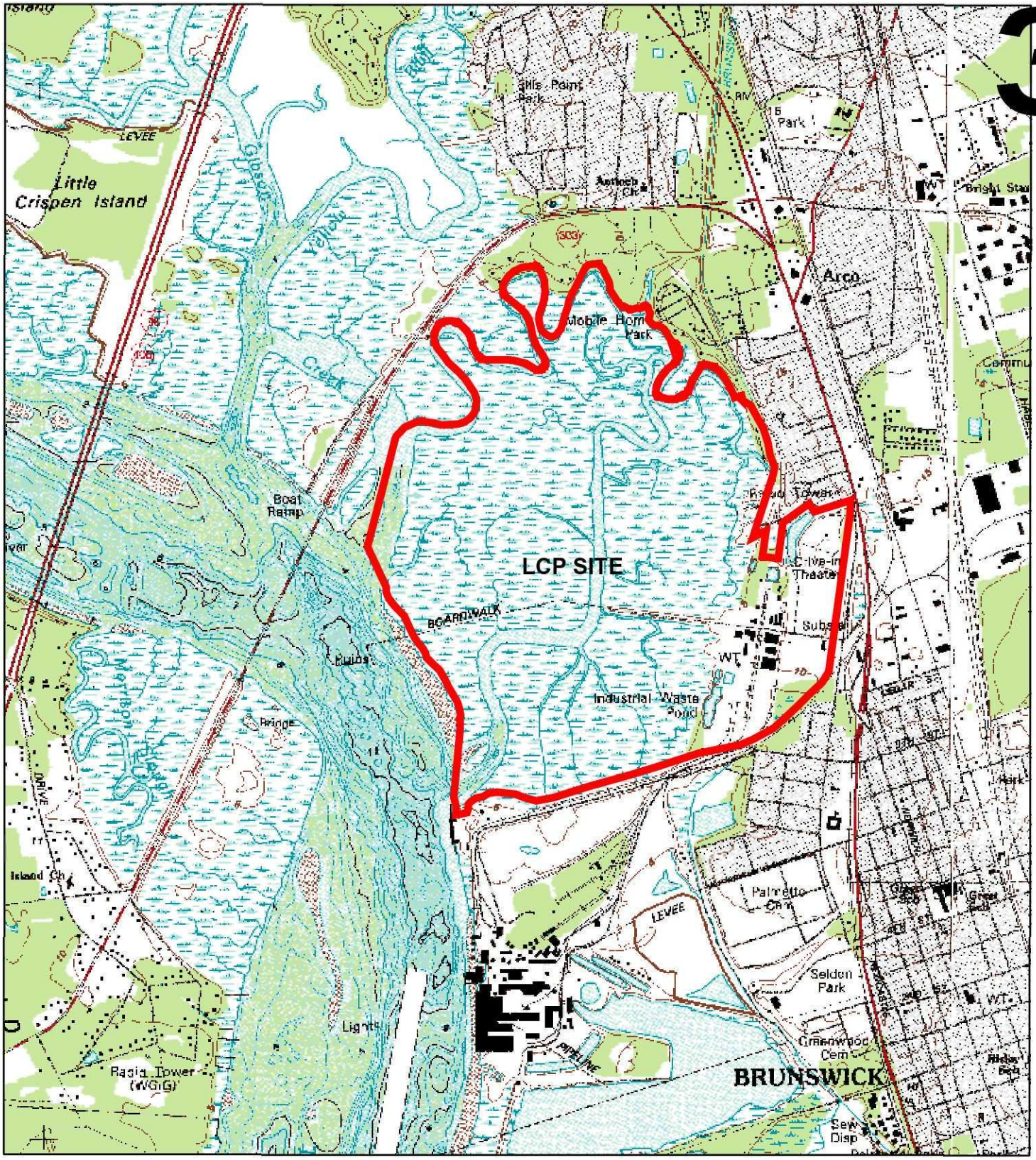
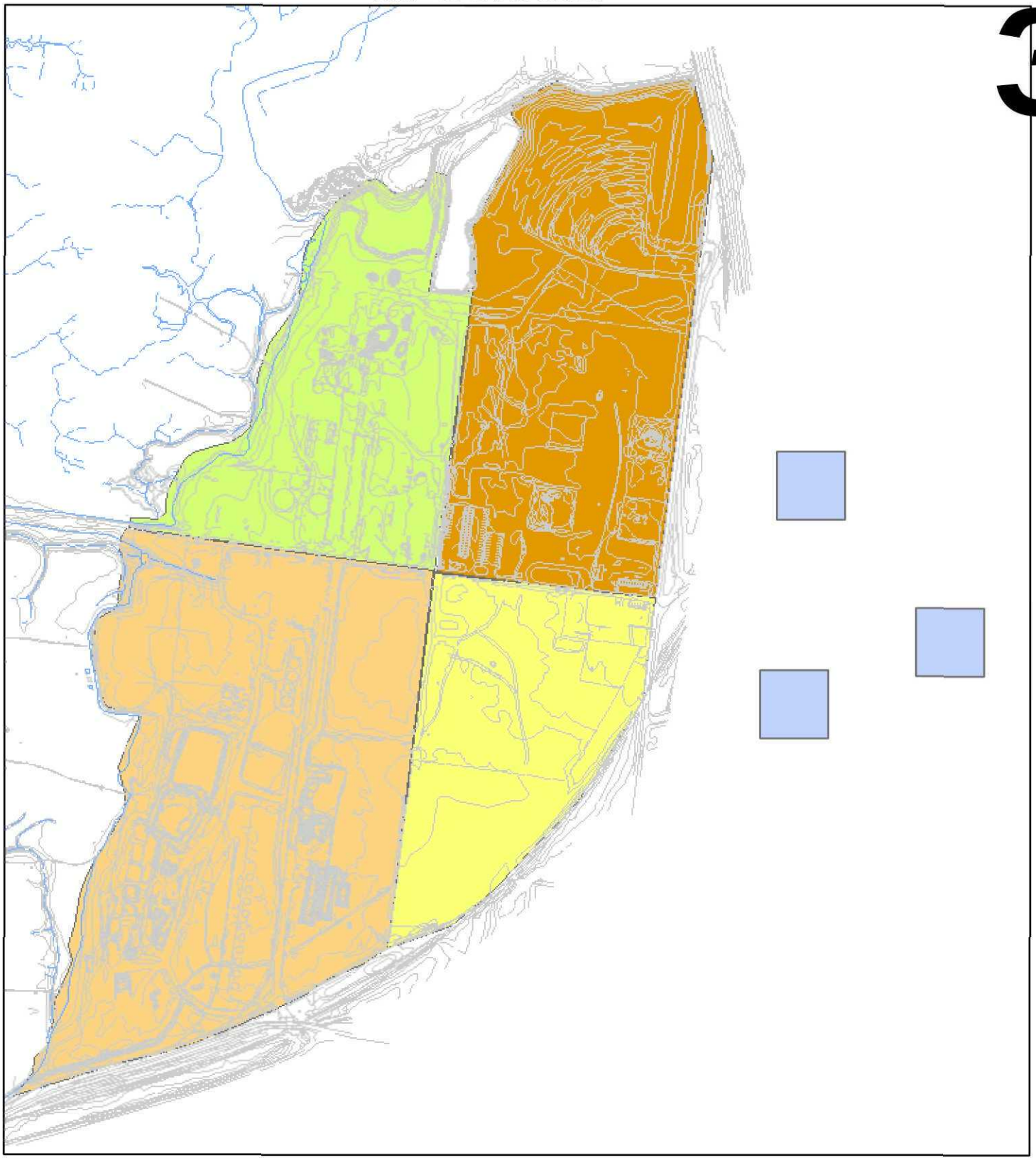
FIGURES

Site Location



EXPOSURE UNITS USED IN
HUMAN HEALTH BASELINE RISK ASSESSMENT
OU3 - UPLAND SOILS

3



0 250 500 1,000
Feet

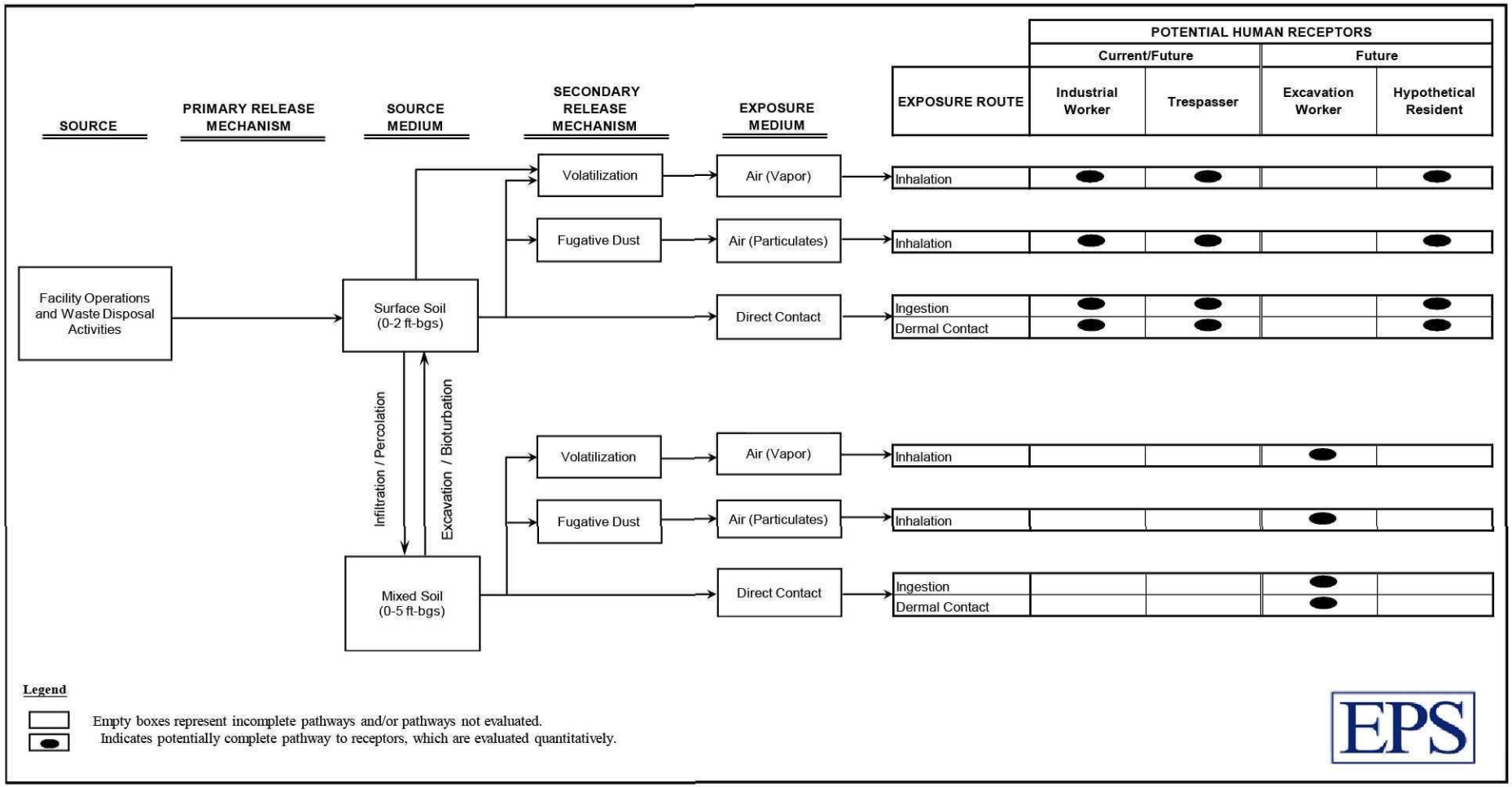
Exposure Units

- Offsite Tank Farm
- Quadrant 1
- Quadrant 2
- Quadrant 3
- Quadrant 4

Environmental Planning Specialists, Inc.

Figure 2

Figure 3
Human Health Conceptual Site Model



TABLES

Table 1A
Soil Data Evaluation and COPC Identification - OTF

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
Arsenic	2	3	1	3	1.3	**1.7**	1	1	67	100	0.39	c	Y	**0.39**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	7	27	20	27	0.026	**0.92**	0.33	0.39	26	100	0.15	c	Y	**0.15**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	6	27	21	27	0.029	**1.37**	0.33	0.39	22	100	0.015	c	Y	**0.015**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	6	27	21	27	0.051	**2.18**	0.33	0.39	22	100	0.15	c	Y	**0.15**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Chromium	3	3	0	3	1.7	**5**	0.1099	0.11	100	100	0.29	c	Y	**0.29**	**Y**	N	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	2	27	25	27	0.05	**0.32**	0.33	0.39	7	100	0.015	c	Y	**0.015**	**Y**	Y	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Lead	12	12	0	27	11.8	**3155**	11	13	44	44	400	n	Y	**400**	**Y**	N	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	3	26	23	27	0.0909	**1.67**	0.054	0.39	11	96	5.6	n	N	**0.56**	**Y**	N	**Yes**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Table 1B)																			
Indeno(1,2,3-cd)pyrene	2	27	25	27	0.098	**0.11**	0.31	**0.39**	7	100	0.15	c	N	**0.15**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1268	1	25	24	27	0.21	**0.21**	0.035	**2.6**	4	93	0.22	c	N	**0.22**	N	Y	No	B	Drop - <10% DL > CRQL
4,6-Dinitro-2-methylphenol	0	3	3	3			0.88	**0.93**	0	100	4.9	n	N	**0.49**	N	Y	No	B	Drop - <10% DL > CRQL
bis(2-Chloroethyl) ether	0	3	3	3			0.35	**0.37**	0	100	0.21	c	N	**0.21**	N	Y	No	B	Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	0	3	3	3			0.35	**0.37**	0	100	0.069	c	N	**0.069**	N	Y	No	B	Drop - <10% DL > CRQL
Thallium [(3)]	0	3	3	3			0.96	**1**	0	100	5.1	n	N	**0.51**	N	Y	No	B, T	Drop - <10% DL > CRQL
Aroclor-1016	0	24	24	27			0.035	**2.6**	0	89	3.9	n	N	**0.39**	N	Y	**Yes**	B, Q	**Retain as Qualatative COPC**
Aroclor-1221	0	24	24	27			0.071	**2.6**	0	89	0.14	c	N	**0.14**	N	Y	**Yes**	B, Q	**Retain as Qualatative COPC**
Aroclor-1232	0	24	24	27			0.035	**2.6**	0	89	0.14	c	N	**0.14**	N	Y	**Yes**	B, Q	**Retain as Qualatative COPC**
Aroclor-1242	0	24	24	27			0.035	**2.6**	0	89	0.22	c	N	**0.22**	N	Y	**Yes**	B, Q	**Retain as Qualatative COPC**
Aroclor-1248	0	24	24	27			0.035	**2.6**	0	89	0.22	c	N	**0.22**	N	Y	**Yes**	B, Q	**Retain as Qualatative COPC**
Aroclor-1254	0	24	24	27			0.035	**2.6**	0	89	0.22	c	N	**0.22**	N	Y	**Yes**	B, Q	**Retain as Qualatative COPC**
Aroclor-1260	0	24	24	27			0.035	**2.6**	0	89	0.22	c	N	**0.22**	N	Y	**Yes**	B, Q	**Retain as Qualatative COPC**
Pentachlorophenol	0	1	1	3			0.88	**0.93**	0	33	0.89	c	N	**0.89**	N	Y	No	B	Drop - <10% DL > CRQL
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
Endrin ketone	3	3		3	0.0044	**0.0073**	0.0035	**0.0037**	100	100	18	n	N	**1.8**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
alpha-Chlordane	1	1		3	0.0015	**0.0015**	0.0018	**0.0019**	33	33	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan I	1	1		3	0.00018	**0.00018**	0.0018	**0.0019**	33	33	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan sulfate	1	1		3	0.0016	**0.0016**	0.0035	**0.0037**	33	33	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	1	1		3	0.0019	**0.0019**	0.0018	**0.0019**	33	33	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	4	4		27	0.13	**1.35**	0.33	**0.39**	15	15	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Propylbenzene	3	3		24	0.05999	**0.17**	0.05	**0.07**	13	13	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Phenanthrene	3	3		27	0.026	**0.079**	0.31	**0.39**	11	11	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Butylbenzene	1	1		24	0.14	**0.14**	0.05	**0.07**	4	4	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	1	1		24	0.17	**0.17**	0.05	**0.07**	4	4	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	1	1		27	0.42	**0.42**	0.31	**0.39**	4	4	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
1,3-Dichlorobenzene	0	0		27			0.05	**0.37**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2-Nitrophenol	0	0		3			0.35	**0.37**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
3-Nitroaniline	0	0		3			0.88	**0.93**	0	0	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Chlorophenyl-phenylether	0	0		3			0.35	**0.37**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Nitrophenol	0	0		3			0.88	**0.93**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
cis-1,3-Dichloropropene	0	0		27			0.011	**0.07**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
delta-BHC	0	0		3			0.0018	**0.0019**	0	0	0.077	c	N	**0.077**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Dibenzofuran	0	0		3			0.35	**0.37**	0	0	78	n	N	**7.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endrin aldehyde	0	0		3			0.0035	**0.0037**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
sec-Butylbenzene	0	0		24			0.05	**0.07**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
tert-Butylbenzene	0	0		24			0.05	**0.07**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
trans-1,3-Dichloropropene	0	0		27			0.011	**0.07**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL

Table 1A
Soil Data Evaluation and COPC Identification - OTF

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Constituents Screened Out on Basis of Low Frequency of Detection																			
1,1,1-Trichloroethane	0	0		27			0.011	**0.07**	0	0	8700	n	N	**870**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2,2-Tetrachloroethane	0	0		27			0.011	**0.07**	0	0	0.56	c	N	**0.56**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2-Trichloroethane	0	0		27			0.011	**0.07**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethane	0	0		27			0.011	**0.07**	0	0	3.3	c	N	**3.3**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethene	0	0		27			0.011	**0.07**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,4-Trichlorobenzene	0	0		3			0.35	**0.37**	0	0	22	c	N	**22**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichlorobenzene	0	0		27			0.05	**0.37**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloroethane	0	0		27			0.011	**0.07**	0	0	0.43	c	N	**0.43**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloropropane	0	0		27			0.011	**0.07**	0	0	0.89	c	N	**0.89**	N	N	No	C	Drop - No Detects and All DL < RSL
1,3,5-Trimethylbenzene	0	0		24			0.05	**0.07**	0	0	780	n	N	**78**	N	N	No	C	Drop - No Detects and All DL < RSL
1,4-Dichlorobenzene	0	0		27			0.05	**0.37**	0	0	2.4	c	N	**2.4**	N	N	No	C	Drop - No Detects and All DL < RSL
1-Methyl Naphthalene	0	0		24			0.31	**0.39**	0	0	22	c	N	**22**	N	N	No	C	Drop - No Detects and All DL < RSL
2,2'-Oxybis(1-Chloropropane)	0	0		3			0.35	**0.37**	0	0							No	F	Drop - No Detects and No RSL
2,4,5-Trichlorophenol	0	0		3			0.88	**0.93**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,6-Trichlorophenol	0	0		3			0.35	**0.37**	0	0	44	c	N	**44**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dichlorophenol	0	0		3			0.35	**0.37**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dimethylphenol	0	0		3			0.35	**0.37**	0	0	1200	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dinitrophenol	0	0		3			0.88	**0.93**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dinitrotoluene	0	0	0	3			0.35	**0.37**	0	0	1.6	c	N	**1.6**	N	N	No	C	Drop - No Detects and All DL < RSL
2,6-Dinitrotoluene	0	0		3			0.35	**0.37**	0	0	61	n	N	**6.1**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Butanone (MEK)	0	0		3			0.011	**0.011**	0	0	28000	n	N	**2800**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloroethyl vinyl ether	0	0		24			0.05	**0.07**	0	0				**0**			No	F	Drop - No Detects and No RSL
2-Chloronaphthalene	0	0		3			0.35	**0.37**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorophenol	0	0		3			0.35	**0.37**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Hexanone	0	0		3			0.011	**0.011**	0	0	210	n	N	**21**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Methylphenol	0	0		3			0.35	**0.37**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Nitroaniline	0	0		3			0.88	**0.93**	0	0	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
3,3'-Dichlorobenzidine	0	0		3			0.35	**0.37**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		3			0.35	**0.37**	0	0							No	C	Drop - No Detects and No RSL
4-Chloroaniline	0	0		3			0.35	**0.37**	0	0	2.4	c	N	**2.4**	N	N	No	F	Drop - No Detects and All DL < RSL
4-Chloro-3-methylphenol	0	0		3			0.35	**0.37**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methyl-2-pentanone	0	0		3			0.011	**0.011**	0	0	5300	n	N	**530**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		3			0.35	**0.37**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Nitroaniline	0	0		3			0.88	**0.93**	0	0	24	c	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
Acenaphthene	0	0		27			0.31	**0.39**	0	0	3400	n	N	**340**	N	N	No	C	Drop - No Detects and All DL < RSL
Acetone	0	0		3			0.011	**0.011**	0	0	61000	n	N	**6100**	N	N	No	C	Drop - No Detects and All DL < RSL
alpha-BHC	0	0		3			0.0018	**0.0019**	0	0	0.077	c	N	**0.077**	N	N	No	C	Drop - No Detects and All DL < RSL
Benzene	0	0		27			0.011	**0.07**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
Beryllium	0	0		3			0.17	**0.18**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
beta-BHC	0	0		3			0.0018	**0.0019**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
bis(2-Chloroethoxy) methane	0	0		3			0.35	**0.37**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromodichloromethane	0	0		27			0.011	**0.07**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromoform	0	0		27			0.011	**0.07**	0	0	61	c	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromomethane	0	0		27			0.011	**0.07**	0	0	7.3	n	N	**0.73**	N	N	No	C	Drop - No Detects and All DL < RSL
Butylbenzylphthalate	0	0		3			0.35	**0.37**	0	0	260	c	N	**260**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbazole	0	0		3			0.35	**0.37**	0	0							No	F	Drop - No Detects and No RSL
Carbon disulfide	0	0		3			0.011	**0.011**	0	0	820	n	N	**82**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbon tetrachloride	0	0		27			0.011	**0.07**	0	0	0.61	c	N	**0.61**	N	N	No	C	Drop - No Detects and All DL < RSL
Chlorobenzene	0	0		27			0.011	**0.07**	0	0	290	n	N	**29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroethane	0	0		27			0.011	**0.07**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroform	0	0		27			0.011	**0.07**	0	0	0.29	c	N	**0.29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloromethane	0	0		27			0.011	**0.07**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		3			0.011	**0.011**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		24			0.05	**0.07**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyanide	0	0		3			0.04	**0.04**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromochloromethane	0	0		27			0.011	**0.07**	0	0	0.68	c	N	**0.68**	N	N	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		24			0.05	**0.07**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		3			0.35	**0.37**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Dimethylphthalate	0	0		3			0.35	**0.37**	0	0							No	F	Drop - No Detects and No RSL

Table 1A
Soil Data Evaluation and COPC Identification - OTF

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Di-n-octylphthalate	0	0		3			0.35	**0.37**	0	0							No	F	Drop - No Detects and No RSL
Fluorene	0	0		27			0.31	**0.39**	0	0	2300	n	N	**230**	N	N	No	C	Drop - No Detects and All DL < RSL
gamma-BHC (Lindane)	0	0		3			0.0018	**0.0019**	0	0	0.52	n	N	**0.052**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor	0	0		3			0.0018	**0.0019**	0	0	0.11	c	N	**0.11**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorobenzene	0	0		3			0.35	**0.37**	0	0	0.3	c	N	**0.3**	N	Y	No	C	Drop - No Detects and All DL < RSL
Hexachlorobutadiene	0	0		3			0.35	**0.37**	0	0	6.2	n	N	**0.62**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorocyclopentadiene	0	0		3			0.35	**0.37**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachloroethane	0	0		3			0.35	**0.37**	0	0	35	n	N	**3.5**	N	N	No	C	Drop - No Detects and All DL < RSL
Isophorone	0	0		3			0.35	**0.37**	0	0	510	n	N	**51**	N	N	No	C	Drop - No Detects and All DL < RSL
Isopropylbenzene	0	0		24			0.05	**0.07**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < RSL
m&p-Xylene	0	0		24			0.05	**0.07**	0	0	3400	n	N	**340**	N	N	No	C	Drop - No Detects and All DL < RSL
Naphthalene	0	0		27			0.31	**0.39**	0	0	3.6	c	N	**3.6**	N	N	No	C	Drop - No Detects and All DL < RSL
Nitrobenzene	0	0		3			0.35	**0.37**	0	0	4.8	c	N	**4.8**	N	N	No	C	Drop - No Detects and All DL < RSL
N-Nitrosodiphenylamine/Diphenylamine	0	0		3			0.35	**0.37**	0	0	99	c	N	**99**	N	N	No	C	Drop - No Detects and All DL < RSL
o-Xylene	0	0		24			0.05	**0.07**	0	0	3800	n	N	**380**	N	N	No	C	Drop - No Detects and All DL < RSL
Phenol	0	0		3			0.35	**0.37**	0	0	18000	n	N	**1800**	N	N	No	C	Drop - No Detects and All DL < RSL
Silver	0	0		3			0.49	**0.52**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
Styrene	0	0		27			0.011	**0.07**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
Tetrachloroethene	0	0		27			0.011	**0.07**	0	0	0.55	c	N	**0.55**	N	N	No	C	Drop - No Detects and All DL < RSL
Toxaphene	0	0		3			0.18	**0.19**	0	0	0.44	c	N	**0.44**	N	N	No	C	Drop - No Detects and All DL < RSL
trans-1,2-Dichloroethene	0	0		24			0.05	**0.07**	0	0	150	n	N	**15**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichloroethene	0	0		27			0.011	**0.07**	0	0	2.8	c	N	**2.8**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		24			0.05	**0.07**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Vinyl chloride	0	1	1	27			0.011	**0.07**	0	4	0.06	c	N	**0.06**	N	Y	No	C	Drop - No Detects and All DL < RSL
Xylenes (unspecified)	0	0		3			0.011	**0.011**	0	0	630	n	N	**63**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	3	3		3	441	11500			100	100							No	E	Drop - Essential Nutrient
Magnesium	3	3		3	34.8	699			100	100							No	E	Drop - Essential Nutrient
Potassium	3	3		3	174	344			100	100							No	E	Drop - Essential Nutrient
Sodium	3	3		3	123	160			100	100							No	E	Drop - Essential Nutrient
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
4,4'-DDD	3	3		3	0.00075	**0.0016**	0.0035	**0.0037**	100	100	2	c	N	**2**	N	N		G	Drop - Max Detect and DL < RSL
Aluminum	3	3		3	1520	**2480**	9.5	**9.9**	100	100	77000	n	N	**7700**	N	N		G	Drop - Max Detect and DL < RSL
Copper	3	3		3	2.1	**21.8**	0.2099	**0.2199**	100	100	3100	n	N	**310**	N	N		G	Drop - Max Detect and DL < RSL
Iron	3	3		3	425	**2700**	1	**1.1**	100	100	55000	n	N	**5500**	N	N		G	Drop - Max Detect and DL < RSL
Manganese	3	3		3	3.5	**46.7**	0.09	**0.09**	100	100	1800	n	N	**180**	N	N		G	Drop - Max Detect and DL < RSL
Nickel	3	3		3	0.25	**2.1**	0.2099	**0.2199**	100	100	1500	n	N	**150**	N	N		G	Drop - Max Detect and DL < RSL
Vanadium	3	3		3	2	**5.7**	0.189	**0.2**	100	100	390	n	N	**39**	N	N		G	Drop - Max Detect and DL < RSL
Zinc	3	3		3	5.9	**69.2**	0.239	**0.25**	100	100	23000	n	N	**2300**	N	N		G	Drop - Max Detect and DL < RSL
4,4'-DDE	2	2		3	0.00032	**0.0018**	0.0035	**0.0035**	67	67	1.4	c	N	**1.4**	N	N		G	Drop - Max Detect and DL < RSL
4,4'-DDT	2	2		3	0.0026	**0.0036**	0.0035	**0.0035**	67	67	1.7	c	N	**1.7**	N	N		G	Drop - Max Detect and DL < RSL
Aldrin	2	2		3	0.0011	**0.0015**	0.0018	**0.0018**	67	67	0.029	c	N	**0.029**	N	N		G	Drop - Max Detect and DL < RSL
bis(2-Ethylhexyl) phthalate	2	2		3	0.021	**0.026**	0.35	**0.35**	67	67	35	c	N	**35**	N	N		G	Drop - Max Detect and DL < RSL
Cobalt	2	2		3	0.3	**0.58999**	0.10999	**0.11**	67	67	23	n	N	**2.3**	N	N		G	Drop - Max Detect and DL < RSL
Dieldrin	2	2		3	0.00093	**0.0014**	0.0035	**0.0035**	67	67	0.03	c	N	**0.03**	N	N		G	Drop - Max Detect and DL < RSL
Methoxychlor	2	2		3	0.0067	**0.014**	0.018	**0.018**	67	67	310	n	N	**31**	N	N		G	Drop - Max Detect and DL < RSL
Antimony	1	1		3	1.6	**1.6**	1.3	**1.3**	33	33	31	n	N	**3.1**	N	N		G	Drop - Max Detect and DL < RSL
Cadmium	1	1		3	0.2	**0.2**	0.11	**0.11**	33	33	70	n	N	**7**	N	N		G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	1	1		3	0.052	**0.052**	0.35	**0.35**	33	33	6100	n	N	**610**	N	N		G	Drop - Max Detect and DL < RSL
Endrin	1	1		3	0.0023	**0.0023**	0.0035	**0.0037**	33	33	18	n	N	**1.8**	N	N		G	Drop - Max Detect and DL < RSL
Heptachlor epoxide	1	1		3	0.00028	**0.00028**	0.0018	**0.0019**	33	33	0.053	c	N	**0.053**	N	N		G	Drop - Max Detect and DL < RSL
Selenium	1	1		3	1.4	**1.4**	1.1	**1.1**	33	33	390	n	N	**39**	N	N		G	Drop - Max Detect and DL < RSL
Benzo(k)fluoranthene	6	6		27	0.088	**1.47**	0.33	**0.39**	22	22	1.5	c	N	**1.5**	N	N		G	Drop - Max Detect and DL < RSL
Chrysene	4	4		27	0.041	**1.76**	0.33	**0.39**	15	15	15	c	N	**15**	N	N		G	Drop - Max Detect and DL < RSL
Pyrene	4	4		27	0.084	**2.25**	0.33	**0.39**	15	15	1700	n	N	**170**	N	N		G	Drop - Max Detect and DL < RSL
Barium	3	3		27	5.6	**24**	51.7	**65.1**	11	11	15000	n	N	**1500**	N	N		G	Drop - Max Detect and DL < RSL
Fluoranthene	3	3		27	0.11	**0.53**	0.33	**0.39**	11	11	2300	n	N	**230**	N	N		G	Drop - Max Detect and DL < RSL
1,2,4-Trimethylbenzene	1	1		24	0.09	**0.09**	0.05	**0.07**	4	4	62	n	N	**6.2**	N	N		G	Drop - Max Detect and DL < RSL
2-Methylnaphthalene	1	1		27	0.023	**0.023**	0.31	**0.39**	4	4	310	n	N	**31**	N	N		G	Drop - Max Detect and DL < RSL
Anthracene	1	1		27	0.44	**0.44**	0.31	**0.39**	4	4	17000	n	N	**1700**	N	N		G	Drop - Max Detect and DL < RSL

Table 1A
Soil Data Evaluation and COPC Identification - OTF

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL (1) (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL(2) (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Dichloromethane (Methylene chloride)	2	2		27	0.002	**0.002**	0.011	**0.07**	7	7	11	c	N	**11**	N	N		G	Drop - Max Detect and DL < RSL
Ethyl benzene	1	1		27	0.13	**0.13**	0.011	**0.07**	4	4	5.4	c	N	**5.4**	N	N		G	Drop - Max Detect and DL < RSL
Toluene	1	1		27	0.13	**0.13**	0.011	**0.07**	4	4	5000	n	N	**500**	N	N		G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs (except for thallium).
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.
(3) RSL for thallium taken from May 2009 RSL Table.
Thallium RfD subsequently withdrawn from IRIS.

Highlighted Cells Key:
Frequency Detection < 5%
Constituent without RSL - Surrogate Chemical Identified

COPC screening code :

A	Low record count <10 site wide
B	DLs above adjusted residential RSL
C	Less than 5% detection frequency including DLs above adjusted RSL
D	Parameter with N flag
E	Essential nutrient
F	Less than 5% detection frequency and no RSL
G	Max detect and max DL below adjusted residential RSL
T	Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
Y	Retain as COPC

Table 1B
COPC Screening Refinements for "B" Flagged Parameters - OTF

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# of Records	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 data records	# Level 4 data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
4,6-Dinitro-2-methylphenol	10	0.49	3	0	0	3	100					Drop - <10% DL > CRQL
Aroclor-1016	0.033	0.39	27	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1221	0.033	0.14	27	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1232	0.033	0.14	27	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1242	0.033	0.22	27	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1248	0.033	0.22	27	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1254	0.033	0.22	27	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1260	0.033	0.22	27	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
Aroclor-1268	0.033	0.22	27	27	100	24	89	3	3	0	0	Retain as Qualitative COPC
bis(2-Chloroethyl) ether	5	0.21	3	0	0	3	100					Drop - <10% DL > CRQL
Indeno(1,2,3-cd)pyrene	5	0.15	27	0	0	27	100					Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	5	0.069	3	0	0	3	100					Drop - <10% DL > CRQL
Pentachlorophenol	10	0.89	3	0	0	1	33					Drop - <10% DL > CRQL
Thallium [6]	2.5	0.51	3	0	0	3	100					Drop - <10% DL > CRQL

Notes:

(1) Values are the EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL).

(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1.

(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQLs.

(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSLs.

(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL.

(6) RSL for thallium taken from May 2009 RSL Table; the RfD was subsequently withdrawn from IRIS.

Table 2A
Soil Data Evaluation and COPC Identification - Quadrant 1

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
Aroclor-1260	7	32	25	70	0.027	**0.9**	0.0017	2.5	10	46	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1268	20	44	24	48	0.0023	**0.57**	0.0017	2.5	42	92	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Arsenic	19	40	21	40	0.27	**3.5**	1.5	4	48	100	0.39	c	Y	**0.39**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	23	75	52	78	0.0017	**1.3**	0.00048	13	29	96	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	23	76	53	78	0.0018	**1.3**	0.31999	13	29	97	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	15	34	19	37	0.0035	**0.69**	0.00011	0.68	41	92	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b/k)fluoranthene	9	41	32	41	0.068	**1.6**	0.35	13	22	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
bis(2-Ethylhexyl) phthalate	7	7	0	52	0.013	**46**	0.35	13	13	13	35	c	Y	**35**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Chromium	40	40	0	40	1.74	**17**	0.11	0.24	100	100	0.29	c	Y	**0.29**	**Y**	N	**YES**		**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	10	62	52	77	0.00066	**0.068**	0.00009	13	13	81	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Indeno(1,2,3-cd)pyrene	20	76	56	78	0.0021	**0.24**	0.32	13	26	97	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Iron	40	40	0	40	797	**26000**	1.1	2.3	100	100	55000	n	N	**5500**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Lead	65	68	3	90	0.61	**516**	3	60	72	76	400	n	Y	**400**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	62	77	15	90	0.0289	**38**	0.11	0.63	69	86	5.6	n	Y	**0.56**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Vanadium	27	27	0	44	1.65999997	**43**	3	9	61	61	390	n	N	**39**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Tablet 2B)																			
Aroclor-1254	11	35	24	70	0.0035	**0.13**	0.0017	**2.5**	16	50	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Dibenzofuran	8	21	13	59	0.00046	**0.012**	0.00012	**13**	14	39	78	n	N	**7.8**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
Naphthalene	8	27	19	78	0.001	**0.89**	0.00016	**13**	10	35	3.6	c	N	**3.6**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Thallium [3]	13	40	27	40	0.012	**0.026**	0.97	**10**	33	100	5.1	n	N	**0.51**	N	Y	No	T	Drop - not used at site, withdrawn RSL
Pyridine	0	1	1	1			8.3	**8.3**	0	100	78	n	N	**7.8**	N	Y	**YES**	B, Q, A	**Retain as Qualatative COPC**
bis(2-Chloroethyl) ether	0	42	42	52			0.0019	**13**	0	81	0.21	c	N	**0.21**	N	Y	**YES**	B, Q	**Retain as Qualatative COPC**
Hexachlorobenzene	0	42	42	52			0.0012	**13**	0	81	0.3	c	N	**0.3**	N	Y	**YES**	B, Q	**Retain as Qualatative COPC**
N-Nitroso-di-n-propylamine	0	42	42	52			0.0024	**13**	0	81	0.069	c	N	**0.069**	N	Y	**YES**	B, Q	**Retain as Qualatative COPC**
Pentachlorophenol	0	25	25	52			0.02	**26**	0	48	0.89	c	N	**0.89**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,4-Dinitrotoluene	0	19	19	52			0.0015	**13**	0	37	1.6	c	N	**1.6**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2-Nitroaniline	0	19	19	52			0.0032	**13**	0	37	610	n	N	**61**	N	N	No	B	Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	0	19	19	52			0.0037	**13**	0	37	1.1	c	N	**1.1**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
4,6-Dinitro-2-methylphenol	0	19	19	52			0.0014	**26**	0	37	4.9	n	N	**0.49**	N	Y	**YES**	B, Q	Retain as Qualatative COPC
4-Chloroaniline	0	19	19	52			0.0019	**13**	0	37	2.4	c	N	**2.4**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Nitrobenzene	0	19	19	52			0.0022	**13**	0	37	4.8	c	N	**4.8**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,4-Dinitrophenol	0	17	17	52			0.017	**26**	0	33	120	n	N	**12**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,6-Dinitrotoluene	0	17	17	52			0.002	**13**	0	33	61	n	N	**6.1**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
4-Nitrophenol	0	17	17	52			0.018	**26**	0	33	120	n	N	**12**	N	Y	No	B	Drop - No Detects and All DL < Surrogate RSL
Aroclor-1016	0	24	24	70			0.0017	**2.5**	0	34	3.9	n	N	**0.39**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1221	0	24	24	70			0.0017	**2.5**	0	34	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1232	0	24	24	70			0.0017	**2.5**	0	34	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1242	0	24	24	70			0.0017	**2.5**	0	34	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1248	0	24	24	70			0.0017	**2.5**	0	34	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Hexachlorobutadiene	0	17	17	55			0.00018	**13**	0	31	6.2	c	N	**6.2**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2,3-Trichloropropane	0	1	1	20			0.00028	**0.098**	0	5	0.005	c	N	**0.005**	N	Y	**YES**	B, Q	**Retain as Qualatative COPC**
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
Phenanthrene	26	26		78	0.0017	**2.3**	0.32	**13**	33	33	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	21	21		78	0.0031	**0.49**	0.32	**13**	27	27	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
alpha-Chlordane	7	7		36	0.00018	**0.0011**	0.0001	**0.007**	19	19	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	11	11		30	0.0014	**0.42**	0.00008	**0.06**	37	37	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
sec-Butylbenzene	2	2		30	0.1	**0.69**	0.00006	**0.06**	7	7	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	8	8		78	0.00016	**0.034**	0.00007	**13**	10	10	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	8	8		36	0.00017	**0.0018**	0.00009	**0.008**	22	22	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Butylbenzene	1	1		30	0.25999	**0.26**	0.00009	**0.06**	3	3	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Propylbenzene	1	1		30	0.33	**0.33**	0.00006	**0.06**	3	3	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
delta-BHC	1	1		36	0.00035	**0.00035**	0.00007	**0.0022**	3	3	0.077	c	N	**0.077**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan I	1	1		36	0.00055	**0.00055**	0.00006	**0.0022**	3	3	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan sulfate	2	2		36	0.00019	**0.023**	0.00064	**0.00419**	6	6	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endrin aldehyde	3	3		36	0.00063	**0.031**	0.00069	**0.009**	8	8	18	n	N	**1.8**	N	N	No	C	Drop - Max Detect and DL < Surrogate RSL
3-Nitroaniline	0	19	19	52			0.0025	**13**	0	37	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2-Nitrophenol	0	1	1	52			0.0015	**13**	0	2	120	n	N	**120**	N	N	No	C	Drop - Max Detect and 5% DL< Surrogate RSL
1,1-Dichloropropene	0	0		20			0.00016	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
1,3-Dichlorobenzene	0	0		60			0.00007	**0.42**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2,2-Dichloropropane	0	0		20			0.00011	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL

Table 2A
Soil Data Evaluation and COPC Identification - Quadrant 1

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL [(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
3/4-Methylphenol	0	0		41			0.35	**13**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Chlorophenyl-phenylether	0	0		52			0.0014	**13**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Bromochloromethane	0	0		20			0.00015	**0.098**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
cis-1,3-Dichloropropene	0	0		60			0.00003	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan II	0	0		36			0.00014	**0.008**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endrin ketone	0	0		36			0.00009	**0.03**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
tert-Butylbenzene	1	1		30	0.0064	0.0064	0.00005	**0.06**	3	3	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
trans-1,3-Dichloropropene	0	0		60			0.00011	**0.098**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Constituents Screened Out on Basis of Low # Records																			
Methylethylindene Bicyclooctane	1	1		1	9	9			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Octahydrotrimethylmethylethylphenanthrenol	1	1		1	0.3	0.3			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Titanium	4	4		4	78	180			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Tellurium	0	0		4			5	5	0	0							No	A	Drop - No RSL and less than 10 records sitewide
Ytterium	0	0		4			1	1	0	0							No	A	Drop - No RSL and less than 10 records sitewide
Constituents Screened Out on Basis of Low Frequency of Detection																			
Endrin	1	1		36	0.041	**0.041**	0.00009	**0.009**	3	3	18	n	N	**1.8**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Methoxychlor	1	1		36	0.078	**0.078**	0.00069	**0.022**	3	3	310	n	N	**31**	N	N	No	C	Drop - <5% Detects and All DL < RSL
o-Xylene	1	1		37	0.00041	**0.00041**	0.00006	**0.098**	3	3	3800	n	N	**380**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Silver	7	7		40	0.008	**0.081**	0.004	**1**	18	18	390	n	N	**39**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2-Butanone (MEK)	2	2		43	0.012	**0.017**	0.0018	**0.98**	5	5	28000	n	N	**2800**	N	N	No	C	Drop - <5% Detects and All DL < RSL
4-Methyl-2-pentanone	1	1		43	0.019	**0.019**	0.00026	**0.25**	2	2	5300	n	N	**530**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Carbazole	1	1		42	0.047	**0.047**	0.35	**13**	2	2							No	F	Drop - <5% Detects and No RSL
Vinyl chloride	0	2	2	60			0.00006	**0.098**	0	3	0.06	c	N	**0.06**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1,1,2-Tetrachloroethane	0	0		15			0.0002	**0.088**	0	0	1.9	c	N	**1.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,1-Trichloroethane	0	0		60			0.00016	**0.098**	0	0	8700	n	N	**870**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2,2-Tetrachloroethane	0	0		60			0.00009	**0.098**	0	0	0.56	c	N	**0.56**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2-Trichloroethane	0	0		60			0.00009	**0.098**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethane	0	0		60			0.00005	**0.098**	0	0	3.3	c	N	**3.3**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethene	0	0		60			0.00007	**0.098**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dibromo-3-chloropropane	0	0		13			0.00067	**0.0011**	0	0	0.0054	c	N	**0.0054**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dibromoethane	0	0		13			0.0002	**0.00026**	0	0	0.034	c	N	**0.034**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichlorobenzene	0	0		60			0.00006	**0.42**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloroethane	0	0		60			0.00005	**0.098**	0	0	0.43	c	N	**0.43**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloropropane	0	0		60			0.00006	**0.098**	0	0	0.89	c	N	**0.89**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichlorobenzene	0	0		13			0.00015	**0.00019**	0	0	49	n	N	**4.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,4-Trichlorobenzene	0	0		55			0.00024	**13**	0	0	22	c	N	**22**	N	N	No	B	Drop - No Detects and All DL < RSL
1,3-Dichloropropane	0	0		20			0.00006	**0.098**	0	0	1600	c	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
1,4-Dichlorobenzene	0	0		60			0.00011	**0.42**	0	0	2.4	c	N	**2.4**	N	N	No	C	Drop - No Detects and All DL < RSL
2,2'-Chloroisopropylether	0	0		41			0.35	**13.0**	0	0							No	F	Drop - No Detects and No RSL
2,2'-Oxybis(1-Chloropropane)	0	0		11			0.0026	**0.35**	0	0							No	F	Drop - No Detects and No RSL
2,3,4,6-Tetrachlorophenol	0	0		19			5.9	**13**	0	0	1800	n	N	**180**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,5-Trichlorophenol	0	0		52			0.0015	**13**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,6-Trichlorophenol	0	0		52			0.35	**13**	0	0	44	c	N	**44**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dichlorophenol	0	0		52			0.001	**13**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dimethylphenol	0	0		52			0.0055	**13**	0	0	1200	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloroethyl vinyl ether	0	0		17			0.05	**0.05999**	0	0				**0**			No	F	Drop - No Detects and No RSL
2-Chloronaphthalene	0	0		52			0.0016	**13**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorophenol	0	0		52			0.002	**13**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorotoluene	0	0		20			0.00005	**0.098**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Hexanone	0	0		43			0.00083	**0.25**	0	0	210	n	N	**21**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Methylphenol	1	1		52	0.0055	0.0055	0.35	**13**	2	2	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
4,4'-DDD	1	1		36	0.00016	0.00016	0.00011	**0.00419**	3	3	2	c	N	**2**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		52			0.0016	**13**	0	0							No	F	Drop - No Detects and No RSL
4-Chlorotoluene	0	0		20			0.00009	**0.098**	0	0	5500	n	N	**550**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Chloro-3-methylphenol	0	0		52			0.0014	**13**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	1	1		11	0.011	0.011	0.0014	**0.35**	9	9	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Nitroaniline	0	0		52			0.0018	**13**	0	0	24	c	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
Aldrin	0	0		36			0.00016	**0.0022**	0	0	0.029	c	N	**0.029**	N	N	No	C	Drop - No Detects and All DL < RSL
alpha-BHC	0	0		36			0.00011	**0.004**	0	0	0.077	c	N	**0.077**	N	N	No	C	Drop - No Detects and All DL < RSL
Aroclor-1262	0	0		13			0.00209	**0.013**	0	0	0.22	c	N	**0.22**	N	N	No	C	Drop - No Detects and All DL < RSL
Benzene	0	0		60			0.00015	**0.098**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
beta-BHC	0	0		36			0.00018	**0.0022**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL

Table 2A
Soil Data Evaluation and COPC Identification - Quadrant 1

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
bis(2-Chloroethoxy) methane	0	0		52			0.0015	**13.0**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromobenzene	0	0		20			0.00009	**0.098**	0	0	300	n	N	**30**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromodichloromethane	0	0		60			0.00004	**0.098**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromoform	0	0		60			0.00027	**0.098**	0	0	61	c	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
Butylbenzylphthalate	2	2		52	0.0059	0.033	0.0032	**13**	4	4	260	c	N	**260**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbon disulfide	2	2		43	0.00079	0.00084	0.00005	**0.25**	5	5	820	n	N	**82**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbon tetrachloride	0	0		60			0.00008	**0.098**	0	0	0.61	c	N	**0.61**	N	N	No	C	Drop - No Detects and All DL < RSL
Chlorobenzene	0	0		60			0.00005	**0.098**	0	0	290	n	N	**29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroethane	0	0		60			0.00032	**0.098**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroform	1	1		60	0.00096	0.00096	0.00005	**0.098**	2	2	0.29	c	N	**0.29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloromethane	0	0		60			0.00006	**0.098**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		23			0.01	**0.013**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		37			0.00008	**0.098**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyanide	0	0		1			0.03999	**0.04**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyclohexanone	0	0		1			8.3	**8.3**	0	0	310000	n	N	**31000**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromochloromethane	0	0		60			0.00017	**0.098**	0	0	0.68	c	N	**0.68**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromomethane	0	0		20			0.0002	**0.098**	0	0	25	n	N	**2.5**	N	N	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		30			0.00007	**0.06**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Dieldrin	0	0		36			0.00014	**0.00419**	0	0	0.03	c	N	**0.03**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	1	1		52	0.0084	0.0084	0.0013	**13**	2	2	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Dimethylphthalate	4	4		52	0.0056	0.033	0.001	**13**	8	8							No	F	Drop - No Detects and No RSL
Di-n-octylphthalate	0	0		52			0.0017	**13**	0	0							No	F	Drop - No Detects and No RSL
Ethyl benzene	0	0		60			0.00004	**0.098**	0	0	5.4	c	N	**5.4**	N	N	No	C	Drop - No Detects and All DL < RSL
gamma-BHC (Lindane)	1	1		36	0.0001	0.0001	8.00E-05	**0.0022**	3	3	0.52	c	N	**0.52**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor	2	2		36	0.00033	0.0011	0.00012	**0.005**	6	6	0.11	c	N	**0.11**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor epoxide	1	1		36	0.00018	0.00018	8.40E-05	**0.003**	3	3	0.053	c	N	**0.053**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorocyclopentadiene	0	0		52			0.029	**13**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachloroethane	0	0		52			0.0031	**13**	0	0	35	c	N	**35**	N	N	No	C	Drop - No Detects and All DL < RSL
Isophorone	0	0		52			0.001	**13**	0	0	510	c	N	**510**	N	N	No	C	Drop - No Detects and All DL < RSL
Molybdenum	0	0		4			1	**1**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
N-Nitrosodiphenylamine/Diphenylamine	0	0		52			0.0016	**13**	0	0	99	c	N	**99**	N	N	No	C	Drop - No Detects and All DL < RSL
Phenol	3	3		52	0.0023	0.35000002	0.002	**13**	6	6	18000	n	N	**1800**	N	N	No	C	Drop - No Detects and All DL < RSL
Styrene	0	0		60			0.00008	**0.098**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
Tetrachloroethene	0	0		60			0.00013	**0.098**	0	0	2.80	c	N	**2.8**	N	N	No	C	Drop - No Detects and All DL < RSL
Tin	0	0		4			2.5	**2.5**	0	0	47000	n	N	**4700**	N	N	No	C	Drop - No Detects and All DL < RSL
Toxaphene	0	0		36			0.0048	**0.22**	0	0	0.44	c	N	**0.44**	N	N	No	C	Drop - No Detects and All DL < RSL
trans-1,2-Dichloroethene	0	0		37			0.00005	**0.098**	0	0	110	n	N	**11**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichloroethene	0	0		60			0.00014	**0.098**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		37			0.00005	**0.098**	0	0	800	n	N	**80**	N	N	No	C	Drop - No Detects and All DL < RSL
Xylenes (unspecified)	0	0		30			0.01	**0.098**	0	0	630	n	N	**63**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of N-flag (Tentatively Identified Compound)																			
Benzopyrene (not A)	3	3		3	0.2	0.3			100	100							No	D	Drop - TIC
Decahydromethylnaphthalene	1	1		1	30	30			100	100							No	D	Drop - TIC
Diethylmethylbenzamide (unspecified)	1	1		1	0.1	0.1			100	100							No	D	Drop - TIC
Dihydropentamethylindene (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Dihydrotrimethylindene	3	3		3	0.1	3			100	100							No	D	Drop - TIC
Dimethylnaphthalene (unspecified)	1	1		1	0.4	0.4			100	100							No	D	Drop - TIC
Dimethylphenanthrene (unspecified)	1	1		1	0.1	0.1			100	100							No	D	Drop - TIC
Dodecyltetradecahydrophenanthrene	1	1		1	30	30			100	100							No	D	Drop - TIC
Hexadecanoic Acid	7	7		7	0.09	0.6			100	100							No	D	Drop - TIC
Methylbenzanthracene (unspecified)	1	1		1	0.1	0.1			100	100							No	D	Drop - TIC
Methylphenanthrene (unspecified)	1	1		1	0.09	0.09			100	100							No	D	Drop - TIC
Methylpyrene (unspecified)	1	1		1	0.1	0.1			100	100							No	D	Drop - TIC
Octadecanoic Acid	1	1		1	0.8	0.8			100	100							No	D	Drop - TIC

Table 2A
Soil Data Evaluation and COPC Identification - Quadrant 1

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL [(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Octadecenoic Acid (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Octahydrohexamethylindene	3	3		3	30	400.00003			100	100							No	D	Drop - TIC
Pinene (unspecified)	1	1		1	0.3	0.3			100	100							No	D	Drop - TIC
Tetramethylbutylphenol (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Tetramethylphenanthrene (unspecified)	4	4		4	0.1	0.3			100	100							No	D	Drop - TIC
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	34	34		40	43.6	11000	50	210	85	85							No	E	Drop - Essential Nutrient
Magnesium	32	32		40	51.6	3900	20	170	80	80							No	E	Drop - Essential Nutrient
Potassium	31	31		40	25	400	21	200	78	78							No	E	Drop - Essential Nutrient
Sodium	31	31		40	5.9	1100	19	21	78	78							No	E	Drop - Essential Nutrient
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
1,2,4-Trimethylbenzene	1	1		30	0.12999	**0.12999**	0.00009	**0.06**	3	3	62	n	N	**6.2**	N	N	No	G	Drop - Max Detect and DL < RSL
1,3,5-Trimethylbenzene	2	2		30	0.014	**0.34**	0.00004	**0.06**	7	7	780	n	N	**78**	N	N	No	G	Drop - Max Detect and DL < RSL
1-Methyl Naphthalene	1	1		20	0.1	**0.1**	0.32	**0.68**	5	5	22	c	N	**22**	N	N	No	G	Drop - Max Detect and DL < RSL
2-Methylnaphthalene	16	16		78	0.002	**0.2**	0.32	**13**	21	21	310	n	N	**31**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDE	12	12		36	0.00016	**0.086**	0.00064	**0.005**	33	33	1.4	c	N	**1.4**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDT	16	16		36	0.0002	**0.11**	0.0013	**0.007**	44	44	1.7	c	N	**1.7**	N	N	No	G	Drop - Max Detect and DL < RSL
Acenaphthene	8	8		78	0.00017	**0.61**	0.00009	**13**	10	10	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Acetone	13	13		43	0.0087	**0.59000003**	0.0031	**0.98**	30	30	61000	n	N	**6100**	N	N	No	G	Drop - Max Detect and DL < RSL
Aluminum	40	40		40	1720	**7400**			100	100	77000	n	N	**7700**	N	N	No	G	Drop - Max Detect and DL < RSL
Anthracene	20	20		78	0.0013	**2.4**	0.32	**13**	26	26	17000	n	N	**1700**	N	N	No	G	Drop - Max Detect and DL < RSL
Antimony	14	14		44	0.013	**0.13199**	0.006	**3**	32	32	31	n	N	**3.1**	N	N	No	G	Drop - Max Detect and DL < RSL
Barium	41	41		60	1.69	**41**	53.1	**62.5**	68	68	15000	n	N	**1500**	N	N	No	G	Drop - Max Detect and DL < RSL
Benzo(k)fluoranthene	13	13		37	0.001	**0.65**	0.00009	**0.68**	35	35	1.5	c	N	**1.5**	N	N	No	G	Drop - Max Detect and DL < RSL
Beryllium	13	13		40	0.025	**0.093**	0.002	**1**	33	33	160	n	N	**16**	N	N	No	G	Drop - Max Detect and DL < RSL
Bromomethane	4	4		60	0.07	**0.13**	0.00045	**0.098**	7	7	7.3	n	N	**0.73**	N	N	No	G	Drop - Max Detect and DL < RSL
Cadmium	13	13		40	0.005	**0.15800001**	0.002	**0.5**	33	33	70	n	N	**7**	N	N	No	G	Drop - Max Detect and DL < RSL
Chrysene	26	26		78	0.0024	**0.89**	0.00025	**13**	33	33	15	c	N	**15**	N	N	No	G	Drop - Max Detect and DL < RSL
Cobalt	15	15		40	0.09799	**6.68**	0.42	**2**	38	38	23	n	N	**2.3**	Y	N	No	G	Drop - Max Detect and DL < RSL
Copper	28	28		44	0.36	**43**	0.64	**6**	64	64	3100	n	N	**310**	N	N	No	G	Drop - Max Detect and DL < RSL
Dichloromethane (Methylene chloride)	19	19		60	0.00048	**0.018**	0.00016	**0.098**	32	32	11	c	N	**11**	N	N	No	G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	3	3		51	0.0086	**0.4**	0.35	**13**	6	6	6100	n	N	**610**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluoranthene	25	25		78	0.0015	**3.1**	0.32	**13**	32	32	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluorene	8	8		78	0.00018	**0.0061**	0.00008	**13**	10	10	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
Isopropylbenzene	2	2		30	0.00078	**0.06**	0.00003	**0.06**	7	7	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < RSL
m&p-Xylene	9	9		30	0.00038	**0.00097**	0.00009	**0.06**	30	30	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Manganese	40	40		40	3.51	**140**			100	100	1800	n	N	**180**	N	N	No	G	Drop - Max Detect and DL < RSL
Methyl mercury	9	9		9	0.00007	**0.00149**			100	100	7.8	n	N	**0.78**	N	N	No	G	Drop - Max Detect and DL < RSL
Nickel	20	20		44	0.67000002	**5.44**	2	**20**	45	45	1500	n	N	**150**	N	N	No	G	Drop - Max Detect and DL < RSL
Pyrene	31	31		78	0.0051	**2.4**	0.32	**13**	40	40	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < RSL
Selenium	2	2		40	1.5	**1.7**	0.4	**4**	5	5	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Toluene	35	35		60	0.00016	**0.07**	0.01	**0.098**	58	50	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < RSL
Strontium	4	4		4	3.6	**24**			100	100	47000	n	N	**4700**	N	N	No	G,A	Drop - Max Detect and DL < RSL
Zinc	25	25		44	1.79999995	**87**	0.0015	**40**	57	57	23000	n	N	**2300**	N	N	No	G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs (except for thallium).
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.
(3) RSL for thallium taken from May 2009 RSL Table.
Thallium RfD subsequently withdrawn from IRIS.

Highlighted Cells Key:
Frequency Detection < 5%
Constituent without RSL - Surrogate Chemical Identified

COPC screening code (from HHBRA):

A	Low record count <10 site wide
B	DLs above adjusted residential RSL
C	Less than 5% detection frequency including DLs above adjusted RSL
D	Parameter with N flag
E	Essential nutrient
F	Less than 5% detection frequency and no RSL
G	Max detect and max DL below adjusted residential RSL
T	Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
Y	Retain as COPC

Table 2B

COPC Screening Refinements for "B" Flagged parameters - Quadrant 1

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# of Records	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 Data Records	# Level 4 Data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
1,2,3-Trichloropropane	0.25	0.005	10	0	0	7	70	10	3			Drop - <10% DL > CRQL
2-Nitroaniline	10	61	42	1	2	0	0					Drop - <10% DL > CRQL
2,4-Dinitrophenol	10	12	42	19	45	17	40	42	25			Drop - >10 Level IV DLs < RSL
2,4-Dinitrotoluene	5	1.6	42	19	45	19	45	42	23			Drop - >10 Level IV DLs < RSL
2,6-Dinitrotoluene	5	6.1	52	19	37	17	33	52	35			Drop - >10 Level IV DLs < RSL
3,3'-Dichlorobenzidine	5	1.1	52	19	37	19	37	52	33			Drop - >10 Level IV DLs < RSL
4-Chloroaniline	5	2.4	52	19	37	19	37	52	33			Drop - >10 Level IV DLs < RSL
4-Nitrophenol	5	12	52	19	37	17	33	52	33	0	0	Retain as Qualatative COPC
4,6-Dinitro-2-methylphenol	10	0.49	52	19	37	42	81	52	10	0	0	Retain as Qualatative COPC
Aroclor-1016	0.033	0.39	70	48	69	24	34	46	46			Drop - >10 Level IV DLs < RSL
Aroclor-1221	0.033	0.14	70	48	69	24	34	46	46			Drop - >10 Level IV DLs < RSL
Aroclor-1232	0.033	0.14	70	48	69	24	34	46	46			Drop - >10 Level IV DLs < RSL
Aroclor-1242	0.033	0.22	70	48	69	24	34	46	46			Drop - >10 Level IV DLs < RSL
Aroclor-1248	0.033	0.22	70	48	69	24	34	46	46			Drop - >10 Level IV DLs < RSL
Aroclor-1254	0.033	0.22	70	45	64	24	34	46	46			Drop - >10 Level IV DLs < RSL
bis(2-Chloroethyl) ether	5	0.21	52	19	37	42	81	52	10	0	0	Retain as Qualatative COPC
Dibenzofuran	5	7.8	59	19	49	13	29	59	46			Drop - >10 Level IV DLs < RSL
Hexachlorobenzene	5	0.3	52	19	37	42	81	52	10	0	0	Retain as Qualatative COPC
Hexachlorobutadiene	5	6.2	55	19	35	17	31	55	38			Drop - >10 Level IV DLs < RSL
Naphthalene	5	3.6	78	19	24	19	24	59	40			Drop - >10 Level IV DLs < RSL
Nitrobenzene	5	4.8	52	19	37	19	37	52	33			Drop - >10 Level IV DLs < RSL
N-Nitroso-di-n-propylamine	5	0.069	52	19	37	42	81	52	10	0	0	Retain as Qualatative COPC
Pentachlorophenol	10	0.89	52	19	37	25	48	52	27			Drop - >10 Level IV DLs < RSL
Pyridine	NV	7.8	1	--	--	1	100	1	0	0	0	Retain as Qualatative COPC
Thallium[6]	2.5	0.51	40	5	13	27	68	40	14			Drop - not used at site

Notes:

(1) Values are the current EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL).

(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1.

(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQLs.

(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSLs.

(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL.

(6) RSL for thallium taken from May 2009 RSL Table; the RfD was subsequently withdrawn from IRIS.

Table 3A
Soil Data Evaluation and COPC Identification - Quadrant 2

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL [2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
Arsenic	3	20	17	20	0.23	**3.3**	1.1	2	15	100	0.39	c	Y	**0.39**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1221	1	16	15	60	0.27	**0.27**	0.0017	2.67	2	27	0.14	c	Y	**0.14**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1254	19	33	14	60	0.013	**11**	0.0017	2.67	32	55	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1260	2	16	14	60	1.2	**1.4**	0.0017	2.67	3	27	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1268	30	41	11	44	0.014	**19**	0.038	2.67	68	93	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	8	35	27	35	0.0058	**0.86**	0.33	0.41	23	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	8	35	27	35	0.0069	**0.96**	0.33	0.41	23	100	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	3	17	14	17	0.012	**0.37**	0.33	0.4	18	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b/k)fluoranthene	6	18	12	18	0.055	**0.72**	0.38	0.41	33	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Carbazole	1	1		19	0.046	**0.046**	0.37	0.41	5	5							**YES**	Y	**Retain as COPC** - >5% Detect and no RSL
Chromium	20	20	0	20	1.3	**12.7**	0.12	0.23	100	100	0.29	c	Y	**0.29**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	6	35	29	35	0.0017	**0.26**	0.33	0.41	17	100	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Indeno(1,2,3-cd)pyrene	7	35	28	35	0.0072	**0.54**	0.33	0.41	20	100	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Iron	20	20	0	20	217	**14400**	1.2	2.3	100	100	55000	n	N	**5500**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	27	38	11	46	0.105	**17.5**	0.12	0.67	59	83	5.6	n	Y	**0.56**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Table 3B)																			
Thallium [3]	3	21	18	20	0.01499	**0.5**	1.6	**1.8**	15	105	5.1	n	N	**0.51**	N	Y	No	B, T	Drop - <10% DL > CRQL
4,6-Dinitro-2-methylphenol	0	19	19	19			0.89	**1**	0	100	4.9	n	N	**0.49**	N	Y	No	B	Drop - <10% DL > CRQL
bis(2-Chloroethyl) ether	0	19	19	19			0.37	**0.41**	0	100	0.21	c	N	**0.21**	N	Y	No	B	Drop - <10% DL > CRQL
Hexachlorobenzene	0	19	19	19			*0.37*	***0.41***	*0*	*100*	*0.3*	*c*	N	***0.3***	N	Y	*No*	B	*Drop - <10% DL > CRQL*
N-Nitroso-di-n-propylamine	0	19	19	19			0.37	**0.41**	0	100	0.069	c	N	**0.069**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1232	0	15	15	60			0.0017	**2.67**	0	25	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1242	0	14	14	60			0.0017	**2.67**	0	23	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1248	0	14	14	60			0.0017	**2.67**	0	23	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1016	0	13	13	60			0.0017	**2.67**	0	22	3.9	n	N	**0.39**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Toxaphene	0	2	2	21			0.19	**14**	0	10	0.44	c	N	**0.44**	N	Y	No	B	Drop - <10% DL > CRQL
Vinyl chloride	0	2	2	34			0.00006	**0.07**	0	6	0.06	c	N	**0.06**	N	Y	No	B	Drop - <10% DL > CRQL
Aldrin	0	1	1	21			0.00016	**0.037**	0	5	0.029	c	N	**0.029**	N	Y	No	B	Drop - <10% DL > CRQL
Dieldrin	0	1	1	21			0.0037	**0.12**	0	5	0.03	c	N	**0.03**	N	Y	No	B	Drop - <5% DL > RSL
2,4-Dinitrotoluene	0	0	0	19			0.37	**0.41**	0	0	1.6	c	N	**1.6**	N	N	No	B	Drop - <10% DL > CRQL
Pentachlorophenol	0	18	18	19			0.89	**1**	0	95	0.89	c	N	**0.89**	N	Y	No	B	Drop - <10% DL > CRQL
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
Phenanthrene	9	9		35	0.0092	**0.46**	0.33	**0.41**	26	26	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	8	8		35	0.0069	**1.6**	0.33	**0.41**	23	23	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Dibenzofuran	4	4		22	0.00053	**0.052**	0.37	**0.41**	18	18	78	n	N	**7.8**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	3	3		35	0.00012	**0.011**	0.33	**0.41**	9	9	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Propylbenzene	1	1		15	0.0043	**0.0043**	0.00006	**0.07**	7	7	5.4	c	N	**5.4**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	1	1		15	0.0012	**0.0012**	0.00008	**0.07**	7	7	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
sec-Butylbenzene	1	1		15	0.00026	**0.00026**	0.00007	**0.07**	7	7	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	1	1		21	0.029	**0.029**	0.0019	**0.14**	5	5	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
1,1-Dichloropropene	0	0		2			0.00017	**0.00018**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
1,3-Dichlorobenzene	0	0		34			0.00007	**0.41**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2,2-Dichloropropane	0	0		2			0.00011	**0.00012**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2-Nitrophenol	0	0		19			0.37	**0.41**	0	0	120	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
3-Nitroaniline	0	0		19			0.89	**1**	0	0	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
3/4-Methylphenol	0	0		18			0.37	**0.41**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Chlorophenyl-phenylether	0	0		19			0.37	**0.41**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Nitrophenol	0	0		19			0.89	**1**	0	0	120	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
alpha-Chlordane	0	0		21			0.0019	**0.037**	0	0	1.6	c	N	**1.6**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Bromochloromethane	0	0		2			0.00027	**0.0003**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
cis-1,3-Dichloropropene	0	0		34			0.00003	**0.07**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
delta-BHC	0	0		21			0.00059	**0.0037**	0	0	0.077	c	N	**0.077**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan I	0	0		21			0.0019	**0.037**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan II	0	0		21			0.0037	**0.039**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan sulfate	0	0		21			0.00059	**0.03**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL

Table 3A
Soil Data Evaluation and COPC Identification - Quadrant 2

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Endrin aldehyde	0	0		21			0.0037	**0.056**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endrin ketone	0	0		21			0.0037	**0.32**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
n-Butylbenzene	0	0		15			0.00009	**0.07**	0	0	**5.4**	c	N	**5.4**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
tert-Butylbenzene	0	0		15			0.00005	**0.07**	0	0	2100	n	N	**210**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
trans-1,3-Dichloropropene	0	0		34			0.00011	**0.07**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Constituents Screened Out on Basis of Low # Records																			
Hexadecenoic Acid	3	3		3	0.3	2			100	100								A	Drop - No RSL and less than 10 records sitewide
Constituents Screened Out on Basis of Low Frequency of Detection																			
2-Hexanone	1	1		21	0.15	**0.15**	0.00083	**0.012**	5	4.8	210	n	N	**21**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Benzene	1	1		34	0.012	**0.012**	0.00016	**0.07**	3	3	1.1	c	N	**1.1**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Dichloromethane (Methylene chloride)	1	1		34	0.006	**0.006**	0.00016	**0.07**	3	3	11	c	N	**11**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Ethyl benzene	1	1		34	0.0078	**0.0078**	0.00004	**0.07**	3	3	5.4	c	N	**5.4**	N	N	No	C	Drop - <5% Detects and All DL < RSL
1,1,1,2-Tetrachloroethane	0	0		2			0.0002	**0.00022**	0	0	1.9	c	N	**1.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,1-Trichloroethane	0	0		34			0.00017	**0.07**	0	0	8700	n	N	**870**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2,2-Tetrachloroethane	0	0		34			0.00009	**0.07**	0	0	0.56	c	N	**0.56**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,2-Trichloroethane	0	0		34			0.00009	**0.07**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethane	0	0		34			0.00005	**0.07**	0	0	3.3	c	N	**3.3**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethene	0	0		34			0.00007	**0.07**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichlorobenzene	0	0		2			0.00016	**0.00017**	0	0	49	n	N	**4.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichloropropane	0	0		2			0.00028	**0.00033**	0	0	0.005	c	N	**0.005**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,4-Trichlorobenzene	0	0		21			0.00024	**0.41**	0	0	22	c	N	**22**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dibromo-3-chloropropane	0	0		2			0.00083	**0.00093**	0	0	0.0054	c	N	**0.0054**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dibromoethane	0	0		2			0.0002	**0.00023**	0	0	0.034	c	N	**0.034**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichlorobenzene	0	0		34			0.00006	**0.41**	0	0	1900	n	N	**190**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloroethane	0	0		34			0.00005	**0.07**	0	0	0.43	c	N	**0.43**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2-Dichloropropane	0	0		34			0.00007	**0.07**	0	0	0.89	c	N	**0.89**	N	N	No	C	Drop - No Detects and All DL < RSL
1,3-Dichloropropane	0	0		2			0.00006	**0.00007**	0	0	1600	c	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
1,4-Dichlorobenzene	0	0		34			0.00011	**0.41**	0	0	2.4	c	N	**2.4**	N	N	No	C	Drop - No Detects and All DL < RSL
1-Methyl Naphthalene	0	0		13			0.33	**0.4**	0	0	22	c	N	**22**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2,2'-Chloroisopropylether	0	0		18			0.37	**0.41**	0	0							No	F	Drop - No Detects and No RSL
2,2'-Oxybis(1-Chloropropane)	0	0		1			0.39	**0.39**	0	0							No	F	Drop - No Detects and No RSL
2,4,5-Trichlorophenol	0	0		19			0.89	**1**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,6-Trichlorophenol	0	0		19			0.37	**0.41**	0	0	44	c	N	**44**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dichlorophenol	0	0		19			0.37	**0.41**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dimethylphenol	0	0		19			0.37	**0.41**	0	0	1200	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dinitrophenol	0	0		19			0.89	**1**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < RSL
2,6-Dinitrotoluene	0	0		19			0.37	**0.41**	0	0	61	n	N	**6.1**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloroethyl vinyl ether	0	0		13			0.05999	**0.07**	0	0							No	F	Drop - No Detects and No RSL
2-Chloronaphthalene	0	0		19			0.37	**0.41**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorophenol	0	0		19			0.37	**0.41**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorotoluene	0	0		2			0.00005	**0.00006**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Methylphenol	0	0		19			0.37	**0.41**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Nitroaniline	0	0		19			0.89	**1**	0	0	610	n	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
3,3'-Dichlorobenzidine	0	0		19			0.37	**0.41**	0	0	1.1	c	N	**1.1**	N	N	No	C	Drop - No Detects and All DL < RSL
4,4'-DDD	0	0		21			0.00059	**0.07**	0	0	2	c	N	**2**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		19			0.37	**0.41**	0	0							No	F	Drop - No Detects and No RSL
4-Chlorotoluene	0	0		2			0.00009	**0.00011**	0	0	5500	n	N	**550**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Chloro-3-methylphenol	0	0		19			0.37	**0.41**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		1			0.39	**0.39**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Nitroaniline	0	0		19			0.89	**1**	0	0	24	c	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
Aroclor-1262	0	0		2			0.021	**0.21**	0	0	0.22	c	N	**0.22**	N	N	No	C	Drop - No Detects and All DL < RSL
beta-BHC	0	0		21			0.00018	**0.009**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
bis(2-Chloroethoxy) methane	0	0		19			0.37	**0.41**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromobenzene	0	0		2			0.00009	**0.00011**	0	0	300	n	N	**30**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromodichloromethane	0	0		34			0.00004	**0.07**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromoform	0	0		34			0.00027	**0.07**	0	0	61	c	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL

Table 3A
Soil Data Evaluation and COPC Identification - Quadrant 2

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Bromomethane	0	0		34			0.00046	**0.07**	0	0	7.3	n	N	**0.73**	N	N	No	C	Drop - No Detects and All DL < RSL
Butylbenzylphthalate	0	0		19			0.37	**0.41**	0	0	260	c	N	**260**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbon tetrachloride	0	0		34			0.00008	**0.07**	0	0	0.61	c	N	**0.61**	N	N	No	C	Drop - No Detects and All DL < RSL
Chlorobenzene	0	0		34			0.00005	**0.07**	0	0	290	n	N	**29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroethane	0	0		34			0.00033	**0.07**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroform	0	0		34			0.00005	**0.07**	0	0	0.29	c	N	**0.29**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloromethane	0	0		34			0.00006	**0.07**	0	0	120	n	N	**12**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		19			0.011	**0.012**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		15			0.00008	**0.07**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyanide	0	0		1			0.03999	**0.03999**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromochloromethane	0	0		34			0.00018	**0.07**	0	0	0.68	c	N	**0.68**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromomethane	0	0		2			0.0002	**0.00022**	0	0	25	n	N	**2.5**	N	N	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		15			0.00007	**0.07**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		19			0.37	**0.41**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Dimethylphthalate	0	0		19			0.37	**0.41**	0	0							No	F	Drop - No Detects and No RSL
Di-n-octylphthalate	0	0		19			0.37	**0.41**	0	0							No	F	Drop - No Detects and No RSL
Endrin	0	0		21			0.00209	**0.04**	0	0	18	n	N	**1.8**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor	0	0		21			0.00012	**0.006**	0	0	0.11	c	N	**0.11**	N	N	No	C	Drop - No Detects and All DL < RSL
Heptachlor epoxide	0	0		21			0.0019	**0.037**	0	0	0.053	c	N	**0.053**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorobutadiene	0	0		21			0.00019	**0.41**	0	0	6.2	c	N	**6.2**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorocyclopentadiene	0	0		19			0.37	**0.41**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachloroethane	0	0		19			0.37	**0.41**	0	0	35	c	N	**35**	N	N	No	C	Drop - No Detects and All DL < RSL
Isophorone	0	0		19			0.37	**0.41**	0	0	510	c	N	**510**	N	N	No	C	Drop - No Detects and All DL < RSL
Nitrobenzene	0	0		19			0.37	**0.41**	0	0	4.8	c	N	**4.8**	N	N	No	C	Drop - No Detects and All DL < RSL
N-Nitrosodiphenylamine/Diphenylamine	0	0		19			0.37	**0.41**	0	0	99	c	N	**99**	N	N	No	C	Drop - No Detects and All DL < RSL
Phenol	0	0		19			0.37	**0.41**	0	0	18000	n	N	**1800**	N	N	No	C	Drop - No Detects and All DL < RSL
Styrene	0	0		34			0.00008	**0.07**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
Tetrachloroethene	0	0		34			0.00013	**0.07**	0	0	150	n	N	**15**	N	N	No	C	Drop - No Detects and All DL < RSL
trans-1,2-Dichloroethene	0	0		15			0.00005	**0.07**	0	0	110	n	N	**11**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichloroethene	0	0		34			0.00014	**0.07**	0	0	2.8	c	N	**2.8**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		15			0.00005	**0.07**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Xylenes (unspecified)	0	0		19			0.011	**0.012**	0	0	630	n	N	**63**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of N-flag (Tentatively Identified Compound)																			
Aroclor-unspecified-10	1	1		1	0.3	0.3			100	100							No	D	Drop - TIC
Aroclor-unspecified-5	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Aroclor-unspecified-8	4	4		4	0.6	1			100	100							No	D	Drop - TIC
Aroclor-unspecified-9	7	7		7	0.2	2			100	100							No	D	Drop - TIC
Benzofluoranthene (unspecified)	1	1		1	0.5	0.5			100	100							No	D	Drop - TIC
Benzonaphthothiophene (unspecified)	2	2		2	0.2	0.3			100	100							No	D	Drop - TIC
Diethylmethylbenzamide (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Dimethylbenzonaphthothiophene (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Dimethyldibenzothiophene (unspecified)	1	1		1	0.5	0.5			100	100							No	D	Drop - TIC
Dimethylphenanthrene (unspecified)	1	1		1	0.5	0.5			100	100							No	D	Drop - TIC
Dimethylpyrene (unspecified)	1	1		1	0.4	0.4			100	100							No	D	Drop - TIC
Hexadecanoic Acid	8	8		8	0.2	0.7			100	100							No	D	Drop - TIC
Methylbenzanthracene (unspecified)	1	1		1	0.6	0.6			100	100							No	D	Drop - TIC
Methylbenzonaphthothiophene	1	1		1	0.7	0.7			100	100							No	D	Drop - TIC
Methylpyrene (unspecified)	2	2		2	0.3	0.3			100	100							No	D	Drop - TIC
Octadecanoic Acid	1	1		1	1	1			100	100							No	D	Drop - TIC
Pentadeconic Acid	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Tetramethylphenanthrene (unspecified)	1	1		1	0.4	0.4			100	100							No	D	Drop - TIC
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	18	18		20	36.3	3850	70	100	90	90							No	E	Drop - Essential Nutrient
Magnesium	7	7		20	20.1	3050	80	210	35	35							No	E	Drop - Essential Nutrient
Potassium	17	17		20	30	281	50	50	85	85							No	E	Drop - Essential Nutrient
Sodium	19	19		20	8.5	656	23	23	95	95							No	E	Drop - Essential Nutrient

Table 3A
Soil Data Evaluation and COPC Identification - Quadrant 2

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL (1) (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL(2) (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
1,2,4-Trimethylbenzene	1	1		15	0.052	**0.052**	0.0001	**0.07**	7	7	62	n	N	**6.2**	N	N	No	G	Drop - Max Detect and DL < RSL
1,3,5-Trimethylbenzene	1	1		15	0.014	**0.014**	0.00004	**0.07**	7	7	780	n	N	**78**	N	N	No	G	Drop - Max Detect and DL < RSL
2-Butanone (MEK)	1	1		21	1.1	**1.1**	0.0018	**0.02**	5	5	28000	n	N	**2800**	N	N	No	G	Drop - Max Detect and DL < RSL
2-Methylnaphthalene	6	6		35	0.0016	**0.4**	0.33	**0.41**	17	17	310	n	N	**31**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDE	1	1		21	0.046	**0.046**	0.0037	**0.05**	5	5	1.4	c	N	**1.4**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDT	5	5		21	0.00989	**0.57**	0.0037	**0.8**	24	24	1.7	c	N	**1.7**	N	N	No	G	Drop - Max Detect and DL < RSL
4-Methyl-2-pentanone	1	1		21	0.0036	**0.0036**	0.00026	**0.012**	5	5	5300	n	N	**530**	N	N	No	G	Drop - Max Detect and DL < RSL
Acenaphthene	3	3		35	0.0005	**0.0069**	0.33	**0.41**	9	9	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Acetone	4	4		21	0.016	**1.6**	0.012	**0.13**	19	19	61000	n	N	**6100**	N	N	No	G	Drop - Max Detect and DL < RSL
alpha-BHC	1	1		21	0.00018	**0.00018**	0.0019	**0.0055**	5	5	0.077	c	N	**0.077**	N	N	No	G	Drop - Max Detect and DL < RSL
Aluminum	20	20		20	1300	**4740**			100	100	77000	n	N	**7700**	N	N	No	G	Drop - Max Detect and DL < RSL
Anthracene	5	5		35	0.00086	**0.099**	0.33	**0.41**	14	14	17000	n	N	**1700**	N	N	No	G	Drop - Max Detect and DL < RSL
Antimony	3	3		21	0.03999	**0.58999**	1.1	**2**	14	14	31	n	N	**3.1**	N	N	No	G	Drop - Max Detect and DL < RSL
Barium	22	22		33	2	**174**	55.5	**66.7**	67	67	15000	n	N	**1500**	N	N	No	G	Drop - Max Detect and DL < RSL
Benzo(k)fluoranthene	3	3		17	0.0039	**0.15**	0.33	**0.4**	18	18	1.5	c	N	**1.5**	N	N	No	G	Drop - Max Detect and DL < RSL
Beryllium	2	2		20	0.003	**0.337**	0.19	**1**	10	10	160	n	N	**16**	N	N	No	G	Drop - Max Detect and DL < RSL
bis(2-Ethylhexyl) phthalate	1	1		19	0.52	**0.52**	0.37	**0.81**	5	5	35	c	N	**35**	N	N	No	G	Drop - Max Detect and DL < RSL
Cadmium	2	2		20	0.034	**0.409**	0.12	**0.5**	10	10	70	n	N	**7**	N	N	No	G	Drop - Max Detect and DL < RSL
Carbon disulfide	1	1		21	0.00031	**0.00031**	0.00005	**0.012**	5	5	820	n	N	**82**	N	N	No	G	Drop - Max Detect and DL < RSL
Chrysene	10	10		35	0.0079	**1.2**	0.33	**0.41**	29	29	15	c	N	**15**	N	N	No	G	Drop - Max Detect and DL < RSL
Cobalt	2	2		20	0.12399	**1.46**	0.12	**2**	10	10	23	n	N	**2.3**	N	N	No	G	Drop - Max Detect and DL < RSL
Copper	12	12		21	0.47999	**28**	4	**7**	57	57	3100	n	N	**310**	N	N	No	G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	2	2		19	0.037	**0.42**	0.37	**0.41**	11	11	6100	n	N	**610**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluoranthene	9	9		35	0.018	**0.43**	0.33	**0.41**	26	26	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluorene	3	3		35	0.0006	**0.0055**	0.33	**0.41**	9	9	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
gamma-BHC (Lindane)	1	1		21	0.00074	**0.00074**	0.0019	**0.004**	5	5	0.52	c	N	**0.52**	N	N	No	G	Drop - Max Detect and DL < RSL
Isopropylbenzene	1	1		15	0.00053	**0.00053**	0.00003	**0.07**	7	7	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < RSL
Lead	22	23	1	35	1.7	**140**	3	50	63	66	400	n	N	**400**	N	N	No	Y	Drop - Max Detect and DL < RSL
m&p-Xylene	1	1		15	0.072	**0.072**	0.0001	**0.07**	7	7	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Manganese	18	18		20	0.6	**132**	4	**4**	90	90	1800	n	N	**180**	N	N	No	G	Drop - Max Detect and DL < RSL
Methoxychlor	3	3		21	0.0046	**0.35**	0.019	**0.021**	14	14	310	n	N	**31**	N	N	No	G	Drop - Max Detect and DL < RSL
Methyl mercury	2	2		2	0.00028	**0.0014**			100	100	7.8	n	N	**0.78**	N	N	No	G	Drop - Max Detect and DL < RSL
Naphthalene	6	6		35	0.0013	**0.16**	0.33	**0.41**	17	17	3.6	c	N	**3.6**	N	N	No	G	Drop - Max Detect and DL < RSL
Nickel	3	3		21	0.52999	**6.52**	0.24	**8**	14	14	1500	n	N	**150**	N	N	No	G	Drop - Max Detect and DL < RSL
o-Xylene	1	1		15	0.00889	**0.00889**	0.00006	**0.07**	7	7	3800	n	N	**380**	N	N	No	G	Drop - Max Detect and DL < RSL
Pyrene	11	11		35	0.014	**1**	0.33	**0.41**	31	31	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < RSL
Selenium	1	1		20	1.4	**1.4**	0.4	**1.3**	5	5	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Silver	1	1		20	0.289	**0.289**	0.00499	**0.75**	5	5	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Toluene	11	11		34	0.002	**0.036**	0.00004	**0.07**	32	32	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < RSL
Vanadium	7	7		21	1.1	**19**	2	**20**	33	33	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Zinc	10	10		21	1.5	**230**	5	**30**	48	48	23000	n	N	**2300**	N	N	No	G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs (except for thallium).
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.
(3) RSL for thallium taken from May 2009 RSL Table.
Thallium RfD subsequently withdrawn from IRIS.

Highlighted Cells Key:
Frequency Detection < 5%
Constituent without RSL - Surrogate Chemical Identified

COPC screening code (from HHBRA):
A Low record count <10 site wide
B DLs above adjusted residential RSL
C Less than 5% detection frequency including DLs above adjusted RSL
D Parameter with N flag
E Essential nutrient
F Less than 5% detection frequency and no RSL
G Max detect and max DL below adjusted residential RSL
T Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
Y Retain as COPC

Table 3B

COPC Screening Refinements for "B" Flagged Parameters - Quadrant 2

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# of Records	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 Data Records	# Level 4 Data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
2,4-Dinitrotoluene	5	1.6	19	0	0	0	0					Drop - <10% DL > CRQL
4,6-Dinitro-2-methylphenol	10	0.49	19	0	0	19	100					Drop - <10% DL > CRQL
Aldrin	0.0017	0.029	21	20	95	1	4.8					Drop - <5% DL > RSL
Aroclor-1016	0.033	0.39	60	50	83	13	22	47	46			Drop - >10 Level IV DLs < RSL
Aroclor-1232	0.033	0.14	60	35	58	15	25	47	45			Drop - >10 Level IV DLs < RSL
Aroclor-1242	0.033	0.22	60	35	58	14	23	47	46			Drop - >10 Level IV DLs < RSL
Aroclor-1248	0.033	0.22	60	35	58	14	23	47	46			Drop - >10 Level IV DLs < RSL
bis(2-Chloroethyl) ether	5	0.21	19	0	0	19	100					Drop - <10% DL > CRQL
Dieldrin	0.0033	0.03	21	21	100	1	4.8					Drop - <5% DL > RSL
Hexachlorobenzene	5	0.21	19	0	0	19	100					Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	5	0.3	19	0	0	19	100					Drop - <10% DL > CRQL
Pentachlorophenol	10	0.89	19	0	0	18	95					Drop - <10% DL > CRQL
Thallium	2.5	0.51	20	0	0	18	90					Drop - <10% DL > CRQL
Toxaphene	0.17	0.44	21	21	100	2	10	21	19			Drop - >10 Level IV DLs < RSL
Vinyl chloride	0.25	0.06	34	0	0	2	5.9					Drop - <10% DL > CRQL

Notes:

(1) Values are the current EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL).

(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1.

(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQLs.

(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSLs.

(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL.

(6) RSL for thallium taken from May 2009 RSL Table; the RfD was subsequently withdrawn from IRIS.

Table 4A
Soil Data Evaluation and COPC Identification - Quadrant 3

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
1,1,2,2-Tetrachloroethane	7	47	40	287	0.07	**0.92**	0.00009	12	2	16	0.56	c	Y	**0.56**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
1,2,4-Trimethylbenzene	84	85	1	223	0.00026	**120**	0.00009	0.66	38	38	62	n	Y	**6.2**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
1,4-Dichlorobenzene	2	13	11	285	0.92	**18.2**	0.00011	12	1	5	2.6	c	Y	**2.6**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
1-Methyl Naphthalene	72	72	0	235	0.39	**64.4**	0.3	3.26	31	31	22	c	Y	**22**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
2-Methylnaphthalene	91	91	0	310	0.0013	**92.6**	0.00039	11.4	29	29	310	n	N	**31**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
4,6-Dinitro-2-methylphenol	2	59	57	59	0.37	**32**	0.87	110	3	100	4.9	n	Y	**0.49**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aluminum	34	34	0	34	171	**21900**	0.8	56	100	100	77000	n	N	**7700**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Antimony	10	33	23	37	0.00899	**9.86**	0.03	66	27	89	31	n	N	**3.1**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1016	2	325	323	399	0.028	**0.42**	0.0017	418	1	81	3.9	n	N	**0.39**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1254	59	376	317	399	0.0028	**28**	0.00209	418	15	94	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1260	22	352	330	399	0.031	**7.3**	0.0017	418	6	88	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1268	71	378	307	397	0.0037	**21**	0.00209	418	18	95	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Arsenic	19	36	17	39	0.23	**12.9**	0.2	66	49	92	0.39	c	Y	**0.39**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzene	15	38	23	287	0.00055	**20.2**	0.00015	12	5	13	1.1	c	Y	**1.1**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	51	310	259	312	0.00068	**6.4**	0.00048	54	16	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	42	310	268	312	0.00032	**3.86**	0.00014	54	13	99	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	43	307	264	309	0.00079	**3.6**	0.00025	11.4	14	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(k)fluoranthene	36	58	22	309	0.00028	**1.82**	0.00015	11.4	12	19	1.5	c	Y	**1.5**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
bis(2-Chloroethyl) ether	1	64	63	64	0.38	**0.38**	0.36	54	2	100	0.21	c	Y	**0.21**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Carbazole	6	6		54	0.005	**0.076**	0.36	54	11	11							**YES**	Y	**Retain as COPC** - >5% Detect and no RSL
Chromium	34	59	25	39	1.26	**12.6**	0.75	22	87	151	0.29	c	Y	**0.29**	**Y**	Y	**YES**	G	**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	14	309	295	312	0.00059	**2.7**	0.00028	54	4	99	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Dibromochloromethane	7	31	24	287	0.07	**4.8**	0.00017	12	2	11	0.68	c	Y	**0.68**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Dichloromethane (Methylene chloride)	44	45	1	287	0.00033	**16**	0.00015	12	15	16	11	c	Y	**11**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Ethyl benzene	51	51	2	287	0.0007	**18**	0.00004	11	18	18	5.4	c	Y	**5.4**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Indeno(1,2,3-cd)pyrene	30	308	280	312	0.00026	**2.2**	0.00016	54	10	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Iron	34	34	0	34	32.7	**25500**	1.2	28	100	100	55000	n	N	**5500**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Lead	405	405	0	489	1.38	**4430**	3.66	13.9	83	83	400	n	Y	**400**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	258	459	201	471	0.0183	**20.8**	0.01	1.9	55	97	5.6	n	Y	**0.56**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Naphthalene	71	78	7	312	0.00038	**28**	0.3	11.4	23	25	3.6	c	Y	**3.6**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
n-Butylbenzene	85	85	0	222	0.00036	**73.6**	0.00009	0.67	38	38	5.4	c	Y	**5.4**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > Surrogate RSL
n-Propylbenzene	68	69	1	222	0.007	**31.3**	0.00006	6.6	31	31	5.4	c	Y	**5.4**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > Surrogate RSL
Vanadium	33	33	0	37	1.22	**99.1**	13	22	89	89	390	n	N	**39**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Table 4B)																			
bis(2-Ethylhexyl) phthalate	27	29	2	64	0.036	**0.932**	0.36	**54**	42	45	35	c	N	**35**	N	Y	No	B	Drop - <10% DL > CRQL
Cobalt	10	24	14	34	0.11	**2.29**	0.12	**22**	29	71	23	n	N	**2.3**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Cadmium	9	11	2	39	0.00999	**1.1**	0.009	**13**	23	28	70	n	N	**7**	N	Y	No	B	Drop - <5% DL > RSL
Thallium [(3)]	7	33	26	34	0.01099	**0.05**	1.1	**220**	21	97	5.1	n	N	**0.51**	N	N	No	T	Drop - not used at site, withdrawn RSL
Chrysene	70	70	2	312	0.00037	**6.29**	0.00025	**54**	22	22	15	c	N	**15**	N	Y	No	B	Drop - <10% DL > CRQL
Dibenzofuran	11	16	5	75	0.00062	0.24	0.00059	**54**	15	21	78	n	N	**7.8**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
Dieldrin	5	18	13	38	0.00035	**0.0057**	0.00014	**0.22**	13	47	0.03	c	N	**0.03**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aldrin	3	4	1	38	0.0014	**0.0056**	0.00016	**0.11**	8	11	0.029	c	N	**0.029**	N	Y	No	B	Drop - <5% DL > RSL
alpha-BHC	3	4	1	38	0.00018	**0.0043**	0.00011	**0.11**	8	11	0.077	c	N	**0.077**	N	Y	No	B	Drop - <5% DL > RSL
delta-BHC	2	3	1	38	0.0005	**0.0038**	0.00007	**0.11**	5	8	0.077	c	N	**0.077**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
Tetrachloroethene	16	55	39	287	0.0005	**0.87**	0.00013	**12**	6	19	0.55	c	Y	**0.55**	Y	Y	No	B	Drop - >10 Level IV DLs < RSL
Toxaphene	1	16	15	38	0.44	**0.44**	0.0048	**11**	3	42	0.44	c	N	**0.44**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Nitrobenzene	2	17	15	64	0.17	**2.7**	0.36	**54**	3	27	4.8	c	N	**4.8**	N	Y	No	B	Drop - <10% DL > CRQL
Heptachlor epoxide	1	2	1	38	0.0057	**0.0057**	0.00008	**0.11**	3	5	0.053	c	N	**0.053**	N	Y	No	B	Drop - <5% DL > RSL
Selenium	1	2	1	39	0.9	**0.9**	0.26	**88**	3	5	390	n	N	**39**	N	Y	No	B	Drop - <5% DL > RSL
Trichloroethene	7	14	7	287	0.002	**0.96**	0.00014	**12**	2	5	2.8	c	N	**2.8**	N	Y	No	B	Drop - <5% DL > RSL
Bromomethane	5	29	24	285	0.002	**0.46**	0.00045	**12**	2	10	7.3	n	N	**0.73**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Hexachlorobenzene	1	64	63	64	0.24	**0.24**	0.36	**54**	2	100	0.3	c	N	**0.3**	N	Y	No	B	Drop - <10% DL > CRQL
4-Chloroaniline	1	8	7	64	1.4	**1.4**	0.36	**54**	2	13	2.4	c	N	**2.4**	N	Y	No	B	Drop - <10% DL > CRQL
2,4-Dinitrophenol	1	6	5	64	1.7	**1.7**	0.87	**110**	2	9	120	n	N	**12**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,6-Dinitrotoluene	1	6	5	64	3.6	**3.6**	0.36	**54**	2	9	61	n	N	**6.1**	N	Y	No	B	Drop - <10% DL > CRQL
4-Nitrophenol	1	5	4	64	2.1	**2.1**	0.87	**110**	2	8	120	n	N	**120**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
2,4,6-Trichlorophenol	1	3	2	64	0.6	**0.6**	0.36	**54**	2	5	44	c	N	**44**	N	Y	No	B	Drop - <10% DL > CRQL
4-Chlorophenyl-phenylether	1	3	2	64	0.32	**0.32**	0.36	**54**	2	5	310	n	N	**31**	N	Y	No	B	Drop - <10% DL > CRQL
Carbon tetrachloride	4	53	49	287	0.002	**2.7**	0.00008	**12**	1	18	0.61	c	Y	**0.61**	Y	Y	No	B	Drop - >10 Level IV DLs < RSL
Chloroform	4	50	46	287	0.005	**1.6**	0.00005	**12**	1	17	0.29	c	Y	**0.29**	Y	Y	No	B	Drop - >10 Level IV DLs < RSL

Table 4A
Soil Data Evaluation and COPC Identification - Quadrant 3

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL- adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
1,2-Dichloropropane	2	27	25	287	0.09	**0.13**	0.00006	**12**	1	9	0.89	c	N	**0.89**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Bromodichloromethane	1	49	48	287	0.0005	**0.0005**	0.00004	**12**	0	17	0.27	c	N	**0.27**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,1,2-Trichloroethane	1	26	25	287	0.05	**0.05**	0.00009	**12**	0	9	1.1	c	N	**1.1**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1221	1	339	338	399	0.042	**0.042**	0.0017	**418**	0	85	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1248	1	335	334	399	0.016	**0.016**	0.0017	**418**	0	84	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
2,4-Dinitrotoluene	0	11	11	64			0.36	**54**	0	17	1.6	c	N	**1.6**	N	Y	No	B	Drop - <10% DL > CRQL
Benzo(b/k)fluoranthene	0	3	3	3			10	**54**	0	100	0.15	c	N	**0.15**	N	Y	No	B	Drop - All ND in Pre-Removal Samples
N-Nitroso-di-n-propylamine	0	64	64	64			0.36	**54**	0	100	0.069	c	N	**0.069**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1232	0	335	335	399			0.0017	**418**	0	84	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1242	0	334	334	399			0.0017	**418**	0	84	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2-Dibromo-3-chloropropane	0	8	8	20			0.00083	**0.06**	0	40	0.0054	c	N	**0.0054**	N	Y	No	B	Drop - <10% DL > CRQL
2-Nitroaniline	0	23	23	64			0.366	**54**	0	36	610	n	N	**61**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Vinyl chloride	0	88	88	285			0.00006	**12**	0	31	0.06	c	N	**0.06**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2,3-Trichloropropane	0	3	3	13			0.00028	**12**	0	23	0.005	c	N	**0.005**	N	Y	No	B	Drop - All ND in Pre-Removal Samples
Pentachlorophenol	0	61	61	64			0.87	**110**	0	95	0.89	c	N	**0.89**	N	Y	No	B	Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	0	12	12	64			0.36	**54**	0	19	1.1	c	N	**1.1**	N	Y	No	B	Drop - <10% DL > CRQL
1,1,1,2-Tetrachloroethane	0	2	2	13			0.0002	**12**	0	15	1.9	c	N	**1.9**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,1-Dichloropropene	0	2	2	13			0.00016	**12**	0	15	1.7	c	N	**1.7**	N	Y	No	B	Retain as Qualatative COPC
2,2-Dichloropropane	0	2	2	13			0.00011	12	0	15	1.7	c	N	**1.7**	N	Y	No	B	Drop - <10% DL > CRQL
Bromochloromethane	0	2	2	13			0.00027	**12**	0	15	0.27	c	N	**0.27**	N	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
1,2-Dichloroethane	0	40	40	287			0.00005	**12**	0	14	0.43	c	N	**0.43**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2-Dibromoethane	0	2	2	20			0.0002	**0.06**	0	10	0.034	c	N	**0.034**	N	Y	No	B	Drop - <10% DL > CRQL
Hexachlorobutadiene	0	5	5	72			0.00018	**54**	0	7	6.2	c	N	**6.2**	N	Y	No	B	Drop - <10% DL > CRQL
2-Nitrophenol	0	3	3	64			0.36	**54**	0	5	120	n	N	**120**	N	Y	No	B	Drop - <10% DL > CRQL
1,2,4-Trichlorobenzene	0	2	2	74			0.00024	**54**	0	3	22	c	N	**22**	N	Y	No	B	Drop - <5% DL > RSL
2-Hexanone	0	2	2	74			0.00083	**30**	0	3	210	n	N	**21**	N	Y	No	B	Drop - <10% DL > CRQL
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
sec-Butylbenzene	80	80		223	0.0024	**53.7**	0.00006	6.6	36	36	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Phenanthrene	91	91		312	0.0025	**49.8**	0.00075	54	29	29	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
tert-Butylbenzene	60	60		222	0.00081	**33.6**	0.00005	6.6	27	27	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	67	67		223	0.00017	**53.2**	0.00008	2.8	30	30	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endrin ketone	9	9		38	0.0011	**0.31**	0.00014	0.22	24	24	18	n	N	**1.8**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	5	5		28	0.001	**0.018**	0.00009	0.11	18	18	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	42	42		312	0.00098	**4.56**	0.00064	54	13	13	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan II	4	4		38	0.00016	**0.0025**	0.00014	0.22	11	11	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endrin aldehyde	3	3		38	0.00033	**0.05**	0.00012	0.22	8	8	18	n	N	**1.8**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	19	19		312	0.00019	**9.72**	0.00024	54	6	6	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan I	2	2		38	0.00036	**0.0026**	0.00006	0.11	5	5	370	n	N	**37**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
alpha-Chlordane	1	1		28	0.00041	**0.00041**	0.0001	0.11	4	4	1.6	c	N	**1.6**	N	N	No	G	Drop - Max Detect and DL < Surrogate RSL
3/4-Methylphenol	1	1		35	0.84	**0.84**	0.36	54	3	3	3100	n	N	**310**	N	N	No	C	Drop - Max Detect and DL < Surrogate RSL
Endosulfan sulfate	1	1		38	0.004	**0.004**	0.00011	0.22	3	3	370	n	N	**37**	N	N	No	C	Drop - Max Detect and DL < Surrogate RSL
1,3-Dichlorobenzene	3	3		280	0.69	**13.9**	0.00007	12	1	1	1900	n	N	**190**	N	N	No	C	Drop - Max Detect and DL < Surrogate RSL
trans-1,3-Dichloropropene	1	10	9	287	0.0005	**0.0005**	0.00011	12	0	3	1.7	c	N	**1.7**	N	Y	No	C, B	Drop - Max Detect and <5% DL < Surrogate RSL
3-Nitroaniline	0	0		64			0.37	54	0	0	610	n	N	**61**	N	N	No	B	Drop - Max Detect and DL < Surrogate RSL
cis-1,3-Dichloropropene	0	9	9	287			0.00003	12	0	3	1.7	c	N	**1.7**	N	Y	No	C	Drop - No Detects and <5% DL > Surrogate RSL
Constituents Screened Out on Basis of Low # Records																			
Tellurium	0	0		1			110	110		0							No	A	Drop - No RSL and less than 10 records sitewide
Titanium	1	1		1	410	410			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Yttrium	0	0		1			22	22		0							No	A	Drop - No RSL and less than 10 records sitewide
Constituents Screened Out on Basis of Low Frequency of Detection																			
4-Chloro-3-methylphenol	2	2		64	0.16	**8.4**	0.36	**54**	3	3	6100	n	N	**610**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Di-n-octylphthalate	2	2		64	0.013	0.017	0.36	**54**	3	3							No	F	Drop - <5% Detects and No RSL
Isophorone	2	2		64	0.068	**7.8**	0.36	**54**	3	3	510	c	N	**510**	N	N	No	C	Drop - <5% Detects and All DL < RSL
beta-BHC	1	1		38	0.003	**0.003**	0.00018	**0.11**	3	3	0.27	c	N	**0.27**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2-Chloroethyl vinyl ether	5	5		211	0.16	1.1	0.05	**6.6**	2	2							No	F	Drop - <5% Detects and No RSL
Chloromethane	5	5		285	0.06	**0.54**	0.00006	**12**	2	2	120	c	N	**120**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2,2'-Oxybis(1-Chloropropane)	1	1		61	0.042	0.042	0.36	**11.4**	2	2							No	F	Drop - <5% Detects and No RSL
2,4-Dimethylphenol	1	1		64	3.8	**3.8**	0.36	**54**	2	2	1200	n	N	**120**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2-Methylphenol	1	1		64	0.56	**0.56**	0.36	**54**	2	2	3100	n	N	**310**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Dimethylphthalate	1	1		64	0.43	0.43	0.36	**54**	2	2							No	F	Drop - <5% Detects and No RSL
N-Nitrosodiphenylamine/Diphenylamine	1	1		64	1.3	**1.3**	0.36	**54**	2	2	99	c	N	**99**	N	N	No	C	Drop - <5% Detects and All DL < RSL

Table 4A
Soil Data Evaluation and COPC Identification - Quadrant 3

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL- adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Phenol	1	1		64	0.24	**0.24**	0.36	**54**	2	2	18000	n	N	**1800**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Bromoform	5	5		287	0.1	**0.32**	0.00027	**12**	2	2	61	c	N	**61**	N	N	No	C	Drop - <5% Detects and All DL < RSL
1,2-Dichlorobenzene	3	3		285	0.71	**1.5**	0.00006	**12**	1	1	1900	n	N	**190**	N	N	No	C	Drop - <5% Detects and All DL < RSL
Chlorobenzene	2	2		287	0.0007	**1.4**	0.00005	**12**	1	1	290	n	N	**29**	N	N	No	C	Drop - <5% Detects and All DL < RSL
1,1,1-Trichloroethane	1	1		287	0.09	**0.09**	0.00016	**12**	0	0	8700	n	N	**870**	N	N	No	C	Drop - <5% Detects and All DL < RSL
2,4-Dichlorophenol	0	2	2	64			0.36	**54**	0	3	180	n	N	**18**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
2-Chlorophenol	0	2	2	64			0.36	**54**	0	3	390	n	N	**39**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
4-Nitroaniline	0	2	2	64			0.366	**54**	0	3	24	c	N	**24**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
bis(2-Chloroethoxy) methane	0	2	2	64			0.36	**54**	0	3	180	n	N	**18**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
Hexachlorocyclopentadiene	0	2	2	64			0.36	**54**	0	3	370	n	N	**37**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
Hexachloroethane	0	2	2	64			0.36	**54**	0	3	35	c	N	**35**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1-Dichloroethane	0	3	3	287			0.00005	**12**	0	1	3.3	c	N	**3.3**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
trans-1,2-Dichloroethene	0	1	1	224			0.00005	**12**	0	0	150	n	N	**15**	N	N	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1-Biphenylarsenic	0	0		12			0.33	**0.66**	0	0							No	F	Drop - No Detects and No RSL
1,1-Dichloroethene	0	0		287			0.00007	**12**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichlorobenzene	0	0		10			0.00015	0.05999	0	0	49	n	N	**4.9**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
1,3-Dichloropropane	0	0		13			0.00006	**12**	0	0	1.7	c	N	**1.7**	N	Y	No	C	Drop - No Detects and All DL < RSL
2,2'-Chloroisopropylether	0	0		3			10	**54**	0	0							No	C	Drop - No Detects and All DL < RSL
2,3,4,6-Tetrachlorophenol	0	0		3			10	**54**	0	0	1800	n	N	**180**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,5-Trichlorophenol	0	0		64			0.366	**54**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloronaphthalene	0	0		64			0.36	**54**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorotoluene	0	0		13			0.00005	**12**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		64			0.36	**54**	0	0							No	F	Drop - No Detects and No RSL
4-Chlorotoluene	0	0		13			0.00009	**12**	0	0	5500	n	N	**550**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methyl-2-pentanone	0	0		74			0.00026	**30**	0	0	5300	n	N	**530**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		29			0.366	**11.4**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
Aroclor-1262	0	0		8			0.00209	**0.014**	0	0	0.22	c	N	**0.22**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromobenzene	0	0	0	13			0.00009	**12**	0	0	300	n	N	**30**	N	N	No	C	Drop - No Detects and All DL < RSL
Chlordane	0	0		10			0.00174	**0.0197**	0	0	1.6	c	N	**1.6**	N	N	No	C	Drop - No Detects and All DL < RSL
Chloroethane	0	0		285			0.00032	**12**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		63			0.005	**2.7**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		224			0.00008	**12**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromomethane	0	0		13			0.0002	**12**	0	0	25	n	N	**2.5**	N	Y	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		221			0.00007	**6.6**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		64			0.36	**54**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Fluoride	0	0		10			0.254	**2.51**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
Molybdenum	0	0		1			22	**22**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
Tin	0	0		1			55	**55**	0	0	47000	n	N	**4700**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		222			0.00005	**6.6**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of N-flag (Tentatively Identified Compound)																			
Dimethylethyl Benzene Methanol	1	1		1	20	20			100	100							No	D	Drop - TIC
Dimethylnaphthalene (unspecified)	1	1		1	200	200			100	100							No	D	Drop - TIC
Ethylmethylbenzene (unspecified)	1	1		1	40	40			100	100							No	D	Drop - TIC
Methylphenanthrene (unspecified)	1	1		1	80	80			100	100							No	D	Drop - TIC
Nitrotricyclodecane (unspecified)	1	1		1	10	10			100	100							No	D	Drop - TIC
Trichlorofluoroethane (unspecified)	0	0		2			11	12	0	0							No	D	Drop - TIC
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	30	30		34	27.5	330000	1100	1400	88	88							No	E	Drop - Essential Nutrient
Magnesium	25	25		34	15.9	21000	1100	1400	74	74							No	E	Drop - Essential Nutrient
Potassium	19	19		34	13.8	538	4.88	4400	56	56							No	E	Drop - Essential Nutrient
Sodium	14	14		34	7.33	3210	3.78	1400	41	41							No	E	Drop - Essential Nutrient
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
1,3,5-Trimethylbenzene	77	77		223	0.0022	**58.9**	0.00004	2.8	35	35	780	n	N	**78**	N	N	YES	Y	Drop - Max Detect and DL < RSL
2-Butanone (MEK)	15	15		74	0.0027	**0.52**	0.0017	120	20	20	28000	n	N	**2800**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDD	3	3		38	0.00022	**0.0026**	0.00011	0.22	8	8	2	c	N	**2**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDE	2	2		38	0.0013	**0.0037**	0.00011	0.22	5	5	1.4	c	N	**1.4**	N	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDT	8	8		38	0.00051	**0.057**	0.00017	0.22	21	21	1.7	c	N	**1.7**	N	N	No	G	Drop - Max Detect and DL < RSL
Acenaphthene	15	15		311	0.00011	**4.86**	0.00023	54	5	5	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Acetone	36	36		74	0.007	**2.2**	0.011	120	49	49	61000	n	N	**6100**	N	N	No	G	Drop - Max Detect and DL < RSL
Anthracene	46	46		312	0.00026	**9.47**	0.00047	54	15	15	17000	n	N	**1700**	N	N	No	G	Drop - Max Detect and DL < RSL
Barium	72	72		165	1.1	**720**	44	126	44	44	15000	n	N	**1500**	N	N	No	G	Drop - Max Detect and DL < RSL

Table 4A
Soil Data Evaluation and COPC Identification - Quadrant 3

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Beryllium	10	10		34	0.04399	**0.13**	0.10199	11	29	29	160	n	N	**16**	N	N	No	G	Drop - Max Detect and DL < RSL
Butylbenzylphthalate	10	10		64	0.03299	**6.4**	0.36	54	16	16	260	c	N	**260**	N	N	No	G	Drop - Max Detect and DL < RSL
Carbon disulfide	7	7		74	0.00008	**0.005**	0.00005	30	9	9	820	n	N	**82**	N	N	No	G	Drop - Max Detect and DL < RSL
Copper	33	33		37	0.31	**167**	0.611	22	89	89	3100	n	N	**310**	N	N	No	G	Drop - Max Detect and DL < RSL
Cyanide	4	4		24	0.034	**0.34**	0.026	2.2	17	17	1600	n	N	**160**	N	N	No	G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	16	16		64	0.034	**46.1**	0.37	54	25	25	6100	n	N	**610**	N	N	No	G	Drop - Max Detect and DL < RSL
Endrin	4	4		38	0.0003	**0.044**	0.00009	0.22	11	11	18	n	N	**1.8**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluoranthene	49	49		312	0.0014	**6.08**	0.00061	54	16	16	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
Fluorene	15	15		312	0.00011	**5.27**	0.0005	54	5	5	2300	n	N	**230**	N	N	No	G	Drop - Max Detect and DL < RSL
gamma-BHC (Lindane)	4	4		38	0.00059	**0.016**	0.00008	0.11	11	11	0.52	c	N	**0.52**	N	N	No	G	Drop - Max Detect and DL < RSL
Heptachlor	3	3		38	0.00009	**0.022**	0	0.11	8	8	0.11	c	N	**0.11**	N	N	No	G	Drop - Max Detect and DL < RSL
Isopropylbenzene	51	51		222	0.0062	**86.2**	0.00003	3.1	23	23	2100	n	N	**210**	N	N	No	G	Drop - Max Detect and DL < RSL
m&p-Xylene	73	73		223	0.0016	**20.6**	0.00009	12	33	33	3400	n	N	**340**	N	N	No	G	Drop - Max Detect and DL < RSL
Manganese	33	33		34	2.3	**127**	5.1	5.1	97	97	1800	n	N	**180**	N	N	No	G	Drop - Max Detect and DL < RSL
Methoxychlor	9	9		38	0.001	**0.018**	0.00019	1.1	24	24	310	n	N	**31**	N	N	No	G	Drop - Max Detect and DL < RSL
Methyl mercury	7	7		7	0.00014	**0.0103**			100	100	7.8	n	N	**0.78**	N	N	No	G	Drop - Max Detect and DL < RSL
Nickel	29	29		37	0.36	**39.9**	0.855	44	78	78	1500	n	N	**150**	N	N	No	G	Drop - Max Detect and DL < RSL
o-Xylene	41	41		224	0.00047	**24**	0.00006	11	18	18	3800	n	N	**380**	N	N	No	G	Drop - Max Detect and DL < RSL
Pyrene	84	84		312	0.00088	**15.1**	0.00037	54	27	27	1700	n	N	**170**	N	N	No	G	Drop - Max Detect and DL < RSL
Silver	6	6		39	0.004	**0.58**	0.004	22	15	15	390	n	N	**39**	N	N	No	G	Drop - Max Detect and DL < RSL
Styrene	39	39		287	0.0005	**36**	0.00008	12	14	14	6300	n	N	**630**	N	N	No	G	Drop - Max Detect and DL < RSL
Toluene	41	41		287	0.01099	**20.2**	1.1	220	14	14	5000	n	N	**500**	N	N	No	G	Drop - Max Detect and DL < RSL
Xylenes (unspecified)	13	13		64	0.00017	**8.1**	0.00004	12	20	20	630	n	N	**63**	N	N	No	G	Drop - Max Detect and DL < RSL
Strontium	1	1		1	0.0004	**56**	0.005	2.7	100	100	47000	n	N	**4700**	N	N	No	G, A	Drop - Max Detect and DL < RSL
Zinc	34	34		37	0.68	**129**	5.3	22	92	92	23000	n	N	**2300**	N	N	No	G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs (except for thallium).
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.
(3) RSL for thallium taken from May 2009 RSL Table.
Thallium RfD subsequently withdrawn from IRIS.

Highlighted Cells Key:
Frequency Detection < 5%
Constituent without RSL - Surrogate Chemical Identified

COPC screening code (from HHBRA):

A	Low record count <10 site wide
B	DLs above adjusted residential RSL
C	Less than 5% detection frequency including DLs above adjusted RSL
D	Parameter with N flag
E	Essential nutrient
F	Less than 5% detection frequency and no RSL
G	Max detect and max DL below adjusted residential RSL
T	Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
Y	Retain as COPC

Table 4B
COPC Screening Refinements for "B" Flagged Parameters - Quadrant 3

Parameter	CRQL Medium[(1)] (mg/kg)	Residential RSL [(2)] (mg/kg)	# of Records	# DL above CRQL	% DL above CRQL [(3)]	# DL above RSL	% DL above RSL [(4)]	# Level 4 Data Records	# Level 4 Data DL below RSL [(5)]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
1,1,2,2-Tetrachloroethane	0.25	0.56	287	52	18	40	14	74	64			Drop - >10 Level IV DLs < RSL
1,1,2-Trichloroethane	0.25	1.1	287	52	18	25	9	74	64			Drop - >10 Level IV DLs < RSL
1,1-Dichloropropene	0.25	1.7	13	2	15	2	15	11	9	100	1	Retain as Qualatative COPC
1,2,3-Trichloropropane	0.25	0.005	13	2	15	5	38	11	8	100	0	Drop - All ND in Pre-Removal Samples
1,2,4-Trichlorobenzene	0.25	22	74	64	86	2	3					Drop - <5% DL > RSL
1,2-Dibromo-3-chloropropane	0.25	0.0056	20	0	0	8	40					Drop - <10% DL > CRQL
1,2-Dibromoethane	0.25	0.034	20	0	0	2	10					Drop - <10% DL > CRQL
1,2-Dichloroethane	0.25	0.45	287	52	18	40	14	74	64			Drop - >10 Level IV DLs < RSL
1,2-Dichloropropane	0.25	0.89	287	52	18	25	9	74	64			Drop - >10 Level IV DLs < RSL
2-Hexanone	0.5	21	74	10	14	2	3					Drop - <10% DL > CRQL
2,2-Dichloropropane	0.25	1.7	13	2	15	2	15					Drop - <10% DL > CRQL
2,4,6-Trichlorophenol	5	44	64	5	8	2	3					Drop - <10% DL > CRQL
2,4-Dinitrophenol	10	12	64	9	14	5	8	64	59			Drop - >10 Level IV DLs < RSL
2,4-Dinitrotoluene	5	1.6	64	5	8	11	17					Drop - <10% DL > CRQL
2,6-Dinitrotoluene	5	6.1	64	5	8	5	8					Drop - <10% DL > CRQL
2-Nitroaniline	10	1.8	64	5	8	23	36	64	41			Drop - >10 Level IV DLs < RSL
2-Nitrophenol	5	12	64	5	8	3	5					Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	5	1.1	64	5	8	12	19					Drop - <10% DL > CRQL
3-Nitroaniline	10	61	64	5	8	0	0					Drop - <10% DL > CRQL
4-Chloroaniline	5	2.4	64	5	8	7	11					Drop - <10% DL > CRQL
4-Chlorophenyl-phenylether	5	31	64	5	8	2	3					Drop - <10% DL > CRQL
4-Nitrophenol	10	12	64	9	14	4	6	64	60			Drop - >10 Level IV DLs < RSL
Aldrin	0.0017	0.029	38	27	71	1	3					Drop - <5% DL > RSL
alpha-BHC	0.0017	0.077	38	28	74	1	3					Drop - <5% DL > RSL
Aroclor-1221	0.033	0.14	399	387	97	338	85	81	61			Drop - >10 Level IV DLs < RSL
Aroclor-1232	0.033	0.14	399	386	97	335	84	81	64			Drop - >10 Level IV DLs < RSL
Aroclor-1242	0.033	0.22	399	386	97	334	84	81	65			Drop - >10 Level IV DLs < RSL
Aroclor-1248	0.033	0.22	399	385	96	334	84	81	65			Drop - >10 Level IV DLs < RSL
Benzo(b/k)fluoranthene	5	0.15	3	3	100	3	100	3	0	4	0	Drop - All ND in Pre-Removal Samples
bis(2-Ethylhexyl) phthalate	5	35	64	5	8	2	3					Drop - <10% DL > CRQL
Bromobenzene		30	13			0	0					Drop - <5% DL > RSL
Bromochloromethane	0.25	0.28	13	2	15	0	2					Drop - <5% DL > RSL
Bromodichloromethane	0.25	0.27	287	52	18	48	17	74	64			Drop - >10 Level IV DLs < RSL
Bromomethane	0.25	0.73	285	51	18	24	8	74	65			Drop - >10 Level IV DLs < RSL
Cadmium	5	7	39	2	5	2	5					Drop - <5% DL > RSL
Carbon tetrachloride	0.25	0.61	287	51	18	35	12	74	65			Drop - >10 Level IV DLs < RSL
Chloroform	0.25	0.29	287	52	18	46	16	74	64			Drop - >10 Level IV DLs < RSL
Chrysene	5	15	312	8	3	2	1					Drop - <10% DL > CRQL
Cobalt	5	2.3	34	13	38	14	41	34	20			Drop - >10 Level IV DLs < RSL
delta-BHC	0.0017	0.077	38	29	76	1	3	38	37			Drop - >10 Level IV DLs < RSL
Dibenzofuran	5	7.8	75	5	7	5	7	75	70			Drop - >10 Level IV DLs < RSL
Dieldrin	0.0033	0.03	38	28	74	13	34	38	25			Drop - >10 Level IV DLs < RSL

Table 4B
COPC Screening Refinements for "B" Flagged Parameters - Quadrant 3

Parameter	CRQL Medium[(1)] (mg/kg)	Residential RSL [(2)] (mg/kg)	# of Records	# DL above CRQL	% DL above CRQL [(3)]	# DL above RSL	% DL above RSL [(4)]	# Level 4 Data Records	# Level 4 Data DL below RSL [(5)]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
Heptachlor epoxide	0.0017	0.053	38	30	79	1	3					Drop - <5% DL > RSL
Hexachlorobenzene	5	0.3	64	5	8	63	98					Drop - <10% DL > CRQL
Hexachlorobutadiene	5	6.2	72	5	7	5	7					Drop - <10% DL > CRQL
N-Nitroso-di-n-propylamine	5	0.069	64	5	8	64	100					Drop - <10% DL > CRQL
Nitrobenzene	5	4.8	64	5	8	5	8					Drop - <10% DL > CRQL
Pentachlorophenol	10	0.89	64	0	0	61	95					Drop - <10% DL > CRQL
Selenium	3.5	39	39	2	5	1	3					Drop - <5% DL > RSL
Tetrachloroethene	0.25	0.55	287	52	18	40	14	74	64			Drop - >10 Level IV DLs < RSL
Thallium [(6)]	2.5	0.51	34	15	44	26	76	34	8			Drop - Not used at site
Toxaphene	0.017	0.44	38	33	87	15	39	38	23			Drop - >10 Level IV DLs < RSL
Trichloroethene	0.25	2.8	287	52	18	8	3					Drop - <5% DL > RSL
Vinyl chloride	0.25	0.06	285	52	18	88	31	74	63			Drop - >10 Level IV DLs < RSL

Notes:
(1) Values are the current EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL).
(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1.
(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQLs.
(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSLs.
(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL.
(6) RSL for thallium taken from May 2009 RSL Table; the RfD was subsequently withdrawn from IRIS.

Table 5A
Soil Data Evaluation and COPC Identification - Quadrant 4

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL-adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Identified as COPC																			
1,2,4-Trimethylbenzene	24	24	0	167	0.00016	**15.4**	0.00011	0.07	14	14	62	n	N	**6.2**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
1-Methyl Naphthalene	19	19	0	145	0.41999	**26.9**	0.3	1.7	13	13	22	c	Y	**22**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aluminum	35	35	0	35	462	**30200**	0.7	133	100	100	77000	n	N	**7700**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Antimony	25	32	7	39	0.023	**22**	1.1	40.0	64	82	31	n	N	**3.1**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1254	26	285	259	364	0.0032	**9.2**	0.0017	110	7	78	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1260	4	265	261	364	25	**160**	0.0021	12	1	73	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Aroclor-1268	111	325	214	354	0.0036	**240**	0.0021	3.36	31	92	0.22	c	Y	**0.22**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Arsenic	18	32	14	38	0.25999	**15.7**	0.18	6.0	47	84	0.39	c	Y	**0.39**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)anthracene	44	205	161	207	0.00068	**20**	0.0005	6.8	21	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(a)pyrene	37	205	168	207	0.00052	**16**	0.0001	6.8	18	99	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(b)fluoranthene	34	195	161	197	0.00064	**13**	0.0003	6.8	17	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Benzo(k)fluoranthene	27	30	3	197	0.00031	**4.08**	0.0002	6.8	14	15	1.5	c	Y	**1.5**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Chloroform	10	12	2	187	0.0012	**0.8**	0.0001	1.3	5	6	0.29	c	Y	**0.29**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Chromium	37	38	1	38	0.56999	**54**	2.5	2.5	97	100	0.29	c	Y	**0.29**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Chrysene	45	45	0	207	0.00041	**30**	0.0003	6.8	22	22	15	c	Y	**15**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Cobalt	18	25	7	35	0.035	**2.9**	0.43	33.3	51	71	23	n	N	**2.3**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Dibenzo(a,h)anthracene	23	203	180	207	0.0004	**5.5**	0.0003	6.8	11	98	0.015	c	Y	**0.015**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Indeno(1,2,3-cd)pyrene	28	204	176	207	0.00028	**6**	0.0002	6.8	14	99	0.15	c	Y	**0.15**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Iron	35	35	0	35	194	**35900**	1.7	66.6	100	100	55000	n	N	**5500**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Lead	261	261	0	325	1.14	**1200**	5	20	80	80	400	n	Y	**400**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Manganese	34	34	0	35	2.27	**481**	3.8	3.8	97	97	1800	n	N	**180**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Mercury	250	337	87	388	0.0076	**142**	0.052	0.84	64	87	5.6	n	Y	**0.56**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Naphthalene	36	39	3	207	0.00037	**8.04**	0.3	6.8	17	19	3.6	c	Y	**3.6**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
n-Butylbenzene	30	30	0	167	0.07	**50.9**	0.00009	0.07	18	18	5.4	c	Y	**5.4**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > Surrogate RSL
Tetrachloroethene	6	7	1	187	0.00057	**1.8**	0.0001	1.3	3	4	0.55	c	Y	**0.55**	**Y**	Y	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Vanadium	25	25	0	39	0.56	**79.8**	2	33.3	64	64	390	n	N	**39**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Zinc	30	30	0	39	0.94999	**3960**	0.57	20.0	77	77	23000	n	N	**2300**	**Y**	N	**YES**	Y	**Retain as COPC** - Max Detect > RSL
Constituents Where Only Non-detect Values Exceed Adjusted RSL Values - Carry Forward to Screening Refinements (See Table 5B)																			
Thallium [3]	17	35	18	35	0.00899	**0.048**	1.5	**180**	49	100	5.1	n	N	**0.5**	N	N	No	T	Drop - not used at site, withdrawn RSL
4,4'-DDT	11	12	1	37	0.00015	**0.37**	0.0002	**4.8**	30	32	1.7	c	N	**1.7**	N	Y	No	B	Drop - <5% DL > RSL
Aldrin	4	6	2	37	0.00012	**0.011**	0.0002	**1.4**	11	16	0.029	c	N	**0.029**	N	Y	No	B	Drop - <5% DL > RSL
Endrin	4	5	1	37	0.00016	**0.011**	0.00009	**4**	11	14	18	n	N	**1.8**	N	Y	No	B	Drop - <5% DL > RSL
Benzo(b/k)fluoranthene	1	10	9	10	0.15	**0.15**	0.35	**6.8**	10	100	0.15	c	N	**0.15**	N	Y	No	B	Drop - <10% DL > CRQL
Endrin ketone	3	4	1	37	0.00073	**1.7**	0.00039	**2**	8	11	18	n	N	**1.8**	N	Y	No	B	Drop - <5% DL > Surrogate RSL
Hexachlorobenzene	2	26	24	26	0.038	**0.093**	0.35	**6.8**	8	100	0.3	c	N	**0.3**	N	Y	No	B	Drop - <10% DL > CRQL
Dieldrin	1	6	5	37	0.00209	**0.00209**	0.00014	**1.9**	3	16	0.03	c	N	**0.03**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
alpha-BHC	1	2	1	37	0.0015	**0.0015**	0.00011	**0.41**	3	5	0.077	c	N	**0.077**	N	Y	No	B	Drop - <5% DL > RSL
beta-BHC	1	2	1	37	0.00054	**0.00054**	0.00018	**0.82**	3	5	0.27	c	N	**0.27**	N	Y	No	B	Drop - <5% DL > RSL
delta-BHC	1	2	1	37	0.0026	**0.0026**	0.00007	**0.82**	3	5	0.077	c	N	**0.077**	**N**	Y	No	B	Drop - >10 Level IV DLs < Surrogate RSL
Heptachlor	1	2	1	37	0.0052	**0.0052**	0.00012	**0.82**	3	5	0.11	c	N	**0.11**	N	Y	No	B	Drop - <5% DL > RSL
Heptachlor epoxide	1	2	1	37	0.00051	**0.00051**	0.00008	**0.82**	3	5	0.053	c	N	**0.053**	N	Y	No	B	Drop - <5% DL > RSL
2,4-Dinitrotoluene	0	23	23	26			0.35	**6.8**	0	88	1.6	c	N	**1.6**	N	Y	No	B	Drop - <10% DL > CRQL
4,6-Dinitro-2-methylphenol	0	23	23	23			0.86	**14**	0	100	4.9	n	N	**0.49**	N	Y	No	B	Drop - <10% DL > CRQL
Benzidine	0	7	7	7			3.19	**9.57**	0	100	0.0005	c	N	**0.0005**	N	Y	**YES**	B, Q, A	**Retain as Qualatative COPC**
bis(2-Chloroethyl) ether	0	26	26	26			0.35	**6.8**	0	100	0.21	c	N	**0.21**	N	Y	No	B	Drop - <10% DL > CRQL
Chlordane	0	1	1	1			10	**10**	0	100	1.6	c	N	**1.6**	N	Y	**YES**	B, Q	**Retain as Qualatative COPC**
N-Nitrosodimethylamine	0	7	7	7			0.399	**1.2**	0	100	0.0023	c	N	**0.0023**	N	Y	**YES**	B, Q, A	**Retain as Qualatative COPC**
N-Nitroso-di-n-propylamine	0	26	26	26			0.35	**6.8**	0	100	0.069	c	N	**0.069**	N	Y	No	B	Drop - <10% DL > CRQL
Aroclor-1221	0	273	273	364			0.0017	**14.2**	0	75	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1232	0	269	269	364			0.0017	**12**	0	74	0.14	c	N	**0.14**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1242	0	265	265	364			0.0017	**12**	0	73	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1248	0	264	264	364			0.0017	**12**	0	73	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Aroclor-1016	0	259	259	364			0.0017	**12**	0	71	3.9	n	N	**0.39**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Toxaphene	0	13	13	37			0.0051	**180**	0	35	0.44	c	N	**0.44**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
1,2-Dibromo-3-chloropropane	0	8	8	25			0.00085	**0.07**	0	32	0.0054	c	N	**0.0054**	N	Y	No	B	Drop - <10% DL > CRQL
1,2-Dibromoethane	0	8	8	25			0.0002	**0.07**	0	32	0.034	c	N	**0.034**	N	Y	No	B	Drop - <10% DL > CRQL
Nitrobenzene	0	6	6	26			0.35	**6.8**	0	23	4.8	c	N	**4.8**	N	Y	No	B	Drop - <10% DL > CRQL
2-Nitroaniline	0	5	5	26			0.399	**6.8**	0	19	610	n	N	**61**	N	Y	No	B	Drop - <10% DL > CRQL
3-Nitroaniline	0	5	5	26			0.399	**6.8**	0	19	610	n	N	**61**	N	N	No	B	Drop - <10% DL > CRQL
Vinyl chloride	0	19	19	179			0.00006	**1.3**	0	11	0.06	c	N	**0.06**	N	Y	No	B	Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	0	2	2	26			0.35	**6.8**	0	8	1.1	c	N	**1.1**	N	Y	No	B	Drop - <10% DL > CRQL
Pentachlorophenol	0	23	23	26			0.86	**14**	0	88	0.89	c	N	**0.89**	N	Y	No	B	Drop - <10% DL > CRQL

Table 5A
Soil Data Evaluation and COPC Identification - Quadrant 4

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [1] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[2] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL- adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Aroclor-1262	0	1	1	17			0.00209	**0.3**	0	6	0.22	c	N	**0.22**	N	Y	No	B	Drop - >10 Level IV DLs < RSL
Constituents Without Identified RSL Value - Surrogate Constituents Identified by EPA																			
Dibenzofuran	12	12		47	0.00048	**0.13**	0.00059	**6.8**	26	26	78	n	N	**7.8**	**N**	N	No	N	Drop - Max Detect and DL < Surrogate RSL
Phenanthrene	42	42		207	0.0008	**13.9**	0.00075	**6.8**	20	20	1700	n	N	**170**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Benzo(g,h,i)perylene	37	37		207	0.00083	**9.4**	0.00064	**6.8**	18	18	1700	n	N	**170**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan II	6	6		37	0.0011	**0.037**	0.00014	**2.3**	16	16	370	n	N	**37**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
sec-Butylbenzene	27	27		167	0.00052	**143**	0.00007	**0.07**	16	16	2100	n	N	**210**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
gamma-Chlordane	5	5		36	0.00013	**0.015**	0.00009	**0.04**	14	14	1.6	c	N	**1.6**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Endosulfan I	5	5		37	0.00008	**0.02**	0.00006	**0.82**	14	14	370	n	N	**37**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
n-Propylbenzene	20	20		167	0.00009	**5.1**	0.00006	**1.2**	12	12	5.4	c	N	**5.4**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
p-Isopropyltoluene	19	19		167	0.07	**133**	0.00009	**0.25**	11	11	5000	n	N	**500**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
tert-Butylbenzene	18	18		167	0.00025	**27.2**	0.00005	**0.29**	11	11	2100	n	N	**210**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
Acenaphthylene	15	15		207	0.0002	**0.81**	0.00024	**6.84**	7	7	1700	n	N	**170**	**N**	N	No	G	Drop - Max Detect and DL < Surrogate RSL
alpha-Chlordane	1	1		36	0.0034	**0.0034**	0.0001	**0.04**	3	3	1.6	c	N	**1.6**	**N**	N	No	C	Drop - Max Detect and DL < Surrogate RSL
Endrin aldehyde	1	1		36	0.00015	**0.00015**	0.00012	**0.079**	3	3	18	n	N	**1.8**	**N**	N	No	C	Drop - Max Detect and DL < Surrogate RSL
1,3-Dichlorobenzene	2	2		190	0.11999	**0.14**	0.00007	**1.3**	1	1	1900	n	N	**190**	**N**	N	No	C	Drop - Max Detect and DL < Surrogate RSL
4-Nitrophenol	0	1	1	26			0.86	**14**	0	4	120	n	N	**120**	N	Y	No	B, C	Drop - No Detects and <5% DL > Surrogate RSL
1,1-Dichloropropene	0	0		26			0.00017	**0.072**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2,2-Dichloropropane	0	0		26			0.00011	**0.072**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
2-Nitrophenol	0	0		26			0.35	**6.8**	0	0	120	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
3/4-Methylphenol	0	0		10			0.35	**6.8**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
4-Chlorophenyl-phenylether	0	0		26			0.35	**6.8**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Bromochloromethane	0	0		26			0.00027	**0.072**	0	0	0.27	c	N	**0.27**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
cis-1,3-Dichloropropene	0	0		187			0.00003	**1.3**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Endosulfan sulfate	0	0		37			0.00011	**0.82**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
trans-1,3-Dichloropropene	0	0		187			0.00011	**1.3**	0	0	1.7	c	N	**1.7**	N	N	No	C	Drop - No Detects and All DL < Surrogate RSL
Constituents Screened Out on Basis of Low # Records																			
Hexadecenoic Acid	1	1		1	0.2	0.2			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Titanium	1	1		1	94	94			100	100							No	A	Drop - No RSL and less than 10 records sitewide
Yttrium	0	0		1			2	2		0							No	A	Drop - No RSL and less than 10 records sitewide
Constituents Screened Out on Basis of Low Frequency of Detection																			
Isophorone	1	1		26	0.037	**0.037**	0.35	**6.8**	4	4	510	c	N	**510**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Phenol	1	1		26	0.28	**0.28**	0.35	**6.8**	4	4	18000	n	N	**1800**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Bromomethane	7	9	2	179	0.09	**0.25999**	0.00046	**1.3**	4	5	7.3	n	N	**0.73**	**N**	Y	No	C	Drop - <5% Detects and <5% DLs > RSL
4,4'-DDD	1	1		37	0.0002	**0.0002**	0.00011	**1.6**	3	3	2	c	N	**2**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Carbon tetrachloride	4	7	3	187	0.0012	**0.17**	0.00008	**1.3**	2	4	0.61	c	N	**0.61**	**N**	Y	No	C	Drop - <5% Detects and <5% DLs > RSL
1,2-Dichlorobenzene	4	4		193	0.07999	**0.3**	0.00006	**1.3**	2	2	1900	n	N	**190**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Chloromethane	3	3		179	0.05	**0.20999**	0.00006	**1.3**	2	2	120	n	N	**12**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Benzene	3	5	2	187	0.00037	0.00093	0.00016	**1.3**	2	3	1.1	c	N	**1.1**	N	Y	No	C, B	Drop - <5% Detects and <5% DLs > RSL
Trichloroethene	4	4		187	0.002	**0.1**	0.00015	**1.3**	2	2	2.8	c	N	**2.8**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Chlorobenzene	3	3		187	0.083	**0.98**	0.00005	**1.3**	2	2	290	n	N	**29**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
Styrene	3	3		187	0.11999	**0.609**	0.00008	**1.3**	2	2	6300	n	N	**630**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
1,4-Dichlorobenzene	3	3		193	0.0002	**0.25**	0.00011	**1.3**	2	2	2.4	c	N	**2.4**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
o-Xylene	2	2		168	0.38999	**0.68199**	0.00006	**1.3**	1	1	3800	n	N	**380**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
trans-1,2-Dichloroethene	2	2		168	0.07	**0.07**	0.00005	**1.3**	1	1	150	n	N	**15**	**N**	N	No	C	Drop - <5% Detects and All DL < RSL
1,2-Dichloropropane	1	3	2	187	0.01	**0.01**	0.00007	**1.3**	1	2	0.89	c	N	**0.89**	**N**	Y	No	C, B	Drop - <5% Detects and <5% DLs > RSL
Dibromochloromethane	1	3	2	187	0.05	**0.05**	0.00018	**1.3**	1	2	0.68	c	N	**0.68**	**N**	Y	No	C, B	Drop - <5% Detects and <5% DLs > RSL
2,4-Dinitrophenol	0	1	1	26			0.86	**14**	0	4	120	n	N	**12**	N	Y	No	C	Drop - No Detects and <5% DLs > RSL
2,6-Dinitrotoluene	0	1	1	26			0.35	**6.8**	0	4	61	n	N	**6.1**	N	Y	No	C	Drop - No Detects and <5% DLs > RSL
4-Chloroaniline	0	1	1	26			0.35	**6.8**	0	4	2.4	c	N	**2.4**	N	Y	No	C	Drop - No Detects and <5% DLs > RSL
Hexachlorobutadiene	0	1	1	43			0.00019	**6.8**	0	2	6.2	c	N	**6.2**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
Bromodichloromethane	0	3	3	187			0.00004	**1.3**	0	2	0.27	c	N	**0.27**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1,2,2-Tetrachloroethane	0	2	2	187			0.00009	**1.3**	0	1	0.56	c	N	**0.56**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1,2-Trichloroethane	0	2	2	187			0.00009	**1.3**	0	1	1.1	c	N	**1.1**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,2-Dichloroethane	0	2	2	187			0.00005	**1.3**	0	1	0.43	c	N	**0.43**	N	Y	No	C, B	Drop - No Detects and <5% DLs > RSL
1,1,1,2-Tetrachloroethane	0	0		25			0.0002	**0.07**	0	0	1.9	c	N	**1.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1,1-Trichloroethane	0	0		187			0.00017	**1.3**	0	0	8700	n	N	**870**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Biphenylarsenic	0	0		6			0.33	**1.1**	0	0							No	F	Drop - No Detects and No RSL
1,1-Dichloroethane	0	0		187			0.00005	**1.3**	0	0	3.3	c	N	**3.3**	N	N	No	C	Drop - No Detects and All DL < RSL
1,1-Dichloroethene	0	0		187			0.00007	**1.3**	0	0	240	n	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,3-Trichlorobenzene	0	0		25			0.00016	**0.07**	0	0	49	n	N	**4.9**	N	N	No	C	Drop - No Detects and All DL < RSL
1,2,4-Trichlorobenzene	0	0		51			0.00024	**6.8**	0	0	22	c	N	**22**	N	N	No	C	Drop - No Detects and All DL < RSL
1,3-Dichloropropane	0	0		26			0.00006	**0.072**	0	0	1600	c	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL

Table 5A
Soil Data Evaluation and COPC Identification - Quadrant 4

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL- adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
2,2'-Chloroisopropylether	0	0		10			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
2,2'-Oxybis(1-Chloropropane)	0	0		16			0.35	**1.2**	0	0							No	F	Drop - No Detects and No RSL
2,3,4,6-Tetrachlorophenol	0	0		1			6.8	**6.8**	0	0	1800	n	N	**180**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,5-Trichlorophenol	0	0		26			0.399	**6.8**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4,6-Trichlorophenol	0	0		26			0.35	**6.8**	0	0	44	c	N	**44**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dichlorophenol	0	0		26			0.35	**6.8**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
2,4-Dimethylphenol	0	0		26			0.35	**6.8**	0	0	1200	n	N	**120**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chloroethyl vinyl ether	0	0		142			0.05	**1.3**	0	0							No	F	Drop - No Detects and No RSL
2-Chloronaphthalene	0	0		26			0.35	**6.8**	0	0	6300	n	N	**630**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorophenol	0	0		26			0.35	**6.8**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Chlorotoluene	0	0		26			0.00005	**0.072**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Hexanone	0	0		37			0.00085	**0.18**	0	0	210	n	N	**21**	N	N	No	C	Drop - No Detects and All DL < RSL
2-Methylphenol	0	0		26			0.35	**6.8**	0	0	3100	n	N	**310**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Bromophenyl-phenylether	0	0		26			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
4-Chloro-3-methylphenol	0	0		26			0.35	**6.8**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Chlorotoluene	0	0		26			0.0001	**0.072**	0	0	5500	n	N	**550**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methyl-2-pentanone	0	0		37			0.00026	**0.18**	0	0	5300	n	N	**530**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Methylphenol	0	0		16			0.35	**1.2**	0	0	310	n	N	**31**	N	N	No	C	Drop - No Detects and All DL < RSL
4-Nitroaniline	0	0		26			0.399	**6.8**	0	0	24	c	N	**24**	N	N	No	C	Drop - No Detects and All DL < RSL
Aniline	0	0		7			0.399	**1.2**	0	0	85	c	N	**85**	N	N	No	C	Drop - No Detects and All DL < RSL
Benzoic acid	0	0		7			1.99	**5.98**	0	0	240000	n	N	**24000**	N	N	No	C	Drop - No Detects and All DL < RSL
Benzyl alcohol	0	0		7			0.399	**1.2**	0	0	6100	n	N	**610**	N	N	No	C	Drop - No Detects and All DL < RSL
bis(2-Chloroethoxy) methane	0	0		26			0.35	**6.8**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromobenzene	0	0		26			0.0001	**0.072**	0	0	300	n	N	**30**	N	N	No	C	Drop - No Detects and All DL < RSL
Bromoform	0	0		187			0.00027	**1.3**	0	0	61	c	N	**61**	N	N	No	C	Drop - No Detects and All DL < RSL
Butylbenzylphthalate	0	0		26			0.35	**6.8**	0	0	260	c	N	**260**	N	N	No	C	Drop - No Detects and All DL < RSL
Carbazole	0	0		19			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
Chloroethane	0	0		179			0.00033	**1.3**	0	0	15000	n	N	**1500**	N	N	No	C	Drop - No Detects and All DL < RSL
cis/trans1,2-Dichloroethene	0	0		19			0.005	**0.063**	0	0	700	n	N	**70**	N	N	No	C	Drop - No Detects and All DL < RSL
cis-1,2-Dichloroethene	0	0		168			0.00008	**1.3**	0	0	160	n	N	**16**	N	N	No	C	Drop - No Detects and All DL < RSL
Cyanide	0	0		7			1.3	**12**	0	0	1600	n	N	**160**	N	N	No	C	Drop - No Detects and All DL < RSL
Dibromomethane	0	0		26			0.0002	**0.072**	0	0	25	n	N	**2.5**	N	N	No	C	Drop - No Detects and All DL < RSL
Dichlorodifluoromethane	0	0		167			0.00007	**1.3**	0	0	180	n	N	**18**	N	N	No	C	Drop - No Detects and All DL < RSL
Diethylphthalate	0	0		26			0.35	**6.8**	0	0	49000	n	N	**4900**	N	N	No	C	Drop - No Detects and All DL < RSL
Dimethylphthalate	0	0		26			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
Di-n-octylphthalate	0	0		26			0.35	**6.8**	0	0							No	F	Drop - No Detects and No RSL
gamma-BHC (Lindane)	0	0		37			0.00008	**0.41**	0	0	0.52	c	N	**0.52**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachlorocyclopentadiene	0	0		26			0.35	**6.8**	0	0	370	n	N	**37**	N	N	No	C	Drop - No Detects and All DL < RSL
Hexachloroethane	0	0		26			0.35	**6.8**	0	0	35	c	N	**35**	N	N	No	C	Drop - No Detects and All DL < RSL
Molybdenum	0	0		1			2	**2**	0	0	390	n	N	**39**	N	N	No	C	Drop - No Detects and All DL < RSL
N-Nitrosodiphenylamine/Diphenylamine	0	0		26			0.35	**6.8**	0	0	99	c	N	**99**	N	N	No	C	Drop - No Detects and All DL < RSL
Tellurium	0	0		1			10	**10**	0	0							No	F	Drop - No Detects and No RSL
Tin	0	0		1			6	**6**	0	0	47000	n	N	**4700**	N	N	No	C	Drop - No Detects and All DL < RSL
Trichlorofluoromethane	0	0		168			0.00005	**1.3**	0	0	790	n	N	**79**	N	N	No	C	Drop - No Detects and All DL < RSL
Constituents Screened Out on Basis of N-flag (Tentatively Identified Compound)																			
Aroclor-unspecified-10	1	1		1	5	5			100	100							No	D	Drop - TIC
Aroclor-unspecified-5	1	1		1	0.9	0.9			100	100							No	D	Drop - TIC
Aroclor-unspecified-6	1	1		1	0.6	0.6			100	100							No	D	Drop - TIC
Aroclor-unspecified-7	1	1		1	1	1			100	100							No	D	Drop - TIC
Aroclor-unspecified-8	1	1		1	10	10			100	100							No	D	Drop - TIC
Aroclor-unspecified-9	1	1		1	30	30			100	100							No	D	Drop - TIC
Dimethylanthracene (unspecified)	1	1		1	0.2	0.2			100	100							No	D	Drop - TIC
Dimethylphenanthrene (unspecified)	1	1		1	0.5	0.5			100	100							No	D	Drop - TIC
Hexadecanoic Acid	2	2		2	0.1	0.3			100	100							No	D	Drop - TIC
Methylbenzanthracene (unspecified)	1	1		1	0.3	0.3			100	100							No	D	Drop - TIC
Methylpyrene (unspecified)	1	1		1	0.3	0.3			100	100							No	D	Drop - TIC

Table 5A
Soil Data Evaluation and COPC Identification - Quadrant 4

Parameter	# Detects	# Surrogate Detects (w/ DL >RSL)	# ND DLs > Adj. Res RSL	# Records	Min Detect (mg/kg)	Max Detect (mg/kg)	Min DL (mg/kg)	Max DL (mg/kg)	Det Freq (actual)	Det Freq (surrogate)	Res RSL [(1)] (mg/kg)	RSL c/nc key	Max Detect > RSL?	Adj. Res RSL[(2)] (mg/kg)	Max Detect > Adj. RSL?	Max DL > RSL- adjusted?	Final Screening COPC	Basis for COPC Screen	Comments
Constituents Screened Out on Basis of Essential Nutrient																			
Calcium	24	24		35	27.1	38200	90	3333	69	69							No	E	Drop - Essential Nutrient
Magnesium	25	25		35	37.9	7850	90	1260	71	71							No	E	Drop - Essential Nutrient
Potassium	23	23		35	30	4170	23	3333	66	66							No	E	Drop - Essential Nutrient
Sodium	20	20		35	35	8550	17	1260	57	57							No	E	Drop - Essential Nutrient
Constituents Screened Out on Basis of Maximum Detection (and Maximum ND Value) Being Below RSL																			
1,3,5-Trimethylbenzene	27	27		167	0.07	**31.5**	0.00004	**0.13**	16	16	780	n	N	**78**	N	N	YES	Y	Drop - Max Detect and DL < RSL
2-Butanone (MEK)	7	7		37	**0.0024**	0.02	0.0018	**0.72**	19	19	28000	n	N	**2800**	**N**	N	No	G	Drop - Max Detect and DL < RSL
2-Methylnaphthalene	36	36		192	**0.00044**	16.6	0.00039	**6.84**	19	19	310	n	N	**31**	**N**	N	No	G	Drop - Max Detect and DL < RSL
4,4'-DDE	4	4		37	**0.00018**	0.094	0.00011	**0.82**	11	11	1.4	c	N	**1.4**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Acenaphthene	18	18		207	**0.00031**	1.02	0.00023	**6.84**	9	9	3400	n	N	**340**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Acetone	24	24		37	**0.0078**	2.9	0.011	**0.72**	65	65	61000	n	N	**6100**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Anthracene	28	28		207	**0.00063**	7.46	0.00047	**6.84**	14	14	17000	n	N	**1700**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Barium	48	48		128	**2.36**	242	42	**142**	38	38	15000	n	N	**1500**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Beryllium	17	17		35	**0.006**	0.09399	0.20999	**3.33**	49	49	160	n	N	**16**	**N**	N	No	G	Drop - Max Detect and DL < RSL
bis(2-Ethylhexyl) phthalate	2	2		26	**2.1**	2.6	0.35	**6.8**	8	8	35	c	N	**35**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Cadmium	14	14		38	**0.00899**	0.164	0.008	**3.33**	37	37	70	n	N	**7**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Carbon disulfide	13	13		37	**0.00009**	0.019	0.00005	**0.18**	35	35	820	n	N	**82**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Copper	28	28		39	**0.18999**	35	1	**16.7**	72	72	3100	n	N	**310**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Dichloromethane (Methylene chloride)	21	21		187	**0.00027**	3.5	0.00016	**1.3**	11	11	11	c	N	**11**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Di-n-butylphthalate	3	3		26	**0.03**	0.435	0.35	**6.8**	12	12	6100	n	N	**610**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Ethyl benzene	13	13		187	**0.00022**	0.40999	0.00004	**1.3**	7	7	5.4	c	N	**5.4**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Fluoranthene	22	22		207	**0.0011**	3.1	0.00061	**6.84**	11	11	2300	n	N	**230**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Fluorene	12	12		207	**0.0004**	0.81	0.0005	**6.84**	6	6	2300	n	N	**230**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Isopropylbenzene	25	25		167	**0.00016**	105	0.00003	**0.12999**	15	15	2100	n	N	**210**	**N**	N	No	G	Drop - Max Detect and DL < RSL
m&p-Xylene	18	18		167	**0.00055**	2.015	0.00011	**1.3**	11	11	3400	n	N	**340**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Methoxychlor	10	10		37	**0.00048**	1.1	0.00019	**4**	27	27	310	n	N	**31**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Methyl mercury	8	8		8	**0.00013**	0.00143			100	100	7.8	n	N	**0.78**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Nickel	23	23		39	**0.15999**	26.2	2.1	**26.7**	59	59	1500	n	N	**150**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Pyrene	46	46		207	**0.00083**	16	0.00037	**6.84**	22	22	1700	n	N	**170**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Selenium	4	4		38	**0.28**	2	0.25	**8**	11	11	390	n	N	**39**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Silver	9	9		38	**0.004**	0.04699	0.004	**6.67**	24	24	390	n	N	**39**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Toluene	33	33		187	**0.00025**	0.77999	0.005	**1.3**	18	18	5000	n	N	**500**	**N**	N	No	G	Drop - Max Detect and DL < RSL
Strontium	1	1		1	19	**19**			100	100	47000	n	N	**4700**	**N**	N	No	A	Drop - Max Detect and DL < RSL
Xylenes (unspecified)	4	4		20	**0.004**	0.052	0.005	**0.072**	20	20	630	n	N	**63**	**N**	N	No	G	Drop - Max Detect and DL < RSL

Notes:
(1) Values are November 2010 Residential RSLs (except for thallium).
(2) RSLs for non-carcinogens were adjusted to a HQ of 0.1.
(3) RSL for thallium taken from May 2009 RSL Table.
Thallium RfD subsequently withdrawn from IRIS.

Highlighted Cells Key:
Frequency Detection < 5%
Constituent without RSL - Surrogate Chemical Identified

COPC screening code:

A	Low record count <10 site wide
B	DLs above adjusted residential RSL
C	Less than 5% detection frequency including DLs above adjusted RSL
D	Parameter with N flag
E	Essential nutrient
F	Less than 5% detection frequency and no RSL
G	Max detect and max DL below adjusted residential RSL
T	Thallium was dropped from COPC list because it was not used historically at the site, has a low number of actual detects, and the RSL value was withdrawn by EPA
Y	Retain as COPC

Table 5B
COPC Screening Refinements for "B" Flagged Parameters - Quadrant 4

Parameter	CRQL Medium[1] (mg/kg)	Residential RSL [2] (mg/kg)	# of Records	# DL above CRQL	% DL above CRQL [3]	# DL above RSL	% DL above RSL [4]	# Level 4 Data Records	# Level 4 Data DL below RSL [5]	# Excavated Sample Records	# Detects in Excavated Samples	Comments
1,2-Dibromo-3-chloropropane	0.25	0.0056	25	0	0	7	28					Drop - <10% DL > CRQL
1,2-Dibromoethane	0.25	0.034	25	0	0	8	32					Drop - <10% DL > CRQL
2,4-Dinitrotoluene	5	1.6	26	1	4	1	4					Drop - <10% DL > CRQL
2-Nitroaniline	10	1.8	26	0	0	5	19					Drop - <10% DL > CRQL
3,3'-Dichlorobenzidine	5	1.1	26	1	4	2	8					Drop - <10% DL > CRQL
3-Nitroaniline	10	61	26	0	0	0	0					Drop - <10% DL > CRQL
4,4'-DDT	0.0033	1.7	37	19	51	1	3					Drop - <5% DL > RSL
4,6-Dinitro-2-methylpheno	10	0.49	23	1	4	23	100					Drop - <10% DL > CRQL
Aldrin	0.0017	0.029	37	20	54	2	5					Drop - <5% DL > RSL
alpha-BHC	0.0017	0.077	37	21	57	1	3					Drop - <5% DL > RSL
Aroclor-1016	0.033	0.39	364	333	91	259	71	110	105			Drop - >10 Level IV DLs < RSL
Aroclor-1221	0.033	0.14	364	333	91	275	76	110	89			Drop - >10 Level IV DLs < RSL
Aroclor-1232	0.033	0.14	364	333	91	270	74	110	94			Drop - >10 Level IV DLs < RSL
Aroclor-1242	0.033	0.22	364	332	91	265	73	110	99			Drop - >10 Level IV DLs < RSL
Aroclor-1248	0.033	0.22	364	332	91	264	73	110	100			Drop - >10 Level IV DLs < RSL
Aroclor-1262	0.033	0.14	17	2	12	1	6	17	16			Drop - >10 Level IV DLs < RSL
Benzidine	5	0.0005	7	1	14	7	100	7	7	38	0	Drop - All ND in Pre-Removal Samples
Benzo(b/k)fluoranthene	5	0.15	10	1	10	9	90					Drop - <10% DL > CRQL
beta-BHC	0.0017	0.27	37	22	59	1	3					Drop - <5% DL > RSL
bis(2-Chloroethyl) ether	5	0.21	26	1	3.8	26	100					Drop - <10% DL > CRQL
Chlordane	0.0017	1.6	1	1	100	1	100	1	0	8	0	Drop - All ND in Pre-Removal Samples
Delta-BHC	0.0017	0.077	37	21	57	1	3	37	36			Drop - >10 Level IV DLs < RSL
Dieldrin	0.0033	0.03	37	22	59	5	14	37	31			Drop - >10 Level IV DLs < RSL
Endrin	0.0033	1.8	37	21	57	1	3					Drop - <5% DL > RSL
Endrin Ketone	0.0033	1.8	37	23	62	1	3					Drop - <5% DL > RSL
Heptachlor	0.0017	0.11	37	23	62	1	3					Drop - <5% DL > RSL
Heptachlor epoxide	0.0017	0.053	37	22	59	1	3					Drop - <5% DL > RSL
Hexachlorobenzene	5	0.3	26	1	4	24	92					Drop - <10% DL > CRQL
Nitrobenzene	5	4.8	26	1	4	1	4					Drop - <10% DL > CRQL
N-Nitrosodimethylamine		0.0023	7			7	100			75	0	Drop - All ND in Pre-Removal Samples
N-Nitroso-di-n-propylamine	5	0.069	26	1	4	26	100					Drop - <10% DL > CRQL
Pentachlorophenol	10	0.89	26	1	4	23	88					Drop - <10% DL > CRQL
Thallium [6]	2.5	0.51	35	7	20	18	51	35	0			Drop - not used at site
Toxaphene	0.17	0.44	37	25	68	13	35	37	24			Drop - >10 Level IV DLs < RSL
Vinyl chloride	0.25	0.06	179	3	2	19	11					Drop - <10% DL > CRQL

Notes:

(1) Values are the current EPA Contract Laboratory Program "Medium Soil" Contract Required Quantitation Limits (CRQL

(2) Values are November 2010 Residential RSLs; RSLs for non-carcinogens were adjusted to a HQ of 0.1

(3) Red text indentifies constituents with 10% or less of the detection limits (DLs) exceeding the relevant Medium Soil CRQL

(4) Blue text identifies constituents with 5% or less of the DLs exceeding residential RSL

(5) Green text identifies constituents with more than 10 Level 4 data records with DLs below the residential RSL, or that were not detected in the pre-removal sampl

(6) RSL for thallium taken from May 2009 RSL Table; the RfD was subsequently withdrawn from IRIS.

Table 6A
RME Exposure Parameters - Industrial Worker

Parameter	Abbrev.	Units	RME Value	Rationale
Body Weight	BW	kg	70	USEPA, 2002a
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 2002a
Averaging Time - Noncarcinogens	Atnc	days	9125	= ED x 365
Exposure Frequency	EF	days/yr	225	USEPA, 2002a
Exposure Duration	ED	years	25	USEPA, 2002a
Inhalation rate	InhR	m^3/day	20	USEPA, 2002a
Soil Ingestion Rate	IR	mg/day	100	USEPA, 2002a(1)
Skin Surface Area for Soil Exposure	SAs	cm^2	3300	USEPA, 2002a
Soil Adherence Factor	AF	mg/cm^2	0.2	USEPA, 2002a

Notes:

kg kilograms
yr years
mg miligrams
cm^2 square centimeters
m^3 cubic meters
g grams
cm centimeters
ug micrograms
Shading indicates where RME parameter values differ from CTE parameter values.
(1) Outdoor worker

Table 6B
CTE Exposure Parameters - Industrial Worker

Parameter	Abbrev.	Units	CTE Value	Rationale
Body Weight	BW	kg	70	USEPA, 2002a
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 2002a
Averaging Time - Noncarcinogens	Atnc	days	3285	= ED x 365
Exposure Frequency	EF	days/yr	219	Professional Judgement
Exposure Duration	ED	years	9	Professional Judgement
Inhalation rate	InhR	m^3/day	20	USEPA, 2002a
Soil Ingestion Rate	IR	mg/day	25	Calabrese et al, 1991
Skin Surface Area for Soil Exposure	SAs	cm^2	3300	USEPA, 2004b
Soil Adherence Factor	AF	mg/cm^2	0.02	USEPA, 2004b

Notes:

kg	kilograms	cm	centimeters
yr	years	ug	micrograms
mg	miligrams		
cm^2	square centimeters		
m^3	cubic meters		
g	grams		

Table 7A
RME Exposure Parameters - Excavation Worker

Parameter	Abbrev.	Units	RME Value	Rationale
Body Weight	BW	kg	70	USEPA, 2002a
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 2002a
Averaging Time - Noncarcinogens	Atnc	days	182	26 weeks, 7 days/week
Exposure Frequency	EF	days/yr	260	5 days/week
Exposure Duration	ED	years	0.5	Professional judgement
Inhalation Rate	InhR	m^3/day		
Soil Ingestion rate	IR	mg/day	330	USEPA, 2002a
Skin Surface Area for Soil Exposure	SAs	cm^2	3300	U.S. EPA, 2002a
Soil Adherence Factor	AF	mg/cm^2	0.3	U.S. EPA, 2002a

Notes:

kg	kilograms	cm	centimeters
yr	years	ug	micrograms
mg	miligrams	L	liters
cm^3	cubic centimeters		Shading indicates where RME parameter values
m^3	cubic meters		differ from CTE parameter values.
g	grams		

For the purposes of this analysis the excavation worker is considered equivalent to a construction worker.

Table 7B
CTE Exposure Parameters - Excavation Worker

Parameter	Abbrev.	Units	CTE Value	Rationale
Body Weight	BW	kg	70	USEPA, 2002a
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 2002a
Averaging Time - Noncarcinogens	Atnc	days	84	12 weeks, 7 days/week
Exposure Frequency	EF	days/yr	260	5 days/week
Exposure Duration	ED	years	0.23	Professional judgement
Inhalation Rate	InhR	m^3/day		
Soil Ingestion rate	IR	mg/day	100	USEPA, 1991(1)
Skin Surface Area for Soil Exposure	SAs	cm^2	1900	USEPA, 1997(2)
Soil Adherence Factor	AF	mg/cm^2	0.1	USEPA, 2004b

Notes:

kg kilograms
yr years
mg miligrams
cm^3 cubic centimeters
m^3 cubic meters
g grams
cm centimeters
ug micrograms
L liters
(1) for moderate activities
(2) mean surface area for hands and forearms

For the purposes of this analysis the excavation worker is considered equivalent to a construction worker.

Table 8A
RME Exposure Parameters - Current/Future Trespasser

Parameter	Abbrev.	Units	RME Value	Rationale
Body Weight	BW	kg	45	USEPA, 2000a
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 2000a
Averaging Time - Noncarcinogens	Atnc	days	3650	= ED x 365
Exposure Frequency (Current Trespasser)	EF	days/yr	24	2 days/month
Exposure Frequency (Future Trespasser)			52	1 day/week(1)
Exposure Duration	ED	years	10	USEPA, 2000a
Inhalation rate	InhR	m^3/day	15	Professional Judgement
Soil Ingestion rate	IR	mg/day	50	USEPA, 2000a
Skin Surface Area for Soil Exposure	SAs	cm^2	3940	USEPA, 2004b(1)
Soil Adherence Factor	AF	mg/cm^2	0.2	USEPA, 2004b

Notes:

kg kilograms
yr years
mg miligrams
cm^2 square centimeters
m^3 cubic meters
g grams
cm centimeters
ug micrograms
Shading indicates where RME parameter values differ from CTE parameter values.
(1) Consistent with OU1 Trespasser scenario (EPS, 2011c).
(2) Represents head, hands, forearms, and lower legs.

Table 8B
CTE Exposure Parameters - Current/Future Trespasser

Parameter	Abbrev.	Units	CTE Value	Rationale
Body Weight	BW	kg	45	USEPA, 2000a
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 2000a
Averaging Time - Noncarcinogens	Atnc	days	3650	= ED x 365
Exposure Frequency	EF	days/yr	6	1days/month, 6 months(1)
Exposure Duration	ED	years	10	USEPA, 2000a
Inhalation rate	InhR	m^3/day	15	Professional Judgement
Soil Ingestion rate	IR	mg/day	10	20% of RME Value
Skin Surface Area for Soil Exposure	SAs	cm^2	2750	USEPA, 2004b(2)
Soil Adherence Factor	AF	mg/cm^2	0.1	USEPA, 2004b

Notes:

kg kilograms
yr years
mg miligrams
cm^2 square centimeters
m^3 cubic meters
g grams
cm centimeters
ug micrograms
L liters

(1) The CTE exposure frequency is the same for the current and future scenarios.
(2) Represents face, hands, forearms, and lower legs.

Table 9A
RME Exposure Parameters - Hypothetical Resident

Parameter	Abbrev.	Units	RME Value	Rationale
Child Factors				
Body Weight	BW_c	kg	15	USEPA, 2002a
Soil Ingestion rate	IR_c	mg/day	200	USEPA, 2002a
Skin Surface Area for Soil Exposure	SAs	cm^2	2800	USEPA, 2002a
Soil Adherence Factor	AF	mg/cm^2	0.2	USEPA, 2002a
Inhalation rate	InhR	m^3/day	15	USEPA, 2002a
Exposure Frequency	EF	days/yr	350	USEPA, 2002a
Exposure Duration	ED	years	6	USEPA, 2002a
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 1989
Averaging Time - Noncarcinogens	Atnc	days	2190	USEPA, 1989
Adult Factors				
Body Weight	BW_c	kg	70	USEPA, 2002a
Soil Ingestion rate	IR_c	mg/day	100	USEPA, 2002a
Skin Surface Area for Soil Exposure	SAs	cm^2	5700	USEPA, 2002a
Soil Adherence Factor	AF	mg/cm^2	0.07	USEPA, 2002a
Inhalation rate	InhR	m^3/day	20	USEPA, 2002a
Exposure Frequency	EF	days/yr	350	USEPA, 2002a
Exposure Duration	ED	years	30	USEPA, 2002a
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 1989
Averaging Time - Noncarcinogens	Atnc	days	10950	USEPA, 1989

Notes:

kg	kilograms	cm	centimeters
yr	years	ug	micrograms
mg	miligrams	L	liters
cm^3	cubic centimeters	g	grams
m^3	cubic meters		

Shading indicates where RME parameter values differ from CTE parameter values.

Table 9B
CTE Exposure Parameters - Hypothetical Resident

Parameter	Abbrev.	Units	RME Value	Rationale
Child Factors				
Body Weight	BW_c	kg	15	USEPA, 1991
Soil Ingestion rate	IR_c	mg/day	100	USEPA, 1997
Skin Surface Area for Soil Exposure	SAs	cm^2	1800	USEPA, 1997(1)
Soil Adherence Factor	AF	mg/cm^2	0.2	USEPA, 2002a
Inhalation rate	InhR	m^3/day	8.1	USEPA, 1997(2)
Exposure Frequency	EF	days/yr	350	USEPA, 2002a
Exposure Duration	ED	years	2	USEPA, 1997(3)
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 1989
Averaging Time - Noncarcinogens	Atnc	days	730	USEPA, 1989
Adult Factors				
Body Weight	BW_c	kg	70	USEPA, 1991
Soil Ingestion rate	IR_c	mg/day	50	USEPA, 1997
Skin Surface Area for Soil Exposure	SAs	cm^2	4800	USEPA, 1997(1)
Soil Adherence Factor	AF	mg/cm^2	0.07	USEPA, 2002a
Inhalation rate	InhR	m^3/day	13.3	USEPA, 1997(2)
Exposure Frequency	EF	days/yr	350	USEPA, 2002a
Exposure Duration	ED	years	9	USEPA, 1997(3)
Averaging Time - Carcinogens	ATc	days	25550	USEPA, 1989
Averaging Time - Noncarcinogens	Atnc	days	3285	USEPA, 1989

Notes:

kg	kilograms	cm	centimeters
yr	years	ug	micrograms
mg	miligrams	L	liters
cm^3	cubic centimeters	g	grams
m^3	cubic meters		

(1) Exhibit C-1: child - surface area of face, hands, forearms and lower legs (Males/Females, >1 to 7 yrs); adult - surface area of face, hands, forearms, and lower legs (males/females >18 to 31 yrs).

(2) Table 5-23: child - average daily inhalation rate (Males/Females, >1 to 7 yrs); adult - average daily inhalation rate (Males/Females, 19 to 65+ yrs).

(3) adult - median residential tenure; child - 20% of median residental tenure

Table 10 Exposure Point Concentrations - Surface Soil

Chemical	EPC (mg/kg)	Recommended UCL Method Without TEG	EPC (mg/kg)	Recommended UCL Method With TEG
OTF				
Arsenic	1.7	maximum detected concentration [1]		
Benzo(a)anthracene	0.347	95% KM (t) UCL		
Benzo(a)pyrene	0.485	95% KM (t) UCL		
Benzo(b)fluoranthene	0.692	95% KM (t) UCL	**No Samples from the OTF Area Were Analyzed by the TEG Laboratory**	
Chromium	5	maximum detected concentration [1]		
Dibenzo(a,h)anthracene	0.32	95% KM (BCA) UCL		
Lead	2536	99% KM (Chebyshev) UCL		
Mercury	0.487	95% KM (t) UCL		
Quad 1				
Aroclor-1260	0.166	95% KM (t) UCL	0.454	95% KM (BCA) UCL
Aroclor-1268	0.137	95% KM (BCA) UCL	0.484	95% KM (BCA) UCL
Arsenic	1.474	95% KM (BCA) UCL	1.402	95% KM (BCA) UCL
Benzo(a)anthracene	0.213	95% KM (t) UCL	0.213	95% KM (t) UCL
Benzo(a)pyrene	0.195	95% KM (t) UCL	0.195	95% KM (t) UCL
Benzo(b)fluoranthene	0.0964	95% KM (BCA) UCL	0.096	95% KM (BCA) UCL
Benzo(b/k)fluoranthene	0.605	95% KM (t) UCL	0.605	95% KM (t) UCL
bis(2-Ethylhexyl) phthalate	4.298	95% KM (t) UCL	4.298	95% KM (t) UCL
Chromium	5.756	95% Approximate Gamma UCL	5.756	95% Approximate Gamma UCL
Dibenzo(a,h)anthracene	0.0111	95% KM (t) UCL	0.0111	95% KM (t) UCL
Indeno(1,2,3-cd)pyrene	0.051	95% KM (t) UCL	0.051	95% KM (t) UCL
Iron	8657	95% Chebyshev (Mean, Sd) UCL	8657	95% Chebyshev (Mean, Sd) UCL
Lead	54.74	95% KM (BCA) UCL	54.74	95% KM (BCA) UCL
Mercury	12.6	99% KM (Chebyshev) UCL	12.57	97.5% KM (Chebyshev) UCL
Vanadium	10.39	95% KM (BCA) UCL	10.61	95% KM (BCA) UCL
Quad 2				
Aroclor-1221	0.27	maximum detected concentration [1]	3.457	95% KM (t) UCL
Aroclor-1254	0.862	95% KM (BCA) UCL	1.376	95% KM (Chebyshev) UCL
Aroclor-1260	1.218	95% KM (t) UCL	1.128	95% KM (t) UCL
Aroclor-1268	5.218	95% KM (Chebyshev) UCL	10.1	95% KM (Chebyshev) UCL
Arsenic	1.592	95% KM (t) UCL	1.592	95% KM (t) UCL
Benzo(a)anthracene	0.263	95% KM (t) UCL	0.208	95% KM (BCA) UCL
Benzo(a)pyrene	0.28	95% KM (t) UCL	0.211	95% KM (BCA) UCL
Benzo(b)fluoranthene	0.14	95% KM (t) UCL	0.199	95% KM (Chebyshev) UCL
Benzo(b/k)fluoranthene	0.398	95% KM (t) UCL	0.398	95% KM (t) UCL
Carbazole	0.046	maximum detected concentration [1]	0.046	maximum detected concentration [1]
Chromium	7.741	95% Approximate Gamma UCL	7.741	95% Approximate Gamma UCL
Dibenzo(a,h)anthracene	0.15	95% KM (t) UCL	0.171	95% KM (BCA) UCL
Indeno(1,2,3-cd)pyrene	0.238	95% KM (t) UCL	0.189	95% KM (BCA) UCL
Iron	6603	95% Approximate Gamma UCL	6603	95% Approximate Gamma UCL
Mercury	9.427	95% KM (Chebyshev) UCL	3.984	95% KM (Chebyshev) UCL
Quad 3				
1,1,2,2-Tetrachloroethane	NA	All non-detects	0.0286	95% KM (t) UCL
1,2,4-Trimethylbenzene	3.123	95% KM (Chebyshev) UCL	3.367	97.5% KM (Chebyshev) UCL
1,4-Dichlorobenzene	NA	All non-detects	0.0296	95% KM (t) UCL
1-Methyl Naphthalene	2.11	95% KM (t) UCL	2.11	95% KM (t) UCL
2-Methylnaphthalene	2.744	95% KM (Chebyshev) UCL	2.744	97.5% KM (Chebyshev) UCL
4,6-Dinitro-2-methylphenol	32	maximum detected concentration [1]	32	maximum detected concentration [1]
Aluminum	12427	95% Chebyshev (Mean, Sd) UCL	12427	95% Chebyshev (Mean, Sd) UCL
Antimony	4.655	95% KM (t) UCL	4.655	95% KM (t) UCL
Aroclor 1016	NA	All non-detects	2.211	95% KM (t) UCL
Aroclor-1254	1.134	95% KM (t) UCL	1.785	95% KM (Chebyshev) UCL
Aroclor-1260	0.407	95% KM (t) UCL	0.731	95% KM (BCA) UCL
Aroclor-1268	1.427	95% KM (t) UCL	2.231	95% KM (Chebyshev) UCL
Arsenic	8.584	95% KM (Chebyshev) UCL	8.584	95% KM (Chebyshev) UCL
Benzene	0.014	95% KM (Chebyshev) UCL	0.0613	95% KM (BCA) UCL
Benzo(a)anthracene	0.372	95% KM (t) UCL	0.588	95% KM (Chebyshev) UCL
Benzo(a)pyrene	0.172	95% KM (t) UCL	0.291	95% KM (Chebyshev) UCL
Benzo(b)fluoranthene	0.34	95% KM (t) UCL	0.484	95% KM (Chebyshev) UCL
Benzo(k)fluoranthene	0.152	95% KM (t) UCL	0.261	95% KM (Chebyshev) UCL

Table 10 Exposure Point Concentrations - Surface Soil

Chemical	EPC (mg/kg)	Recommended UCL Method Without TEG	EPC (mg/kg)	Recommended UCL Method With TEG
bis(2-Chloroethyl) ether	NA	All non-detects	NA	All non-detects
Carbazole	0.0474	95% KM (t) UCL	0.0474	95% KM (t) UCL
Chromium	7.627	95% KM (t) UCL	7.627	95% KM (t) UCL
Dibenz[a,h]anthracene	0.146	95% KM (t) UCL	0.297	95% KM (Chebyshev) UCL
Dibromochloromethane	4.8	maximum detected concentration [(1)]	0.152	95% KM (BCA) UCL
Dichloromethane (Methylene chloride)	0.0136	95% KM (t) UCL	0.227	95% KM (Chebyshev) UCL
Ethyl benzene	0.107	95% KM (t) UCL	3.839	95% KM (Chebyshev) UCL
Indeno(1,2,3-cd)pyrene	0.17	95% KM (t) UCL	0.312	95% KM (Chebyshev) UCL
Iron	11105	Use 95% Student's-t UCL	11105	95% Student's-t UCL
Lead	339.7	95% KM (Chebyshev) UCL	323.6	95% KM (Chebyshev) UCL
Mercury	4.008	95% KM (Chebyshev) UCL	3.798	95% KM (Chebyshev) UCL
Naphthalene	1.289	95% KM (Chebyshev) UCL	3.552	97.5% KM (Chebyshev) UCL
n-Butylbenzene	2.959	97.5% KM (Chebyshev) UCL	4.03	95% KM (Chebyshev) UCL
n-Propylbenzene	1.578	95% KM (Chebyshev) UCL	1.334	95% KM (Chebyshev) UCL
Vanadium	33.66	95% Approximate Gamma UCL	33.66	95% Approximate Gamma UCL
Quad 4				
1,2,4-Trimethylbenzene	0.175	95% KM (t) UCL	0.0673	95% KM (BCA) UCL
1-Methyl Naphthalene	0.524	95% KM (t) UCL	0.524	95% KM (t) UCL
Aluminum	3037	95% Student's-t UCL	3037	95% Student's-t UCL
Antimony	11.77	99% KM (Chebyshev) UCL	11.77	99% KM (Chebyshev) UCL
Aroclor-1254	0.246	95% KM (t) UCL	2.533	95% KM (Chebyshev) UCL
Aroclor-1260	6.759	Calculated using 1/2 DL[2]	7.447	95% KM (t) UCL
Aroclor-1268	9.13	95% KM (Chebyshev) UCL	6.283	95% KM (Chebyshev) UCL
Arsenic	1.176	95% KM (t) UCL	1.176	95% KM (t) UCL
Benzo(a)anthracene	1.781	97.5% KM (Chebyshev) UCL	0.888	95% KM (Chebyshev) UCL
Benzo(a)pyrene	0.614	95% KM (t) UCL	0.868	95% KM (Chebyshev) UCL
Benzo(b)fluoranthene	0.505	95% KM (t) UCL	0.73	95% KM (Chebyshev) UCL
Benzo(k)fluoranthene	0.404	97.5% KM (Chebyshev) UCL	0.544	95% KM (Chebyshev) UCL
Chloroform	0.0118	95% KM (t) UCL	0.0266	95% KM (BCA) UCL
Chromium	19.75	95% Chebyshev (Mean, Sd) UCL	19.75	95% Chebyshev (Mean, Sd) UCL
Chrysene	2.508	97.5% KM (Chebyshev) UCL	1.987	95% KM (Chebyshev) UCL
Cobalt	0.787	95% KM (BCA) UCL	0.823	95% KM (BCA) UCL
Dibenzo(a,h)anthracene	0.471	97.5% KM (Chebyshev) UCL	0.531	95% KM (Chebyshev) UCL
Indeno(1,2,3-cd)pyrene	0.57	97.5% KM (Chebyshev) UCL	0.545	95% KM (Chebyshev) UCL
Iron	5852	95% H-UCL	5852	95% H-UCL
Lead	253	95% KM (Chebyshev) UCL	186.2	97.5% KM (Chebyshev) UCL
Manganese	29.38	95% Approximate Gamma UCL	29.38	95% Approximate Gamma UCL
Mercury	8.775	95% KM (Chebyshev) UCL	5.571	95% KM (Chebyshev) UCL
Naphthalene	0.0559	95% KM (t) UCL	0.618	95% KM (Chebyshev) UCL
n-Butylbenzene	0.355	95% KM (BCA) UCL	0.0852	95% KM (BCA) UCL
Tetrachloroethene	0.00318	95% KM (Percentile Bootstrap) UCL	0.022	95% KM (BCA) UCL
Vanadium	6.4	95% KM (Percentile Bootstrap) UCL	6.32	95% KM (Percentile Bootstrap) UCL
Zinc	2105	99% KM (Chebyshev) UCL	2105	99% KM (Chebyshev) UCL

Notes:

(1) Where there was insufficient data for UCL calculations, the maximum detected concentration was used for an EPC

(2) The EPC for Aroclor 1260 in Quadrant 4 was calculated using 1/2 the detection limit. The EPC using the full detection limit was 7.534 mg/kg

Table 11
Exposure Point Concentrations - Subsurface Soil

Chemical	EPC (mg/kg)	Recommended UCL Method Without TEG	EPC (mg/kg)	Recommended UCL Method With TEG
OTF				
Arsenic	1.7	maximum detected concentration [1]		
Benzo(a)anthracene	0.232	95% KM (t) UCL		
Benzo(a)pyrene	0.312	95% KM (t) UCL		
Benzo(b)fluoranthene	0.449	95% KM (t) UCL		
Chromium	5	maximum detected concentration [1]		**No Samples from the OTF Area Were Analyzed by the TEG Laboratory**
Dibenzo(a,h)anthracene	0.32	95% KM (BCA) UCL		
Lead	394.7	95% KM (BCA) UCL		
Mercury	0.331	95% KM (t) UCL		
Quad 1				
Aroclor-1260	0.124	95% KM (t) UCL	0.497	95% KM (BCA) UCL
Aroclor-1268	0.127	95% KM (t) UCL	1.768	95% KM (Chebyshev) UCL
Arsenic	1.094	95% KM (t) UCL	1.08	95% KM (% Bootstrap) UCL
Benzo(a)anthracene	0.171	95% KM (t) UCL	0.171	95% KM (t) UCL
Benzo(a)pyrene	0.143	95% KM (t) UCL	0.143	95% KM (t) UCL
Benzo(b)fluoranthene	0.104	95% KM (t) UCL	0.104	95% KM (t) UCL
Benzo(b/k)fluoranthene	0.413	95% KM (t) UCL	0.413	95% KM (t) UCL
bis(2-Ethylhexyl) phthalate	2.57	95% KM (t) UCL	2.57	95% KM (t) UCL
Chromium	4.98	95% Student's-t UCL	4.98	95% KM (Chebyshev) UCL
Dibenzo(a,h)anthracene	0.0175	95% KM (t) UCL	0.0175	95% KM (t) UCL
Indeno(1,2,3-cd)pyrene	0.0741	95% KM (t) UCL	0.0741	95% KM (t) UCL
Iron	6198	95% Chebyshev (Mean, Sd) UCL	6198	95% Chebyshev (Mean, Sd) UCL
Lead	76.52	95% KM (BCA) UCL	76.52	95% KM (BCA) UCL
Mercury	5.478	97.5% KM (Chebyshev) UCL	5.541	97.5% KM (Chebyshev) UCL
Vanadium	7.829	95% KM (Percentile Bootstrap) UCL	7.845	95% KM (% Bootstrap) UCL
Quad 2				
Aroclor-1221	0.27	maximum detected concentration [1]	2.977	95% KM (t) UCL
Aroclor-1254	0.636	95% KM (BCA) UCL	1.204	95% KM (Chebyshev) UCL
Aroclor-1260	1.214	95% KM (t) UCL	1.122	95% KM (t) UCL
Aroclor-1268	2.94	95% KM (BCA) UCL	9.253	97.5% KM (Chebyshev) UCL
Arsenic	1.256	95% KM (t) UCL	1.256	95% KM (t) UCL
Benzo(a)anthracene	0.221	95% KM (t) UCL	0.2	95% KM (BCA) UCL
Benzo(a)pyrene	0.226	95% KM (t) UCL	0.203	95% KM (BCA) UCL
Benzo(b)fluoranthene	0.12	95% KM (t) UCL	0.18	95% KM (BCA) UCL
Benzo(b/k)fluoranthene	0.33	95% KM (t) UCL	0.33	95% KM (t) UCL
Carbazole	0.046	maximum detected concentration [1]	0.046	maximum detected concentration [1]
Chromium	5.48	95% Approximate Gamma UCL	5.48	95% Approximate Gamma UCL
Dibenzo(a,h)anthracene	0.148	95% KM (t) UCL	0.171	95% KM (t) UCL
Indeno(1,2,3-cd)pyrene	0.222	95% KM (t) UCL	0.185	95% KM (BCA) UCL
Iron	3452	95% Approximate Gamma UCL	3452	95% Approximate Gamma UCL
Mercury	3.759	95% KM (BCA) UCL	3.038	95% KM (Chebyshev) UCL
Quad 3				
1,1,2,2-Tetrachloroethane	0.0839	95% KM (t) UCL	0.0447	95% KM (t) UCL
1,2,4-Trimethylbenzene	7.144	97.5% KM (Chebyshev) UCL	7.034	97.5% KM (Chebyshev) UCL
1,4-Dichlorobenzene	1.515	97.5% KM (Chebyshev) UCL	0.198	95% KM (BCA) UCL
1-Methyl Naphthalene	3.541	95% KM (t) UCL	3.532	95% KM (t) UCL
2-Methylnaphthalene	3.104	95% KM (t) UCL	3.084	95% KM (t) UCL
4,6-Dinitro-2-methylphenol	8.664	99% KM (Chebyshev) UCL	8.811	99% KM (Chebyshev) UCL
Aluminum	6312	95% Chebyshev (Mean, Sd) UCL	6382	Use 95% Chebyshev (Mean, Sd) UCL
Antimony	3.236	97.5% KM (Chebyshev) UCL	3.377	97.5% KM (Chebyshev) UCL
Aroclor-1016	0.0638	95% KM (Chebyshev) UCL	0.581	95% KM (t) UCL
Aroclor-1254	1.047	95% KM (Chebyshev) UCL	1.144	95% KM (BCA) UCL
Aroclor-1260	0.21	95% KM (t) UCL	0.737	95% KM (BCA) UCL
Aroclor-1268	0.847	95% KM (t) UCL	1.578	95% KM (Chebyshev) UCL
Arsenic	3.093	95% KM (BCA) UCL	3.051	95% KM (t) UCL
Benzene	0.211	95% KM (t) UCL	0.376	95% KM (Chebyshev) UCL
Benzo(a)anthracene	0.239	95% KM (t) UCL	2.136	95% KM (Chebyshev) UCL
Benzo(a)pyrene	0.222	97.5% KM (Chebyshev) UCL	1.943	95% KM (Chebyshev) UCL
Benzo(b)fluoranthene	0.194	95% KM (t) UCL	0.861	95% KM (Chebyshev) UCL

Table 11
Exposure Point Concentrations - Subsurface Soil

Chemical	EPC (mg/kg)	Recommended UCL Method Without TEG	EPC (mg/kg)	Recommended UCL Method With TEG
Benzo(k)fluoranthene	0.106	95% KM (t) UCL	0.813	95% KM (Chebyshev) UCL
bis(2-Chloroethyl) ether	0.38	maximum detected concentration [1]	0.38	maximum detected concentration [1]
Carbazole	0.0551	95% KM (t) UCL	0.0552	95% KM (t) UCL
Chromium	5.132	95% KM (BCA) UCL	5.18	95% KM (BCA) UCL
Dibenzo(a,h)anthracene	0.0807	95% KM (t) UCL	0.245	95% KM (Chebyshev) UCL
Dibromochloromethane	0.125	95% KM (t) UCL	0.0767	95% KM (t) UCL
Dichloromethane (Methylene chloride)	0.461	97.5% KM (Chebyshev) UCL	0.459	97.5% KM (Chebyshev) UCL
Ethyl benzene	0.549	95% KM (t) UCL	3.504	97.5% KM (Chebyshev) UCL
Indeno(1,2,3-cd)pyrene	0.162	97.5% KM (Chebyshev) UCL	0.198	95% KM (BCA) UCL
Iron	8275	95% Approximate Gamma UCL	8533	95% Approximate Gamma UCL
Lead	223.5	95% KM (Chebyshev) UCL	208.1	95% KM (Chebyshev) UCL
Mercury	2.629	95% KM (Chebyshev) UCL	2.443	95% KM (Chebyshev) UCL
Naphthalene	0.935	95% KM (t) UCL	6.152	97.5% KM (Chebyshev) UCL
n-Butylbenzene	3.169	95% KM (t) UCL	6.023	97.5% KM (Chebyshev) UCL
n-Propylbenzene	1.459	95% KM (t) UCL	2.224	97.5% KM (Chebyshev) UCL
Vanadium	39.8	97.5% KM (Chebyshev) UCL	40.71	97.5% KM (Chebyshev) UCL
Quad 4				
1,2,4-Trimethylbenzene	0.762	97.5% KM (Chebyshev) UCL	0.134	95% KM (Chebyshev) UCL
1-Methyl Naphthalene	1.513	95% KM (BCA) UCL	1.312	95% KM (t) UCL
Aluminum	8475	95% Chebyshev (Mean, Sd) UCL	6250	5% Chebyshev (Mean, Sd) UCL
Antimony	7.074	99% KM (Chebyshev) UCL	7.074	99% KM (Chebyshev) UCL
Aroclor-1254	0.21	95% KM (t) UCL	1.847	95% KM (Chebyshev) UCL
Aroclor-1260	4.699	Calculated using 1/2 DL [2]	4.377	95% KM (t) UCL
Aroclor-1268	6.867	97.5% KM (Chebyshev) UCL	5.164	95% KM (Chebyshev) UCL
Arsenic	2.669	95% KM (BCA) UCL	2.149	95% KM (BCA) UCL
Benzo(a)anthracene	0.569	95% KM (t) UCL	1.564	95% KM (Chebyshev) UCL
Benzo(a)pyrene	0.436	95% KM (t) UCL	0.985	95% KM (Chebyshev) UCL
Benzo(b)fluoranthene	0.362	95% KM (t) UCL	0.78	95% KM (Chebyshev) UCL
Benzo(k)fluoranthene	0.184	95% KM (t) UCL	0.73	95% KM (Chebyshev) UCL
Chloroform	0.0247	95% KM (t) UCL	0.0407	95% KM (BCA) UCL
Chromium	16.78	95% KM (Chebyshev) UCL	14.94	95% KM (Chebyshev) UCL
Chrysene	0.688	95% KM (t) UCL	2.265	95% KM (Chebyshev) UCL
Cobalt	0.543	95% KM (BCA) UCL	0.511	95% KM (BCA) UCL
Dibenzo(a,h)anthracene	0.254	97.5% KM (Chebyshev) UCL	0.688	95% KM (Chebyshev) UCL
Indeno(1,2,3-cd)pyrene	0.166	95% KM (t) UCL	0.531	95% KM (Chebyshev) UCL
Iron	6880	95% H-UCL	5153	97.5% KM (Chebyshev) UCL
Lead	191.9	97.5% KM (Chebyshev) UCL	147.5	97.5% KM (Chebyshev) UCL
Manganese	140.6	97.5% KM (Chebyshev) UCL	88.26	97.5% KM (Chebyshev) UCL
Mercury	8.927	97.5% KM (Chebyshev) UCL	4.936	95% KM (Chebyshev) UCL
Naphthalene	0.258	95% KM (t) UCL	3.447	97.5% KM (Chebyshev) UCL
n-Butylbenzene	1.996	95% KM (Chebyshev) UCL	0.723	95% KM (Chebyshev) UCL
Tetrachloroethene	0.0283	95% KM (t) UCL	0.0371	95% KM (BCA) UCL
Vanadium	23.55	97.5% KM (Chebyshev) UCL	8.954	95% KM (BCA) UCL
Zinc	1149	99% KM (Chebyshev) UCL	1177	99% KM (Chebyshev) UCL

Notes:
(1) Where there was insufficient data for UCL calculations, the maximum detected concentration was used for an EPC
(2) The EPC for Aroclor 1260 in Quadrant 4 was calculated using 1/2 the detection limit. The EPC using the full detection limit was 5.512 mg/kg

Table 12
Adult Lead Model Parameters

Calculations of Blood Lead Concentrations (PbBs)

U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee

Version date 6/21/09 **EDIT RED CELLS**

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 1999-2004	GSDi and PbBo from Analysis of NHANES III (Phases 1&2)
PbS	Soil lead concentration	ug/g or ppm	2240	1235
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9
BKSF	Biokinetic Slope Factor	ug/dL per ug/day	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	2.1
PbB_0	Baseline PbB	ug/dL	1.0	1.5
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.050	0.050
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--
$AF_{S,D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12
$EF_{S,D}$	Exposure frequency (same for soil and dust)	days/yr	219	219
$AT_{S,D}$	Averaging time (same for soil and dust)	days/yr	365	365
PbB_{adult}	**PbB of adult worker, geometric mean**	**ug/dL**	**4.2**	**3.3**
$PbB_{fetal,\ 0.95}$	95th percentile PbB among fetuses of adult workers	ug/dL	10.0	10.0
PbB_t	Target PbB level of concern (e.g., 10 ug/dL)	ug/dL	**10.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB > PbB_t, assuming lognormal distribution**	**%**	**5.0%**	**5.0%**

Table 13
Toxicity Values for Constituents of Potential Concern

Analyte	Surrogate / Form	CAS No.	Oral CSF (mg/kg/day)$^{-1}$	Inhalation UR (ug/m^3)$^{-1}$	Dermal CSF (mg/kg/day)$^{-1}$	Oral RfD (mg/kg/day)	Inhalation RfC (mg/m^3)$^{-1}$	Dermal RfD (mg/kg/day)	GI ABS (unitless)	Dermal ABS (unitless)	PEF (m^3/kg)	VF (m^3/kg)
1,1,2,2-Tetrachloroethane		79345	2.00E-01	0.000058	2.00E-01	2.00E-02		2.00E-02	1	0	1.36E+09	1.63E+04
1,2,4-Trimethylbenzene		95636					7.00E-03		1	0	1.36E+09	8.52E+03
1,4-Dichlorobenzene		106467	5.40E-03	1.10E-05	5.40E-03	7.00E-02	8.00E-01	7.00E-02	1	0	1.36E+09	1.12E+04
1-Methylnaphthalene		90120	2.90E-02		2.90E-02	7.00E-02		7.00E-02	1	0	1.36E+09	6.31E+04
2-Methylnaphthalene		91576				4.00E-03		4.00E-03	1	0	1.36E+09	6.24E+04
4,6-Dinitro-2-methylphenol		534521				8.00E-05		8.00E-05	1	0.1	1.36E+09	
Aluminum		7429905				1.00E+00	5.00E-03	1.00E+00	1	0	1.36E+09	
Antimony	Metallic	7440360				5.00E-04		7.50E-05	0.15	0	1.36E+09	
Aroclor 1016		12674112	7.00E-02	2.00E-05	7.00E-02	7.00E-05		7.00E-05	1	0.14	1.36E+09	
Aroclor 1221 - High Risk		11104282	2.00E+00	5.70E-04	2.00E+00	2.00E-05		2.00E-05	1	0.14	1.36E+09	9.16E+04
Aroclor 1254 - High Risk		11097691	2.00E+00	5.70E-04	2.00E+00	2.00E-05		2.00E-05	1	0.14	1.36E+09	
Aroclor 1260 - High Risk		11096825	2.00E+00	5.70E-04	2.00E+00	2.00E-05		2.00E-05	1	0.14	1.36E+09	
Aroclor 1268 - High Risk	Ar-1254 CSF/RfD	11100144	2.00E+00	5.70E-04	2.00E+00	2.00E-05		2.00E-05	1	0.14	1.36E+09	
Aroclor 1268 - 1016 RfD	Ar-1254 CSF/Ar-1016 RfD	11100144	2.00E+00	5.70E-04	2.00E+00	7.00E-05		7.00E-05	1	0.14	1.36E+09	
Arsenic	Inorganic	7440382	1.50E+00	4.30E-03	1.50E+00	3.00E-04	1.50E-05	3.00E-04	1	0.03	1.36E+09	
Benzene		71432	5.50E-02	7.80E-06	5.50E-02	4.00E-03	3.00E-02	4.00E-03	1	0	1.36E+09	3.81E+03
Benz[a]anthracene		56553	7.30E-01	1.10E-04	7.30E-01				1	0.13	1.36E+09	
Benzo[a]pyrene		50328	7.30E+00	1.10E-03	7.30E+00				1	0.13	1.36E+09	
Benzo[b]fluoranthene		205992	7.30E-01	1.10E-04	7.30E-01				1	0.13	1.36E+09	
Benzo[b/k]fluoranthene	Benzo(b)fluoranthene	NA	7.30E-02	1.10E-04	7.30E-02				1	0.13	1.36E+09	
bis(2-Chloroethyl) ether		111444	1.10E+00	3.30E-04	1.10E+00				1	0	1.36E+09	4.58E+04
Bis(2-ethylhexyl)phthalate		117817	1.40E-02	2.40E-06	1.40E-02	2.00E-02		2.00E-02	1	0.1	1.36E+09	
Carbazole [(1)]		86748	2.00E-02		2.00E-02				1	0.01	1.36E+09	
Chromium	Hexavalent	18540299	5.00E-01	8.40E-02	2.00E+01	3.00E-03	1.00E-04	7.50E-05	0.025	0	1.36E+09	
Dibenz[a,h]anthracene		53703	7.30E+00	1.20E-03	7.30E+00				1	0.13	1.36E+09	
Dibromochloromethane		124481	8.40E-02	2.70E-05	8.40E-02	2.00E-02		2.00E-02	1	0.1	1.36E+09	8.55E+03
Ethylbenzene		100414	1.10E-02	2.50E-06	1.10E-02	1.00E-01	1.00E+00	1.00E-01	1	0	1.36E+09	6.10E+03
Indeno[1,2,3-cd]pyrene		193395	7.30E-01	1.10E-04	7.30E-01				1	0.13	1.36E+09	
Iron		7439896				7.00E-01		7.00E-01	1	0	1.36E+09	
Mercury	Inorganic Salts	7487947				3.00E-04		2.10E-05	0.07	0	1.36E+09	
Methylene Chloride		75092	7.50E-03	4.70E-07	7.50E-03	6.00E-02	1.00E+00	6.00E-02	1	0	1.36E+09	2.36E+03
Naphthalene		91203		3.40E-05		2.00E-02	3.00E-03	2.00E-02	1	0.13	1.36E+09	4.99E+04
n-Butylbenzene	Ethylbenzene	104518	1.10E-02	2.50E-06	1.10E-02	1.00E-01	1.00E+00	1.00E-01	1	0	1.36E+09	6.10E+03
n-Propylbenzene	Ethylbenzene	103651	1.10E-02	2.50E-06	1.10E-02	1.00E-01	1.00E+00	1.00E-01	1	0	1.36E+09	6.10E+03
Tetrachloroethene		127184	5.40E-01	5.90E-06	5.40E-01	1.00E-02	2.70E-01	1.00E-02	1	0	1.36E+09	
Vanadium	Compounds	7440622				5.00E-03		5.00E-03	1	0	1.36E+09	
Zinc	Metallic	7440666				3.00E-01		3.00E-01	1	0	1.36E+09	

Notes:
Values taken from November 2010 version of the USEPA Regional Screening Level Table unless otherwise specified.
(1) Toxicity values for carbazole taken from the Health Effects Assessment Summary Tables (HEAST) (USEPA, 1998).

Table 14A
RME Risk Calculations - Industrial Worker - OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Arsenic, Inorganic	7440382		1.7	5.0E-03	8.0E-07	5.1E-05	1.2E-12	9.9E-04	1.6E-07	0.006	9.6E-07
	Benz[a]anthracene	56553		0.347		8.0E-08		6.2E-15		6.8E-08		1.5E-07
	Benzo[a]pyrene	50328		0.485		1.1E-06		8.6E-14		9.6E-07		2.1E-06
	Benzo[b]fluoranthene	205992		0.692		1.6E-07		1.2E-14		1.4E-07		3.0E-07
	Chromium	18540299		5	1.5E-03	7.9E-07	2.3E-05	6.8E-11	0E+00	0.0E+00	0.001	7.9E-07
	Dibenz[a,h]anthracene	53703		0.32		7.3E-07		6.2E-14		6.3E-07		1.4E-06
	Mercury, Inorganic Salts	7487947		0.487	1.4E-03				0E+00		0.001	
	Total				7.9E-03	3.7E-06	7.4E-05	6.9E-11	9.9E-04	1.9E-06	0.009	5.6E-06

Table 14B
RME Risk Calculations - Industrial Worker - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC (mg/kg)	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aroclor 1260 - High Risk	11096825		0.166	7.3E-03	1.0E-07		1.5E-14	6.8E-03	9.6E-08	0.014	2.0E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.137	1.7E-03	8.6E-08		1.3E-14	1.6E-03	8.0E-08	0.003	1.7E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.137	6.0E-03	8.6E-08		1.3E-14	5.6E-03	8.0E-08	0.012	1.7E-07
	Arsenic, Inorganic	7440382		1.474	4.3E-03	7.0E-07	4.5E-05	1.0E-12	8.6E-04	1.4E-07	0.005	8.3E-07
	Benz[a]anthracene	56553		0.213		4.9E-08		3.8E-15		4.2E-08		9.1E-08
	Benzo[a]pyrene	50328		0.195		4.5E-07		3.5E-14		3.8E-07		8.3E-07
	Benzo[b/k]fluoranthene	205992		0.605		1.4E-08		1.1E-14		1.2E-08		2.6E-08
	Benzo[b]fluoranthene	205992		0.0964		2.2E-08		1.7E-15		1.9E-08		4.1E-08
	Bis(2-ethylhexyl)phthalate	117817		4.298	1.9E-04	1.9E-08		1.7E-15	1.2E-04	1.2E-08	0.000314	3.1E-08
	Chromium	18540299		5.756	1.7E-03	9.1E-07	2.6E-05	7.8E-11	0E+00	0E+00	0.002	9.1E-07
	Dibenz[a,h]anthracene	53703		0.0111		2.5E-08		2.2E-15		2.2E-08		4.7E-08
	Indeno[1,2,3-cd]pyrene	193395		0.051		1.2E-08		9.1E-16		1.0E-08		2.2E-08
	Iron	7439896		8657	1.1E-02				0E+00		0.011	
	Mercury, Inorganic Salts	7487947		12.6	3.7E-02				0E+00		0.037	
	Vanadium	7440622		10.39	1.8E-03				0E+00		0.002	
	Total (Low Aroclor-1268)				6.5E-02	2.4E-06	7.1E-05	7.9E-11	9.3E-03	8.2E-07	0.07	3.2E-06
	Total (High Aroclor-1268)				6.9E-02	2.4E-06	7.1E-05	7.9E-11	1.3E-02	8.2E-07	0.08	3.2E-06

Table 14C
RME Risk Calculations - Industrial Worker - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aroclor 1221 - High Risk	11104282		0.27	1.2E-02	1.7E-07		3.7E-10	1.1E-02	1.6E-07	0.023	3.3E-07
	Aroclor 1254 - High Risk	11097691		0.862	3.8E-02	5.4E-07		8.0E-14	3.5E-02	5.0E-07	0.073	1.0E-06
	Aroclor 1260 - High Risk	11096825		1.218	5.4E-02	7.7E-07		1.1E-13	5.0E-02	7.1E-07	0.10	1.5E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	6.6E-02	3.3E-06		4.8E-13	6.1E-02	3.0E-06	0.13	6.3E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	2.3E-01	3.3E-06		4.8E-13	2.1E-01	3.0E-06	0.44	6.3E-06
	Arsenic, Inorganic	7440382		1.592	4.7E-03	7.5E-07	4.8E-05	1.1E-12	9.3E-04	1.5E-07	0.006	9.0E-07
	Benz[a]anthracene	56553		0.263		6.0E-08		4.7E-15		5.2E-08		1.1E-07
	Benzo[a]pyrene	50328		0.28		6.4E-07		5.0E-14		5.5E-07		1.2E-06
	Benzo[b/k]fluoranthene	205992		0.398		9.1E-09		7.1E-15		7.8E-09		1.7E-08
	Benzo[b]fluoranthene	205992		0.14		3.2E-08		2.5E-15		2.8E-08		6.0E-08
	Carbazole	86748		0.046		2.9E-10				1.9E-11		3.1E-10
	Chromium	18540299		7.741	2.3E-03	1.2E-06	3.5E-05	1.1E-10	0E+00	0E+00	0.002	1.2E-06
	Dibenz[a,h]anthracene	53703		0.15		3.4E-07		2.9E-14		3.0E-07		6.4E-07
	Indeno[1,2,3-cd]pyrene	193395		0.238		5.5E-08		4.2E-15		4.7E-08		1.0E-07
	Iron	7439896		6603	8.3E-03				0E+00		0.008	
	Mercury, Inorganic Salts	7487947		9.427	2.8E-02				0E+00		0.028	
	Total (Low Aroclor-1268)				2.1E-01	7.9E-06	8.3E-05	4.8E-10	1.6E-01	5.5E-06	0.37	1.3E-05
	Total (High Aroclor-1268)				3.8E-01	7.9E-06	8.3E-05	4.8E-10	3.1E-01	5.5E-06	0.69	1.3E-05

Table 14D

RME Risk Calculations - Industrial Worker - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aluminum	7429905		12427	1.1E-02		1.1E-03		0E+00		0.012	
	Antimony	7440360		4.655	1.0E-02				0E+00		0.010	
	Aroclor 1254 - High Risk	11097691		1.134	5.0E-02	7.1E-07		1.0E-13	4.6E-02	6.6E-07	0.096	1.4E-06
	Aroclor 1260 - High Risk	11096825		0.407	1.8E-02	2.6E-07		3.8E-14	1.7E-02	2.4E-07	0.034	4.9E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	1.8E-02	9.0E-07		1.3E-13	1.7E-02	8.3E-07	0.035	1.7E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	6.3E-02	9.0E-07		1.3E-13	5.8E-02	8.3E-07	0.12	1.7E-06
	Arsenic, Inorganic	7440382		8.584	2.5E-02	4.0E-06	2.6E-04	6.0E-12	5.0E-03	8.0E-07	0.03	4.9E-06
	Benz[a]anthracene	56553		0.372		8.5E-08		6.6E-15		7.3E-08		1.6E-07
	Benzene	71432		0.014	3.1E-06	2.4E-10	7.6E-05	6.3E-12	0E+00	0E+00	0.0001	2.5E-10
	Benzo[a]pyrene	50328		0.172		3.9E-07		3.1E-14		3.4E-07		7.3E-07
	Benzo[b]fluoranthene	205992		0.34		7.8E-08		6.1E-15		6.7E-08		1.5E-07
	Benzo[k]fluoranthene	207089		0.152		3.5E-09		2.7E-15		3.0E-09		6.5E-09
	Carbazole	86748		0.0474		3.0E-10				2.0E-11		3.2E-10
	Chromium	18540299		7.627	2.2E-03	1.2E-06	3.5E-05	1.0E-10	0E+00	0E+00	0.002	1.2E-06
	Dibenz[a,h]anthracene	53703		0.146		3.4E-07		2.8E-14		2.9E-07		6.2E-07
	Dibromochloromethane	124481		4.8	2.1E-04	1.3E-07		3.3E-09	1.4E-04	8.4E-08	0.0004	2.1E-07
	Ethylbenzene	100414		0.107	9.4E-07	3.7E-10	1.1E-05	9.7E-12	0E+00	0E+00	0.00001	3.8E-10
	Indeno[1,2,3-cd]pyrene	193395		0.17		3.9E-08		3.0E-15		3.3E-08		7.3E-08
	Iron	7439896		11105	1.4E-02				0E+00		0.014	
	Mercury, Inorganic Salts	7487947		4.008	1.2E-02				0E+00		0.012	
	Methylene Chloride	75092		0.0136	2.0E-07	3.2E-11	3.6E-06	6.0E-13	0E+00	0E+00	0.000004	3.3E-11
	Naphthalene	91203		1.289	5.7E-05		5.3E-03	1.9E-10	4.9E-05		0.005	1.9E-10
	Naphthalene, 1-Methyl	90120		2.11	2.7E-05	1.9E-08			0E+00	0E+00	0.00003	1.9E-08
	Naphthalene, 2-Methyl	91576		2.744	6.0E-04				0E+00		0.001	
	4,6-Dinitro-2-methylphenol	534521		32	3.5E-01				2.3E-01		0.58	
	n-Butylbenzene		Ethylbenzene	2.959	2.6E-05	1.0E-08	3.0E-04	2.7E-10	0E+00	0E+00	0.0003	1.1E-08
	n-Propylbenzene		Ethylbenzene	1.578	1.4E-05	5.5E-09	1.6E-04	1.4E-10	0E+00	0E+00	0.0002	5.6E-09
	Trimethylbenzene, 1,2,4-	95636		3.123			3.2E-02				0.032	
	Vanadium	7440622		33.66	5.9E-03				0E+00		0.01	
	Total (Low Aroclor-1268)				5.2E-01	8.2E-06	4.0E-02	4.1E-09	3.2E-01	3.4E-06	0.88	1.2E-05
	Total (High Aroclor-1268)				5.6E-01	8.2E-06	4.0E-02	4.1E-09	3.6E-01	3.4E-06	0.96	1.2E-05

Table 14E
RME Risk Calculations - Industrial Worker - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aluminum	7429905		3037	2.7E-03		2.8E-04		0.0E+00		0.003	
	Antimony	7440360		11.77	2.6E-02				0.0E+00		0.026	
	Aroclor 1254 - High Risk	11097691		0.246	1.1E-02	1.5E-07		2.3E-14	1.0E-02	1.4E-07	0.021	3.0E-07
	Aroclor 1260 - High Risk	11096825	See footote (1)	6.759	3.0E-01	4.3E-06		6.2E-13	2.7E-01	3.9E-06	0.57	8.2E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	1.1E-01	5.7E-06		8.4E-13	1.1E-01	5.3E-06	0.22	1.1E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	4.0E-01	5.7E-06		8.4E-13	3.7E-01	5.3E-06	0.77	1.1E-05
	Arsenic, Inorganic	7440382		1.176	3.5E-03	5.5E-07	3.6E-05	8.2E-13	6.8E-04	1.1E-07	0.004	6.6E-07
	Benz[a]anthracene	56553		1.781		4.1E-07		3.2E-14		3.5E-07		7.6E-07
	Benzo[a]pyrene	50328		0.614		1.4E-06		1.1E-13		1.2E-06		2.6E-06
	Benzo[b]fluoranthene	205992		0.505		1.2E-07		9.0E-15		9.9E-08		2.2E-07
	Benzo[k]fluoranthene	207089		0.404		9.3E-09		7.2E-15		8.0E-09		1.7E-08
	Chloroform	67663		0.0118	1.0E-06	1.2E-10	2.6E-05	2.1E-11	0.0E+00	0.E+00	0.00003	1.4E-10
	Chromium	18540299		19.75	5.8E-03	3.1E-06	9.0E-05	2.7E-10	0.0E+00	0.E+00	0.006	3.1E-06
	Chrysene	218019		2.508		5.8E-09		4.5E-15		4.9E-09		1.1E-08
	Cobalt	7440484		0.787	2.3E-03		5.9E-05	1.1E-12	0.0E+00		0.002	1.1E-12
	Dibenz[a,h]anthracene	53703		0.471		1.1E-06		9.1E-14		9.3E-07		2.0E-06
	Indeno[1,2,3-cd]pyrene	193395		0.57		1.3E-07		1.0E-14		1.1E-07		2.4E-07
	Iron	7439896		5852	7.4E-03				0.0E+00		0.007	
	Manganese	7439965		29.38	1.8E-04		2.7E-04		0.0E+00		0.0005	
	Mercury, Inorganic Salts	7487947		8.775	2.6E-02				0.0E+00		0.026	
	Naphthalene	91203		0.0559	2.5E-06		2.3E-04	8.4E-12	2.1E-06		0.0002	8.4E-12
	Naphthalene, 1-Methyl	90120		0.524	6.6E-06	4.8E-09			0.0E+00	0.E+00	0.00001	4.8E-09
	n-Butylbenzene		Ethylbenzene	0.355	3.1E-06	1.2E-09	3.6E-05	3.2E-11	0.0E+00	0.E+00	0.00004	1.3E-09
	Tetrachloroethene	127184		0.00318	2.8E-07	5.4E-10	5.3E-12	3.0E-18	0.0E+00	0.E+00	0.0000003	5.4E-10
	Trimethylbenzene, 1,2,4-	95636		0.175			1.8E-03				0.002	
	Vanadium	7440622		6.4	1.1E-03				0.0E+00		0.001	
	Zinc	7440666		2105	6.2E-03				0.0E+00		0.006	
	Total (Low Aroclor-1268)				5.0E-01	1.7E-05	2.8E-03	3.3E-10	3.9E-01	1.2E-05	0.90	2.9E-05
	Total (High Aroclor-1268)				7.9E-01	1.7E-05	2.8E-03	3.3E-10	6.6E-01	1.2E-05	1.45	2.9E-05

Notes:

(1) The EPC for Aroclor 1260 was calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 7.534 mg/kg, and the hazard and risk for this compound are 0.64 and 9.1E-06, respectively. The Total (Low Aroclor-1268) hazard and risk are 0.96 and 3.0E-05, respectively and the Total (High Aroclor-1268) hazard and risk are 1.5 and 3.0E-05, respectively.

Table 15A
CTE Risk Calculations - Industrial Worker - OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Arsenic, Inorganic	7440382		1.7	1.2E-03	7.0E-08	5.0E-05	4.1E-13	9.6E-05	5.6E-09	0.001	7.6E-08
	Benz[a]anthracene	56553		0.347		7.0E-09		2.2E-15		2.4E-09		9.4E-09
	Benzo[a]pyrene	50328		0.485		9.8E-08		3.0E-14		3.3E-08		1.3E-07
	Benzo[b]fluoranthene	205992		0.692		1.4E-08		4.3E-15		4.8E-09		1.9E-08
	Chromium	18540299		5	3.6E-04	6.9E-08	2.2E-05	2.4E-11	0E+00	0E+00	0.0004	6.9E-08
	Dibenz[a,h]anthracene	53703		0.32		6.4E-08		2.2E-14		2.2E-08		8.6E-08
	Mercury, Inorganic Salts	7487947		0.487	3.5E-04				0.E+00		0.0003	
	Total				1.92E-03	3.22E-07	7.21E-05	2.43E-11	9.62E-05	6.83E-08	0.002	3.90E-07

Table 15B
CTE Risk Calculations - Industrial Worker - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aroclor 1260 - High Risk	11096825		0.166	1.8E-03	9.1E-09		5.4E-15	6.6E-04	3.4E-09	0.002	1.3E-08
	Aroclor 1268 - 1016 RfD	11100144	Sur - Aroclor1254-1016	0.137	4.2E-04	7.5E-09		4.4E-15	1.6E-04	2.8E-09	0.001	1.0E-08
	Aroclor 1268 - High Risk	11100144	Sur - Aroclor1254	0.137	1.5E-03	7.5E-09		4.4E-15	5.4E-04	2.8E-09	0.002	1.0E-08
	Arsenic, Inorganic	7440382		1.474	1.1E-03	6.1E-08	4.3E-05	3.6E-13	8.3E-05	4.8E-09	0.001	6.6E-08
	Benz[a]anthracene	56553		0.213		4.3E-09		1.3E-15		1.5E-09		5.8E-09
	Benzo[a]pyrene	50328		0.195		3.9E-08		1.2E-14		1.3E-08		5.3E-08
	Benzo[b/k]fluoranthene	205992		0.605		1.2E-09		3.8E-15		4.2E-10		1.6E-09
	Benzo[b]fluoranthene	205992		0.0964		1.9E-09		6.0E-16		6.7E-10		2.6E-09
	Bis(2-ethylhexyl)phthalate	117817		4.298	4.6E-05	1.7E-09		5.9E-16	1.2E-05	4.4E-10	0.0001	2.1E-09
	Chromium	18540299		5.756	4.1E-04	7.9E-08	2.5E-05	2.7E-11	0E+00	0E+00	0.0004	7.9E-08
	Dibenz[a,h]anthracene	53703		0.0111		2.2E-09		7.6E-16		7.7E-10		3.0E-09
	Indeno[1,2,3-cd]pyrene	193395		0.051		1.0E-09		3.2E-16		3.5E-10		1.4E-09
	Iron	7439896		8657	2.7E-03				0.E+00		0.003	
	Mercury, Inorganic Salts	7487947		12.6	9.0E-03				0.E+00		0.009	
	Vanadium	7440622		10.39	4.5E-04				0E+00		0.0004	
	Total (Low Aroclor-1268)				1.6E-02	2.1E-07	6.9E-05	2.8E-11	9.1E-04	2.9E-08	0.02	2.4E-07
	Total (High Aroclor-1268)				1.7E-02	2.1E-07	6.9E-05	2.8E-11	1.3E-03	2.9E-08	0.02	2.4E-07

Table 15C
CTE Risk Calculations Including TEG Data - Industrial Worker - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aroclor 1221 - High Risk	11104282		0.27	2.9E-03	1.5E-08		1.3E-10	1.1E-03	5.5E-09	0.004	2.1E-08
	Aroclor 1254 - High Risk	11097691		0.862	9.2E-03	4.7E-08		2.8E-14	3.4E-03	1.8E-08	0.013	6.5E-08
	Aroclor 1260 - High Risk	11096825		1.218	1.3E-02	6.7E-08		3.9E-14	4.8E-03	2.5E-08	0.018	9.2E-08
	Aroclor 1268 - 1016 RfD	11100144	Sur - Aroclor1254-1016	5.218	1.6E-02	2.9E-07		1.7E-13	5.9E-03	1.1E-07	0.022	3.9E-07
	Aroclor 1268 - High Risk	11100144	Sur - Aroclor1254	5.218	5.6E-02	2.9E-07		1.7E-13	2.1E-02	1.1E-07	0.077	3.9E-07
	Arsenic, Inorganic	7440382		1.592	1.1E-03	6.6E-08	4.7E-05	3.9E-13	9.0E-05	5.2E-09	0.001	7.1E-08
	Benz[a]anthracene	56553		0.263		5.3E-09		1.6E-15		1.8E-09		7.1E-09
	Benzo[a]pyrene	50328		0.28		5.6E-08		1.7E-14		1.9E-08		7.6E-08
	Benzo[b/k]fluoranthene	205992		0.398		8.0E-10		2.5E-15		2.7E-10		1.1E-09
	Benzo[b]fluoranthene	205992		0.14		2.8E-09		8.7E-16		9.7E-10		3.8E-09
	Carbazole	86748		0.046		2.5E-11				6.7E-13		2.6E-11
	Chromium	18540299		7.741	5.5E-04	1.1E-07	3.4E-05	3.7E-11	0E+00	0E+00	0.0006	1.1E-07
	Dibenz[a,h]anthracene	53703		0.15		3.0E-08		1.0E-14		1.0E-08		4.1E-08
	Indeno[1,2,3-cd]pyrene	193395		0.238		4.8E-09		1.5E-15		1.6E-09		6.4E-09
	Iron	7439896		6603	2.0E-03				0.E+00		0.002	
	Mercury, Inorganic Salts	7487947		9.427	6.7E-03				0.E+00		0.007	
	Total (Low Aroclor-1268)				5.2E-02	6.9E-07	8.1E-05	1.7E-10	1.5E-02	1.9E-07	0.07	8.8E-07
	Total (High Aroclor-1268)				9.2E-02	6.9E-07	8.1E-05	1.7E-10	3.0E-02	1.9E-07	0.12	8.8E-07

Table 15D
CTE Risk Calculations - Industrial Worker - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aluminum	7429905		12427	2.7E-03		1.1E-03		0.E+00		0.004	
	Antimony	7440360		4.655	2.5E-03				0.E+00		0.002	
	Aroclor 1254 - High Risk	11097691		1.134	1.2E-02	6.2E-08		3.7E-14	4.5E-03	2.3E-08	0.017	8.6E-08
	Aroclor 1260 - High Risk	11096825		0.407	4.4E-03	2.2E-08		1.3E-14	1.6E-03	8.3E-09	0.006	3.1E-08
	Aroclor 1268 - 1016 RfD	11100144	Sur - Aroclor1254-1016	1.427	4.4E-03	7.9E-08		4.6E-14	1.6E-03	2.9E-08	0.006	1.1E-07
	Aroclor 1268 - High Risk	11100144	Sur - Aroclor1254	1.427	1.5E-02	7.9E-08		4.6E-14	5.7E-03	2.9E-08	0.021	1.1E-07
	Arsenic, Inorganic	7440382		8.584	6.1E-03	3.5E-07	2.5E-04	2.1E-12	4.9E-04	2.8E-08	0.007	3.8E-07
	Benz[a]anthracene	56553		0.372		7.5E-09		2.3E-15		2.6E-09		1.0E-08
	Benzene	71432		0.014	7.5E-07	2.1E-11	7.3E-05	2.2E-12	0.E+00	0.E+00	0.00007	2.3E-11
	Benzo[a]pyrene	50328		0.172		3.5E-08		1.1E-14		1.2E-08		4.6E-08
	Benzo[b]fluoranthene	205992		0.34		6.8E-09		2.1E-15		2.3E-09		9.2E-09
	Benzo[k]fluoranthene	207089		0.152		3.1E-10		9.5E-16		1.0E-10		4.1E-10
	Carbazole	86748		0.0474		2.6E-11				6.9E-13		2.7E-11
	Chromium	18540299		7.627	5.4E-04	1.1E-07	3.4E-05	3.6E-11	0E+00	0E+00	0.001	1.1E-07
	Dibenz[a,h]anthracene	53703		0.146		2.9E-08		9.9E-15		1.0E-08		3.9E-08
	Dibromochloromethane	124481		4.8	5.1E-05	1.1E-08		1.2E-09	1.4E-05	2.9E-09	0.00007	1.5E-08
	Ethylbenzene	100414		0.107	2.3E-07	3.2E-11	1.1E-05	3.4E-12	0.E+00	0.E+00	0.00001	3.6E-11
	Indeno[1,2,3-cd]pyrene	193395		0.17		3.4E-09		1.1E-15		1.2E-09		4.6E-09
	Iron	7439896		11105	3.4E-03				0.E+00		0.003	
	Mercury, Inorganic Salts	7487947		4.008	2.9E-03				0.E+00		0.003	
	Methylene Chloride	75092		0.0136	4.9E-08	2.8E-12	3.5E-06	2.1E-13	0.E+00	0.E+00	0.000004	3.0E-12
	Naphthalene	91203		1.289	1.4E-05		5.2E-03	6.8E-11	4.7E-06		0.005	6.8E-11
	Naphthalene, 1-Methyl	90120		2.11	6.5E-06	1.7E-09			0.E+00	0.E+00	0.000006	1.7E-09
	Naphthalene, 2-Methyl	91576		2.744	1.5E-04				0.E+00		0.0001	
	4,6-Dinitro-2-methylphenol	534521		32	8.6E-02				2.3E-02		0.11	
	n-Butylbenzene		Sur - Ethylbenzene	2.959	6.3E-06	9.0E-10	2.9E-04	9.4E-11	0.E+00	0.E+00	0.0003	9.9E-10
	n-Propylbenzene		Sur - Ethylbenzene	1.578	3.4E-06	4.8E-10	1.6E-04	5.0E-11	0.E+00	0.E+00	0.0002	5.3E-10
	Trimethylbenzene, 1,2,4-	95636		3.123			3.1E-02				0.031	
	Vanadium	7440622		33.66	1.4E-03				0E+00		0.001	
	Total (Low Aroclor-1268)				1.3E-01	7.2E-07	3.9E-02	1.4E-09	3.1E-02	1.2E-07	0.20	8.4E-07
	Total (High Aroclor-1268)				1.4E-01	7.2E-07	3.9E-02	1.4E-09	3.5E-02	1.2E-07	0.21	8.4E-07

Table 15E
CTE Risk Calculations - Industrial Worker - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aluminum	7429905		3037	6.5E-04		2.7E-04		0.E+00		0.0009	
	Antimony	7440360		11.77	6.3E-03				0.E+00		0.006	
	Aroclor 1254 - High Risk	11097691		0.246	2.6E-03	1.4E-08		8.0E-15	9.7E-04	5.0E-09	0.004	1.9E-08
	Aroclor 1260 - High Risk	11096825	See footote (1)	6.759	7.2E-02	3.7E-07		2.2E-13	2.7E-02	1.4E-07	0.10	5.1E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	2.8E-02	5.0E-07		3.0E-13	1.0E-02	1.9E-07	0.038	6.9E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	9.8E-02	5.0E-07		3.0E-13	3.6E-02	1.9E-07	0.13	6.9E-07
	Arsenic, Inorganic	7440382		1.176	8.4E-04	4.9E-08	3.5E-05	2.9E-13	6.7E-05	3.8E-09	0.0009	5.2E-08
	Benz[a]anthracene	56553		1.781		3.6E-08		1.1E-14		1.2E-08		4.8E-08
	Benzo[a]pyrene	50328		0.614		1.2E-07		3.8E-14		4.2E-08		1.7E-07
	Benzo[b]fluoranthene	205992		0.505		1.0E-08		3.2E-15		3.5E-09		1.4E-08
	Benzo[k]fluoranthene	207089		0.404		8.1E-10		2.5E-15		2.8E-10		1.1E-09
	Chloroform	67663		0.0118	2.5E-07	1.0E-11	2.6E-05	7.4E-12	0.E+00	0.E+00	0.00003	1.7E-11
	Chromium	18540299		19.75	1.4E-03	2.7E-07	8.7E-05	9.4E-11	0E+00	0E+00	0.001	2.7E-07
	Chrysene	218019		2.508		5.0E-10		1.6E-15		1.7E-10		6.8E-10
	Cobalt	7440484		0.787	5.6E-04		5.8E-05	4.0E-13	0.E+00		0.0006	4.0E-13
	Dibenz[a,h]anthracene	53703		0.471		9.5E-08		3.2E-14		3.3E-08		1.3E-07
	Indeno[1,2,3-cd]pyrene	193395		0.57		1.1E-08		3.6E-15		3.9E-09		1.5E-08
	Iron	7439896		5852	1.8E-03				0.E+00		0.002	
	Manganese	7439965		29.38	4.5E-05		2.6E-04		0.E+00		0.0003	
	Mercury, Inorganic Salts	7487947		8.775	6.3E-03				0.E+00		0.006	
	Naphthalene	91203		0.0559	6.0E-07		2.2E-04	2.9E-12	2.1E-07		0.0002	2.9E-12
	Naphthalene, 1-Methyl	90120		0.524	1.6E-06	4.2E-10			0.E+00	0.E+00	0.000002	4.2E-10
	n-Butylbenzene		Ethylbenzene	0.355	7.6E-07	1.1E-10	3.5E-05	1.1E-11	0.E+00	0.E+00	0.00004	1.2E-10
	Tetrachloroethene	127184		0.00318	6.8E-08	4.7E-11	5.2E-12	1.1E-18	0E+00	0E+00	0.00000007	4.7E-11
	Trimethylbenzene, 1,2,4-	95636		0.175			1.8E-03				0.002	
	Vanadium Pentoxide	7440622		6.4	1.5E-04		4.0E-04	3.0E-12	0.E+00		0.001	3.0E-12
	Zinc	7440666		2105	1.5E-03				0.E+00		0.002	
	Total (Low Aroclor-1268)				1.2E-01	1.5E-06	3.2E-03	1.2E-10	3.8E-02	4.3E-07	0.16	1.9E-06
	Total (High Aroclor-1268)				1.9E-01	1.5E-06	3.2E-03	1.2E-10	6.4E-02	4.3E-07	0.26	1.9E-06

Notes:

(1) The EPC for Aroclor 1260 was calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 7.534 mg/kg, aand the hazard and risk for this compound are 0.11 and 5.69E-07, respectively. The Total (Low Aroclor-1268) hazard and risk are 0.17 and 1.97E-06, respectively and the Total (High Aroclor-1268) hazard and risk are 0.27 and 1.97E-06, respectively.

Table 16A
RME Risk Calculations - Excavation Worker - OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC (mg/kg)	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Arsenic, Inorganic	7440382		1.7	1.9E-02	6.1E-08	5.9E-05	2.7E-14	1.7E-03	5.5E-09	0.021	6.7E-08
	Benz[a]anthracene	56553		0.232		4.1E-09		9.5E-17		1.6E-09		5.6E-09
	Benzo[a]pyrene	50328		0.312		5.5E-08		1.3E-15		2.1E-08		7.6E-08
	Benzo[b]fluoranthene	205992		0.449		7.9E-09		1.8E-16		3.1E-09		1.1E-08
	Chromium	18540299		5	5.6E-03	6.0E-08	2.6E-05	1.6E-12	0E+00	0E+00	0.006	6.0E-08
	Dibenz[a,h]anthracene	53703		0.32		5.6E-08		1.4E-15		2.2E-08		7.8E-08
	Mercury, Inorganic Salts	7487947		0.331	3.7E-03				0E+00		0.004	
	Total				2.8E-02	2.4E-07	8.6E-05	1.6E-12	1.7E-03	5.3E-08	0.030	3.0E-07

Table 16B
RME Risk Calculations - Excavation Worker - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aroclor 1260 - High Risk	11096825		0.124	2.1E-02	5.9E-09		2.6E-16	8.7E-03	2.5E-09	0.030	8.4E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.127	6.1E-03	6.1E-09		2.7E-16	2.6E-03	2.6E-09	0.009	8.7E-09
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.127	2.1E-02	6.1E-09		2.7E-16	9.0E-03	2.6E-09	0.030	8.7E-09
	Arsenic, Inorganic	7440382		1.094	1.2E-02	3.9E-08	3.8E-05	1.8E-14	1.1E-03	3.5E-09	0.013	4.3E-08
	Benz[a]anthracene	56553		0.171		3.0E-09		7.0E-17		1.2E-09		4.2E-09
	Benzo[a]pyrene	50328		0.143		2.5E-08		5.9E-16		9.8E-09		3.5E-08
	Benzo[b/k]fluoranthene	205992		0.413		7.2E-10		1.7E-16		2.8E-10		1.0E-09
	Benzo[b]fluoranthene	205992		0.104		1.8E-09		4.3E-17		7.1E-10		2.5E-09
	Bis(2-ethylhexyl)phthalate	117817		2.57	4.3E-04	8.6E-10		2.3E-17	1.3E-04	2.6E-10	0.0006	1.1E-09
	Chromium	18540299		4.98	5.6E-03	6.0E-08	2.6E-05	1.6E-12	0E+00	0E+00	0.006	6.0E-08
	Dibenz[a,h]anthracene	53703		0.0175		3.1E-09		7.9E-17		1.2E-09		4.3E-09
	Indeno[1,2,3-cd]pyrene	193395		0.0741		1.3E-09		3.0E-17		5.1E-10		1.8E-09
	Iron	7439896		6198	3.0E-02				0E+00		0.030	
	Mercury, Inorganic Salts	7487947		5.478	6.1E-02				0E+00		0.061	
	Vanadium	7440622		7.829	5.3E-03				0E+00		0.01	
	Total (Low Aroclor-1268)				1.4E-01	1.5E-07	6.4E-05	1.6E-12	1.3E-02	2.2E-08	0.15	1.7E-07
	Total (High Aroclor-1268)				1.6E-01	1.5E-07	6.4E-05	1.6E-12	1.9E-02	2.2E-08	0.18	1.7E-07

Table 16C
RME Risk Calculations - Excavation Worker - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aroclor 1221 - High Risk	11104282		0.27	4.5E-02	1.3E-08		8.5E-12	1.9E-02	5.4E-09	0.064	1.8E-08
	Aroclor 1254 - High Risk	11097691		0.636	1.1E-01	3.1E-08		1.4E-15	4.5E-02	1.3E-08	0.15	4.3E-08
	Aroclor 1260 - High Risk	11096825		1.214	2.0E-01	5.8E-08		2.6E-15	8.6E-02	2.4E-08	0.29	8.3E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.94	1.4E-01	1.4E-07		6.3E-15	5.9E-02	5.9E-08	0.20	2.0E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.94	4.9E-01	1.4E-07		6.3E-15	2.1E-01	5.9E-08	0.70	2.0E-07
	Arsenic, Inorganic	7440382		1.256	1.4E-02	4.5E-08	4.4E-05	2.0E-14	1.3E-03	4.1E-09	0.015	4.9E-08
	Benz[a]anthracene	56553		0.221		3.9E-09		9.1E-17		1.5E-09		5.4E-09
	Benzo[a]pyrene	50328		0.226		4.0E-08		9.3E-16		1.5E-08		5.5E-08
	Benzo[b/k]fluoranthene	205992		0.33		5.8E-10		1.4E-16		2.3E-10		8.0E-10
	Benzo[b]fluoranthene	205992		0.12		2.1E-09		4.9E-17		8.2E-10		2.9E-09
	Carbazole	86748		0.046		2.2E-11				6.6E-13		2.3E-11
	Chromium	18540299		5.48	6.1E-03	6.6E-08	2.9E-05	1.7E-12	0E+00	0E+00	0.006	6.6E-08
	Dibenz[a,h]anthracene	53703		0.148		2.6E-08		6.6E-16		1.0E-08		3.6E-08
	Indeno[1,2,3-cd]pyrene	193395		0.222		3.9E-09		9.1E-17		1.5E-09		5.4E-09
	Iron	7439896		3452	1.7E-02				0E+00		0.017	
	Mercury, Inorganic Salts	7487947		3.759	4.2E-02				0E+00		0.042	
	Total (Low Aroclor-1268)				5.8E-01	4.3E-07	7.3E-05	1.0E-11	2.1E-01	1.4E-07	0.79	5.7E-07
	Total (High Aroclor-1268)				9.3E-01	4.3E-07	7.3E-05	1.0E-11	3.6E-01	1.4E-07	1.29	5.7E-07

Table 16D
RME Risk Calculations - Excavation Worker - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aluminum	7429905		6312	2.1E-02		6.6E-04		0E+00		0.022	
	Antimony	7440360		3.236	2.7E-02				0E+00		0.027	
	Aroclor 1016	12674112		0.0638	3.1E-03	1.1E-10		4.8E-18	1.3E-03	4.5E-11	0.004	1.5E-10
	Aroclor 1254 - High Risk	11097691		1.047	1.8E-01	5.0E-08		2.2E-15	7.4E-02	2.1E-08	0.25	7.1E-08
	Aroclor 1260 - High Risk	11096825		0.21	3.5E-02	1.0E-08		4.5E-16	1.5E-02	4.2E-09	0.050	1.4E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.847	4.1E-02	4.1E-08		1.8E-15	1.7E-02	1.7E-08	0.058	5.8E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.847	1.4E-01	4.1E-08		1.8E-15	6.0E-02	1.7E-08	0.20	5.8E-08
	Arsenic, Inorganic	7440382		3.093	3.5E-02	1.1E-07	1.1E-04	5.0E-14	3.1E-03	1.0E-08	0.038	1.2E-07
	Benz[a]anthracene	56553		0.239		4.2E-09		9.8E-17		1.6E-09		5.8E-09
	Benzene	71432		0.211	1.8E-04	2.8E-10	1.3E-03	2.2E-12	0E+00	0E+00	0.001	2.8E-10
	Benzo[a]pyrene	50328		0.222		3.9E-08		9.1E-16		1.5E-08		5.4E-08
	Benzo[b]fluoranthene	205992		0.194		3.4E-09		8.0E-17		1.3E-09		4.7E-09
	Benzo[k]fluoranthene	207089		0.106		1.9E-10		4.4E-17		7.2E-11		2.6E-10
	bis(2-Chloroethyl) ether	111444		0.38		1.0E-08		4.7E-16		0.0E+00		1.0E-08
	Carbazole	86748		0.0551		2.6E-11				7.9E-13		2.7E-11
	Chromium	18540299		5.132	5.7E-03	6.2E-08	2.7E-05	1.6E-12	0E+00	0E+00	0.006	6.2E-08
	Dibenz[a,h]anthracene	53703		0.0807		1.4E-08		3.6E-16		5.5E-09		2.0E-08
	Dibromochloromethane	124481		0.125	2.1E-05	2.5E-10		2.0E-12	6.3E-06	7.6E-11	0.00003	3.3E-10
	Dichlorobenzene, 1,4-	106467		1.515	7.3E-05	2.0E-10	1.2E-04	7.6E-12	0E+00	0E+00	0.0002	2.0E-10
	Ethylbenzene	100414		0.549	1.8E-05	1.4E-10	6.4E-05	1.1E-12	0E+00	0E+00	0.0001	1.5E-10
	Indeno[1,2,3-cd]pyrene	193395		0.162		2.8E-09		6.7E-17		1.1E-09		3.9E-09
	Iron	7439896		8275	4.0E-02				0E+00		0.040	
	Mercury, Inorganic Salts	7487947		2.629	2.9E-02				0E+00		0.029	
	Methylene Chloride	75092		0.461	2.6E-05	8.3E-11	1.4E-04	4.7E-13	0E+00	0E+00	0.0002	8.3E-11
	Naphthalene	91203		0.935	1.6E-04		4.4E-03	3.2E-12	6.1E-05		0.005	3.2E-12
	Naphthalene, 1-Methyl	90120		3.541	1.7E-04	2.5E-09			0E+00	0E+00	0.0002	2.5E-09
	Naphthalene, 2-Methyl	91576		3.104	2.6E-03				0E+00		0.003	
	4,6-Dinitro-2-methylphenol	534521		8.664	3.6E-01				1.1E-01		0.47	
	n-Butylbenzene		Ethylbenzene	3.169	1.1E-04	8.4E-10	3.7E-04	6.6E-12	0E+00	0E+00	0.0005	8.4E-10
	n-Propylbenzene		Ethylbenzene	1.459	4.9E-05	3.8E-10	1.7E-04	3.0E-12	0E+00	0E+00	0.0002	3.9E-10
	Tetrachloroethane, 1,1,2,2-	79345		0.0839	1.4E-05	4.0E-10		1.8E-17	0E+00	0E+00	0.00001	4.0E-10
	Trimethylbenzene, 1,2,4-	95636		7.144			8.5E-02				0.085	
	Vanadium	7440622		39.8	2.7E-02				0E+00		0.03	
	Total (Low Aroclor-1268)				8.1E-01	3.5E-07	9.3E-02	2.8E-11	2.2E-01	7.7E-08	1.12	4.3E-07
	Total (High Aroclor-1268)				9.1E-01	3.5E-07	9.3E-02	2.8E-11	2.6E-01	7.7E-08	1.26	4.3E-07

Table 16E

RME Risk Calculations - Excavation Worker - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aluminum	7429905		8475	2.8E-02		8.9E-04		0E+00		0.029	
	Antimony	7440360		7.074	5.9E-02				0E+00		0.059	
	Aroclor 1254 - High Risk	11097691		0.21	3.5E-02	1.0E-08		4.5E-16	1.5E-02	4.2E-09	0.050	1.4E-08
	Aroclor 1260 - High Risk	11096825	See footote (1)	4.699	7.9E-01	2.3E-07		1.0E-14	3.3E-01	9.5E-08	1.12	3.2E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.867	3.3E-01	3.3E-07		1.5E-14	1.4E-01	1.4E-07	0.47	4.7E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.867	1.2E+00	3.3E-07		1.5E-14	4.8E-01	1.4E-07	1.64	4.7E-07
	Arsenic, Inorganic	7440382		2.669	3.0E-02	9.6E-08	9.3E-05	4.3E-14	2.7E-03	8.6E-09	0.033	1.0E-07
	Benz[a]anthracene	56553		0.569		1.0E-08		2.3E-16		3.9E-09		1.4E-08
	Benzo[a]pyrene	50328		0.436		7.6E-08		1.8E-15		3.0E-08		1.1E-07
	Benzo[b]fluoranthene	205992		0.362		6.3E-09		1.5E-16		2.5E-09		8.8E-09
	Benzo[k]fluoranthene	207089		0.184		3.2E-10		7.6E-17		1.3E-10		4.5E-10
	Chloroform	67663		0.0247	8.3E-06	1.8E-11	6.3E-05	1.0E-12	0E+00	0E+00	0.0001	1.9E-11
	Chromium	18540299		16.78	1.9E-02	2.0E-07	8.8E-05	5.3E-12	0E+00	0E+00	0.019	2.0E-07
	Chrysene	218019		0.688		1.2E-10		2.8E-17		4.7E-11		1.7E-10
	Cobalt	7440484		0.543	6.1E-03		4.7E-05	1.8E-14	0E+00		0.006	1.8E-14
	Dibenz[a,h]anthracene	53703		0.254		4.4E-08		1.1E-15		1.7E-08		6.2E-08
	Indeno[1,2,3-cd]pyrene	193395		0.166		2.9E-09		6.8E-17		1.1E-09		4.0E-09
	Iron	7439896		6880	3.3E-02				0E+00		0.033	
	Manganese	7439965		140.6	3.4E-03		1.5E-03		0E+00		0.005	
	Mercury, Inorganic Salts	7487947		8.927	1.0E-01				0E+00		0.10	
	Naphthalene	91203		0.258	4.3E-05		1.2E-03	8.9E-13	1.7E-05		0.001	8.9E-13
	Naphthalene, 1-Methyl	90120		1.513	7.3E-05	1.1E-09			0E+00	0E+00	0.0001	1.1E-09
	n-Butylbenzene		Ethylbenzene	1.996	6.7E-05	5.3E-10	2.3E-04	4.2E-12	0E+00	0E+00	0.0003	5.3E-10
	Tetrachloroethene	127184		0.0283	9.5E-06	3.7E-10	5.5E-11	6.2E-19	0E+00	0E+00	0.00001	3.7E-10
	Trimethylbenzene, 1,2,4-	95636		0.762			9.1E-03				0.009	
	Vanadium	7440622		23.55	1.6E-02				0E+00		0.016	
	Zinc	7440666		1149	1.3E-02				0E+00		0.013	
	Total (Low Aroclor-1268)				1.5E+00	1.0E-06	1.3E-02	1.1E-11	4.9E-01	3.0E-07	1.96	1.3E-06
	Total (High Aroclor-1268)				2.3E+00	1.0E-06	1.3E-02	1.1E-11	8.3E-01	3.0E-07	3.13	1.3E-06

Notes:

(1) The EPC for Aroclor 1260 was been calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 5.512 mg/kg, and the hazard and risk for this compound are 1.31 and 1.43E-08, respectively.

The Total (Low Aroclor-1268) hazard and risk are 2.15 and 1.36E-06, respectively and the Total (High Aroclor-1268) hazard and risk are 3.31 and 1.36E-06, respectively

Table 17A
CTE Risk Calculations - Evacuation Worker - OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC (mg/kg)	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Arsenic, Inorganic	7440382		1.7	5.8E-03	8.5E-09	5.9E-05	1.3E-14	3.3E-04	4.9E-10	0.0062	9.0E-09
	Benz[a]anthracene	56553		0.232		5.7E-10		4.4E-17		1.4E-10		7.1E-10
	Benzo[a]pyrene	50328		0.312		7.6E-09		5.9E-16		1.9E-09		9.5E-09
	Benzo[b]fluoranthene	205992		0.449		1.1E-09		8.5E-17		2.7E-10		1.4E-09
	Chromium	18540299		5	1.7E-03	8.4E-09	2.6E-05	7.2E-13	0E+00	0E+00	0.002	8.4E-09
	Dibenz[a,h]anthracene	53703		0.32		7.8E-09		6.6E-16		1.9E-09		9.7E-09
	Mercury, Inorganic Salts	7487947		0.331	1.1E-03				0E+00		0.001	
	Total				8.6E-03	3.4E-08	8.6E-05	7.4E-13	3.3E-04	4.7E-09	0.009	3.9E-08

Table 17B
CTE Risk Calculations - Excavation Worker - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aroclor 1260 - High Risk	11096825		0.124	6.3E-03	8.3E-10		1.2E-16	1.7E-03	2.2E-10	0.008	1.0E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.127	1.8E-03	8.5E-10		1.2E-16	4.9E-04	2.3E-10	0.002	1.1E-09
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.127	6.5E-03	8.5E-10		1.2E-16	1.7E-03	2.3E-10	0.008	1.1E-09
	Arsenic, Inorganic	7440382		1.094	3.7E-03	5.5E-09	3.8E-05	8.1E-15	2.1E-04	3.1E-10	0.004	5.8E-09
	Benz[a]anthracene	56553		0.171		4.2E-10		3.2E-17		1.0E-10		5.2E-10
	Benzo[a]pyrene	50328		0.143		3.5E-09		2.7E-16		8.6E-10		4.4E-09
	Benzo[b/k]fluoranthene	205992		0.413		1.0E-10		7.8E-17		2.5E-11		1.3E-10
	Benzo[b]fluoranthene	205992		0.104		2.5E-10		2.0E-17		6.3E-11		3.2E-10
	Bis(2-ethylhexyl)phthalate	117817		2.57	1.3E-04	1.2E-10		1.1E-17	2E-05	2E-11	0.0002	1.4E-10
	Chromium	18540299		4.98	1.7E-03	8.3E-09	2.6E-05	7.2E-13	0E+00	0E+00	0.002	8.3E-09
	Dibenz[a,h]anthracene	53703		0.0175		4.3E-10		3.6E-17		1.1E-10		5.3E-10
	Indeno[1,2,3-cd]pyrene	193395		0.0741		1.8E-10		1.4E-17		4.5E-11		2.3E-10
	Iron	7439896		6198	9.0E-03				0.0E+00		0.009	
	Mercury, Inorganic Salts	7487947		5.478	1.9E-02				0.0E+00		0.019	
	Vanadium	7440622		7.829	1.6E-03				0E+00		0.002	
	Total (Low Aroclor-1268)				4.3E-02	2.0E-08	6.4E-05	7.3E-13	2.4E-03	2.0E-09	0.05	2.2E-08
	Total (High Aroclor-1268)				4.7E-02	2.0E-08	6.4E-05	7.3E-13	3.6E-03	2.0E-09	0.05	2.2E-08

Table 17C
CTE Risk Calculations - Excavation Worker - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aroclor 1221 - High Risk	11104282		0.27	1.4E-02	1.8E-09		3.9E-12	3.7E-03	4.8E-10	0.017	2.3E-09
	Aroclor 1254 - High Risk	11097691		0.636	3.2E-02	4.3E-09		6.2E-16	8.6E-03	1.1E-09	0.041	5.4E-09
	Aroclor 1260 - High Risk	11096825		1.214	6.2E-02	8.1E-09		1.2E-15	1.6E-02	2.2E-09	0.078	1.0E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.94	4.3E-02	2.0E-08		2.9E-15	1.1E-02	5.2E-09	0.054	2.5E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.94	1.5E-01	2.0E-08		2.9E-15	4.0E-02	5.2E-09	0.19	2.5E-08
	Arsenic, Inorganic	7440382		1.256	4.3E-03	6.3E-09	4.4E-05	9.3E-15	2.4E-04	3.6E-10	0.005	6.7E-09
	Benz[a]anthracene	56553		0.221		5.4E-10		4.2E-17		1.3E-10		6.7E-10
	Benzo[a]pyrene	50328		0.226		5.5E-09		4.3E-16		1.4E-09		6.9E-09
	Benzo[b/k]fluoranthene	205992		0.33		8.1E-11		6.2E-17		2.0E-11		1.0E-10
	Benzo[b]fluoranthene	205992		0.12		2.9E-10		2.3E-17		7.2E-11		3.7E-10
	Carbazole	86748		0.046		3.1E-12				5.8E-14		3.1E-12
	Chromium	18540299		5.48	1.9E-03	9.2E-09	2.9E-05	7.9E-13			0.002	9.2E-09
	Dibenz[a,h]anthracene	53703		0.148		3.6E-09		3.1E-16		8.9E-10		4.5E-09
	Indeno[1,2,3-cd]pyrene	193395		0.222		5.4E-10		4.2E-17		1.3E-10		6.8E-10
	Iron	7439896		3452	5.0E-03				0E+00		0.01	
	Mercury, Inorganic Salts	7487947		3.759	1.3E-02				0E+00		0.01	
	Total (Low Aroclor-1268)				1.7E-01	6.0E-08	7.3E-05	4.7E-12	4.0E-02	1.2E-08	0.21	7.2E-08
	Total (High Aroclor-1268)				2.8E-01	6.0E-08	7.3E-05	4.7E-12	6.9E-02	1.2E-08	0.35	7.2E-08

Table 17D
CTE Risk Calculations - Excavation Worker - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aluminum	7429905		6312	6.4E-03		6.6E-04		0E+00		0.007	
	Antimony	7440360		3.236	8.2E-03				0E+00		0.008	
	Aroclor 1016	12674112		0.0638	9.3E-04	1.5E-11		2.2E-18	2.5E-04	4.0E-12	0.001	1.9E-11
	Aroclor 1254 - High Risk	11097691		1.047	5.3E-02	7.0E-09		1.0E-15	1.4E-02	1.9E-09	0.067	8.9E-09
	Aroclor 1260 - High Risk	11096825		0.21	1.1E-02	1.4E-09		2.1E-16	2.8E-03	3.7E-10	0.014	1.8E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.847	1.2E-02	5.7E-09		8.3E-16	3.3E-03	1.5E-09	0.016	7.2E-09
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.847	4.3E-02	5.7E-09		8.3E-16	1.1E-02	1.5E-09	0.055	7.2E-09
	Arsenic, Inorganic	7440382		3.093	1.0E-02	1.6E-08	1.1E-04	2.3E-14	6.0E-04	8.8E-10	0.011	1.6E-08
	Benz[a]anthracene	56553		0.239		5.8E-10		4.5E-17		1.4E-10		7.3E-10
	Benzene	71432		0.211	5.4E-05	3.9E-11	1.3E-03	1.0E-12	0E+00	0E+00	0.001	4.0E-11
	Benzo[a]pyrene	50328		0.222		5.4E-09		4.2E-16		1.3E-09		6.8E-09
	Benzo[b]fluoranthene	205992		0.194		4.7E-10		3.7E-17		1.2E-10		5.9E-10
	Benzo[k]fluoranthene	207089		0.106		2.6E-11		2.0E-17		6.4E-12		3.2E-11
	bis(2-Chloroethyl) ether	111444		0.38		1.4E-09		2.2E-16		0.0E+00		1.4E-09
	Carbazole	86748		0.0551		3.7E-12				7.0E-14		3.8E-12
	Chromium	18540299		5.132	1.7E-03	8.6E-09	2.7E-05	7.4E-13	0E+00	0E+00	0.002	8.6E-09
	Dibenz[a,h]anthracene	53703		0.0807		2.0E-09		1.7E-16		4.9E-10		2.5E-09
	Dibromochloromethane	124481		0.125	6.4E-06	3.5E-11		9.2E-13	1.2E-06	6.7E-12	0.00001	4.3E-11
	Dichlorobenzene, 1,4-	106467		1.515	2.2E-05	2.7E-11	1.2E-04	3.5E-12	0E+00	0E+00	0.0001	3.1E-11
	Ethylbenzene	100414		0.549	5.6E-06	2.0E-11	6.4E-05	5.3E-13	0E+00	0E+00	0.0001	2.1E-11
	Indeno[1,2,3-cd]pyrene	193395		0.162		4.0E-10		3.1E-17		9.8E-11		4.9E-10
	Iron	7439896		8275	1.2E-02				0E+00		0.012	
	Mercury, Inorganic Salts	7487947		2.629	8.9E-03				0E+00		0.009	
	Methylene Chloride	75092		0.461	7.8E-06	1.2E-11	1.4E-04	2.1E-13	0E+00	0E+00	0.0001	1.2E-11
	Naphthalene	91203		0.935	4.8E-05		4.4E-03	1.5E-12	1.2E-05		0.005	1.5E-12
	Naphthalene, 1-Methyl	90120		3.541	5.1E-05	3.4E-10			0E+00	0E+00	0.0001	3.4E-10
	Naphthalene, 2-Methyl	91576		3.104	7.9E-04				0E+00		0.001	
	4,6-Dinitro-2-methylphenol	534521		8.664	1.1E-01				2.1E-02		0.13	
	n-Butylbenzene		Ethylbenzene	3.169	3.2E-05	1.2E-10	3.7E-04	3.0E-12	0E+00	0E+00	0.0004	1.2E-10
	n-Propylbenzene		Ethylbenzene	1.459	1.5E-05	5.4E-11	1.7E-04	1.4E-12	0E+00	0E+00	0.0002	5.5E-11
	Tetrachloroethane, 1,1,2,2-			0.0839	4.3E-06	5.6E-11		8.4E-18	0E+00	0E+00	0.000004	5.6E-11
	Trimethylbenzene, 1,2,4-	95636		7.144			8.5E-02				0.085	
	Vanadium	7440622		39.8	8.1E-03				0E+00		0.008	
	Total (Low Aroclor-1268)				2.4E-01	4.9E-08	9.3E-02	1.3E-11	4.2E-02	6.8E-09	0.38	5.6E-08
	Total (High Aroclor-1268)				2.8E-01	4.9E-08	9.3E-02	1.3E-11	5.0E-02	6.8E-09	0.42	5.6E-08

Table 17E
CTE Risk Calculations - Excavation Worker - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aluminum	7429905		8475	8.6E-03		8.9E-04		0E+00		0.010	
	Antimony	7440360		7.074	1.8E-02				0E+00		0.018	
	Aroclor 1254 - High Risk	11097691		0.21	1.1E-02	1.4E-09		2.1E-16	2.8E-03	3.7E-10	0.014	1.8E-09
	Aroclor 1260 - High Risk	11096825	See footote (1)	4.699	2.4E-01	3.1E-08		4.6E-15	6.4E-02	8.4E-09	0.30	4.0E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.867	1.0E-01	4.6E-08		6.7E-15	2.7E-02	1.2E-08	0.13	5.8E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.867	3.5E-01	4.6E-08		6.7E-15	9.3E-02	1.2E-08	0.44	5.8E-08
	Arsenic, Inorganic	7440382		2.669	9.1E-03	1.3E-08	9.3E-05	2.0E-14	5.2E-04	7.6E-10	0.010	1.4E-08
	Benz[a]anthracene	56553		0.569		1.4E-09		1.1E-16		3.4E-10		1.7E-09
	Benzo[a]pyrene	50328		0.436		1.1E-08		8.3E-16		2.6E-09		1.3E-08
	Benzo[b]fluoranthene	205992		0.362		8.8E-10		6.9E-17		2.2E-10		1.1E-09
	Benzo[k]fluoranthene	207089		0.184		4.5E-11		3.5E-17		1.1E-11		5.6E-11
	Chloroform	67663		0.0247	2.5E-06	2.6E-12	6.3E-05	4.7E-13	0E+00	0E+00	0.0001	3.0E-12
	Chromium	18540299		16.78	5.7E-03	2.8E-08	8.8E-05	2.4E-12	0E+00	0E+00	0.006	2.8E-08
	Chrysene	218019		0.688		1.7E-11		1.3E-17		4.1E-12		2.1E-11
	Cobalt	7440484		0.543	1.8E-03		4.7E-05	8.4E-15	0E+00		0.002	8.4E-15
	Dibenz[a,h]anthracene	53703		0.254		6.2E-09		5.2E-16		1.5E-09		7.7E-09
	Indeno[1,2,3-cd]pyrene	193395		0.166		4.1E-10		3.1E-17		1.0E-10		5.1E-10
	Iron	7439896		6880	1.0E-02				0E+00		0.010	
	Manganese	7439965		140.6	1.0E-03		1.5E-03		0E+00		0.002	
	Mercury, Inorganic Salts	7487947		8.927	3.0E-02				0E+00		0.030	
	Naphthalene	91203		0.258	1.3E-05		1.2E-03	4.1E-13	3.2E-06		0.001	4.1E-13
	Naphthalene, 1-Methyl	90120		1.513	2.2E-05	1.5E-10			0E+00	0E+00	0.00002	1.5E-10
	n-Butylbenzene		Ethylbenzene	1.996	2.0E-05	7.3E-11	2.3E-04	1.9E-12	0E+00	0E+00	0.0003	7.5E-11
	Tetrachloroethene	127184		0.0283	2.9E-06	5.1E-11	5.5E-11	2.9E-19	0E+00	0E+00	0.000003	5.1E-11
	Trimethylbenzene, 1,2,4-	95636		0.762			9.1E-03				0.009	
	Vanadium	7440622		23.55	4.8E-03				0E+00		0.005	
	Zinc	7440666		1149	3.9E-03				0E+00		0.004	
	Total (Low Aroclor-1268)				4.4E-01	1.4E-07	1.3E-02	5.3E-12	9.4E-02	2.7E-08	0.55	1.7E-07
	Total (High Aroclor-1268)				6.9E-01	1.4E-07	1.3E-02	5.3E-12	1.6E-01	2.7E-08	0.87	1.7E-07

Notes:

(1) The EPC for Aroclor 1260 was been calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 5.512 mg/kg, and the hazard and risk for this compound are 0.36 and 4.67E-08, respectively.

The Total (Low Aroclor-1268) hazard and risk are 0.60 and 1.73E-07, respectively and the Total (High Aroclor-1268) hazard and risk are 0.92 and 1.73E-07, respectively.

Table 18A
RME Risk Calculations - Current Trespasser - OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Arsenic, Inorganic	7440382		1.7	4.1E-04	2.7E-08	5.5E-06	5.0E-14	2.0E-04	1.3E-08	0.0006	3.9E-08
	Benz[a]anthracene	56553		0.347		2.6E-09		2.6E-16		5.4E-09		8.1E-09
	Benzo[a]pyrene	50328		0.485		3.7E-08		3.7E-15		7.6E-08		1.1E-07
	Benzo[b]fluoranthene	205992		0.692		5.3E-09		5.3E-16		1.1E-08		1.6E-08
	Chromium	18540299		5	1.2E-04	2.6E-08	2.4E-06	2.9E-12	0E+00	0E+00	0.0001	2.6E-08
	Dibenz[a,h]anthracene	53703		0.32		2.4E-08		2.7E-15		5.0E-08		7.4E-08
	Mercury, Inorganic Salts	7487947		0.487	1.2E-04				0E+00		0.0001	
	Total				6.5E-04	1.2E-07	7.9E-06	3.0E-12	2.0E-04	1.5E-07	0.001	2.8E-07

Table 18B
RME Risk Calculations - Current Trespasser - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1260 - High Risk	11096825		0.166	6.1E-04	3.5E-09		6.5E-16	1.3E-03	7.6E-09	0.002	1.1E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.137	1.4E-04	2.9E-09		5.4E-16	3.2E-04	6.3E-09	0.0005	9.2E-09
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.137	5.0E-04	2.9E-09		5.4E-16	1.1E-03	6.3E-09	0.002	9.2E-09
	Arsenic, Inorganic	7440382		1.474	3.6E-04	2.3E-08	4.8E-06	4.4E-14	1.7E-04	1.1E-08	0.0005	3.4E-08
	Benz[a]anthracene	56553		0.213		1.6E-09		1.6E-16		3.3E-09		4.9E-09
	Benzo[a]pyrene	50328		0.195		1.5E-08		1.5E-15		3.0E-08		4.5E-08
	Benzo[b/k]fluoranthene	205992		0.605		4.6E-10		4.6E-16		9.4E-10		1.4E-09
	Benzo[b]fluoranthene	205992		0.0964		7.3E-10		7.3E-17		1.5E-09		2.2E-09
	Bis(2-ethylhexyl)phthalate	117817		4.298	1.6E-05	6.3E-10		7.1E-17	2E-05	1E-09	0.00004	1.6E-09
	Chromium	18540299		5.756	1.4E-04	3.0E-08	2.8E-06	3.3E-12	0E+00	0E+00	0.0001	3.0E-08
	Dibenz[a,h]anthracene	53703		0.0111		8.5E-10		9.2E-17		1.7E-09		2.6E-09
	Indeno[1,2,3-cd]pyrene	193395		0.051		3.9E-10		3.9E-17		8E-10		1.2E-09
	Iron	7439896		8657	9.0E-04				0.E+00		0.001	
	Mercury, Inorganic Salts	7487947		12.6	3.1E-03				0E+00		0.003	
	Vanadium	7440622		10.39	1.5E-04				0E+00		0.000	
	Total (Low Aroclor-1268)				5.4E-03	7.9E-08	7.5E-06	3.4E-12	1.8E-03	6.5E-08	0.007	1.4E-07
	Total (High Aroclor-1268)				5.7E-03	7.9E-08	7.5E-06	3.4E-12	2.6E-03	6.5E-08	0.008	1.4E-07

Table 18C
RME Risk Calculations - Current Trespasser - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1221 - High Risk	11104282		0.27	9.9E-04	5.6E-09		1.6E-11	2.2E-03	1.2E-08	0.003	1.8E-08
	Aroclor 1254 - High Risk	11097691		0.862	3.1E-03	1.8E-08		3.4E-15	6.9E-03	4.0E-08	0.010	5.8E-08
	Aroclor 1260 - High Risk	11096825		1.218	4.4E-03	2.5E-08		4.8E-15	9.8E-03	5.6E-08	0.014	8.2E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	5.4E-03	1.1E-07		2.1E-14	1.2E-02	2.4E-07	0.017	3.5E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	1.9E-02	1.1E-07		2.1E-14	4.2E-02	2.4E-07	0.061	3.5E-07
	Arsenic, Inorganic	7440382		1.592	3.9E-04	2.5E-08	5.1E-06	4.7E-14	1.8E-04	1.2E-08	0.0006	3.7E-08
	Benz[a]anthracene	56553		0.263		2.0E-09		2.0E-16		4.1E-09		6.1E-09
	Benzo[a]pyrene	50328		0.28		2.1E-08		2.1E-15		4.4E-08		6.5E-08
	Benzo[b/k]fluoranthene	205992		0.398		3.0E-10		3.0E-16		6.2E-10		9.2E-10
	Benzo[b]fluoranthene	205992		0.14		1.1E-09		1.1E-16		2.2E-09		3.3E-09
	Carbazole	86748		0.046		9.6E-12				1.5E-12		1.1E-11
	Chromium	18540299		7.741	1.9E-04	4.0E-08	3.7E-06	4.5E-12	0E+00	0E+00	0.0002	4.0E-08
	Dibenz[a,h]anthracene	53703		0.15		1.1E-08		1.2E-15		2.3E-08		3.5E-08
	Indeno[1,2,3-cd]pyrene	193395		0.238		1.8E-09		1.8E-16		4E-09		5.5E-09
	Iron	7439896		6603	6.9E-04				0.E+00		0.0007	
	Mercury, Inorganic Salts	7487947		9.427	2.3E-03				0E+00		0.002	
	Total (Low Aroclor-1268)				1.8E-02	2.6E-07	8.9E-06	2.0E-11	3.1E-02	4.4E-07	0.049	7.0E-07
	Total (High Aroclor-1268)				3.1E-02	2.6E-07	8.9E-06	2.0E-11	6.1E-02	4.4E-07	0.092	7.0E-07

Table 18D
RME Risk Calculations - Current Trespasser - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		12427	9.1E-04		1.2E-04		0E+00		0.001	
	Antimony	7440360		4.655	8.5E-04				0E+00		0.0009	
	Aroclor 1254 - High Risk	11097691		1.134	4.1E-03	2.4E-08		4.5E-15	9.1E-03	5.2E-08	0.013	7.6E-08
	Aroclor 1260 - High Risk	11096825		0.407	1.5E-03	8.5E-09		1.6E-15	3.3E-03	1.9E-08	0.005	2.7E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	1.5E-03	3.0E-08		5.6E-15	3.3E-03	6.6E-08	0.005	9.6E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	5.2E-03	3.0E-08		5.6E-15	1.2E-02	6.6E-08	0.017	9.6E-08
	Arsenic, Inorganic	7440382		8.584	2.1E-03	1.3E-07	2.8E-05	2.5E-13	9.9E-04	6.4E-08	0.003	2.0E-07
	Benz[a]anthracene	56553		0.372		2.8E-09		2.8E-16		5.8E-09		8.6E-09
	Benzene	71432		0.014	2.6E-07	8.0E-12	8.1E-06	2.7E-13	0E+00	0E+00	0.000008	8.3E-12
	Benzo[a]pyrene	50328		0.172		1.3E-08		1.3E-15		2.7E-08		4.0E-08
	Benzo[b]fluoranthene	205992		0.34		2.6E-09		2.6E-16		5.3E-09		7.9E-09
	Benzo[k]fluoranthene	207089		0.152		1.2E-10		1.2E-16		2.4E-10		3.5E-10
	Carbazole	86748		0.0474		9.9E-12				1.6E-12		1.1E-11
	Chromium	18540299		7.627	1.9E-04	4.0E-08	3.7E-06	4.4E-12	0E+00	0.0E+00	0.0002	4.0E-08
	Dibenz[a,h]anthracene	53703		0.146		1.1E-08		1.2E-15		2.3E-08		3.4E-08
	Dibromochloromethane	124481		4.8	1.8E-05	4.2E-09		1.4E-10	3E-05	6.6E-09	0.00005	1.1E-08
	Ethylbenzene	100414		0.107	7.8E-08	1.2E-11	1.2E-06	4.1E-13	0.E+00	0.0E+00	0.000001	1.3E-11
	Indeno[1,2,3-cd]pyrene	193395		0.17		1.3E-09		1.3E-16		2.7E-09		3.9E-09
	Iron	7439896		11105	1.2E-03				0.E+00		0.001	
	Mercury, Inorganic Salts	7487947		4.008	9.8E-04				0E+00		0.001	
	Methylene Chloride	75092		0.0136	1.7E-08	1.1E-12	3.8E-07	2.5E-14	0E+00	0E+00	0.0000004	1.1E-12
	Naphthalene	91203		1.289	4.7E-06		5.7E-04	8.3E-12	1E-05		0.0006	8.3E-12
	Naphthalene, 1-Methyl	90120		2.11	2.2E-06	6.4E-10			0.E+00	0.0E+00	0.000002	6.4E-10
	Naphthalene, 2-Methyl	91576		2.744	5.0E-05				0E+00		0.00005	
	4,6-Dinitro-2-methylphenol	534521		32	2.9E-02				4.6E-02		0.08	
	n-Butylbenzene		Ethylbenzene	2.959	2.2E-06	3.4E-10	3.2E-05	1.1E-11	0E+00	0E+00	0.00003	3.5E-10
	n-Propylbenzene		Ethylbenzene	1.578	1.2E-06	1.8E-10	1.7E-05	6.1E-12	0E+00	0E+00	0.00002	1.9E-10
	Trimethylbenzene, 1,2,4-	95636		3.123			3.4E-03				0.003	
	Vanadium	7440622		33.66	4.9E-04				0E+00		0.000	
	Total (Low Aroclor-1268)				4.3E-02	2.7E-07	4.2E-03	1.7E-10	6.3E-02	2.7E-07	0.11	5.4E-07
	Total (High Aroclor-1268)				4.7E-02	2.7E-07	4.2E-03	1.7E-10	7.1E-02	2.7E-07	0.12	5.4E-07

Table 18E
RME Risk Calculations - Current Trespasser - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		3037	2.2E-04		2.9E-05		0E+00		0.0003	
	Antimony	7440360		11.77	2.1E-03				0E+00		0.002	
	Aroclor 1254 - High Risk	11097691		0.246	9.0E-04	5.1E-09		9.7E-16	2.0E-03	1.1E-08	0.003	1.6E-08
	Aroclor 1260 - High Risk	11096825	See footote (1)	6.759	2.5E-02	1.4E-07		2.7E-14	5.4E-02	3.1E-07	0.08	4.5E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	9.5E-03	1.9E-07		3.6E-14	2.1E-02	4.2E-07	0.031	6.1E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	3.3E-02	1.9E-07		3.6E-14	7.4E-02	4.2E-07	0.11	6.1E-07
	Arsenic, Inorganic	7440382		1.176	2.9E-04	1.8E-08	3.8E-06	3.5E-14	1.4E-04	8.7E-09	0.0004	2.7E-08
	Benz[a]anthracene	56553		1.781		1.4E-08		1.4E-15		2.8E-08		4.1E-08
	Benzo[a]pyrene	50328		0.614		4.7E-08		4.7E-15		9.6E-08		1.4E-07
	Benzo[b]fluoranthene	205992		0.505		3.8E-09		3.8E-16		7.9E-09		1.2E-08
	Benzo[k]fluoranthene	207089		0.404		3.1E-10		3.1E-16		6.3E-10		9.4E-10
	Chloroform	67663		0.0118	8.6E-08	3.8E-12	2.8E-06	9.0E-13	0.0E+00	0.0E+00	0.000003	4.7E-12
	Chromium	18540299		19.75	4.8E-04	1.0E-07	9.5E-06	1.1E-11	0E+00	0E+00	0.0005	1.0E-07
	Chrysene	218019		2.508		1.9E-10		1.9E-16		4E-10		5.8E-10
	Cobalt	7440484		0.787	1.9E-04		6.3E-06	4.9E-14	0.0E+00		0.0002	4.9E-14
	Dibenz[a,h]anthracene	53703		0.471		3.6E-08		3.9E-15		7.4E-08		1.1E-07
	Indeno[1,2,3-cd]pyrene	193395		0.57		4.3E-09		4.3E-16		8.9E-09		1.3E-08
	Iron	7439896		5852	6.1E-04				0.0E+00		0.0006	
	Manganese	7439965		29.38	1.5E-05		2.8E-05		0E+00		0.00004	
	Mercury, Inorganic Salts	7487947		8.775	2.1E-03				0E+00		0.002	
	Naphthalene	91203		0.0559	2.0E-07		2.5E-05	3.6E-13	4E-07		0.00003	3.6E-13
	Naphthalene, 1-Methyl	90120		0.524	5.5E-07	1.6E-10			0.0E+00	0.0E+00	0.0000005	1.6E-10
	n-Butylbenzene		Ethylbenzene	0.355	2.6E-07	4.1E-11	3.8E-06	1.4E-12	0E+00	0E+00	0.000004	4.2E-11
	Tetrachloroethene	127184		0.00318	2.3E-08	1.8E-11	5.7E-13	1.3E-19	0.0E+00	0.0E+00	0.00000002	1.8E-11
	Trimethylbenzene, 1,2,4-	95636		0.175			1.9E-04				0.0002	
	Vanadium	7440622		6.4	9.4E-05				0E+00		0.0001	
	Zinc	7440666		2105	5.1E-04				0E+00		0.0005	
	Total (Low Aroclor-1268)				4.2E-02	5.6E-07	3.0E-04	1.4E-11	7.8E-02	9.7E-07	0.12	1.5E-06
	Total (High Aroclor-1268)				6.6E-02	5.6E-07	3.0E-04	1.4E-11	1.3E-01	9.7E-07	0.20	1.5E-06

Notes:

(1) The EPC for Aroclor 1260 was been calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 7.534 mg/kg, and the hazard and risk for this compound are 0.09 and 5.04E-07, respectively.

The Total (Low Aroclor-1268) hazard and risk are 0.14 and 1.58E-06, respectively and the Total (High Aroclor-1268) hazard and risk are 0.21 and 1.58E-06, respectively.

Table 19A
CTE Risk Calculations - Current Trespasser - OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Arsenic, Inorganic	7440382		1.7	2.1E-05	1.3E-09	1.4E-06	1.3E-14	3.4E-05	2.2E-09	0.00006	3.5E-09
	Benz[a]anthracene	56553		0.347		1.3E-10		6.6E-17		9.5E-10		1.1E-09
	Benzo[a]pyrene	50328		0.485		1.8E-09		9.2E-16		1.3E-08		1.5E-08
	Benzo[b]fluoranthene	205992		0.692		2.6E-10		1.3E-16		1.9E-09		2.1E-09
	Chromium	18540299		5	6.1E-06	1.3E-09	6.0E-07	7.3E-13	0E+00	0E+00	0.00001	1.3E-09
	Dibenz[a,h]anthracene	53703		0.32		1.2E-09		6.6E-16		8.7E-09		9.9E-09
	Mercury, Inorganic Salts	7487947		0.487	5.9E-06				0E+00		0.00001	
	Total				3.3E-05	6.1E-09	2.0E-06	7.4E-13	3.4E-05	2.7E-08	0.00007	3.3E-08

Table 19B
CTE Risk Calculations - Current Trespasser - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1260 - High Risk	11096825		0.166	3.0E-05	1.7E-10		1.6E-16	2.3E-04	1.3E-09	0.0003	1.5E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.137	7.1E-06	1.4E-10		1.3E-16	5.5E-05	1.1E-09	0.0001	1.2E-09
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.137	2.5E-05	1.4E-10		1.3E-16	1.9E-04	1.1E-09	0.0002	1.2E-09
	Arsenic, Inorganic	7440382		1.474	1.8E-05	1.2E-09	1.2E-06	1.1E-14	3.0E-05	1.9E-09	0.00005	3.1E-09
	Benz[a]anthracene	56553		0.213		8.1E-11		4.0E-17		5.8E-10		6.6E-10
	Benzo[a]pyrene	50328		0.195		7.4E-10		3.7E-16		5.3E-09		6.1E-09
	Benzo[b/k]fluoranthene	205992		0.605		2.3E-11		1.1E-16		1.6E-10		1.9E-10
	Benzo[b]fluoranthene	205992		0.0964		3.7E-11		1.8E-17		2.6E-10		3.0E-10
	Bis(2-ethylhexyl)phthalate	117817		4.298	7.9E-07	3.1E-11		1.8E-17	4E-06	2E-10	0.000005	2.0E-10
	Chromium	18540299		5.756	7.0E-06	1.5E-09	7.0E-07	8.3E-13	0E+00	0E+00	0.000008	1.5E-09
	Dibenz[a,h]anthracene	53703		0.0111		4.2E-11		2.3E-17		3.0E-10		3.4E-10
	Indeno[1,2,3-cd]pyrene	193395		0.051		1.9E-11		9.7E-18		1.4E-10		1.6E-10
	Iron	7439896		8657	4.5E-05				0E+00		0.00005	
	Mercury, Inorganic Salts	7487947		12.6	1.5E-04				0E+00		0.0002	
	Vanadium	7440622		10.39	7.6E-06				0E+00		0.00001	
	Total (Low Aroclor-1268)				2.7E-04	3.9E-09	1.9E-06	8.5E-13	3.2E-04	1.1E-08	0.001	1.5E-08
	Total (High Aroclor-1268)				2.9E-04	3.9E-09	1.9E-06	8.5E-13	4.6E-04	1.1E-08	0.001	1.5E-08

Table 19C
CTE Risk Calculations - Current Trespasser - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1221 - High Risk	11104282		0.27	4.9E-05	2.8E-10		3.9E-12	3.8E-04	2.2E-09	0.0004	2.5E-09
	Aroclor 1254 - High Risk	11097691		0.862	1.6E-04	9.0E-10		8.5E-16	1.2E-03	6.9E-09	0.001	7.8E-09
	Aroclor 1260 - High Risk	11096825		1.218	2.2E-04	1.3E-09		1.2E-15	1.7E-03	9.8E-09	0.002	1.1E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	2.7E-04	5.4E-09		5.1E-15	2.1E-03	4.2E-08	0.002	4.7E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	9.5E-04	5.4E-09		5.1E-15	7.3E-03	4.2E-08	0.008	4.7E-08
	Arsenic, Inorganic	7440382		1.592	1.9E-05	1.2E-09	1.3E-06	1.2E-14	3.2E-05	2.1E-09	0.00005	3.3E-09
	Benz[a]anthracene	56553		0.263		1.0E-10		5.0E-17		7.2E-10		8.2E-10
	Benzo[a]pyrene	50328		0.28		1.1E-09		5.3E-16		7.6E-09		8.7E-09
	Benzo[b/k]fluoranthene	205992		0.398		1.5E-11		7.6E-17		1.1E-10		1.2E-10
	Benzo[b]fluoranthene	205992		0.14		5.3E-11		2.7E-17		3.8E-10		4.3E-10
	Carbazole	86748		0.046		4.8E-13				2.6E-13		7.4E-13
	Chromium	18540299		7.741	9.4E-06	2.0E-09	9.4E-07	1.1E-12	0E+00	0E+00	0.00001	2.0E-09
	Dibenz[a,h]anthracene	53703		0.15		5.7E-10		3.1E-16		4.1E-09		4.7E-09
	Indeno[1,2,3-cd]pyrene	193395		0.238		9.1E-11		4.5E-17		6.5E-10		7.4E-10
	Iron	7439896		6603	3.4E-05				0E+00		0.00003	
	Mercury, Inorganic Salts	7487947		9.427	1.1E-04				0E+00		0.0001	
	Total (Low Aroclor-1268)				8.8E-04	1.3E-08	2.2E-06	5.1E-12	5.4E-03	7.6E-08	0.006	9.0E-08
	Total (High Aroclor-1268)				1.6E-03	1.3E-08	2.2E-06	5.1E-12	1.1E-02	7.6E-08	0.012	9.0E-08

Table 19D
CTE Risk Calculations - Current Trespasser - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		12427	4.5E-05		3.0E-05		0E+00		0.00008	
	Antimony	7440360		4.655	4.3E-05				0E+00		0.00004	
	Aroclor 1254 - High Risk	11097691		1.134	2.1E-04	1.2E-09		1.1E-15	1.6E-03	9.1E-09	0.002	1.0E-08
	Aroclor 1260 - High Risk	11096825		0.407	7.4E-05	4.2E-10		4.0E-16	5.7E-04	3.3E-09	0.0006	3.7E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	7.4E-05	1.5E-09		1.4E-15	5.7E-04	1.1E-08	0.0006	1.3E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	2.6E-04	1.5E-09		1.4E-15	2.0E-03	1.1E-08	0.002	1.3E-08
	Arsenic, Inorganic	7440382		8.584	1.0E-04	6.7E-09	6.9E-06	6.4E-14	1.7E-04	1.1E-08	0.0003	1.8E-08
	Benz[a]anthracene	56553		0.372		1.4E-10		7.1E-17		1.0E-09		1.2E-09
	Benzene	71432		0.014	1.3E-08	4.0E-13	2.0E-06	6.7E-14	0E+00	0.0E+00	0.000002	4.7E-13
	Benzo[a]pyrene	50328		0.172		6.6E-10		3.3E-16		4.7E-09		5.3E-09
	Benzo[b]fluoranthene	205992		0.34		1.3E-10		6.5E-17		9.3E-10		1.1E-09
	Benzo[k]fluoranthene	207089		0.152		5.8E-12		2.9E-17		4.1E-11		4.7E-11
	Carbazole	86748		0.0474		4.9E-13				2.7E-13		7.7E-13
	Chromium	18540299		7.627	9.3E-06	2.0E-09	9.2E-07	1.1E-12	0E+00	0E+00	0.00001	2.0E-09
	Dibenz[a,h]anthracene	53703		0.146		5.6E-10		3.0E-16		4.0E-09		4.5E-09
	Dibromochloromethane	124481		4.8	8.8E-07	2.1E-10		3.6E-11	4.8E-06	1.2E-09	0.000006	1.4E-09
	Ethylbenzene	100414		0.107	3.9E-09	6.1E-13	2.9E-07	1.0E-13	0E+00	0.0E+00	0.0000003	7.2E-13
	Indeno[1,2,3-cd]pyrene	193395		0.17		6.5E-11		3.2E-17		4.6E-10		5.3E-10
	Iron	7439896		11105	5.8E-05				0E+00		0.00006	
	Mercury, Inorganic Salts	7487947		4.008	4.9E-05				0E+00		0.00005	
	Methylene Chloride	75092		0.0136	8.3E-10	5.3E-14	9.5E-08	6.4E-15	0E+00	0E+00	0.0000001	6.0E-14
	Naphthalene	91203		1.289	2.4E-07		1.4E-04	2.1E-12	1.7E-06		0.0001	2.1E-12
	Naphthalene, 1-Methyl	90120		2.11	1.1E-07	3.2E-11			0E+00	0E+00	0.0000001	3.2E-11
	Naphthalene, 2-Methyl	91576		2.744	2.5E-06				0E+00		0.000003	
	4,6-Dinitro-2-methylphenol	534521		32	1.5E-03				8.0E-03		0.009	
	n-Butylbenzene		Ethylbenzene	2.959	1.1E-07	1.7E-11	8.0E-06	2.8E-12	0E+00	0E+00	0.000008	2.0E-11
	n-Propylbenzene		Ethylbenzene	1.578	5.8E-08	9.1E-12	4.3E-06	1.5E-12	0E+00	0E+00	0.000004	1.1E-11
	Trimethylbenzene, 1,2,4-	95636		3.123			8.6E-04				0.0009	
	Vanadium	7440622		33.66	2.5E-05				0E+00		0.00002	
	Total (Low Aroclor-1268)				2.2E-03	1.4E-08	1.1E-03	4.3E-11	1.1E-02	4.7E-08	0.014	6.1E-08
	Total (High Aroclor-1268)				2.3E-03	1.4E-08	1.1E-03	4.3E-11	1.2E-02	4.7E-08	0.016	6.1E-08

Table 19E
CTE Risk Calculations - Current Trespasser - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		3037	1.1E-05		7.3E-06		0E+00		0.00002	
	Antimony	7440360		11.77	1.1E-04				0E+00		0.0001	
	Aroclor 1254 - High Risk	11097691		0.246	4.5E-05	2.6E-10		2.4E-16	3.5E-04	2.0E-09	0.0004	2.2E-09
	Aroclor 1260 - High Risk	11096825	See footote (1)	6.759	1.2E-03	7.1E-09		6.7E-15	9.5E-03	5.4E-08	0.01	6.1E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	4.8E-04	9.5E-09		9.0E-15	3.7E-03	7.3E-08	0.004	8.3E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	1.7E-03	9.5E-09		9.0E-15	1.3E-02	7.3E-08	0.015	8.3E-08
	Arsenic, Inorganic	7440382		1.176	1.4E-05	9.2E-10	9.5E-07	8.7E-15	2.4E-05	1.5E-09	0.00004	2.4E-09
	Benz[a]anthracene	56553		1.781		6.8E-10		3.4E-16		4.9E-09		5.5E-09
	Benzo[a]pyrene	50328		0.614		2.3E-09		1.2E-15		1.7E-08		1.9E-08
	Benzo[b]fluoranthene	205992		0.505		1.9E-10		9.6E-17		1.4E-09		1.6E-09
	Benzo[k]fluoranthene	207089		0.404		1.5E-11		7.7E-17		1.1E-10		1.3E-10
	Chloroform	67663		0.0118	4.3E-09	1.9E-13	7.0E-07	2.3E-13	0E+00	0.0E+00	0.0000007	4.2E-13
	Chromium	18540299		19.75	2.4E-05	5.2E-09	2.4E-06	2.9E-12	0E+00	0E+00	0.00003	5.2E-09
	Chrysene	218019		2.508		9.6E-12		4.8E-17		6.8E-11		7.8E-11
	Cobalt	7440484		0.787	9.6E-06		1.6E-06	1.2E-14	0E+00		0.00001	1.2E-14
	Dibenz[a,h]anthracene	53703		0.471		1.8E-09		9.8E-16		1.3E-08		1.5E-08
	Indeno[1,2,3-cd]pyrene	193395		0.57		2.2E-10		1.1E-16		1.6E-09		1.8E-09
	Iron	7439896		5852	3.1E-05				0E+00		0.00003	
	Manganese	7439965		29.38	7.7E-07		7.1E-06		0E+00		0.000008	
	Mercury, Inorganic Salts	7487947		8.775	1.1E-04				0E+00		0.0001	
	Naphthalene	91203		0.0559	1.0E-08		6.1E-06	8.9E-14	7.3E-08		0.000006	8.9E-14
	Naphthalene, 1-Methyl	90120		0.524	2.7E-08	7.9E-12			0E+00	0E+00	0.00000003	7.9E-12
	n-Butylbenzene		Ethylbenzene	0.355	1.3E-08	2.0E-12	9.6E-07	3.4E-13	0E+00	0E+00	0.000001	2.4E-12
	Tetrachloroethene	127184		0.00318	1.2E-09	9.0E-13	1.4E-13	3.2E-20	0E+00	0E+00	0.000000001	9.0E-13
	Trimethylbenzene, 1,2,4-	95636		0.175			4.8E-05				0.00005	
	Vanadium	7440622		6.4	4.7E-06				0E+00		0.00000	
	Zinc	7440666		2105	2.6E-05				0E+00		0.00003	
	Total (Low Aroclor-1268)				2.1E-03	2.8E-08	7.5E-05	3.6E-12	1.4E-02	1.7E-07	0.016	2.0E-07
	Total (High Aroclor-1268)				3.3E-03	2.8E-08	7.5E-05	3.6E-12	2.3E-02	1.7E-07	0.026	2.0E-07

Notes:

(1) The EPC for Aroclor 1260 was been calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 7.534 mg/kg, and the hazard and risk for this compound are 0.01 and 6.8E-08, respectively.

The Total (Low Aroclor-1268) hazard and risk are 0.017 and 2.0E-07, respectively and the Total (High Aroclor-1268) hazard and risk are 0.028 and 2.0E-07, respectively.

Table 20A
RME Risk Calculations - Future Trespasser - OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Arsenic, Inorganic	7440382		1.7	9.0E-04	5.8E-08	1.2E-05	1.1E-13	4.2E-04	2.7E-08	0.0013	8.5E-08
	Benz[a]anthracene	56553		0.347		5.7E-09		5.7E-16		1.2E-08		1.7E-08
	Benzo[a]pyrene	50328		0.485		8.0E-08		8.0E-15		1.6E-07		2.4E-07
	Benzo[b]fluoranthene	205992		0.692		1.1E-08		1.1E-15		2.3E-08		3.5E-08
	Chromium	18540299		5	2.6E-04	5.7E-08	5.2E-06	6.3E-12	0E+00	0E+00	0.0003	5.7E-08
	Dibenz[a,h]anthracene	53703		0.32		5.3E-08		5.7E-15		1.1E-07		1.6E-07
	Mercury, Inorganic Salts	7487947		0.487	2.6E-04				0E+00		0.0003	
	Total				1.4E-03	2.6E-07	1.7E-05	6.4E-12	4.2E-04	3.3E-07	0.002	6.0E-07

Table 20B
RME Risk Calculations - Future Trespasser - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1260 - High Risk	11096825		0.166	1.3E-03	7.5E-09		1.4E-15	2.9E-03	1.7E-08	0.004	2.4E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.137	3.1E-04	6.2E-09		1.2E-15	6.8E-04	1.4E-08	0.0010	2.0E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.137	1.1E-03	6.2E-09		1.2E-15	2.4E-03	1.4E-08	0.003	2.0E-08
	Arsenic, Inorganic	7440382		1.474	7.8E-04	5.0E-08	1.0E-05	9.5E-14	3.7E-04	2.4E-08	0.0012	7.4E-08
	Benz[a]anthracene	56553		0.213		3.5E-09		3.5E-16		7.2E-09		1.1E-08
	Benzo[a]pyrene	50328		0.195		3.2E-08		3.2E-15		6.6E-08		9.8E-08
	Benzo[b/k]fluoranthene	205992		0.605		1.0E-09		1.0E-15		2.0E-09		3.0E-09
	Benzo[b]fluoranthene	205992		0.0964		1.6E-09		1.6E-16		3.3E-09		4.9E-09
	Bis(2-ethylhexyl)phthalate	117817		4.298	3.4E-05	1.4E-09		1.5E-16	5E-05	2E-09	0.00009	3.5E-09
	Chromium	18540299		5.756	3.0E-04	6.5E-08	6.0E-06	7.2E-12	0E+00	0E+00	0.0003	6.5E-08
	Dibenz[a,h]anthracene	53703		0.0111		1.8E-09		2.0E-16		3.8E-09		5.6E-09
	Indeno[1,2,3-cd]pyrene	193395		0.051		8.4E-10		8.4E-17		2E-09		2.6E-09
	Iron	7439896		8657	2.0E-03				0.E+00		0.002	
	Mercury, Inorganic Salts	7487947		12.6	6.6E-03				0E+00		0.007	
	Vanadium	7440622		10.39	3.3E-04				0E+00		0.0003	
	Total (Low Aroclor-1268)				1.2E-02	1.7E-07	1.6E-05	7.3E-12	4.0E-03	1.4E-07	0.016	3.1E-07
	Total (High Aroclor-1268)				1.2E-02	1.7E-07	1.6E-05	7.3E-12	5.7E-03	1.4E-07	0.018	3.1E-07

Table 20C
RME Risk Calculations - Future Trespasser - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1221 - High Risk	11104282		0.27	2.1E-03	1.2E-08		3.4E-11	4.7E-03	2.7E-08	0.007	3.9E-08
	Aroclor 1254 - High Risk	11097691		0.862	6.8E-03	3.9E-08		7.4E-15	1.5E-02	8.6E-08	0.022	1.3E-07
	Aroclor 1260 - High Risk	11096825		1.218	9.6E-03	5.5E-08		1.0E-14	2.1E-02	1.2E-07	0.031	1.8E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	1.2E-02	2.4E-07		4.5E-14	2.6E-02	5.2E-07	0.038	7.6E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	4.1E-02	2.4E-07		4.5E-14	9.1E-02	5.2E-07	0.13	7.6E-07
	Arsenic, Inorganic	7440382		1.592	8.4E-04	5.4E-08	1.1E-05	1.0E-13	4.0E-04	2.6E-08	0.0012	8.0E-08
	Benz[a]anthracene	56553		0.263		4.3E-09		4.3E-16		8.9E-09		1.3E-08
	Benzo[a]pyrene	50328		0.28		4.6E-08		4.6E-15		9.5E-08		1.4E-07
	Benzo[b/k]fluoranthene	205992		0.398		6.6E-10		6.6E-16		1.3E-09		2.0E-09
	Benzo[b]fluoranthene	205992		0.14		2.3E-09		2.3E-16		4.7E-09		7.0E-09
	Carbazole	86748		0.046		2.1E-11				3.3E-12		2.4E-11
	Chromium	18540299		7.741	4.1E-04	8.8E-08	8.1E-06	9.7E-12	0E+00	0E+00	0.0004	8.8E-08
	Dibenz[a,h]anthracene	53703		0.15		2.5E-08		2.7E-15		5.1E-08		7.5E-08
	Indeno[1,2,3-cd]pyrene	193395		0.238		3.9E-09		3.9E-16		8E-09		1.2E-08
	Iron	7439896		6603	1.5E-03				0.0E+00		0.0015	
	Mercury, Inorganic Salts	7487947		9.427	5.0E-03				0E+00		0.005	
	Total (Low Aroclor-1268)				3.8E-02	5.7E-07	1.9E-05	4.4E-11	6.7E-02	9.5E-07	0.11	1.5E-06
	Total (High Aroclor-1268)				6.8E-02	5.7E-07	1.9E-05	4.4E-11	1.3E-01	9.5E-07	0.20	1.5E-06

Table 20D
RME Risk Calculations - Future Trespasser - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		12427	2.0E-03		2.6E-04		0E+00		0.002	
	Antimony	7440360		4.655	1.8E-03				0E+00		0.0018	
	Aroclor 1254 - High Risk	11097691		1.134	9.0E-03	5.1E-08		9.7E-15	2.0E-02	1.1E-07	0.029	1.6E-07
	Aroclor 1260 - High Risk	11096825		0.407	3.2E-03	1.8E-08		3.5E-15	7.1E-03	4.1E-08	0.010	5.9E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	3.2E-03	6.5E-08		1.2E-14	7.1E-03	1.4E-07	0.010	2.1E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	1.1E-02	6.5E-08		1.2E-14	2.5E-02	1.4E-07	0.036	2.1E-07
	Arsenic, Inorganic	7440382		8.584	4.5E-03	2.9E-07	6.0E-05	5.5E-13	2.1E-03	1.4E-07	0.007	4.3E-07
	Benz[a]anthracene	56553		0.372		6.1E-09		6.1E-16		1.3E-08		1.9E-08
	Benzene	71432		0.014	5.5E-07	1.7E-11	1.7E-05	5.8E-13	0E+00	0E+00	0.000018	1.8E-11
	Benzo[a]pyrene	50328		0.172		2.8E-08		2.8E-15		5.8E-08		8.7E-08
	Benzo[b]fluoranthene	205992		0.34		5.6E-09		5.6E-16		1.1E-08		1.7E-08
	Benzo[k]fluoranthene	207089		0.152		2.5E-10		2.5E-16		5.1E-10		7.7E-10
	Carbazole	86748		0.0474		2.1E-11				3.4E-12		2.5E-11
	Chromium	18540299		7.627	4.0E-04	8.6E-08	8.0E-06	9.6E-12	0E+00	0.0E+00	0.0004	8.6E-08
	Dibenz[a,h]anthracene	53703		0.146		2.4E-08		2.6E-15		4.9E-08		7.3E-08
	Dibromochloromethane	124481		4.8	3.8E-05	9.1E-09		3.1E-10	6E-05	1.4E-08	0.00010	2.4E-08
	Ethylbenzene	100414		0.107	1.7E-07	2.7E-11	2.5E-06	8.9E-13	0.E+00	0.0E+00	0.000003	2.8E-11
	Indeno[1,2,3-cd]pyrene	193395		0.17		2.8E-09		2.8E-16		5.7E-09		8.6E-09
	Iron	7439896		11105	2.5E-03				0.E+00		0.003	
	Mercury, Inorganic Salts	7487947		4.008	2.1E-03				0E+00		0.002	
	Methylene Chloride	75092		0.0136	3.6E-08	2.3E-12	8.2E-07	5.5E-14	0E+00	0E+00	0.0000009	2.4E-12
	Naphthalene	91203		1.289	1.0E-05		1.2E-03	1.8E-11	2E-05		0.0013	1.8E-11
	Naphthalene, 1-Methyl	90120		2.11	4.8E-06	1.4E-09			0.E+00	0.E+00	0.000005	1.4E-09
	Naphthalene, 2-Methyl	91576		2.744	1.1E-04				0E+00		0.00011	
	4,6-Dinitro-2-methylphenol	534521		32	6.3E-02				1.0E-01		0.16	
	n-Butylbenzene		Ethylbenzene	2.959	4.7E-06	7.4E-10	6.9E-05	2.5E-11	0E+00	0E+00	0.00007	7.6E-10
	n-Propylbenzene		Ethylbenzene	1.578	2.5E-06	3.9E-10	3.7E-05	1.3E-11	0E+00	0E+00	0.00004	4.1E-10
	Trimethylbenzene, 1,2,4-	95636		3.123			7.5E-03				0.007	
	Vanadium	7440622		33.66	1.1E-03				0E+00		0.001	
	Total (Low Aroclor-1268)				9.3E-02	5.9E-07	9.1E-03	3.8E-10	1.4E-01	5.9E-07	0.24	1.2E-06
	Total (High Aroclor-1268)				1.0E-01	5.9E-07	9.1E-03	3.8E-10	1.5E-01	5.9E-07	0.26	1.2E-06

Table 20E
RME Risk Calculations - Future Trespasser - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		3037	4.8E-04		6.4E-05		0E+00		0.0005	
	Antimony	7440360		11.77	4.7E-03				0E+00		0.005	
	Aroclor 1254 - High Risk	11097691		0.246	1.9E-03	1.1E-08		2.1E-15	4.3E-03	2.5E-08	0.006	3.6E-08
	Aroclor 1260 - High Risk	11096825	See footote (1)	6.759	5.3E-02	3.1E-07		5.8E-14	1.2E-01	6.7E-07	0.17	9.8E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	2.1E-02	4.1E-07		7.8E-14	4.6E-02	9.1E-07	0.066	1.3E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	7.2E-02	4.1E-07		7.8E-14	1.6E-01	9.1E-07	0.23	1.3E-06
	Arsenic, Inorganic	7440382		1.176	6.2E-04	4.0E-08	8.2E-06	7.6E-14	2.9E-04	1.9E-08	0.0009	5.9E-08
	Benz[a]anthracene	56553		1.781		2.9E-08		2.9E-15		6.0E-08		9.0E-08
	Benzo[a]pyrene	50328		0.614		1.0E-07		1.0E-14		2.1E-07		3.1E-07
	Benzo[b]fluoranthene	205992		0.505		8.3E-09		8.3E-16		1.7E-08		2.5E-08
	Benzo[k]fluoranthene	207089		0.404		6.7E-10		6.7E-16		1.4E-09		2.0E-09
	Chloroform	67663		0.0118	1.9E-07	8.3E-12	6.1E-06	2.0E-12	0.E+00	0.E+00	0.000006	1.0E-11
	Chromium	18540299		19.75	1.0E-03	2.2E-07	2.1E-05	2.5E-11	0E+00	0E+00	0.0011	2.2E-07
	Chrysene	218019		2.508		4.1E-10		4.1E-16		8E-10		1.3E-09
	Cobalt	7440484		0.787	4.2E-04		1.4E-05	1.1E-13	0.E+00		0.0004	1.1E-13
	Dibenz[a,h]anthracene	53703		0.471		7.8E-08		8.5E-15		1.6E-07		2.4E-07
	Indeno[1,2,3-cd]pyrene	193395		0.57		9.4E-09		9.4E-16		1.9E-08		2.9E-08
	Iron	7439896		5852	1.3E-03				0.E+00		0.0013	
	Manganese	7439965		29.38	3.3E-05		6.2E-05		0E+00		0.00009	
	Mercury, Inorganic Salts	7487947		8.775	4.6E-03				0E+00		0.005	
	Naphthalene	91203		0.0559	4.4E-07		5.3E-05	7.8E-13	9E-07		0.00005	7.8E-13
	Naphthalene, 1-Methyl	90120		0.524	1.2E-06	3.4E-10			0.E+00	0.E+00	0.0000012	3.4E-10
	n-Butylbenzene		Ethylbenzene	0.355	5.6E-07	8.8E-11	8.3E-06	3.0E-12	0E+00	0E+00	0.000009	9.1E-11
	Tetrachloroethene	127184		0.00318	5.0E-08	3.9E-11	1.2E-12	2.8E-19	0.E+00	0.E+00	0.00000005	3.9E-11
	Trimethylbenzene, 1,2,4-	95636		0.175			4.2E-04				0.0004	
	Vanadium	7440622		6.4	2.0E-04				0E+00		0.0002	
	Zinc	7440666		2105	1.1E-03				0E+00		0.0011	
	Total (Low Aroclor-1268)				9.1E-02	1.2E-06	6.5E-04	3.1E-11	1.7E-01	2.1E-06	0.26	3.3E-06
	Total (High Aroclor-1268)				1.4E-01	1.2E-06	6.5E-04	3.1E-11	2.8E-01	2.1E-06	0.42	3.3E-06

Notes:

(1) The EPC for Aroclor 1260 was been calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 7.534 mg/kg, and the hazard and risk for this compound are 0.09 and 5.04E-07, respectively.

The Total (Low Aroclor-1268) hazard and risk are 0.14 and 1.58E-06, respectively and the Total (High Aroclor-1268) hazard and risk are 0.21 and 1.58E-06, respectively.

Table 21A
CTE Risk Calculations - Future Trespasser - OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Arsenic, Inorganic	7440382		1.7	2.1E-05	1.3E-09	1.4E-06	1.3E-14	3.4E-05	2.2E-09	0.00006	3.5E-09
	Benz[a]anthracene	56553		0.347		1.3E-10		6.6E-17		9.5E-10		1.1E-09
	Benzo[a]pyrene	50328		0.485		1.8E-09		9.2E-16		1.3E-08		1.5E-08
	Benzo[b]fluoranthene	205992		0.692		2.6E-10		1.3E-16		1.9E-09		2.1E-09
	Chromium	18540299		5	6.1E-06	1.3E-09	6.0E-07	7.3E-13	0E+00	0E+00	0.00001	1.3E-09
	Dibenz[a,h]anthracene	53703		0.32		1.2E-09		6.6E-16		8.7E-09		9.9E-09
	Mercury, Inorganic Salts	7487947		0.487	5.9E-06				0E+00		0.00001	
	Total				3.3E-05	6.1E-09	2.0E-06	7.4E-13	3.4E-05	2.7E-08	0.00007	3.3E-08

Table 21B
CTE Risk Calculations - Future Trespasser - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1260 - High Risk	11096825		0.166	3.0E-05	1.7E-10		1.6E-16	2.3E-04	1.3E-09	0.0003	1.5E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.137	7.1E-06	1.4E-10		1.3E-16	5.5E-05	1.1E-09	0.0001	1.2E-09
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.137	2.5E-05	1.4E-10		1.3E-16	1.9E-04	1.1E-09	0.0002	1.2E-09
	Arsenic, Inorganic	7440382		1.474	1.8E-05	1.2E-09	1.2E-06	1.1E-14	3.0E-05	1.9E-09	0.00005	3.1E-09
	Benz[a]anthracene	56553		0.213		8.1E-11		4.0E-17		5.8E-10		6.6E-10
	Benzo[a]pyrene	50328		0.195		7.4E-10		3.7E-16		5.3E-09		6.1E-09
	Benzo[b/k]fluoranthene	205992		0.605		2.3E-11		1.1E-16		1.6E-10		1.9E-10
	Benzo[b]fluoranthene	205992		0.0964		3.7E-11		1.8E-17		2.6E-10		3.0E-10
	Bis(2-ethylhexyl)phthalate	117817		4.298	7.9E-07	3.1E-11		1.8E-17	4E-06	2E-10	0.000005	2.0E-10
	Chromium	18540299		5.756	7.0E-06	1.5E-09	7.0E-07	8.3E-13	0E+00	0E+00	0.000008	1.5E-09
	Dibenz[a,h]anthracene	53703		0.0111		4.2E-11		2.3E-17		3.0E-10		3.4E-10
	Indeno[1,2,3-cd]pyrene	193395		0.051		1.9E-11		9.7E-18		1.4E-10		1.6E-10
	Iron	7439896		8657	4.5E-05				0E+00		0.00005	
	Mercury, Inorganic Salts	7487947		12.6	1.5E-04				0E+00		0.0002	
	Vanadium	7440622		10.39	7.6E-06				0E+00		0.00001	
	Total (Low Aroclor-1268)				2.7E-04	3.9E-09	1.9E-06	8.5E-13	3.2E-04	1.1E-08	0.001	1.5E-08
	Total (High Aroclor-1268)				2.9E-04	3.9E-09	1.9E-06	8.5E-13	4.6E-04	1.1E-08	0.001	1.5E-08

Table 21C
CTE Risk Calculations - Future Trespasser - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1221 - High Risk	11104282		0.27	4.9E-05	2.8E-10		3.9E-12	3.8E-04	2.2E-09	0.0004	2.5E-09
	Aroclor 1254 - High Risk	11097691		0.862	1.6E-04	9.0E-10		8.5E-16	1.2E-03	6.9E-09	0.001	7.8E-09
	Aroclor 1260 - High Risk	11096825		1.218	2.2E-04	1.3E-09		1.2E-15	1.7E-03	9.8E-09	0.002	1.1E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	2.7E-04	5.4E-09		5.1E-15	2.1E-03	4.2E-08	0.002	4.7E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	9.5E-04	5.4E-09		5.1E-15	7.3E-03	4.2E-08	0.008	4.7E-08
	Arsenic, Inorganic	7440382		1.592	1.9E-05	1.2E-09	1.3E-06	1.2E-14	3.2E-05	2.1E-09	0.00005	3.3E-09
	Benz[a]anthracene	56553		0.263		1.0E-10		5.0E-17		7.2E-10		8.2E-10
	Benzo[a]pyrene	50328		0.28		1.1E-09		5.3E-16		7.6E-09		8.7E-09
	Benzo[b/k]fluoranthene	205992		0.398		1.5E-11		7.6E-17		1.1E-10		1.2E-10
	Benzo[b]fluoranthene	205992		0.14		5.3E-11		2.7E-17		3.8E-10		4.3E-10
	Carbazole	86748		0.046		4.8E-13				2.6E-13		7.4E-13
	Chromium	18540299		7.741	9.4E-06	2.0E-09	9.4E-07	1.1E-12	0E+00	0E+00	0.00001	2.0E-09
	Dibenz[a,h]anthracene	53703		0.15		5.7E-10		3.1E-16		4.1E-09		4.7E-09
	Indeno[1,2,3-cd]pyrene	193395		0.238		9.1E-11		4.5E-17		6.5E-10		7.4E-10
	Iron	7439896		6603	3.4E-05				0E+00		0.00003	
	Mercury, Inorganic Salts	7487947		9.427	1.1E-04				0E+00		0.0001	
	Total (Low Aroclor-1268)				8.8E-04	1.3E-08	2.2E-06	5.1E-12	5.4E-03	7.6E-08	0.006	9.0E-08
	Total (High Aroclor-1268)				1.6E-03	1.3E-08	2.2E-06	5.1E-12	1.1E-02	7.6E-08	0.012	9.0E-08

Table 21D
CTE Risk Calculations - Future Trespasser - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		12427	4.5E-05		3.0E-05		0E+00		0.00008	
	Antimony	7440360		4.655	4.3E-05				0E+00		0.00004	
	Aroclor 1254 - High Risk	11097691		1.134	2.1E-04	1.2E-09		1.1E-15	1.6E-03	9.1E-09	0.002	1.0E-08
	Aroclor 1260 - High Risk	11096825		0.407	7.4E-05	4.2E-10		4.0E-16	5.7E-04	3.3E-09	0.0006	3.7E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	7.4E-05	1.5E-09		1.4E-15	5.7E-04	1.1E-08	0.0006	1.3E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	2.6E-04	1.5E-09		1.4E-15	2.0E-03	1.1E-08	0.002	1.3E-08
	Arsenic, Inorganic	7440382		8.584	1.0E-04	6.7E-09	6.9E-06	6.4E-14	1.7E-04	1.1E-08	0.0003	1.8E-08
	Benz[a]anthracene	56553		0.372		1.4E-10		7.1E-17		1.0E-09		1.2E-09
	Benzene	71432		0.014	1.3E-08	4.0E-13	2.0E-06	6.7E-14	0E+00	0.0E+00	0.000002	4.7E-13
	Benzo[a]pyrene	50328		0.172		6.6E-10		3.3E-16		4.7E-09		5.3E-09
	Benzo[b]fluoranthene	205992		0.34		1.3E-10		6.5E-17		9.3E-10		1.1E-09
	Benzo[k]fluoranthene	207089		0.152		5.8E-12		2.9E-17		4.1E-11		4.7E-11
	Carbazole	86748		0.0474		4.9E-13				2.7E-13		7.7E-13
	Chromium	18540299		7.627	9.3E-06	2.0E-09	9.2E-07	1.1E-12	0E+00	0E+00	0.00001	2.0E-09
	Dibenz[a,h]anthracene	53703		0.146		5.6E-10		3.0E-16		4.0E-09		4.5E-09
	Dibromochloromethane	124481		4.8	8.8E-07	2.1E-10		3.6E-11	4.8E-06	1.2E-09	0.000006	1.4E-09
	Ethylbenzene	100414		0.107	3.9E-09	6.1E-13	2.9E-07	1.0E-13	0E+00	0.0E+00	0.0000003	7.2E-13
	Indeno[1,2,3-cd]pyrene	193395		0.17		6.5E-11		3.2E-17		4.6E-10		5.3E-10
	Iron	7439896		11105	5.8E-05				0E+00		0.00006	
	Mercury, Inorganic Salts	7487947		4.008	4.9E-05				0E+00		0.00005	
	Methylene Chloride	75092		0.0136	8.3E-10	5.3E-14	9.5E-08	6.4E-15	0E+00	0E+00	0.0000001	6.0E-14
	Naphthalene	91203		1.289	2.4E-07		1.4E-04	2.1E-12	1.7E-06		0.0001	2.1E-12
	Naphthalene, 1-Methyl	90120		2.11	1.1E-07	3.2E-11			0E+00	0E+00	0.0000001	3.2E-11
	Naphthalene, 2-Methyl	91576		2.744	2.5E-06				0E+00		0.000003	
	4,6-Dinitro-2-methylphenol	534521		32	1.5E-03				8.0E-03		0.009	
	n-Butylbenzene		Ethylbenzene	2.959	1.1E-07	1.7E-11	8.0E-06	2.8E-12	0E+00	0E+00	0.000008	2.0E-11
	n-Propylbenzene		Ethylbenzene	1.578	5.8E-08	9.1E-12	4.3E-06	1.5E-12	0E+00	0E+00	0.000004	1.1E-11
	Trimethylbenzene, 1,2,4-	95636		3.123			8.6E-04				0.0009	
	Vanadium	7440622		33.66	2.5E-05				0E+00		0.00002	
	Total (Low Aroclor-1268)				2.2E-03	1.4E-08	1.1E-03	4.3E-11	1.1E-02	4.7E-08	0.014	6.1E-08
	Total (High Aroclor-1268)				2.3E-03	1.4E-08	1.1E-03	4.3E-11	1.2E-02	4.7E-08	0.016	6.1E-08

Table 21E
CTE Risk Calculations - Future Trespasser - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC (mg/kg)	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		3037	1.1E-05		7.3E-06		0E+00		0.00002	
	Antimony	7440360		11.77	1.1E-04				0E+00		0.0001	
	Aroclor 1254 - High Risk	11097691		0.246	4.5E-05	2.6E-10		2.4E-16	3.5E-04	2.0E-09	0.0004	2.2E-09
	Aroclor 1260 - High Risk	11096825	See footote (1)	6.759	1.2E-03	7.1E-09		6.7E-15	9.5E-03	5.4E-08	0.01	6.1E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	4.8E-04	9.5E-09		9.0E-15	3.7E-03	7.3E-08	0.004	8.3E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	1.7E-03	9.5E-09		9.0E-15	1.3E-02	7.3E-08	0.015	8.3E-08
	Arsenic, Inorganic	7440382		1.176	1.4E-05	9.2E-10	9.5E-07	8.7E-15	2.4E-05	1.5E-09	0.00004	2.4E-09
	Benz[a]anthracene	56553		1.781		6.8E-10		3.4E-16		4.9E-09		5.5E-09
	Benzo[a]pyrene	50328		0.614		2.3E-09		1.2E-15		1.7E-08		1.9E-08
	Benzo[b]fluoranthene	205992		0.505		1.9E-10		9.6E-17		1.4E-09		1.6E-09
	Benzo[k]fluoranthene	207089		0.404		1.5E-11		7.7E-17		1.1E-10		1.3E-10
	Chloroform	67663		0.0118	4.3E-09	1.9E-13	7.0E-07	2.3E-13	0E+00	0.0E+00	0.0000007	4.2E-13
	Chromium	18540299		19.75	2.4E-05	5.2E-09	2.4E-06	2.9E-12	0E+00	0E+00	0.00003	5.2E-09
	Chrysene	218019		2.508		9.6E-12		4.8E-17		6.8E-11		7.8E-11
	Cobalt	7440484		0.787	9.6E-06		1.6E-06	1.2E-14	0E+00		0.00001	1.2E-14
	Dibenz[a,h]anthracene	53703		0.471		1.8E-09		9.8E-16		1.3E-08		1.5E-08
	Indeno[1,2,3-cd]pyrene	193395		0.57		2.2E-10		1.1E-16		1.6E-09		1.8E-09
	Iron	7439896		5852	3.1E-05				0E+00		0.00003	
	Manganese	7439965		29.38	7.7E-07		7.1E-06		0E+00		0.000008	
	Mercury, Inorganic Salts	7487947		8.775	1.1E-04				0E+00		0.0001	
	Naphthalene	91203		0.0559	1.0E-08		6.1E-06	8.9E-14	7.3E-08		0.000006	8.9E-14
	Naphthalene, 1-Methyl	90120		0.524	2.7E-08	7.9E-12			0E+00	0E+00	0.00000003	7.9E-12
	n-Butylbenzene		Ethylbenzene	0.355	1.3E-08	2.0E-12	9.6E-07	3.4E-13	0E+00	0E+00	0.000001	2.4E-12
	Tetrachloroethene	127184		0.00318	1.2E-09	9.0E-13	1.4E-13	3.2E-20	0E+00	0E+00	0.000000001	9.0E-13
	Trimethylbenzene, 1,2,4-	95636		0.175			4.8E-05				0.00005	
	Vanadium	7440622		6.4	4.7E-06				0E+00		0.00000	
	Zinc	7440666		2105	2.6E-05				0E+00		0.00003	
	Total (Low Aroclor-1268)				2.1E-03	2.8E-08	7.5E-05	3.6E-12	1.4E-02	1.7E-07	0.016	2.0E-07
	Total (High Aroclor-1268)				3.3E-03	2.8E-08	7.5E-05	3.6E-12	2.3E-02	1.7E-07	0.026	2.0E-07

Notes:

(1) The EPC for Aroclor 1260 was been calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 7.534 mg/kg, and the hazard and risk for this compound are 0.01 and 6.8E-08, respectively.

The Total (Low Aroclor-1268) hazard and risk are 0.017 and 2.0E-07, respectively and the Total (High Aroclor-1268) hazard and risk are 0.028 and 2.0E-07, respectively.

Table 22A
RME Risk Calculations - Hypothetical Resident- OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Arsenic, Inorganic	7440382		1.7	7.8E-03	1.5E-06	8.0E-05	2.2E-12	9.3E-04	1.8E-07	0.009	1.68E-06
	Benz[a]anthracene	56553		0.347		1.5E-07		1.2E-14		7.7E-08		2.26E-07
	Benzo[a]pyrene	50328		0.485		2.1E-06		1.6E-13		1.1E-06		3.16E-06
	Benzo[b]fluoranthene	205992		0.692		3.0E-07		2.3E-14		1.5E-07		4.50E-07
	Chromium	18540299		5	2.3E-03	1.5E-06	3.5E-05	1.3E-10	0E+00	0E+00	0.002	1.47E-06
	Dibenz[a,h]anthracene	53703		0.32		1.4E-06		1.2E-13		7.1E-07		2.08E-06
	Mercury, Inorganic Salts	7487947		0.487	2.2E-03				0E+00		0.002	
	Total				1.2E-02	6.9E-06	1.2E-04	1.3E-10	9.3E-04	2.2E-06	0.013	9.06E-06
Child Resident												
	Arsenic, Inorganic	7440382		1.7	7.2E-02	2.8E-06	8.0E-05	4.4E-13	5.9E-03	2.3E-07	0.078	3.02E-06
	Benz[a]anthracene	56553		0.347		2.8E-07		2.3E-15		9.7E-08		3.75E-07
	Benzo[a]pyrene	50328		0.485		3.9E-06		3.2E-14		1.4E-06		5.24E-06
	Benzo[b]fluoranthene	205992		0.692		5.5E-07		4.6E-15		1.9E-07		7.48E-07
	Chromium	18540299		5	2.1E-02	2.7E-06	3.5E-05	2.5E-11	0E+00	0E+00	0.021	2.74E-06
	Dibenz[a,h]anthracene	53703		0.32		2.6E-06		2.3E-14		9.0E-07		3.46E-06
	Mercury, Inorganic Salts	7487947		0.487	2.1E-02				0E+00		0.021	
	Total				1.1E-01	1.3E-05	1.2E-04	2.6E-11	5.9E-03	2.8E-06	0.12	1.56E-05
Lifetime Resident (Cancer Risk Only)[(1)]						1.8E-05		1.3E-10		4.5E-06		2.28E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table 22B
RME Risk Calculations - Hypothetical Resident- Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC (mg/kg)	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aroclor 1260 - High Risk	11096825Hi		0.166	1.1E-02	1.9E-07		2.9E-14	6.4E-03	1.1E-07	0.02	3.0E-07
	Aroclor 1268 - 1016 RfD		Sur - Aroclor1254-1016	0.137	2.7E-03	1.6E-07		2.4E-14	1.5E-03	9.0E-08	0.004	2.5E-07
	Aroclor 1268 - High Risk		Sur - Aroclor1254	0.137	9.4E-03	1.6E-07		2.4E-14	5.2E-03	9.0E-08	0.01	2.5E-07
	Arsenic, Inorganic	7440382		1.474	6.7E-03	1.3E-06	6.9E-05	1.9E-12	8.1E-04	1.6E-07	0.008	1.5E-06
	Benz[a]anthracene	56553		0.213		9.1E-08		7.1E-15		4.7E-08		1.4E-07
	Benzo[a]pyrene	50328		0.195		8.4E-07		6.5E-14		4.3E-07		1.3E-06
	Benzo[b/k]fluoranthene	205992		0.605		2.6E-08		2.0E-14		1.3E-08		3.9E-08
	Benzo[b]fluoranthene	205992		0.0964		4.1E-08		3.2E-15		2.1E-08		6.3E-08
	Bis(2-ethylhexyl)phthalate	117817		4.298	2.9E-04	3.5E-08		3.1E-15	1.2E-04	1.4E-08	0.000	4.9E-08
	Chromium	18540299		5.756	2.6E-03	1.7E-06	4.1E-05	1.5E-10	0E+00	0E+00	0.003	1.7E-06
	Dibenz[a,h]anthracene	53703		0.0111		4.8E-08		4.0E-15		2.5E-08		7.2E-08
	Indeno[1,2,3-cd]pyrene	193395		0.051		2.2E-08		1.7E-15		1.1E-08		3.3E-08
	Iron	7439896		8657	1.7E-02				0E+00		0.017	
	Mercury, Inorganic Salts	7487947		12.6	5.8E-02				0E+00		0.06	
	Vanadium	7440622		10.39	2.8E-03				0E+00		0.003	
	Total (Low Aroclor-1268)				1.0E-01	4.4E-06	1.1E-04	1.5E-10	8.8E-03	9.2E-07	0.11	5.4E-06
	Total (High Aroclor-1268)				1.1E-01	4.4E-06	1.1E-04	1.5E-10	1.3E-02	9.2E-07	0.12	5.4E-06
Child Resident												
	Aroclor 1260 - High Risk	11096825Hi		0.166	1.1E-01	3.6E-07		5.7E-15	4.0E-02	1.4E-07	0.15	5.0E-07
	Aroclor 1268 - 1016 RfD		Sur - Aroclor1254-1016	0.137	2.5E-02	3.0E-07		4.7E-15	9.5E-03	1.1E-07	0.034	4.1E-07
	Aroclor 1268 - High Risk		Sur - Aroclor1254	0.137	8.8E-02	3.0E-07		4.7E-15	3.3E-02	1.1E-07	0.12	4.1E-07
	Arsenic, Inorganic	7440382		1.474	6.3E-02	2.4E-06	6.9E-05	3.8E-13	5.1E-03	2.0E-07	0.068	2.6E-06
	Benz[a]anthracene	56553		0.213		1.7E-07		1.4E-15		6.0E-08		2.3E-07
	Benzo[a]pyrene	50328		0.195		1.6E-06		1.3E-14		5.5E-07		2.1E-06
	Benzo[b/k]fluoranthene	205992		0.605		4.8E-08		4.0E-15		1.7E-08		6.5E-08
	Benzo[b]fluoranthene	205992		0.0964		7.7E-08		6.4E-16		2.7E-08		1.0E-07
	Bis(2-ethylhexyl)phthalate	*117817*		*4.298*	*2.7E-03*	*6.6E-08*		*6.2E-16*	*7.4E-04*	*1.8E-08*	*0.003*	*8.4E-08*
	Chromium	18540299		5.756	2.5E-02	3.2E-06	4.1E-05	2.9E-11	0E+00	0E+00	0.025	3.2E-06
	Dibenz[a,h]anthracene	53703		0.0111		8.9E-08		8.0E-16		3.1E-08		1.2E-07
	Indeno[1,2,3-cd]pyrene	193395		0.051		4.1E-08		3.4E-16		1.4E-08		5.5E-08
	Iron	7439896		8657	1.6E-01				0E+00		0.16	
	Mercury, Inorganic Salts	7487947		12.6	5.4E-01				0E+00		0.54	
	Vanadium	7440622		10.39	2.7E-02				0E+00		0.03	
	Total (Low Aroclor-1268)				9.4E-01	8.3E-06	1.1E-04	3.0E-11	5.5E-02	1.2E-06	1.00	9.5E-06
	Total (High Aroclor-1268)				1.0E+00	8.3E-06	1.1E-04	3.0E-11	7.9E-02	1.2E-06	1.08	9.5E-06
Lifetime Resident (Cancer Risk Only)[(1)]						1.2E-05		1.5E-10		1.9E-06		1.4E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield an aggregate risk for the two receptors over the 30 year exposure period.

Table 22C
RME Risk Calculations - Hypothetical Resident- Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aroclor 1221 - High Risk	11104282		0.27	1.8E-02	3.2E-07		6.9E-10	1.0E-02	1.8E-07	0.03	4.9E-07
	Aroclor 1254 - High Risk	11097691		0.862	5.9E-02	1.0E-06		1.5E-13	3.3E-02	5.7E-07	0.09	1.6E-06
	Aroclor 1260 - High Risk	11096825		1.218	8.3E-02	1.4E-06		2.1E-13	4.7E-02	8.0E-07	0.13	2.2E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	1.0E-01	6.1E-06		9.0E-13	5.7E-02	3.4E-06	0.16	9.5E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	3.6E-01	6.1E-06		9.0E-13	2.0E-01	3.4E-06	0.56	9.5E-06
	Arsenic, Inorganic	7440382		1.592	7.3E-03	1.4E-06	7.5E-05	2.1E-12	8.7E-04	1.7E-07	0.008	1.6E-06
	Benz[a]anthracene	56553		0.263		1.1E-07		8.7E-15		5.8E-08		1.7E-07
	Benzo[a]pyrene	50328		0.28		1.2E-06		9.3E-14		6.2E-07		1.8E-06
	Benzo[b/k]fluoranthene	205992		0.398		1.7E-08		1.3E-14		8.8E-09		2.6E-08
	Benzo[b]fluoranthene	205992		0.14		6.0E-08		4.7E-15		3.1E-08		9.1E-08
	Carbazole	86748		0.046		5.4E-10				2.2E-11		5.6E-10
	Chromium	18540299		7.741	3.5E-03	2.3E-06	5.5E-05	2.0E-10	0E+00	0E+00	0.004	2.3E-06
	Dibenz[a,h]anthracene	53703		0.15		6.4E-07		5.4E-14		3.3E-07		9.8E-07
	Indeno[1,2,3-cd]pyrene	193395		0.238		1.0E-07		7.9E-15		5.3E-08		1.5E-07
	Iron	7439896		6603	1.3E-02				0E+00		0.013	
	Mercury, Inorganic Salts	7487947		9.427	4.3E-02				0E+00		0.043	
	Total (Low Aroclor-1268)				3.3E-01	1.5E-05	1.3E-04	8.9E-10	1.5E-01	6.2E-06	0.48	2.1E-05
	Total (High Aroclor-1268)				5.9E-01	1.5E-05	1.3E-04	8.9E-10	2.9E-01	6.2E-06	0.88	2.1E-05
Child Resident												
	Aroclor 1221 - High Risk	11104282		0.27	1.7E-01	5.9E-07		1.4E-10	6.5E-02	2.2E-07	0.24	8.2E-07
	Aroclor 1254 - High Risk	11097691		0.862	5.5E-01	1.9E-06		3.0E-14	2.1E-01	7.1E-07	0.76	2.6E-06
	Aroclor 1260 - High Risk	11096825		1.218	7.8E-01	2.7E-06		4.2E-14	2.9E-01	1.0E-06	1.07	3.7E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	9.5E-01	1.1E-05		1.8E-13	3.6E-01	4.3E-06	1.31	1.6E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	3.3E+00	1.1E-05		1.8E-13	1.3E+00	4.3E-06	4.60	1.6E-05
	Arsenic, Inorganic	7440382		1.592	6.8E-02	2.6E-06	7.5E-05	4.1E-13	5.5E-03	2.1E-07	0.073	2.8E-06
	Benz[a]anthracene	56553		0.263		2.1E-07		1.7E-15		7.4E-08		2.8E-07
	Benzo[a]pyrene	50328		0.28		2.2E-06		1.9E-14		7.9E-07		3.0E-06
	Benzo[b/k]fluoranthene	205992		0.398		3.2E-08		2.6E-15		1.1E-08		4.3E-08
	Benzo[b]fluoranthene	205992		0.14		1.1E-07		9.3E-16		3.9E-08		1.5E-07
	Carbazole	86748		0.046		1.0E-09				2.7E-11		1.0E-09
	Chromium	18540299		7.741	3.3E-02	4.2E-06	5.5E-05	3.9E-11	0E+00	0E+00	0.03	4.2E-06
	Dibenz[a,h]anthracene	53703		0.15		1.2E-06		1.1E-14		4.2E-07		1.6E-06
	Indeno[1,2,3-cd]pyrene	193395		0.238		1.9E-07		1.6E-15		6.7E-08		2.6E-07
	Iron	7439896		6603	1.2E-01				0E+00		0.12	
	Mercury, Inorganic Salts	7487947		9.427	4.0E-01				0E+00		0.40	
	Total (Low Aroclor-1268)				3.1E+00	2.7E-05	1.3E-04	1.8E-10	9.3E-01	7.9E-06	4.01	3.5E-05
	Total (High Aroclor-1268)				5.5E+00	2.7E-05	1.3E-04	1.8E-10	1.8E+00	7.9E-06	7.30	3.5E-05
Lifetime Resident (Cancer Risk Only)[1]						3.9E-05		8.9E-10		1.3E-05		5.2E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table 22D
RME Risk Calculations - Hypothetical Resident- Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aluminum	7429905		12427	1.7E-02		1.8E-03		0E+00		0.019	
	Antimony	7440360		4.655	1.6E-02				0E+00		0.016	
	Aroclor 1254 - High Risk	11097691		1.134	7.8E-02	1.3E-06		2.0E-13	4.3E-02	7.4E-07	0.12	2.1E-06
	Aroclor 1260 - High Risk	11096825		0.407	2.8E-02	4.8E-07		7.0E-14	1.6E-02	2.7E-07	0.04	7.4E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	2.8E-02	1.7E-06		2.5E-13	1.6E-02	9.4E-07	0.04	2.6E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	9.8E-02	1.7E-06		2.5E-13	5.5E-02	9.4E-07	0.15	2.6E-06
	Arsenic, Inorganic	7440382		8.584	3.9E-02	7.6E-06	4.0E-04	1.1E-11	4.7E-03	9.0E-07	0.04	8.5E-06
	Benz[a]anthracene	56553		0.372		1.6E-07		1.2E-14		8.3E-08		2.4E-07
	Benzene	71432		0.014	4.8E-06	4.5E-10	1.2E-04	1.2E-11	0E+00	0E+00	0.0001	4.6E-10
	Benzo[a]pyrene	50328		0.172		7.4E-07		5.7E-14		3.8E-07		1.1E-06
	Benzo[b]fluoranthene	205992		0.34		1.5E-07		1.1E-14		7.6E-08		2.2E-07
	Benzo[k]fluoranthene	207089		0.152		6.5E-09		5.1E-15		3.4E-09		9.9E-09
	Carbazole	86748		0.0474		5.6E-10				2.2E-11		5.8E-10
	Chromium	18540299		7.627	3.5E-03	2.2E-06	5.4E-05	1.9E-10	0E+00	0E+00	0.004	2.2E-06
	Dibenz[a,h]anthracene	53703		0.146		6.3E-07		5.3E-14		3.2E-07		9.5E-07
	Dibromochloromethane	124481		4.8	3.3E-04	2.4E-07		6.2E-09	1.3E-04	9.4E-08	0.000	3.4E-07
	Ethylbenzene	100414		0.107	1.5E-06	6.9E-10	1.7E-05	1.8E-11	0E+00	0E+00	0.00002	7.1E-10
	Indeno[1,2,3-cd]pyrene	193395		0.17		7.3E-08		5.7E-15		3.8E-08		1.1E-07
	Iron	7439896		11105	2.2E-02				0E+00		0.022	
	Mercury, Inorganic Salts	7487947		4.008	1.8E-02				0E+00		0.018	
	Methylene Chloride	75092		0.0136	3.1E-07	6.0E-11	5.5E-06	1.1E-12	0E+00	0E+00	0.000006	6.1E-11
	Naphthalene	91203		1.289	8.8E-05		8.3E-03	3.6E-10	4.6E-05		0.008	3.6E-10
	Naphthalene, 1-Methyl	90120		2.11	4.1E-05	3.6E-08			0E+00	0E+00	0.00004	3.6E-08
	Naphthalene, 2-Methyl	91576		2.744	9.4E-04				0E+00		0.001	
	4,6-Dinitro-2-methylphenol	534521		32	5.5E-01				2.2E-01		0.77	
	n-Butylbenzene		Ethylbenzene	2.959	4.1E-05	1.9E-08	4.7E-04	5.0E-10	0E+00	0E+00	0.0005	2.0E-08
	n-Propylbenzene		Ethylbenzene	1.578	2.2E-05	1.0E-08	2.5E-04	2.7E-10	0E+00	0E+00	0.0003	1.0E-08
	Trimethylbenzene, 1,2,4-	95636		3.123			5.0E-02				0.050	
	Vanadium	7440622		33.66	9.2E-03				0E+00		0.01	
	Total (Low Aroclor-1268)				8.1E-01	1.5E-05	6.2E-02	7.6E-09	3.0E-01	3.9E-06	1.17	1.9E-05
	Total (High Aroclor-1268)				8.8E-01	1.5E-05	6.2E-02	7.6E-09	3.4E-01	3.9E-06	1.28	1.9E-05

Table 22D
RME Risk Calculations - Hypothetical Resident- Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Child Resident												
	Aluminum	7429905		12427	1.6E-01		1.8E-03		0E+00		0.16	
	Antimony	7440360		4.655	1.5E-01				0E+00		0.15	
	Aroclor 1254 - High Risk	11097691		1.134	7.2E-01	2.5E-06		3.9E-14	2.7E-01	9.4E-07	1.00	3.4E-06
	Aroclor 1260 - High Risk	11096825		0.407	2.6E-01	8.9E-07		1.4E-14	9.8E-02	3.4E-07	0.36	1.2E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	2.6E-01	3.1E-06		4.9E-14	9.9E-02	1.2E-06	0.36	4.3E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	9.1E-01	3.1E-06		4.9E-14	3.4E-01	1.2E-06	1.26	4.3E-06
	Arsenic, Inorganic	7440382		8.584	3.7E-01	1.4E-05	4.0E-04	2.2E-12	3.0E-02	1.1E-06	0.40	1.5E-05
	Benz[a]anthracene	56553		0.372		3.0E-07		2.5E-15		1.0E-07		4.0E-07
	Benzene	71432		0.014	4.5E-05	8.4E-10	1.2E-04	2.4E-12	0E+00	0E+00	0.0002	8.5E-10
	Benzo[a]pyrene	50328		0.172		1.4E-06		1.1E-14		4.8E-07		1.9E-06
	Benzo[b]fluoranthene	205992		0.34		2.7E-07		2.3E-15		9.5E-08		3.7E-07
	Benzo[k]fluoranthene	207089		0.152		1.2E-08		1.0E-15		4.3E-09		1.6E-08
	Carbazole	86748		0.0474		1.0E-09				2.8E-11		1.1E-09
	Chromium	18540299		7.627	3.3E-02	4.2E-06	5.4E-05	3.9E-11	0E+00	0E+00	0.033	4.2E-06
	Dibenz[a,h]anthracene	53703		0.146		1.2E-06		1.1E-14		4.1E-07		1.6E-06
	Dibromochloromethane	124481		4.8	3.1E-03	4.4E-07		1.2E-09	8.3E-04	1.2E-07	0.004	5.6E-07
	Ethylbenzene	100414		0.107	1.4E-05	1.3E-09	1.7E-05	3.6E-12	0.0E+00	0.0E+00	0.00003	1.3E-09
	Indeno[1,2,3-cd]pyrene	193395		0.17		1.4E-07		1.1E-15		4.8E-08		1.8E-07
	Iron	7439896		11105	2.0E-01				0.0E+00		0.20	
	Mercury, Inorganic Salts	7487947		4.008	1.7E-01				0.0E+00		0.17	
	Methylene Chloride	75092		0.0136	2.9E-06	1.1E-10	5.5E-06	2.2E-13	0.0E+00	0.0E+00	0.000008	1.1E-10
	Naphthalene	91203		1.289	8.2E-04		8.3E-03	7.2E-11	2.9E-04		0.009	7.2E-11
	Naphthalene, 1-Methyl	90120		2.11	3.9E-04	6.7E-08			0E+00	0E+00	0.0004	6.7E-08
	Naphthalene, 2-Methyl	91576		2.744	8.8E-03				0E+00		0.009	
	4,6-Dinitro-2-methylphenol	534521		32	5.1E+00				1.4E+00		6.5	
	n-Butylbenzene		Ethylbenzene	2.959	3.8E-04	3.6E-08	4.7E-04	1.0E-10	0E+00	0E+00	0.0008	3.6E-08
	n-Propylbenzene		Ethylbenzene	1.578	2.0E-04	1.9E-08	2.5E-04	5.3E-11	0E+00	0E+00	0.0004	1.9E-08
	Trimethylbenzene, 1,2,4-	95636		3.123			5.0E-02				0.050	
	Vanadium	7440622		33.66	8.6E-02				0E+00		0.09	
	Total (Low Aroclor-1268)				7.5E+00	2.9E-05	6.2E-02	1.5E-09	1.9E+00	4.9E-06	9.48	3.3E-05
	Total (High Aroclor-1268)				8.2E+00	2.9E-05	6.2E-02	1.5E-09	2.1E+00	4.9E-06	10.4	3.3E-05
Lifetime Resident (Cancer Risk Only)[1]						4.1E-05		7.6E-09		7.9E-06		4.9E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table 22E
RME Risk Calculations - Hypothetical Resident- Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aluminum	7429905		3037	4.2E-03		4.3E-04		0E+00		0.005	
	Antimony	7440360		11.77	4.0E-02				0E+00		0.040	
	Aroclor 1254 - High Risk	11097691		0.246	1.7E-02	2.9E-07		4.2E-14	9.4E-03	1.6E-07	0.03	4.5E-07
	Aroclor 1260 - High Risk	11096825	See footote (1)	6.759	4.6E-01	7.9E-06		1.2E-12	2.6E-01	4.4E-06	0.72	1.2E-05
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	1.8E-01	1.1E-05		1.6E-12	1.0E-01	6.0E-06	0.28	1.7E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	6.3E-01	1.1E-05		1.6E-12	3.5E-01	6.0E-06	0.97	1.7E-05
	Arsenic, Inorganic	7440382		1.176	5.4E-03	1.0E-06	5.5E-05	1.5E-12	6.4E-04	1.2E-07	0.006	1.2E-06
	Benz[a]anthracene	56553		1.781		7.6E-07		5.9E-14		4.0E-07		1.2E-06
	Benzo[a]pyrene	50328		0.614		2.6E-06		2.0E-13		1.4E-06		4.0E-06
	Benzo[b]fluoranthene	205992		0.505		2.2E-07		1.7E-14		1.1E-07		3.3E-07
	Benzo[k]fluoranthene	207089		0.404		1.7E-08		1.3E-14		9.0E-09		2.6E-08
	Chloroform	67663		0.0118	1.6E-06	2.1E-10	4.1E-05	3.9E-11	0E+00	0E+00	0.00004	2.5E-10
	Chromium	18540299		19.75	9.0E-03	5.8E-06	1.4E-04	5.0E-10	0E+00	0E+00	0.009	5.8E-06
	Chrysene	218019		2.508		1.1E-08		8.3E-15		5.6E-09		1.6E-08
	Cobalt	7440484		0.787	3.6E-03		9.2E-05	2.1E-12	0E+00		0.004	2.1E-12
	Dibenz[a,h]anthracene	53703		0.471		2.0E-06		1.7E-13		1.0E-06		3.1E-06
	Indeno[1,2,3-cd]pyrene	193395		0.57		2.4E-07		1.9E-14		1.3E-07		3.7E-07
	Iron	7439896		5852	1.1E-02				0E+00		0.011	
	Manganese	7439965		29.38	2.9E-04		4.1E-04		0E+00		0.0007	
	Mercury, Inorganic Salts	7487947		8.775	4.0E-02				0E+00		0.040	
	Naphthalene	91203		0.0559	3.8E-06		3.6E-04	1.6E-11	2.0E-06		0.0004	1.6E-11
	Naphthalene, 1-Methyl	90120		0.524	1.0E-05	8.9E-09			0E+00	0E+00	0.00001	8.9E-09
	n-Butylbenzene		Ethylbenzene	0.355	4.9E-06	2.3E-09	5.6E-05	6.0E-11	0E+00	0E+00	0.00006	2.4E-09
	Tetrachloroethene	127184		0.00318	4.4E-07	1.0E-09	8.3E-12	5.7E-18	0E+00	0E+00	0.0000004	1.0E-09
	Trimethylbenzene, 1,2,4-	95636		0.175			2.8E-03				0.003	
	Vanadium	7440622		6.4	1.8E-03				0E+00		0.002	
	Zinc	7440666		2105	9.6E-03				0E+00		0.010	
	Total (Low Aroclor-1268)				7.8E-01	3.2E-05	4.4E-03	6.2E-10	3.7E-01	1.4E-05	1.16	4.5E-05
	Total (High Aroclor-1268)				1.2E+00	3.2E-05	4.4E-03	6.2E-10	6.2E-01	1.4E-05	1.85	4.5E-05

Table 22E
RME Risk Calculations - Hypothetical Resident- Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Child Resident												
	Aluminum	7429905		3037	3.9E-02		4.3E-04		0E+00		0.039	
	Antimony	7440360		11.77	3.8E-01				0E+00		0.38	
	Aroclor 1254 - High Risk	11097691		0.246	1.6E-01	5.4E-07		8.5E-15	5.9E-02	2.0E-07	0.22	7.4E-07
	Aroclor 1260 - High Risk	11096825	See footote (1)	6.759	4.3E+00	1.5E-05		2.3E-13	1.6E+00	5.6E-06	6.0	2.0E-05
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	1.7E+00	2.0E-05		3.1E-13	6.3E-01	7.6E-06	2.30	2.8E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	5.8E+00	2.0E-05		3.1E-13	2.2E+00	7.6E-06	8.0	2.8E-05
	Arsenic, Inorganic	7440382		1.176	5.0E-02	1.9E-06	5.5E-05	3.1E-13	4.1E-03	1.6E-07	0.054	2.1E-06
	Benz[a]anthracene	56553		1.781		1.4E-06		1.2E-14		5.0E-07		1.9E-06
	Benzo[a]pyrene	50328		0.614		4.9E-06		4.1E-14		1.7E-06		6.6E-06
	Benzo[b]fluoranthene	205992		0.505		4.0E-07		3.4E-15		1.4E-07		5.5E-07
	Benzo[k]fluoranthene	207089		0.404		3.2E-08		2.7E-15		1.1E-08		4.4E-08
	Chloroform	67663		0.0118	1.5E-05	4.0E-10	4.1E-05	7.9E-12	0E+00	0E+00	0.00006	4.1E-10
	Chromium	18540299		19.75	8.4E-02	1.1E-05	1.4E-04	1.0E-10	0E+00	0E+00	0.084	1.1E-05
	Chrysene	218019		2.508		2.0E-08		1.7E-15		7.0E-09		2.7E-08
	Cobalt	7440484		0.787	3.4E-02		9.2E-05	4.3E-13	0E+00		0.034	4.3E-13
	Dibenz[a,h]anthracene	53703		0.471		3.8E-06		3.4E-14		1.3E-06		5.1E-06
	Indeno[1,2,3-cd]pyrene	193395		0.57		4.6E-07		3.8E-15		1.6E-07		6.2E-07
	Iron	7439896		5852	1.1E-01				0E+00		0.11	
	Manganese	7439965		29.38	2.7E-03		4.1E-04		0E+00		0.003	
	Mercury, Inorganic Salts	7487947		8.775	3.7E-01				0E+00		0.37	
	Naphthalene	91203		0.0559	3.6E-05		3.6E-04	3.1E-12	1.3E-05		0.0004	3.1E-12
	Naphthalene, 1-Methyl	90120		0.524	9.6E-05	1.7E-08			0E+00	0E+00	0.0001	1.7E-08
	n-Butylbenzene		Ethylbenzene	0.355	4.5E-05	4.3E-09	5.6E-05	1.2E-11	0E+00	0E+00	0.0001	4.3E-09
	Tetrachloroethene	127184		0.00318	4.1E-06	1.9E-09	8.3E-12	1.1E-18	0E+00	0E+00	0.000004	1.9E-09
	Trimethylbenzene, 1,2,4-	95636		0.175			2.8E-03				0.003	
	Vanadium	7440622		6.4	1.6E-02				0E+00		0.02	
	Zinc	7440666		2105	9.0E-02				0E+00		0.090	
	Total (Low Aroclor-1268)				7.3E+00	5.9E-05	4.4E-03	1.2E-10	2.3E+00	1.7E-05	9.65	7.7E-05
	Total (High Aroclor-1268)				1.1E+01	5.9E-05	4.4E-03	1.2E-10	3.9E+00	1.7E-05	15.4	7.7E-05
Lifetime Resident (Cancer Risk Only)[2]						8.5E-05		6.2E-10		2.8E-05		1.1E-04

Notes:

(1) The EPC for Aroclor 1260 was been calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 7.534 mg/kg and the Total (Low Aroclor-1268) hazard and risk are 17.9 and 3.0E-04, respectively and the Total (High Aroclor-1268) hazard and risk are 27.9 and 3.0E-04, respectively.

Table 23A
CTE Risk Calculations - Hypothetical Resident- OTF

Receptor	Parameter	CAS	Tox Surrogate	EPC (mg/kg)	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Arsenic, Inorganic	7440382		1.7	3.88E-03	2.25E-07	7.99E-05	6.63E-13	7.82E-04	4.53E-08	0.005	2.70E-07
	Benz[a]anthracene	56553		0.347		2.23E-08		3.46E-15		1.95E-08		4.18E-08
	Benzo[a]pyrene	50328		0.485		3.12E-07		4.84E-14		2.72E-07		5.84E-07
	Benzo[b]fluoranthene	205992		0.692		4.45E-08		6.90E-15		3.89E-08		8.33E-08
	Chromium	18540299		5	1.14E-03	2.20E-07	3.53E-05	3.81E-11	0.0E+00	0.0E+00	0.001	2.20E-07
	Dibenz[a,h]anthracene	53703		0.32		2.06E-07		3.48E-14		1.80E-07		3.85E-07
	Mercury, Inorganic Salts	7487947		0.487	1.11E-03				0.0E+00		0.001	
	Total				6.13E-03	1.03E-06	1.15E-04	3.88E-11	7.82E-04	5.56E-07	0.007	1.58E-06
Child Resident												
	Arsenic, Inorganic	7440382		1.7	3.62E-02	4.66E-07	7.99E-05	1.47E-13	3.91E-03	5.03E-08	0.040	5.16E-07
	Benz[a]anthracene	56553		0.347		4.63E-08		7.69E-16		2.17E-08		6.79E-08
	Benzo[a]pyrene	50328		0.485		6.47E-07		1.07E-14		3.03E-07		9.49E-07
	Benzo[b]fluoranthene	205992		0.692		9.23E-08		1.53E-15		4.32E-08		1.35E-07
	Chromium	18540299		5	1.07E-02	4.57E-07	3.53E-05	8.46E-12	0.0E+00	0.0E+00	0.011	4.57E-07
	Dibenz[a,h]anthracene	53703		0.32		4.27E-07		7.74E-15		2.00E-07		6.26E-07
	Mercury, Inorganic Salts	7487947		0.487	1.04E-02				0.0E+00		0.010	
	Total				5.73E-02	2.13E-06	1.15E-04	8.63E-12	3.91E-03	6.17E-07	0.06	2.75E-06
Lifetime Resident (Cancer Risk Only)[(1)]						2.96E-06		3.97E-11		1.06E-06		4.02E-06

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table 23B
CTE Risk Calculations - Hypothetical Resident- Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aroclor 1260 - High Risk	11096825		0.377	1.3E-02	6.6E-08		1.9E-14	1.2E-02	6.2E-08	0.03	1.3E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.241	2.4E-03	4.2E-08		1.2E-14	2.2E-03	4.0E-08	0.005	8.2E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.241	8.3E-03	4.2E-08		1.2E-14	7.8E-03	4.0E-08	0.02	8.2E-08
	Arsenic, Inorganic	7440382		2.154	4.9E-03	2.8E-07	1.0E-04	8.4E-13	9.9E-04	5.7E-08	0.006	3.4E-07
	Benz[a]anthracene	56553		0.308		2.0E-08		3.1E-15		1.7E-08		3.7E-08
	Benzo[a]pyrene	50328		0.285		1.8E-07		2.8E-14		1.6E-07		3.4E-07
	Benzo[b/k]fluoranthene	205992		0.605		3.9E-09		6.0E-15		3.4E-09		7.3E-09
	Benzo[b]fluoranthene	205992		0.141		9.1E-09		1.4E-15		7.9E-09		1.7E-08
	Bis(2-ethylhexyl)phthalate	117817		7.263	2.5E-04	9.0E-09		1.6E-15	1.7E-04	6.0E-09	0.000	1.5E-08
	Chromium	18540299		7.067	1.6E-03	3.1E-07	5.0E-05	5.4E-11	0E+00	0E+00	0.0017	3.1E-07
	Dibenz[a,h]anthracene	53703		0.019		1.2E-08		2.1E-15		1.1E-08		2.3E-08
	Indeno[1,2,3-cd]pyrene	193395		0.0843		5.4E-09		8.4E-16		4.7E-09		1.0E-08
	Iron	7439896		9981	9.8E-03				0E+00		0.010	
	Mercury, Inorganic Salts	7487947		15.9	3.6E-02				0E+00		0.04	
	Vanadium	7440622		13.44	1.8E-03				0E+00		0.0018	
	Total (Low Aroclor-1268)				7.0E-02	9.5E-07	1.5E-04	5.5E-11	1.6E-02	3.7E-07	8.56E-02	1.3E-06
	Total (High Aroclor-1268)				7.6E-02	9.5E-07	1.5E-04	5.5E-11	2.1E-02	3.7E-07	9.71E-02	1.3E-06
Child Resident												
	Aroclor 1260 - High Risk	11096825		0.377	1.2E-01	1.4E-07		4.3E-15	6.1E-02	6.9E-08	0.18	2.1E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.241	2.2E-02	8.8E-08		2.8E-15	1.1E-02	4.4E-08	0.03	1.3E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.241	7.7E-02	8.8E-08		2.8E-15	3.9E-02	4.4E-08	0.12	1.3E-07
	Arsenic, Inorganic	7440382		2.154	4.6E-02	5.9E-07	1.0E-04	1.9E-13	5.0E-03	6.4E-08	0.05	6.5E-07
	Benz[a]anthracene	56553		0.308		4.1E-08		6.8E-16		1.9E-08		6.0E-08
	Benzo[a]pyrene	50328		0.285		3.8E-07		6.3E-15		1.8E-07		5.6E-07
	Benzo[b/k]fluoranthene	205992		0.605		8.1E-09		1.3E-15		3.8E-09		1.2E-08
	Benzo[b]fluoranthene	205992		0.141		1.9E-08		3.1E-16		8.8E-09		2.8E-08
	Bis(2-ethylhexyl)phthalate	117817		7.263	2.3E-03	1.9E-08		3.5E-16	8.4E-04	6.7E-09	0.003	2.5E-08
	Chromium	18540299		7.067	1.5E-02	6.5E-07	5.0E-05	1.2E-11	0E+00	0E+00	0.015	6.5E-07
	Dibenz[a,h]anthracene	53703		0.019		2.5E-08		4.6E-16		1.2E-08		3.7E-08
	Indeno[1,2,3-cd]pyrene	193395		0.0843		1.1E-08		1.9E-16		5.3E-09		1.7E-08
	Iron	7439896		9981	9.1E-02				0E+00		0.09	
	Mercury, Inorganic Salts	7487947		15.9	3.4E-01				0E+00		0.34	
	Vanadium	7440622		13.44	1.7E-02				0E+00		0.017	
	Total (Low Aroclor-1268)				6.5E-01	2.0E-06	1.5E-04	1.2E-11	7.8E-02	4.1E-07	0.73	2.4E-06
	Total (High Aroclor-1268)				7.1E-01	2.0E-06	1.5E-04	1.2E-11	1.1E-01	4.1E-07	0.81	2.4E-06
Lifetime Resident (Cancer Risk Only)[(1)]						2.7E-06		5.6E-11		7.1E-07		3.4E-06

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table 23C
CTE Risk Calculations - Hypothetical Resident- Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aroclor 1221 - High Risk	11104282		0.27	9.2E-03	4.8E-08		2.1E-10	8.7E-03	4.5E-08	0.02	9.2E-08
	Aroclor 1254 - High Risk	11097691		0.862	3.0E-02	1.5E-07		4.5E-14	2.8E-02	1.4E-07	0.06	2.9E-07
	Aroclor 1260 - High Risk	11096825		1.218	4.2E-02	2.1E-07		6.3E-14	3.9E-02	2.0E-07	0.08	4.2E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	5.1E-02	9.2E-07		2.7E-13	4.8E-02	8.6E-07	0.10	1.8E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	1.8E-01	9.2E-07		2.7E-13	1.7E-01	8.6E-07	0.35	1.8E-06
	Arsenic, Inorganic	7440382		1.592	3.6E-03	2.1E-07	7.5E-05	6.2E-13	7.3E-04	4.2E-08	0.004	2.5E-07
	Benz[a]anthracene	56553		0.263		1.7E-08		2.6E-15		1.5E-08		3.2E-08
	Benzo[a]pyrene	50328		0.28		1.8E-07		2.8E-14		1.6E-07		3.4E-07
	Benzo[b/k]fluoranthene	205992		0.398		2.6E-09		4.0E-15		2.2E-09		4.8E-09
	Benzo[b]fluoranthene	205992		0.14		9.0E-09		1.4E-15		7.9E-09		1.7E-08
	Carbazole	86748		0.046		8.1E-11				5.4E-12		8.6E-11
	Chromium	18540299		7.741	1.8E-03	3.4E-07	5.5E-05	5.9E-11	0E+00	0E+00	0.002	3.4E-07
	Dibenz[a,h]anthracene	53703		0.15		9.6E-08		1.6E-14		8.4E-08		1.8E-07
	Indeno[1,2,3-cd]pyrene	193395		0.238		1.5E-08		2.4E-15		1.3E-08		2.9E-08
	Iron	7439896		6603	6.5E-03				0E+00		0.006	
	Mercury, Inorganic Salts	7487947		9.427	2.2E-02				0E+00		0.022	
	Total (Low Aroclor-1268)				1.6E-01	2.2E-06	1.3E-04	2.7E-10	1.2E-01	1.6E-06	0.29	3.8E-06
	Total (High Aroclor-1268)				2.9E-01	2.2E-06	1.3E-04	2.7E-10	2.4E-01	1.6E-06	0.54	3.8E-06
Child Resident												
	Aroclor 1221 - High Risk	11104282		0.27	8.6E-02	9.9E-08		4.6E-11	4.3E-02	5.0E-08	0.13	1.5E-07
	Aroclor 1254 - High Risk	11097691		0.862	2.8E-01	3.1E-07		9.9E-15	1.4E-01	1.6E-07	0.41	4.7E-07
	Aroclor 1260 - High Risk	11096825		1.218	3.9E-01	4.4E-07		1.4E-14	2.0E-01	2.2E-07	0.59	6.7E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.218	4.8E-01	1.9E-06		6.0E-14	2.4E-01	9.6E-07	0.72	2.9E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.218	1.7E+00	1.9E-06		6.0E-14	8.4E-01	9.6E-07	2.51	2.9E-06
	Arsenic, Inorganic	7440382		1.592	3.4E-02	4.4E-07	7.5E-05	1.4E-13	3.7E-03	4.7E-08	0.038	4.8E-07
	Benz[a]anthracene	56553		0.263		3.5E-08		5.8E-16		1.6E-08		5.1E-08
	Benzo[a]pyrene	50328		0.28		3.7E-07		6.2E-15		1.7E-07		5.5E-07
	Benzo[b/k]fluoranthene	205992		0.398		5.3E-09		8.8E-16		2.5E-09		7.8E-09
	Benzo[b]fluoranthene	205992		0.14		1.9E-08		3.1E-16		8.7E-09		2.7E-08
	Carbazole	86748		0.046		1.7E-10				6.0E-12		1.7E-10
	Chromium	18540299		7.741	1.6E-02	7.1E-07	5.5E-05	1.3E-11	0E+00	0E+00	0.02	7.1E-07
	Dibenz[a,h]anthracene	53703		0.15		2.0E-07		3.6E-15		9.4E-08		2.9E-07
	Indeno[1,2,3-cd]pyrene	193395		0.238		3.2E-08		5.3E-16		1.5E-08		4.7E-08
	Iron	7439896		6603	6.0E-02				0E+00		0.06	
	Mercury, Inorganic Salts	7487947		9.427	2.0E-01				0E+00		0.20	
	Total (Low Aroclor-1268)				1.5E+00	4.6E-06	1.3E-04	5.9E-11	6.2E-01	1.8E-06	2.16	6.3E-06
	Total (High Aroclor-1268)				2.7E+00	4.6E-06	1.3E-04	5.9E-11	1.2E+00	1.8E-06	3.95	6.3E-06
Lifetime Resident (Cancer Risk Only)[(1)]						6.3E-06		2.7E-10		3.0E-06		9.3E-06

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield an aggregate risk for the two receptors over the 30 year exposure period.

Table 23D
CTE Risk Calculations - Hypothetical Resident- Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aluminum	7429905		12427	8.5E-03		1.8E-03		0E+00		0.010	
	Antimony	7440360		4.655	8.0E-03				0E+00		0.008	
	Aroclor 1254 - High Risk	11097691		1.134	3.9E-02	2.0E-07		5.9E-14	3.7E-02	1.9E-07	0.08	3.9E-07
	Aroclor 1260 - High Risk	11096825		0.407	1.4E-02	7.2E-08		2.1E-14	1.3E-02	6.7E-08	0.03	1.4E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	1.4E-02	2.5E-07		7.4E-14	1.3E-02	2.4E-07	0.03	4.9E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	4.9E-02	2.5E-07		7.4E-14	4.6E-02	2.4E-07	0.09	4.9E-07
	Arsenic, Inorganic	7440382		8.584	2.0E-02	1.1E-06	4.0E-04	3.3E-12	4.0E-03	2.3E-07	0.02	1.4E-06
	Benz[a]anthracene	56553		0.372		2.4E-08		3.7E-15		2.1E-08		4.5E-08
	Benzene	71432		0.014	2.4E-06	6.8E-11	1.2E-04	3.5E-12	0E+00	0E+00	0.0001	7.1E-11
	Benzo[a]pyrene	50328		0.172		1.1E-07		1.7E-14		9.7E-08		2.1E-07
	Benzo[b]fluoranthene	205992		0.34		2.2E-08		3.4E-15		1.9E-08		4.1E-08
	Benzo[k]fluoranthene	207089		0.152		9.8E-10		1.5E-15		8.5E-10		1.8E-09
	Carbazole	86748		0.0474		8.3E-11				5.6E-12		8.9E-11
	Chromium	18540299		7.627	1.7E-03	3.4E-07	5.4E-05	5.8E-11	0E+00	0E+00	0.0018	3.4E-07
	Dibenz[a,h]anthracene	53703		0.146		9.4E-08		1.6E-14		8.2E-08		1.8E-07
	Dibromochloromethane	124481		4.8	1.6E-04	3.6E-08		1.9E-09	1.1E-04	2.4E-08	0.000	6.1E-08
	Ethylbenzene	100414		0.107	7.3E-07	1.0E-10	1.7E-05	5.4E-12	0E+00	0E+00	0.00002	1.1E-10
	Indeno[1,2,3-cd]pyrene	193395		0.17		1.1E-08		1.7E-15		9.5E-09		2.0E-08
	Iron	7439896		11105	1.1E-02				0E+00		0.011	
	Mercury, Inorganic Salts	7487947		4.008	9.2E-03				0E+00		0.009	
	Methylene Chloride	75092		0.0136	1.6E-07	9.0E-12	5.5E-06	3.3E-13	0E+00	0E+00	0.000006	9.3E-12
	Naphthalene	91203		1.289	4.4E-05		8.3E-03	1.1E-10	3.9E-05		0.008	1.1E-10
	Naphthalene, 1-Methyl	90120		2.11	2.1E-05	5.4E-09			0E+00	0E+00	0.000021	5.4E-09
	Naphthalene, 2-Methyl	91576		2.744	4.7E-04				0E+00		0.0005	
	4,6-Dinitro-2-methylphenol	534521		32	2.7E-01				1.8E-01		0.46	
	n-Butylbenzene		Ethylbenzene	2.959	2.0E-05	2.9E-09	4.7E-04	1.5E-10	0E+00	0E+00	0.0005	3.0E-09
	n-Propylbenzene		Ethylbenzene	1.578	1.1E-05	1.5E-09	2.5E-04	8.0E-11	0E+00	0E+00	0.0003	1.6E-09
	Trimethylbenzene, 1,2,4-	95636		3.123			5.0E-02				0.050	
	Vanadium	7440622		33.66	4.6E-03				0E+00		0.005	
	Total (Low Aroclor-1268)				4.0E-01	2.3E-06	6.2E-02	2.3E-09	2.5E-01	9.7E-07	0.7	3.3E-06
	Total (High Aroclor-1268)				4.4E-01	2.3E-06	6.2E-02	2.3E-09	2.8E-01	9.7E-07	0.8	3.3E-06

Table 23D
CTE Risk Calculations - Hypothetical Resident- Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Child Resident												
	Aluminum	7429905		12427	7.9E-02		1.8E-03		0E+00		0.08	
	Antimony	7440360		4.655	7.4E-02				0E+00		0.07	
	Aroclor 1254 - High Risk	11097691		1.134	3.6E-01	4.1E-07		1.3E-14	1.8E-01	2.1E-07	0.55	6.2E-07
	Aroclor 1260 - High Risk	11096825		0.407	1.3E-01	1.5E-07		4.7E-15	6.6E-02	7.5E-08	0.20	2.2E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.427	1.3E-01	5.2E-07		1.6E-14	6.6E-02	2.6E-07	0.20	7.8E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.427	4.6E-01	5.2E-07		1.6E-14	2.3E-01	2.6E-07	0.69	7.8E-07
	Arsenic, Inorganic	7440382		8.584	1.8E-01	2.4E-06	4.0E-04	7.4E-13	2.0E-02	2.5E-07	0.20	2.6E-06
	Benz[a]anthracene	56553		0.372		5.0E-08		8.2E-16		2.3E-08		7.3E-08
	Benzene	71432		0.014	2.2E-05	1.4E-10	1.2E-04	7.9E-13	0E+00	0E+00	0.0001	1.4E-10
	Benzo[a]pyrene	50328		0.172		2.3E-07		3.8E-15		1.1E-07		3.4E-07
	Benzo[b]fluoranthene	205992		0.34		4.5E-08		7.5E-16		2.1E-08		6.7E-08
	Benzo[k]fluoranthene	207089		0.152		2.0E-09		3.4E-16		9.5E-10		3.0E-09
	Carbazole	86748		0.0474		1.7E-10				6.2E-12		1.8E-10
	Chromium	18540299		7.627	1.6E-02	7.0E-07	5.4E-05	1.3E-11	0E+00	0E+00	0.016	7.0E-07
	Dibenz[a,h]anthracene	53703		0.146		1.9E-07		3.5E-15		9.1E-08		2.9E-07
	Dibromochloromethane	124481		4.8	1.5E-03	7.4E-08		4.2E-10	5.5E-04	2.7E-08	0.002	1.0E-07
	Ethylbenzene	100414		0.107	6.8E-06	2.1E-10	1.7E-05	1.2E-12	0E+00	0E+00	0.00002	2.2E-10
	Indeno[1,2,3-cd]pyrene	193395		0.17		2.3E-08		3.8E-16		1.1E-08		3.3E-08
	Iron	7439896		11105	1.0E-01				0E+00		0.10	
	Mercury, Inorganic Salts	7487947		4.008	8.5E-02				0E+00		0.09	
	Methylene Chloride	75092		0.0136	1.4E-06	1.9E-11	5.5E-06	7.4E-14	0E+00	0E+00	0.000007	1.9E-11
	Naphthalene	91203		1.289	4.1E-04		8.3E-03	2.4E-11	1.9E-04		0.009	2.4E-11
	Naphthalene, 1-Methyl	90120		2.11	1.9E-04	1.1E-08			0E+00	0E+00	0.00019	1.1E-08
	Naphthalene, 2-Methyl	91576		2.744	4.4E-03				0E+00		0.004	
	4,6-Dinitro-2-methylphenol	534521		32	2.6E+00				9.2E-01		3.48	
	n-Butylbenzene		Ethylbenzene	2.959	1.9E-04	5.9E-09	4.7E-04	3.3E-11	0E+00	0E+00	0.0007	6.0E-09
	n-Propylbenzene		Ethylbenzene	1.578	1.0E-04	3.2E-09	2.5E-04	1.8E-11	0E+00	0E+00	0.0003	3.2E-09
	Trimethylbenzene, 1,2,4-	95636		3.123			5.0E-02				0.050	
	Vanadium	7440622		33.66	4.3E-02				0E+00		0.043	
	Total (Low Aroclor-1268)				3.8E+00	4.8E-06	6.2E-02	5.1E-10	1.3E+00	1.1E-06	5.09	5.9E-06
	Total (High Aroclor-1268)				4.1E+00	4.8E-06	6.2E-02	5.1E-10	1.4E+00	1.1E-06	5.58	5.9E-06
Lifetime Resident (Cancer Risk Only)[1]						6.6E-06		2.3E-09		1.9E-06		8.5E-06

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield an aggregate risk for the two receptors over the 30 year exposure period.

Table 23E
CTE Risk Calculations - Hypothetical Resident- Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aluminum	7429905		3037	2.1E-03		4.3E-04		0.E+00		0.003	
	Antimony	7440360		11.77	2.0E-02				0.E+00		0.020	
	Aroclor 1254 - High Risk	11097691		0.246	8.4E-03	4.3E-08		1.3E-14	7.9E-03	4.1E-08	0.02	8.4E-08
	Aroclor 1260 - High Risk	11096825		6.759	2.3E-01	1.2E-06		3.5E-13	2.2E-01	1.1E-06	0.45	2.3E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	8.9E-02	1.6E-06		4.7E-13	8.4E-02	1.5E-06	0.17	3.1E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	3.1E-01	1.6E-06		4.7E-13	2.9E-01	1.5E-06	0.61	3.1E-06
	Arsenic, Inorganic	7440382		1.176	2.7E-03	1.6E-07	5.5E-05	4.6E-13	5.4E-04	3.1E-08	0.003	1.9E-07
	Benz[a]anthracene	56553		1.781		1.1E-07		1.8E-14		1.0E-07		2.1E-07
	Benzo[a]pyrene	50328		0.614		3.9E-07		6.1E-14		3.4E-07		7.4E-07
	Benzo[b]fluoranthene	205992		0.505		3.2E-08		5.0E-15		2.8E-08		6.1E-08
	Benzo[k]fluoranthene	207089		0.404		2.6E-09		4.0E-15		2.3E-09		4.9E-09
	Chloroform	67663		0.0118	8.1E-07	3.2E-11	4.1E-05	1.2E-11	0.E+00	0.0E+00	0.00004	4.4E-11
	Chromium	18540299		19.75	4.5E-03	8.7E-07	1.4E-04	1.5E-10	0.E+00	0.0E+00	0.005	8.7E-07
	Chrysene	218019		2.508		1.6E-09		2.5E-15		1.4E-09		3.0E-09
	Cobalt	7440484		0.787	1.8E-03		9.2E-05	6.4E-13	0.E+00		0.0019	6.4E-13
	Dibenz[a,h]anthracene	53703		0.471		3.0E-07		5.1E-14		2.6E-07		5.7E-07
	Indeno[1,2,3-cd]pyrene	193395		0.57		3.7E-08		5.7E-15		3.2E-08		6.9E-08
	Iron	7439896		5852	5.7E-03				0.E+00		0.006	
	Manganese	7439965		29.38	1.4E-04		4.1E-04		0.E+00		0.0006	
	Mercury, Inorganic Salts	7487947		8.775	2.0E-02				0.E+00		0.020	
	Naphthalene	91203		0.0559	1.9E-06		3.6E-04	4.7E-12	1.7E-06		0.0004	4.7E-12
	Naphthalene, 1-Methyl	90120		0.524	5.1E-06	1.3E-09			0.E+00	0.E+00	0.000005	1.3E-09
	n-Butylbenzene		Ethylbenzene	0.355	2.4E-06	3.4E-10	5.6E-05	1.8E-11	0.E+00	0.E+00	0.00006	3.6E-10
	Tetrachloroethene	127184		0.00318	2.2E-07	1.5E-10	8.3E-12	1.7E-18	0.E+00	0.E+00	0.00000022	1.5E-10
	Trimethylbenzene, 1,2,4-	95636		0.175			2.8E-03				0.003	
	Vanadium	7440622		6.4	8.8E-04				0.E+00		0.001	
	Zinc	7440666		2105	4.8E-03				0.E+00		0.005	
	Total (Low Aroclor-1268)				3.9E-01	4.8E-06	4.4E-03	1.9E-10	3.1E-01	3.5E-06	0.71	8.2E-06
	Total (High Aroclor-1268)				6.2E-01	4.8E-06	4.4E-03	1.9E-10	5.2E-01	3.5E-06	1.14	8.2E-06

Table 23E
CTE Risk Calculations - Hypothetical Resident- Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Child Resident												
	Aluminum	7429905		3037	1.9E-02		4.3E-04		0.E+00		0.020	
	Antimony	7440360		11.77	1.9E-01				0.E+00		0.19	
	Aroclor 1254 - High Risk	11097691		0.246	7.9E-02	9.0E-08		2.8E-15	4.0E-02	4.5E-08	0.12	1.4E-07
	Aroclor 1260 - High Risk	11096825		6.759	2.2E+00	2.5E-06		7.8E-14	1.1E+00	1.2E-06	3.25	3.7E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.13	8.3E-01	3.3E-06		1.0E-13	4.2E-01	1.7E-06	1.25	5.0E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.13	2.9E+00	3.3E-06		1.0E-13	1.5E+00	1.7E-06	4.39	5.0E-06
	Arsenic, Inorganic	7440382		1.176	2.5E-02	3.2E-07	5.5E-05	1.0E-13	2.7E-03	3.5E-08	0.028	3.6E-07
	Benz[a]anthracene	56553		1.781		2.4E-07		3.9E-15		1.1E-07		3.5E-07
	Benzo[a]pyrene	50328		0.614		8.2E-07		1.4E-14		3.8E-07		1.2E-06
	Benzo[b]fluoranthene	205992		0.505		6.7E-08		1.1E-15		3.2E-08		9.9E-08
	Benzo[k]fluoranthene	207089		0.404		5.4E-09		9.0E-16		2.5E-09		7.9E-09
	Chloroform	67663		0.0118	7.5E-06	6.7E-11	4.1E-05	2.6E-12	0.E+00	0.0E+00	0.00005	6.9E-11
	Chromium	18540299		19.75	4.2E-02	1.8E-06	1.4E-04	3.3E-11	0.E+00	0.0E+00	0.042	1.8E-06
	Chrysene	218019		2.508		3.3E-09		5.6E-16		1.6E-09		4.9E-09
	Cobalt	7440484		0.787	1.7E-02		9.2E-05	1.4E-13	0.E+00		0.017	1.4E-13
	Dibenz[a,h]anthracene	53703		0.471		6.3E-07		1.1E-14		2.9E-07		9.2E-07
	Indeno[1,2,3-cd]pyrene	193395		0.57		7.6E-08		1.3E-15		3.6E-08		1.1E-07
	Iron	7439896		5852	5.3E-02				0.E+00		0.05	
	Manganese	7439965		29.38	1.3E-03		4.1E-04		0.E+00		0.0018	
	Mercury, Inorganic Salts	7487947		8.775	1.9E-01				0.E+00		0.19	
	Naphthalene	91203		0.0559	1.8E-05		3.6E-04	1.0E-12	8.4E-06		0.0004	1.0E-12
	Naphthalene, 1-Methyl	90120		0.524	4.8E-05	2.8E-09			0.E+00	0.E+00	0.00005	2.8E-09
	n-Butylbenzene		Ethylbenzene	0.355	2.3E-05	7.1E-10	5.6E-05	4.0E-12	0.E+00	0.E+00	0.00008	7.2E-10
	Tetrachloroethene	127184		0.00318	2.0E-06	3.1E-10	8.3E-12	3.8E-19	0.E+00	0.E+00	0.0000020	3.1E-10
	Trimethylbenzene, 1,2,4-	95636		0.175			2.8E-03				0.003	
	Vanadium	7440622		6.4	8.2E-03				0.E+00		0.008	
	Zinc	7440666		2105	4.5E-02				0.E+00		0.045	
	Total (Low Aroclor-1268)				3.7E+00	9.9E-06	4.4E-03	4.2E-11	1.6E+00	3.9E-06	5.21	1.4E-05
	Total (High Aroclor-1268)				5.7E+00	9.9E-06	4.4E-03	4.2E-11	2.6E+00	3.9E-06	8.35	1.4E-05
Lifetime Resident (Cancer Risk Only)[2]						1.4E-05		1.9E-10		6.6E-06		2.0E-05

Notes:

(1) The EPC for Aroclor 1260 was been calculated using 1/2 the detection limit. If the full detection limit is used, the EPC is 7.534 mg/kg and the Total (Low Aroclor-1268) hazard and risk are 7.4 and 4.3E-05, respectively and the Total (High Aroclor-1268) hazard and risk are 11.9 and 4.3E-05, respectively.

(2) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield an aggregate risk for the two receptors over the 30 year exposure period.

Table 24

Risk Assessment Summary - Industrial and Excavation Worker Scenarios

RME Summary (Without TEG Data)

Industrial Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.01		6E-06
Quad 1	0.1	0.1	3E-06
Quad 2	0.4	0.7	1E-05
Quad 3	0.9	1	1E-05
Quad 4	0.9	1	3E-05

Excavation Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.03		3E-07
Quad 1	0.2	0.2	2E-07
Quad 2	0.8	1	6E-07
Quad 3	1	1	4E-07
Quad 4	2	3	1E-06

CTE Summary (Without TEG Data)

Industrial Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.002		4E-07
Quad 1	0.02	0.02	2E-07
Quad 2	0.07	0.1	9E-07
Quad 3	0.2	0.2	8E-07
Quad 4	0.2	0.3	2E-06

Excavation Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.009		4E-08
Quad 1	0.05	0.1	2E-08
Quad 2	0.2	0.4	7E-08
Quad 3	0.4	0.4	6E-08
Quad 4	0.5	0.9	2E-07

RME Summary (Including TEG Data)

Industrial Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.01		6E-06
Quad 1	0.1	0.1	4E-06
Quad 2	0.8	1	2E-05
Quad 3	1	1	2E-05
Quad 4	1	1	3E-05

Excavation Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.03		3E-07
Quad 1	0.4	0.7	3E-07
Quad 2	2	4	1E-06
Quad 3	1	2	1E-06
Quad 4	2	3	2E-06

CTE Summary (Including TEG Data)

Industrial Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.002		4E-07
Quad 1	0.02	0.03	3E-07
Quad 2	0.1	0.2	2E-06
Quad 3	0.2	0.3	1E-06
Quad 4	0.2	0.3	2E-06

Excavation Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.009		4E-08
Quad 1	0.1	0.2	4E-08
Quad 2	0.5	1	1E-07
Quad 3	0.5	0.5	1E-07
Quad 4	0.6	0.8	2E-07

Notes:

(1) Summary includes HI for Aroclor 1268 calculated using lower risk 1016 as a surrogate for RfD values.

(2) Summary includes HI for Aroclor 1268 calculated using higher risk 1054 as a surrogate for RfD values.

(3) Aroclor 1268 was not a COPC in the OTF exposure unit so only one HI summary was calculated.

(4) No TEG data was collected within the OTF boundaries. The HI and ELCR summary values are from the "without TEG data" series of tables.

Table 25

Risk Assessment Summary - Hypothetical Current and Future Trespasser Scenarios

RME Summary (Without TEG Data)

Current Tresspasser Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.001		3E-07
Quad 1	0.01	0.01	1E-07
Quad 2	0.05	0.09	7E-07
Quad 3	0.1	0.1	5E-07
Quad 4	0.1	0.2	2E-06

Future Trespasser Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.002		6E-07
Quad 1	0.02	0.02	3E-07
Quad 2	0.11	0.20	2E-06
Quad 3	0.2	0.3	1E-06
Quad 4	0.3	0.4	3E-06

CTE Summary (Without TEG Data)

Current Tresspasser Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.0001		3E-08
Quad 1	0.001	0.001	2E-08
Quad 2	0.006	0.01	9E-08
Quad 3	0.01	0.02	6E-08
Quad 4	0.02	0.03	2E-07

Future Trespasser Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.0001		3E-08
Quad 1	0.001	0.001	2E-08
Quad 2	0.006	0.01	9E-08
Quad 3	0.01	0.02	6E-08
Quad 4	0.02	0.03	2E-07

RME Summary (Including TEG Data)

Current Tresspasser Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.001		3E-07
Quad 1	0.01	0.02	2E-07
Quad 2	0.1	0.2	1E-06
Quad 3	0.1	0.2	7E-07
Quad 4	0.1	0.2	2E-06

Future Trespasser Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.002		6E-07
Quad 1	0.025	0.034	4E-07
Quad 2	0.23	0.41	3E-06
Quad 3	0.29	0.33	2E-06
Quad 4	0.3	0.4	3E-06

CTE Summary (Including TEG Data)

Current Tresspasser Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.0001		3E-08
Quad 1	0.001	0.002	2E-08
Quad 2	0.01	0.03	2E-07
Quad 3	0.02	0.02	9E-08
Quad 4	0.02	0.03	2E-07

Future Trespasser Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.0001		3E-08
Quad 1	0.001	0.002	2E-08
Quad 2	0.01	0.03	2E-07
Quad 3	0.02	0.02	9E-08
Quad 4	0.02	0.03	2E-07

Notes:

(1) Summary includes HI for Aroclor 1268 calculated using lower risk 1016 as a surrogate for RfD values.

(2) Summary includes HI for Aroclor 1268 calculated using higher risk 1054 as a surrogate for RfD values.

(3) Aroclor 1268 was not a COPC in the OTF exposure unit so only one HI summary was calculated.

(4) No TEG data was collected within the OTF boundaries. The HI and ELCR summary values are from the "without TEG data" series of tables.

Table 26

Risk Assessment Summary - Hypothetical Residential Scenario

RME Summary (Without TEG Data)

Residential Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.1		2E-05
Quad 1	1	1	1E-05
Quad 2	4	7	5E-05
Quad 3	9	10	5E-05
Quad 4	10	15	1E-04

CTE Summary (Without TEG Data)

Residential Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3]	0.06		4E-06
Quad 1	0.7	0.8	3E-06
Quad 2	2	4	9E-06
Quad 3	5	6	8E-06
Quad 4	5	8	2E-05

RME Summary (Including TEG Data)

Residential Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.1		2E-05
Quad 1	1	2	2E-05
Quad 2	8	15	9E-05
Quad 3	11	13	6E-05
Quad 4	11	15	1E-04

CTE Summary (Including TEG Data)

Residential Summary

Exposure Unit	HI (Low)[1]	HI (High)[2]	ELCR
OTF [3][4]	0.06		4E-06
Quad 1	0.7	0.9	3E-06
Quad 2	4	8	2E-05
Quad 3	6	7	1E-05
Quad 4	6	8	2E-05

Notes:

(1) Summary includes HI for Aroclor 1268 calculated using lower risk 1016 as a surrogate for RfD values.

(2) Summary includes HI for Aroclor 1268 calculated using higher risk 1054 as a surrogate for RfD values.

(3) Aroclor 1268 was not a COPC in the OTF exposure unit so only one HI summary was calculated.

(4) No TEG data was collected within the OTF boundaries. The HI and ELCR summary values are from the "without TEG data" series of tables.

Table 27
Remedial Goal Objectives Summary

Exposure Unit/COCs	Surface Soil EPCs	Resident								Industrial Worker				Subsurface Soil EPCs	Excavation Worker			
		Target HQ				Target CR				Target HQ					Target HQ			
		Hazard	0.1	1	3	ELCR	1.0E-06	1.0E-05	1.0E-04	Hazard	0.1	1	3		Hazard	0.1	1	3
Quad 1																		
Aroclor 1260	0.17	0.15	0.11															
Aroclor 1268 (Ar1016 RfD)	0.14	0.03	0.40				Receptor Risk < 1E-4				Receptor HI < 1					Receptor HI < 1		
Aroclor 1268 (Ar1254 RfD)	0.14	0.12	0.11				No RGOs Developed				No RGOs Developed					No RGOs Developed		
Iron	8657	0.16	5475															
Mercury, Inorganic Salts	12.6	0.54	2.35															
Quad 2																		
Aroclor 1221	0.27	0.24	0.11											--	--	parameter HQ < 0.1		
Aroclor 1254	0.86	0.76	0.11											0.64	0.15	0.42		
Aroclor 1260	1.22	1.07	0.11	1.14										1.21	0.29	0.42		
Aroclor 1268 (Ar1016 RfD)	5.22	1.31	0.40	3.97			Receptor Risk < 1E-4				Receptor HI < 1			2.94	0.20	1.47		
Aroclor 1268 (Ar1254 RfD)	5.22	4.60	0.11	1.14	3.41		No RGOs Developed				No RGOs Developed			2.94	0.70	0.42		
Iron	6603	0.12	5475											--	--	parameter HQ < 0.1		
Mercury, Inorganic Salts	9.43	0.40	2.35											--	--	parameter HQ < 0.1		
Quad 3																		
Aluminum	12427	0.16	7736											--	--	parameter HQ < 0.1		
Antimony	4.66	0.15	3.13											--	--	parameter HQ < 0.1		
Aroclor 1254	1.13	1.00	0.11											1.05	0.25	0.42		
Aroclor 1260	0.41	0.36	0.11				Receptor Risk < 1E-4				Receptor HI < 1			--	--	parameter HQ < 0.1		
Aroclor 1268 (Ar1016 RfD)	1.43	0.36	0.40				No RGOs Developed				No RGOs Developed			--	--	parameter HQ < 0.1		
Aroclor 1268 (Ar1254 RfD)	1.43	1.26	0.11	1.14										0.85	0.20	0.42		
Arsenic, Inorganic	8.58	0.40	2.17											--	--	parameter HQ < 0.1		
Iron	11105	0.20	5475											--	--	parameter HQ < 0.1		
Mercury, Inorganic Salts	4.01	0.17	2.35											--	--	parameter HQ < 0.1		
4,6-Dinitro-2-methylphenol	32.0	6.5	0.49	4.93										8.66	0.47	1.83		
Quad 4																		
Antimony	11.8	0.38	3.13			--	parameter ELCR <1.0E-06			--	parameter HQ < 0.1			--	--	parameter HQ < 0.1		
Aroclor 1254	0.25	0.22	0.11			1.1E-06	0.22			--	parameter HQ < 0.1			--	--	parameter HQ < 0.1		
Aroclor 1260	6.76	6.0	0.11	1.14	3.41	3.0E-05	0.22	2.23		0.57	1.18			4.70	1.12	0.42	4.19	
Aroclor 1268 (Ar1016 RfD)	9.13	2.3	0.40	3.97		4.1E-05	0.22	2.23		0.22	4.13			--	--	parameter HQ < 0.1		
Aroclor 1268 (Ar1254 RfD)	9.13	8.0	0.11	1.14	3.41	4.1E-05	0.22	2.23		0.77	1.18			6.87	1.64	0.42	4.19	
Arsenic, Inorganic	1.18	--	parameter HQ < 0.1			3.0E-06	0.39			--	parameter HQ < 0.1			--	--	parameter HQ < 0.1		
Benz[a]anthracene	1.78	--	parameter HQ < 0.1			2.9E-06	0.62			--	parameter HQ < 0.1			--	--	parameter HQ < 0.1		
Benzo[a]pyrene	0.61	--	parameter HQ < 0.1			9.8E-06	0.062			--	parameter HQ < 0.1			--	--	parameter HQ < 0.1		
Chromium	19.8	--	parameter HQ < 0.1			1.5E-05	1.28	12.77		--	parameter HQ < 0.1			--	--	parameter HQ < 0.1		
Dibenz[a,h]anthracene	0.47	--	parameter HQ < 0.1			7.5E-06	0.062			--	parameter HQ < 0.1			--	--	parameter HQ < 0.1		
Iron	5852	0.11	5475			--	parameter ELCR <1.0E-06			--	parameter HQ < 0.1			--	--	parameter HQ < 0.1		
Mercury, Inorganic Salts	8.78	0.37	2.35			--	parameter ELCR <1.0E-06			--	parameter HQ < 0.1			8.93	0.10	8.93		

Note:
RGO values greater than the EPC are not shown.

Table 28
Uncertainty Analysis Summary

Source of Uncertainty	May Underestimate Risk	May Overestimate Risk	May Under or Overestimate Risk
Environmental Sampling and Analysis			
Systematic or random errors in the laboratory analyses of constituents			Low
Samples used to characterize conditions at the Site were collected from locations where it was anticipated to have the highest constituent concentrations		Moderate	
Data from the TEG laboratory were excluded from primary quantitative analysis	Low		
Fate and Transport Modeling			
Fate and transport modeling did not take into account biodegradation or other degradation processes.		Moderate	
Modeling did not take into account interactions that may occur among the different constituents which may influence their migration		Moderate	
Where site-specific data were not available, model input values were selected such that modeling concentrations were conservatively estimated		Moderate	
COPC Selection			
Some analytical detection limits were higher than risk-based screening levels		Moderate	
Surrogate risk-based screening levels used to screen constituents without available toxicity values	Low		
The risk estimates were based on the COPCs only--other constituents were not quantified.	Low		
Exposure Assumptions			
Only primary receptors based upon discussions with USEPA (2006a) of concern were evaluated. Other populations were not assessed/updated.	Low		
Only primary exposure pathways were evaluated. Other pathways were not assessed.	Low		
EPCs were based upon subdividing the site into quadrants.			Moderate
EPCs were based on the assumption that the data is lognormally distributed.			Moderate
Standard default upper-bound values were used to estimate exposures.		Moderate	
Soil ingestion rates may be uncertain		Moderate	
Skin surface area for on-site worker and excavation worker assumes wearing of short-sleeved shirts and no gloves		Moderate	

Table 28
Uncertainty Analysis Summary

Source of Uncertainty	May Underestimate Risk	May Overestimate Risk	May Under or Overestimate Risk
Exposure point concentrations for ambient outdoor air were based on modeled, rather than measured concentrations.			Moderate
Reasonable maximum exposure values were combined to arrive at the ADD and LADD estimates. There is a low probability that all of the various upper bound assumptions used in the exposure assessment would occur at the point of maximum constituent concentration.		Moderate	
Exposure point concentrations and the amount of media intake were assumed to be constant over time.		Low	
Toxicological Data			
RfDs are derived and extrapolated from laboratory animal studies that expose animals to relatively high intakes. Errors are inherent in the extrapolation of data from animals to humans, from high to low doses, and from one exposure route to another.		Moderate	
RfDs used to estimate non-carcinogenic risk are derived from NOAELs which are based on the sensitive endpoints in the sensitive species. As a result, extrapolation of toxicity data from animals to humans is uncertain. There may be differences in metabolism, uptake, or distribution of constituents in the body between animals and humans. To account for this, NOAELs are divided by uncertainty factors spanning several orders of magnitude to establish the RfD. The combination of these two conservative assumptions may establish RfDs which greatly overprotect human health.		Moderate	
CSFs used for the animal carcinogens are the 95% UCL derived from the linearized multistage model using animal chronic bioassay data, which tends to greatly overestimate carcinogenic risk in humans. The linearized multistage model ignores many known factors that have been documented to protect humans against the carcinogenic actions of constituents, such as DNA repair and immunosurveillence.		High	
RfD for aroclor 1254 used to extrapolate to aroclor 1248, 1260 and 1268		Moderate	
RfDs, CSFs and defensible carcinogenicity data were not available for some COPCs, which were therefore not quantitatively evaluated.	Low		

APPENDIX A

RISK CHARACTERIZATION TABLES – TEG DATA INCLUDED

Table A14B
RME Risk Calculations Including TEG Data - Industrial Worker - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC (mg/kg)	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aroclor 1260 - High Risk	11096825		0.454	2.0E-02	2.9E-07		4.2E-14	1.8E-02	2.6E-07	0.038	5.5E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	6.1E-03	3.0E-07		4.5E-14	5.6E-03	2.8E-07	0.012	5.9E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	2.1E-02	3.0E-07		4.5E-14	2.0E-02	2.8E-07	0.04	5.9E-07
	Arsenic, Inorganic	7440382		1.402	4.1E-03	6.6E-07	4.2E-05	9.8E-13	8.1E-04	1.3E-07	0.005	7.9E-07
	Benz[a]anthracene	56553		0.213		4.9E-08		3.8E-15		4.2E-08		9.1E-08
	Benzo[a]pyrene	50328		0.195		4.5E-07		3.5E-14		3.8E-07		8.3E-07
	Benzo[b/k]fluoranthene	205992		0.605		1.4E-08		1.1E-14		1.2E-08		2.6E-08
	Benzo[b]fluoranthene	205992		0.096		2.2E-08		1.7E-15		1.9E-08		4.1E-08
	Bis(2-ethylhexyl)phthalate	117817		4.298	1.9E-04	1.9E-08		1.7E-15	1.2E-04	1.2E-08	0.0003	3.1E-08
	Chromium	18540299		5.756	1.7E-03	9.1E-07	2.6E-05	7.8E-11	0E+00	0E+00	0.002	9.1E-07
	Dibenz[a,h]anthracene	53703		0.0111		2.5E-08		2.2E-15		2.2E-08		4.7E-08
	Indeno[1,2,3-cd]pyrene	193395		0.051		1.2E-08		9.1E-16		1.0E-08		2.2E-08
	Iron	7439896		8657	1.1E-02				0E+00		0.011	
	Mercury, Inorganic Salts	7487947		12.57	3.7E-02				0E+00		0.037	
	Vanadium	7440622		10.61	1.9E-03				0E+00		0.002	
	Total (Low Aroclor-1268)				8.2E-02	2.7E-06	6.8E-05	7.9E-11	2.5E-02	1.2E-06	0.11	3.9E-06
	Total (High Aroclor-1268)				9.7E-02	2.7E-06	6.8E-05	7.9E-11	3.9E-02	1.2E-06	0.14	3.9E-06

Table A14C
RME Risk Calculations Including TEG Data - Industrial Worker - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aroclor 1221 - High Risk	11104282		3.457	1.5E-01	2.2E-06		4.7E-09	1.4E-01	2.0E-06	0.29	4.2E-06
	Aroclor 1254 - High Risk	11097691		1.376	6.1E-02	8.7E-07		1.3E-13	5.6E-02	8.0E-07	0.12	1.7E-06
	Aroclor 1260 - High Risk	11096825		1.128	5.0E-02	7.1E-07		1.0E-13	4.6E-02	6.6E-07	0.10	1.4E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	1.3E-01	6.4E-06		9.3E-13	1.2E-01	5.9E-06	0.24	1.2E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	4.4E-01	6.4E-06		9.3E-13	4.1E-01	5.9E-06	0.86	1.2E-05
	Arsenic, Inorganic	7440382		1.592	4.7E-03	7.5E-07	4.8E-05	1.1E-12	9.3E-04	1.5E-07	0.006	9.0E-07
	Benz[a]anthracene	56553		0.208		4.8E-08		3.7E-15		4.1E-08		8.9E-08
	Benzo[a]pyrene	50328		0.211		4.8E-07		3.8E-14		4.2E-07		9.0E-07
	Benzo[b/k]fluoranthene	205992		0.398		9.1E-09		7.1E-15		7.8E-09		1.7E-08
	Benzo[b]fluoranthene	205992		0.199		4.6E-08		3.5E-15		3.9E-08		8.5E-08
	Carbazole	86748		0.046		2.9E-10				1.9E-11		3.1E-10
	Chromium	18540299		7.741	2.3E-03	1.2E-06	3.5E-05	1.1E-10	0E+00	0E+00	0.002	1.2E-06
	Dibenz[a,h]anthracene	53703		0.171		3.9E-07		3.3E-14		3.4E-07		7.3E-07
	Indeno[1,2,3-cd]pyrene	193395		0.189		4.3E-08		3.4E-15		3.7E-08		8.1E-08
	Iron	7439896		6603	8.3E-03				0E+00		0.008	
	Mercury, Inorganic Salts	7487947		3.984	1.2E-02				0E+00		0.01	
	Total (Low Aroclor-1268)				4.2E-01	1.3E-05	8.3E-05	4.8E-09	3.6E-01	1.0E-05	0.78	2.3E-05
	Total (High Aroclor-1268)				7.3E-01	1.3E-05	8.3E-05	4.8E-09	6.5E-01	1.0E-05	1.39	a

Table A14D
RME Risk Calculations Including TEG Data - Industrial Worker - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aluminum	7429905		12427	1.1E-02		1.1E-03		0E+00		0.012	
	Antimony	7440360		4.655	1.0E-02				0E+00		0.010	
	Aroclor 1016	12674112		2.211	2.8E-02	4.9E-08		7.2E-15	2.6E-02	4.5E-08	0.054	9.4E-08
	Aroclor 1254 - High Risk	11097691		1.785	7.9E-02	1.1E-06		1.6E-13	7.3E-02	1.0E-06	0.15	2.2E-06
	Aroclor 1260 - High Risk	11096825		0.731	3.2E-02	4.6E-07		6.7E-14	3.0E-02	4.2E-07	0.062	8.8E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	2.8E-02	1.4E-06		2.1E-13	2.6E-02	1.3E-06	0.054	2.7E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	9.8E-02	1.4E-06		2.1E-13	9.1E-02	1.3E-06	0.19	2.7E-06
	Arsenic, Inorganic	7440382		8.584	2.5E-02	4.0E-06	2.6E-04	6.0E-12	5.0E-03	8.0E-07	0.030	4.9E-06
	Benz[a]anthracene	56553		0.588		1.4E-07		1.0E-14		1.2E-07		2.5E-07
	Benzene	71432		0.0589	1.3E-05	1.0E-09	3.2E-04	2.7E-11	0E+00	0.0E+00	0.0003	1.0E-09
	Benzo[a]pyrene	50328		0.291		6.7E-07		5.2E-14		5.7E-07		1.2E-06
	Benzo[b]fluoranthene	205992		0.484		1.1E-07		8.6E-15		9.5E-08		2.1E-07
	Benzo[k]fluoranthene	207089		0.261		6.0E-09		4.6E-15		5.1E-09		1.1E-08
	Carbazole	86748		0.0474		3.0E-10				2.0E-11		3.2E-10
	Chromium	18540299		7.627	2.2E-03	1.2E-06	3.5E-05	1.0E-10	0E+00	0E+00	0.002	1.2E-06
	Dibenz[a,h]anthracene	53703		0.297		6.8E-07		5.8E-14		5.9E-07		1.3E-06
	Dibromochloromethane	124481		0.152	6.7E-06	4.0E-09		1.1E-10	4.4E-06	2.7E-09	0.00001	6.8E-09
	Dichlorobenzene, 1,4-	106467		0.0296	3.7E-07	5.0E-11	2.0E-06	6.4E-12	0E+00	0.0E+00	0.000002	5.7E-11
	Ethylbenzene	100414		3.839	3.4E-05	1.3E-08	3.9E-04	3.5E-10	0E+00	0.0E+00	0.0004	1.4E-08
	Indeno[1,2,3-cd]pyrene	193395		0.312		7.2E-08		5.6E-15		6.1E-08		1.3E-07
	Iron	7439896		11105	1.4E-02				0E+00		0.014	
	Mercury, Inorganic Salts	7487947		3.798	1.1E-02				0E+00		0.011	
	Methylene Chloride	75092		0.227	3.3E-06	5.4E-10	5.9E-05	1.0E-11	0.0E+00	0E+00	0.00006	5.5E-10
	Naphthalene	91203		3.552	1.6E-04		1.5E-02	5.3E-10	1.3E-04		0.015	5.3E-10
	Naphthalene, 1-Methyl	90120		2.11	2.7E-05	1.9E-08			0E+00	0E+00	0.00003	1.9E-08
	Naphthalene, 2-Methyl	91576		2.744	6.0E-04				0E+00		0.0006	
	4,6-Dinitro-2-methylphenol	534521		32	3.5E-01				2.3E-01		0.58	
	n-Butylbenzene		Ethylbenzene	4.03	3.5E-05	1.4E-08	4.1E-04	3.6E-10	0E+00	0E+00	0.0004	1.4E-08
	n-Propylbenzene		Ethylbenzene	1.334	1.2E-05	4.6E-09	1.3E-04	1.2E-10	0E+00	0E+00	0.0001	4.7E-09
	Tetrachloroethane, 1,1,2,2-	79345		0.0286	1.3E-06	1.8E-09		2.7E-16	0E+00	0E+00	0.000001	1.8E-09
	Trimethylbenzene, 1,2,4-	95636		3.367			3.5E-02				0.035	
	Vanadium	7440622		33.66	5.9E-03				0E+00		0.01	
	Total (Low Aroclor-1268)				6.0E-01	1.0E-05	5.2E-02	1.6E-09	3.9E-01	5.0E-06	1.04	1.5E-05
	Total (High Aroclor-1268)				6.7E-01	1.0E-05	5.2E-02	1.6E-09	4.6E-01	5.0E-06	1.18	1.5E-05

Table A14E
RME Risk Calculations Including TEG Data - Industrial Worker - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aluminum	7429905		3037	2.7E-03		2.8E-04		0E+00		0.003	
	Antimony	7440360		11.77	2.6E-02				0E+00		0.026	
	Aroclor 1254 - High Risk	11097691		2.533	1.1E-01	1.6E-06		2.3E-13	1.0E-01	1.5E-06	0.21	3.1E-06
	Aroclor 1260 - High Risk	11096825		7.447	3.3E-01	4.7E-06		6.9E-13	3.0E-01	4.3E-06	0.63	9.0E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	7.9E-02	4.0E-06		5.8E-13	7.3E-02	3.7E-06	0.15	7.6E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	2.8E-01	4.0E-06		5.8E-13	2.6E-01	3.7E-06	0.53	7.6E-06
	Arsenic, Inorganic	7440382		1.176	3.5E-03	5.5E-07	3.6E-05	8.2E-13	6.8E-04	1.1E-07	0.004	6.6E-07
	Benz[a]anthracene	56553		0.888		2.0E-07		1.6E-14		1.7E-07		3.8E-07
	Benzo[a]pyrene	50328		0.868		2.0E-06		1.5E-13		1.7E-06		3.7E-06
	Benzo[b]fluoranthene	205992		0.73		1.7E-07		1.3E-14		1.4E-07		3.1E-07
	Benzo[k]fluoranthene	207089		0.544		1.2E-08		9.7E-15		1.1E-08		2.3E-08
	Chloroform	67663		0.0266	2.3E-06	2.6E-10	5.9E-05	4.8E-11	0E+00	0E+00	0.00006	3.1E-10
	Chromium	18540299		19.75	5.8E-03	3.1E-06	9.0E-05	2.7E-10	0E+00	0E+00	0.006	3.1E-06
	Chrysene	218019		1.987		4.6E-09		3.5E-15		3.9E-09		8.5E-09
	Cobalt	7440484		0.823	2.4E-03		6.2E-05	1.2E-12	0E+00		0.002	1.2E-12
	Dibenz[a,h]anthracene	53703		0.297		6.8E-07		5.8E-14		5.9E-07		1.3E-06
	Indeno[1,2,3-cd]pyrene	193395		0.545		1.3E-07		9.7E-15		1.1E-07		2.3E-07
	Iron	7439896		5852	7.4E-03				0E+00		0.007	
	Manganese	7439965		29.38	1.8E-04		2.7E-04		0E+00		0.0005	
	Mercury, Inorganic Salts	7487947		5.571	1.6E-02				0E+00		0.016	
	Naphthalene	91203		0.618	2.7E-05		2.5E-03	9.3E-11	2.3E-05		0.003	9.3E-11
	Naphthalene, 1-Methyl	90120		0.524	6.6E-06	4.8E-09			0E+00	0E+00	0.000007	4.8E-09
	n-Butylbenzene		Ethylbenzene	0.0852	7.5E-07	2.9E-10	8.6E-06	7.7E-12	0E+00	0E+00	0.000009	3.0E-10
	Tetrachloroethene	127184		0.022	1.9E-06	3.7E-09	3.7E-11	2.1E-17	0E+00	0E+00	0.000002	3.7E-09
	Trimethylbenzene, 1,2,4-	95636		0.0673			7.0E-04				0.0007	
	Vanadium	7440622		6.32	1.1E-03				0E+00		0.001	
	Zinc	7440666		2105	6.2E-03				0E+00		0.006	
	Total (Low Aroclor-1268)				5.9E-01	1.7E-05	4.0E-03	4.2E-10	4.8E-01	1.2E-05	1.07	2.9E-05
	Total (High Aroclor-1268)				7.9E-01	1.7E-05	4.0E-03	4.2E-10	6.6E-01	1.2E-05	1.45	2.9E-05

Table A15B
CTE Risk Calculations Including TEG Data - Industrial Worker - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aroclor 1260 - High Risk	11096825		0.454	4.9E-03	2.5E-08		1.5E-14	1.8E-03	9.2E-09	0.007	3.4E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	1.5E-03	2.7E-08		1.6E-14	5.5E-04	9.9E-09	0.002	3.7E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	5.2E-03	2.7E-08		1.6E-14	1.9E-03	9.9E-09	0.007	3.7E-08
	Arsenic, Inorganic	7440382		1.402	1.0E-03	5.8E-08	4.1E-05	3.4E-13	7.9E-05	4.6E-09	0.001	6.3E-08
	Benz[a]anthracene	56553		0.213		4.3E-09		1.3E-15		1.5E-09		5.8E-09
	Benzo[a]pyrene	50328		0.195		3.9E-08		1.2E-14		1.3E-08		5.3E-08
	Benzo[b/k]fluoranthene	205992		0.605		1.2E-09		3.8E-15		4.2E-10		1.6E-09
	Benzo[b]fluoranthene	205992		0.096		1.9E-09		6.0E-16		6.6E-10		2.6E-09
	Bis(2-ethylhexyl)phthalate	117817		4.298	4.6E-05	1.7E-09		5.9E-16	1.2E-05	4.4E-10	0.0001	2.1E-09
	Chromium	18540299		5.756	4.1E-04	7.9E-08	2.5E-05	2.7E-11	0E+00	0E+00	0.0004	7.9E-08
	Dibenz[a,h]anthracene	53703		0.0111		2.2E-09		7.6E-16		7.7E-10		3.0E-09
	Indeno[1,2,3-cd]pyrene	193395		0.051		1.0E-09		3.2E-16		3.5E-10		1.4E-09
	Iron	7439896		8657	2.7E-03				0E+00		0.003	
	Mercury, Inorganic Salts	7487947		12.57	9.0E-03				0E+00		0.009	
	Vanadium	7440622		10.61	4.5E-04				0E+00		0.0005	
	Total (Low Aroclor-1268)				2.0E-02	2.4E-07	6.7E-05	2.8E-11	2.4E-03	4.1E-08	0.02	2.8E-07
	Total (High Aroclor-1268)				2.4E-02	2.4E-07	6.7E-05	2.8E-11	3.8E-03	4.1E-08	0.03	2.8E-07

Table 15C
CTE Risk Calculations Including TEG Data - Industrial Worker - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aroclor 1221 - High Risk	11104282		3.457	3.7E-02	1.9E-07		1.7E-09	1.4E-02	7.0E-08	0.051	2.6E-07
	Aroclor 1254 - High Risk	11097691		1.376	1.5E-02	7.6E-08		4.4E-14	5.4E-03	2.8E-08	0.020	1.0E-07
	Aroclor 1260 - High Risk	11096825		1.128	1.2E-02	6.2E-08		3.6E-14	4.5E-03	2.3E-08	0.017	8.5E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	3.1E-02	5.6E-07		3.3E-13	1.1E-02	2.1E-07	0.042	7.6E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	1.1E-01	5.6E-07		3.3E-13	4.0E-02	2.1E-07	0.15	7.6E-07
	Arsenic, Inorganic	7440382		1.592	1.1E-03	6.6E-08	4.7E-05	3.9E-13	9.0E-05	5.2E-09	0.001	7.1E-08
	Benz[a]anthracene	56553		0.208		4.2E-09		1.3E-15		1.4E-09		5.6E-09
	Benzo[a]pyrene	50328		0.211		4.2E-08		1.3E-14		1.5E-08		5.7E-08
	Benzo[b/k]fluoranthene	205992		0.398		8.0E-10		2.5E-15		2.7E-10		1.1E-09
	Benzo[b]fluoranthene	205992		0.199		4.0E-09		1.2E-15		1.4E-09		5.4E-09
	Carbazole	86748		0.046		2.5E-11				6.7E-13		2.6E-11
	Chromium	18540299		7.741	5.5E-04	1.1E-07	3.4E-05	3.7E-11	0E+00	0E+00	0.001	1.1E-07
	Dibenz[a,h]anthracene	53703		0.171		3.4E-08		1.2E-14		1.2E-08		4.6E-08
	Indeno[1,2,3-cd]pyrene	193395		0.189		3.8E-09		1.2E-15		1.3E-09		5.1E-09
	Iron	7439896		6603	2.0E-03				0E+00		0.002	
	Mercury, Inorganic Salts	7487947		3.984	2.8E-03				0E+00		0.003	
	Total (Low Aroclor-1268)				1.0E-01	1.1E-06	8.1E-05	1.7E-09	3.5E-02	3.6E-07	0.14	1.5E-06
	Total (High Aroclor-1268)				1.8E-01	1.1E-06	8.1E-05	1.7E-09	6.4E-02	3.6E-07	0.24	1.5E-06

Table A15D
CTE Risk Calculations Including TEG Data - Industrial Worker - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aluminum	7429905		12427	2.7E-03		1.1E-03		0E+00		0.004	
	Antimony	7440360		4.655	2.5E-03				0E+00		0.002	
	Aroclor 1016	12674112		2.211	6.8E-03	4.3E-09		2.5E-15	2.5E-03	1.6E-09	0.009	5.8E-09
	Aroclor 1254 - High Risk	11097691		1.785	1.9E-02	9.8E-08		5.8E-14	7.1E-03	3.6E-08	0.026	1.3E-07
	Aroclor 1260 - High Risk	11096825		0.731	7.8E-03	4.0E-08		2.4E-14	2.9E-03	1.5E-08	0.011	5.5E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	6.8E-03	1.2E-07		7.2E-14	2.5E-03	4.5E-08	0.009	1.7E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	2.4E-02	1.2E-07		7.2E-14	8.8E-03	4.5E-08	0.033	1.7E-07
	Arsenic, Inorganic	7440382		8.584	6.1E-03	3.5E-07	2.5E-04	2.1E-12	4.9E-04	2.8E-08	0.007	3.8E-07
	Benz[a]anthracene	56553		0.588		1.2E-08		3.7E-15		4.1E-09		1.6E-08
	Benzene	71432		0.0613	3.3E-06	9.3E-11	3.2E-04	9.7E-12	0E+00	0.0E+00	0.0003	1.0E-10
	Benzo[a]pyrene	50328		0.291		5.9E-08		1.8E-14		2.0E-08		7.9E-08
	Benzo[b]fluoranthene	205992		0.484		9.7E-09		3.0E-15		3.3E-09		1.3E-08
	Benzo[k]fluoranthene	207089		0.261		5.2E-10		1.6E-15		1.8E-10		7.1E-10
	Carbazole	86748		0.0474		2.6E-11				6.9E-13		2.7E-11
	Chromium	18540299		7.627	5.4E-04	1.1E-07	3.4E-05	3.6E-11	0E+00	0E+00	0.001	1.1E-07
	Dibenz[a,h]anthracene	53703		0.297		6.0E-08		2.0E-14		2.1E-08		8.0E-08
	Dibromochloromethane	124481		0.152	1.6E-06	3.5E-10		3.7E-11	4.3E-07	9.3E-11	0.000002	4.8E-10
	Dichlorobenzene, 1,4-	106467		0.0296	9.1E-08	4.4E-12	2.0E-06	2.2E-12	0E+00	0E+00	0.000002	6.6E-12
	Ethylbenzene	100414		3.839	8.2E-06	1.2E-09	3.8E-04	1.2E-10	0E+00	0E+00	0.0004	1.3E-09
	Indeno[1,2,3-cd]pyrene	193395		0.312		6.3E-09		1.9E-15		2.2E-09		8.4E-09
	Iron	7439896		11105	3.4E-03				0E+00		0.003	
	Mercury, Inorganic Salts	7487947		3.798	2.7E-03				0E+00		0.003	
	Methylene Chloride	75092		0.227	8.1E-07	4.7E-11	5.8E-05	3.5E-12	0E+00	0E+00	0.0001	5.0E-11
	Naphthalene	91203		3.552	3.8E-05		1.4E-02	1.9E-10	1.3E-05		0.014	1.9E-10
	Naphthalene, 1-Methyl	90120		2.11	6.5E-06	1.7E-09			0E+00	0E+00	0.00001	1.7E-09
	Naphthalene, 2-Methyl	91576		2.744	1.5E-04				0E+00		0.0001	
	4,6-Dinitro-2-methylphenol	534521		32	8.6E-02				2.3E-02		0.11	
	n-Butylbenzene		Ethylbenzene	4.03	8.6E-06	1.2E-09	4.0E-04	1.3E-10	0E+00	0E+00	0.0004	1.3E-09
	n-Propylbenzene		Ethylbenzene	1.334	2.9E-06	4.0E-10	1.3E-04	4.2E-11	0E+00	0E+00	0.0001	4.5E-10
	Tetrachloroethane, 1,1,2,2-	79345		0.0286								
	Trimethylbenzene, 1,2,4-	95636		3.367			3.4E-02				0.034	
	Vanadium	7440622		33.66	1.4E-03				0E+00		0.001	
	Total (Low Aroclor-1268)				1.5E-01	8.8E-07	5.1E-02	5.7E-10	3.8E-02	1.8E-07	0.23	1.1E-06
	Total (High Aroclor-1268)				1.6E-01	8.8E-07	5.1E-02	5.7E-10	4.4E-02	1.8E-07	0.26	1.1E-06

Table A15E
CTE Risk Calculations Including TEG Data - Industrial Worker - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Industrial Worker												
	Aluminum	7429905		3037	6.5E-04		2.7E-04		0E+00		0.0009	
	Antimony	7440360		11.77	6.3E-03				0E+00		0.006	
	Aroclor 1254 - High Risk	11097691		2.533	2.7E-02	1.4E-07		8.2E-14	1.0E-02	5.2E-08	0.037	1.9E-07
	Aroclor 1260 - High Risk	11096825		7.447	8.0E-02	4.1E-07		2.4E-13	2.9E-02	1.5E-07	0.11	5.6E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	1.9E-02	3.5E-07		2.0E-13	7.1E-03	1.3E-07	0.026	4.7E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	6.7E-02	3.5E-07		2.0E-13	2.5E-02	1.3E-07	0.092	4.7E-07
	Arsenic, Inorganic	7440382		1.176	8.4E-04	4.9E-08	3.5E-05	2.9E-13	6.7E-05	3.8E-09	0.0009	5.2E-08
	Benz[a]anthracene	56553		0.888		1.8E-08		5.5E-15		6.1E-09		2.4E-08
	Benzo[a]pyrene	50328		0.868		1.7E-07		5.4E-14		6.0E-08		2.3E-07
	Benzo[b]fluoranthene	205992		0.73		1.5E-08		4.6E-15		5.0E-09		2.0E-08
	Benzo[k]fluoranthene	207089		0.544		1.1E-09		3.4E-15		3.8E-10		1.5E-09
	Chloroform	67663		0.0266	5.7E-07	2.3E-11	5.8E-05	1.7E-11	0E+00	0E+00	0.0001	3.9E-11
	Chromium	18540299		19.75	1.4E-03	2.7E-07	8.7E-05	9.4E-11	0E+00	0E+00	0.001	2.7E-07
	Chrysene	218019		1.987		4.0E-10		1.2E-15		1.4E-10		5.4E-10
	Cobalt	7440484		0.823	5.9E-04		6.1E-05	4.2E-13	0E+00		0.0006	4.2E-13
	Dibenz[a,h]anthracene	53703		0.297		6.0E-08		2.0E-14		2.1E-08		8.0E-08
	Indeno[1,2,3-cd]pyrene	193395		0.545		1.1E-08		3.4E-15		3.8E-09		1.5E-08
	Iron	7439896		5852	1.8E-03				0E+00		0.002	
	Manganese	7439965		29.38	4.5E-05		2.6E-04		0E+00		0.0003	
	Mercury, Inorganic Salts	7487947		5.571	4.0E-03				0E+00		0.004	
	Naphthalene	91203		0.618	6.6E-06		2.5E-03	3.2E-11	2.3E-06		0.002	3.2E-11
	Naphthalene, 1-Methyl	90120		0.524	1.6E-06	4.2E-10			0E+00	0E+00	0.000002	4.2E-10
	n-Butylbenzene		Ethylbenzene	0.0852	1.8E-07	2.6E-11	8.4E-06	2.7E-12	0E+00	0E+00	0.000009	2.9E-11
	Tetrachloroethene	127184		0.022	4.7E-07	3.3E-10	3.6E-11	7.4E-18	0E+00	0E+00	0.0000005	3.3E-10
	Trimethylbenzene, 1,2,4-	95636		0.0673			6.8E-04				0.0007	
	Vanadium	7440622		6.32	2.7E-04				0E+00		0.0003	
	Zinc	7440666		2105	1.5E-03				0E+00		0.002	
	Total (Low Aroclor-1268)				1.4E-01	1.5E-06	3.9E-03	1.5E-10	4.7E-02	4.3E-07	0.19	1.9E-06
	Total (High Aroclor-1268)				1.9E-01	1.5E-06	3.9E-03	1.5E-10	6.4E-02	4.3E-07	0.26	1.9E-06

Table A16B
RME Risk Calculations Including TEG Data - Excavation Worker - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aroclor 1260 - High Risk	11096825		0.497	8.3E-02	2.4E-08		1.1E-15	3.5E-02	1.0E-08	0.12	3.4E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.768	8.5E-02	8.5E-08		3.8E-15	3.6E-02	3.6E-08	0.120	1.2E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.768	3.0E-01	8.5E-08		3.8E-15	1.2E-01	3.6E-08	0.42	1.2E-07
	Arsenic, Inorganic	7440382		1.08	1.2E-02	3.9E-08	3.8E-05	1.7E-14	1.1E-03	3.5E-09	0.013	4.2E-08
	Benz[a]anthracene	56553		0.171		3.0E-09		7.0E-17		1.2E-09		4.2E-09
	Benzo[a]pyrene	50328		0.143		2.5E-08		5.9E-16		9.8E-09		3.5E-08
	Benzo[b/k]fluoranthene	205992		0.413		7.2E-10		1.7E-16		2.8E-10		1.0E-09
	Benzo[b]fluoranthene	205992		0.104		1.8E-09		4.3E-17		7.1E-10		2.5E-09
	Bis(2-ethylhexyl)phthalate	117817		2.57	4.3E-04	8.6E-10		2.3E-17	1.3E-04	2.6E-10	0.001	1.1E-09
	Chromium	18540299		4.98	5.6E-03	6.0E-08	2.6E-05	1.6E-12	0E+00	0E+00	0.006	6.0E-08
	Dibenz[a,h]anthracene	53703		0.0175		3.1E-09		7.9E-17		1.2E-09		4.3E-09
	Indeno[1,2,3-cd]pyrene	193395		0.0741		1.3E-09		3.0E-17		5.1E-10		1.8E-09
	Iron	7439896		6198	3.0E-02				0E+00		0.030	
	Mercury, Inorganic Salts	7487947		5.541	6.2E-02				0E+00		0.062	
	Vanadium	7440622		7.845	5.3E-03				0E+00		0.01	
	Total (Low Aroclor-1268)				2.8E-01	2.4E-07	6.4E-05	1.6E-12	7.2E-02	6.3E-08	0.36	3.1E-07
	Total (High Aroclor-1268)				5.0E-01	2.4E-07	6.4E-05	1.6E-12	1.6E-01	6.3E-08	0.7	b

Table A16C
RME Risk Calculations Including TEG Data - Excavation Worker - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aroclor 1221 - High Risk	11104282		2.977	5.0E-01	1.4E-07		9.4E-11	2.1E-01	6.0E-08	0.71	2.0E-07
	Aroclor 1254 - High Risk	11097691		1.204	2.0E-01	5.8E-08		2.6E-15	8.5E-02	2.4E-08	0.29	8.2E-08
	Aroclor 1260 - High Risk	11096825		1.122	1.9E-01	5.4E-08		2.4E-15	7.9E-02	2.3E-08	0.27	7.6E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.253	4.4E-01	4.4E-07		2.0E-14	1.9E-01	1.9E-07	0.63	6.3E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.253	1.6E+00	4.4E-07		2.0E-14	6.5E-01	1.9E-07	2.21	6.3E-07
	Arsenic, Inorganic	7440382		1.256	1.4E-02	4.5E-08	4.4E-05	2.0E-14	1.3E-03	4.1E-09	0.015	4.9E-08
	Benz[a]anthracene	56553		0.2		3.5E-09		8.2E-17		1.4E-09		4.9E-09
	Benzo[a]pyrene	50328		0.203		3.6E-08		8.4E-16		1.4E-08		4.9E-08
	Benzo[b/k]fluoranthene	205992		0.33		5.8E-10		1.4E-16		2.3E-10		8.0E-10
	Benzo[b]fluoranthene	205992		0.18		3.2E-09		7.4E-17		1.2E-09		4.4E-09
	Carbazole	86748		0.046		2.2E-11				6.6E-13		2.3E-11
	Chromium	18540299		5.48	6.1E-03	6.6E-08	2.9E-05	1.7E-12	0E+00	0E+00	0.006	6.6E-08
	Dibenz[a,h]anthracene	53703		0.171		3.0E-08		7.7E-16		1.2E-08		4.2E-08
	Indeno[1,2,3-cd]pyrene	193395		0.185		3.2E-09		7.6E-17		1.3E-09		4.5E-09
	Iron	7439896		3452	1.7E-02				0E+00		0.017	
	Mercury, Inorganic Salts	7487947		3.038	3.4E-02				0E+00		0.034	
	Total (Low Aroclor-1268)				1.4E+00	8.9E-07	7.3E-05	9.6E-11	5.6E-01	3.3E-07	1.97	1.2E-06
	Total (High Aroclor-1268)				2.5E+00	8.9E-07	7.3E-05	9.6E-11	1.0E+00	3.3E-07	3.54	1.2E-06

Table A16D
RME Risk Calculations Including TEG Data - Excavation Worker - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aluminum	7429905		6382	2.1E-02		6.7E-04		0E+00		0.022	
	Antimony	7440360		3.377	2.8E-02				0E+00		0.028	
	Aroclor 1016	12674112		0.581	2.8E-02	9.8E-10		4.3E-17	1.2E-02	4.1E-10	0.040	1.4E-09
	Aroclor 1254 - High Risk	11097691		1.144	1.9E-01	5.5E-08		2.4E-15	8.1E-02	2.3E-08	0.27	7.8E-08
	Aroclor 1260 - High Risk	11096825		0.737	1.2E-01	3.5E-08		1.6E-15	5.2E-02	1.5E-08	0.18	5.0E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.578	7.6E-02	7.6E-08		3.4E-15	3.2E-02	3.2E-08	0.11	1.1E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.578	2.6E-01	7.6E-08		3.4E-15	1.1E-01	3.2E-08	0.38	1.1E-07
	Arsenic, Inorganic	7440382		3.051	3.4E-02	1.1E-07	1.1E-04	4.9E-14	3.1E-03	9.9E-09	0.037	1.2E-07
	Benz[a]anthracene	56553		2.136		3.7E-08		8.8E-16		1.5E-08		5.2E-08
	Benzene	71432		0.376	3.2E-04	5.0E-10	2.3E-03	3.9E-12	0E+00	0E+00	0.003	5.0E-10
	Benzo[a]pyrene	50328		1.943		3.4E-07		8.0E-15		1.3E-07		4.7E-07
	Benzo[b]fluoranthene	205992		0.861		1.5E-08		3.5E-16		5.9E-09		2.1E-08
	Benzo[k]fluoranthene	207089		0.813		1.4E-09		3.3E-16		5.6E-10		2.0E-09
	bis(2-Chloroethyl) ether	111444		0.38		1.0E-08		4.7E-16		0.0E+00		1.0E-08
	Carbazole	86748		0.0552		2.6E-11				7.9E-13		2.7E-11
	Chromium	18540299		5.18	5.8E-03	6.2E-08	2.7E-05	1.6E-12	0E+00	0E+00	0.006	6.2E-08
	Dibenz[a,h]anthracene			0.245		4.3E-08		1.1E-15		1.7E-08		6.0E-08
	Dibromochloromethane	124481		0.0767	1.3E-05	1.5E-10		1.2E-12	3.9E-06	4.6E-11	0.00002	2.0E-10
	Dichlorobenzene, 1,4-	106467		0.198	9.5E-06	2.6E-11	1.6E-05	9.9E-13	0E+00	0E+00	0.00003	2.7E-11
	Ethylbenzene	100414		3.504	1.2E-04	9.2E-10	4.1E-04	7.3E-12	0E+00	0E+00	0.001	9.3E-10
	Indeno[1,2,3-cd]pyrene	193395		0.198		3.5E-09		8.1E-17		1.4E-09		4.8E-09
	Iron	7439896		8533	4.1E-02				0E+00		0.041	
	Mercury, Inorganic Salts	7487947		2.443	2.7E-02				0E+00		0.027	
	Methylene Chloride	75092		0.459	2.6E-05	8.3E-11	1.4E-04	4.7E-13	0E+00	0E+00	0.0002	8.3E-11
	Naphthalene	91203		6.152	1.0E-03		2.9E-02	2.1E-11	4.0E-04		0.031	2.1E-11
	Naphthalene, 1-Methyl	90120		3.532	1.7E-04	2.5E-09			0E+00	0E+00	0.0002	2.5E-09
	Naphthalene, 2-Methyl	91576		3.084	2.6E-03				0E+00		0.003	
	4,6-Dinitro-2-methylphenol	534521		8.811	3.7E-01				1.1E-01		0.48	
	n-Butylbenzene		Ethylbenzene	6.023	2.0E-04	1.6E-09	7.0E-04	1.3E-11	0E+00	0E+00	0.001	1.6E-09
	n-Propylbenzene		Ethylbenzene	2.224	7.5E-05	5.9E-10	2.6E-04	4.6E-12	0E+00	0E+00	0.0003	5.9E-10
	Tetrachloroethane, 1,1,2,2-	79345		0.0447	7.5E-06	2.1E-10		9.7E-18	0E+00	0E+00	0.00001	2.1E-10
	Trimethylbenzene, 1,2,4-	95636		7.034			8.4E-02				0.084	
	Vanadium	7440622		40.71	2.7E-02				0E+00		0.03	
	Total (Low Aroclor-1268)				9.8E-01	8.0E-07	1.2E-01	5.4E-11	2.9E-01	2.5E-07	1.4	1.0E-06
	Total (High Aroclor-1268)				1.2E+00	8.0E-07	1.2E-01	5.4E-11	3.7E-01	2.5E-07	1.7	1.0E-06

Table A16E
RME Risk Calculations Including TEG Data - Excavation Worker - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aluminum	7429905		6250	2.1E-02		6.5E-04		0E+00		0.022	
	Antimony	7440360		7.074	5.9E-02				0E+00		0.059	
	Aroclor 1254 - High Risk	1109769		1.847	3.1E-01	8.9E-08		3.9E-15	1.3E-01	3.7E-08	0.44	1.3E-07
	Aroclor 1260 - High Risk	11096825		4.377	7.3E-01	2.1E-07		9.3E-15	3.1E-01	8.8E-08	1.04	3.0E-07
	Aroclor 1268 - 1016 RfD	11100144	Sur - Aroclor1254-1016	5.164	2.5E-01	2.5E-07		1.1E-14	1.0E-01	1.0E-07	0.35	3.5E-07
	Aroclor 1268 - High Risk	11100144	Sur - Aroclor1254	5.164	8.7E-01	2.5E-07		1.1E-14	3.6E-01	1.0E-07	1.2	3.5E-07
	Arsenic, Inorganic	7440382		2.149	2.4E-02	7.7E-08	7.5E-05	3.5E-14	2.2E-03	7.0E-09	0.026	8.4E-08
	Benz[a]anthracene	56553		1.564		2.7E-08		6.4E-16		1.1E-08		3.8E-08
	Benzo[a]pyrene	50328		0.985		1.7E-07		4.1E-15		6.7E-08		2.4E-07
	Benzo[b]fluoranthene	205992		0.78		1.4E-08		3.2E-16		5.3E-09		1.9E-08
	Benzo[k]fluoranthene	207089		0.73		1.3E-09		3.0E-16		5.0E-10		1.8E-09
	Chloroform	67663		0.0407	1.4E-05	3.0E-11	1.0E-04	1.7E-12	0E+00	0E+00	0.0001	3.2E-11
	Chromium	18540299		14.94	1.7E-02	1.8E-07	7.8E-05	4.7E-12	0E+00	0E+00	0.017	1.8E-07
	Chrysene	218019		2.265		4.0E-10		9.3E-17		1.5E-10		5.5E-10
	Cobalt	7440484		0.511	5.7E-03		4.5E-05	1.7E-14	0E+00		0.006	1.7E-14
	Dibenz[a,h]anthracene	53703		0.688		1.2E-07		3.1E-15		4.7E-08		1.7E-07
	Indeno[1,2,3-cd]pyrene	193395		0.531		9.3E-09		2.2E-16		3.6E-09		1.3E-08
	Iron	7439896		5153	2.5E-02				0E+00		0.025	
	Manganese	7439965		88.26	2.1E-03		9.2E-04		0E+00		0.003	
	Mercury, Inorganic Salts	7487947		4.936	5.5E-02				0E+00		0.055	
	Naphthalene	91203		3.447	5.8E-04		1.6E-02	1.2E-11	2.3E-04		0.017	1.2E-11
	Naphthalene, 1-Methyl	90120		1.312	6.3E-05	9.1E-10			0E+00	0E+00	0.0001	9.1E-10
	n-Butylbenzene		Sur - Ethylbenzene	0.723	2.4E-05	1.9E-10	8.4E-05	1.5E-12	0E+00	0E+00	0.0001	1.9E-10
	Tetrachloroethene	127184		0.0371	1.2E-05	4.8E-10	7.2E-11	8.2E-19	0E+00	0E+00	0.00001	4.8E-10
	Trimethylbenzene, 1,2,4-	95636		0.134			1.6E-03				0.002	
	Vanadium	7440622		8.954	6.0E-03				0E+00		0.006	
	Zinc	7440666		1177	1.3E-02				0E+00		0.013	
	Total (Low Aroclor-1268)				1.5E+00	1.1E-06	2.0E-02	2.0E-11	5.5E-01	3.7E-07	2.1	1.5E-06
	Total (High Aroclor-1268)				2.1E+00	1.1E-06	2.0E-02	2.0E-11	8.1E-01	3.7E-07	3.0	1.5E-06

Table A17B
CTE Risk Calculations Including TEG Data - Excavation Worker - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aroclor 1260 - High Risk	11096825		0.497	2.5E-02	3.3E-09		4.9E-16	6.7E-03	8.8E-10	0.032	4.2E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.768	2.6E-02	1.2E-08		1.7E-15	6.8E-03	3.1E-09	0.033	1.5E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.768	9.0E-02	1.2E-08		1.7E-15	2.4E-02	3.1E-09	0.114	1.5E-08
	Arsenic, Inorganic	7440382		1.08	3.7E-03	5.4E-09	3.8E-05	8.0E-15	2.1E-04	3.1E-10	0.004	5.7E-09
	Benz[a]anthracene	56553		0.171		4.2E-10		3.2E-17		1.0E-10		5.2E-10
	Benzo[a]pyrene	50328		0.143		3.5E-09		2.7E-16		8.6E-10		4.4E-09
	Benzo[b/k]fluoranthene	205992		0.413		1.0E-10		7.8E-17		2.5E-11		1.3E-10
	Benzo[b]fluoranthene	205992		0.104		2.5E-10		2.0E-17		6.3E-11		3.2E-10
	Bis(2-ethylhexyl)phthalate	117817		2.57	1.3E-04	1.2E-10		1.1E-17	2.5E-05	2.3E-11	0.0002	1.4E-10
	Chromium	18540299		4.98	1.7E-03	8.3E-09	2.6E-05	7.2E-13	0E+00	0E+00	0.002	8.3E-09
	Dibenz[a,h]anthracene	53703		0.0175		4.3E-10		3.6E-17		1.1E-10		5.3E-10
	Indeno[1,2,3-cd]pyrene	193395		0.0741		1.8E-10		1.4E-17		4.5E-11		2.3E-10
	Iron	7439896		6198	9.0E-03				0E+00		0.009	
	Mercury, Inorganic Salts	7487947		5.541	1.9E-02				0E+00		0.019	
	Vanadium	7440622		7.845	1.6E-03				0E+00		0.002	
	Total (Low Aroclor-1268)				8.6E-02	3.4E-08	6.4E-05	7.3E-13	1.4E-02	5.6E-09	0.10	3.9E-08
	Total (High Aroclor-1268)				1.5E-01	3.4E-08	6.4E-05	7.3E-13	3.1E-02	5.6E-09	0.18	3.9E-08

Table A17C
CTE Risk Calculations Including TEG Data - Excavation Worker - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aroclor 1221 - High Risk	11104282		2.977	1.5E-01	2.0E-08		4.3E-11	4.0E-02	5.3E-09	0.19	2.5E-08
	Aroclor 1254 - High Risk	11097691		1.204	6.1E-02	8.1E-09		1.2E-15	1.6E-02	2.1E-09	0.078	1.0E-08
	Aroclor 1260 - High Risk	11096825		1.122	5.7E-02	7.5E-09		1.1E-15	1.5E-02	2.0E-09	0.072	9.5E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	9.253	1.3E-01	6.2E-08		9.1E-15	3.6E-02	1.6E-08	0.17	7.8E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	9.253	4.7E-01	6.2E-08		9.1E-15	1.3E-01	1.6E-08	0.60	7.8E-08
	Arsenic, Inorganic	7440382		1.256	4.3E-03	6.3E-09	4.4E-05	9.3E-15	2.4E-04	3.6E-10	0.005	6.7E-09
	Benz[a]anthracene	56553		0.2		4.9E-10		3.8E-17		1.2E-10		6.1E-10
	Benzo[a]pyrene	50328		0.203		5.0E-09		3.8E-16		1.2E-09		6.2E-09
	Benzo[b/k]fluoranthene	205992		0.33		8.1E-11		6.2E-17		2.0E-11		1.0E-10
	Benzo[b]fluoranthene	205992		0.18		4.4E-10		3.4E-17		1.1E-10		5.5E-10
	Carbazole	86748		0.046		3.1E-12				5.8E-14		3.1E-12
	Chromium	18540299		5.48	1.9E-03	9.2E-09	2.9E-05	7.9E-13	0E+00	0E+00		
	Dibenz[a,h]anthracene	53703		0.171		4.2E-09		3.5E-16		1.0E-09		5.2E-09
	Indeno[1,2,3-cd]pyrene	193395		0.185		4.5E-10		3.5E-17		1.1E-10		5.6E-10
	Iron	7439896		3452	5.0E-03				0E+00		0.005	
	Mercury, Inorganic Salts	7487947		3.038	1.0E-02				0E+00		0.010	
	Total (Low Aroclor-1268)				4.3E-01	1.2E-07	7.3E-05	4.4E-11	1.1E-01	2.9E-08	0.53	1.4E-07
	Total (High Aroclor-1268)				7.6E-01	1.2E-07	7.3E-05	4.4E-11	2.0E-01	2.9E-08	0.96	1.4E-07

Table A17D
CTE Risk Calculations Including TEG Data - Excavation Worker - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aluminum	7429905		6382	6.5E-03		6.7E-04		0E+00		0.007	
	Antimony	7440360		3.377	8.6E-03				0E+00		0.009	
	Aroclor 1016	12674112		0.581	8.4E-03	1.4E-10		2.0E-17	2.2E-03	3.6E-11	0.011	1.7E-10
	Aroclor 1254 - High Risk	11097691		1.144	5.8E-02	7.7E-09		1.1E-15	1.5E-02	2.0E-09	0.074	9.7E-09
	Aroclor 1260 - High Risk	11096825		0.737	3.7E-02	4.9E-09		7.2E-16	1.0E-02	1.3E-09	0.047	6.2E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	1.578	2.3E-02	1.1E-08		1.5E-15	6.1E-03	2.8E-09	0.029	1.3E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	1.578	8.0E-02	1.1E-08		1.5E-15	2.1E-02	2.8E-09	0.10	1.3E-08
	Arsenic, Inorganic	7440382		3.051	1.0E-02	1.5E-08	1.1E-04	2.3E-14	5.9E-04	8.7E-10	0.011	1.6E-08
	Benz[a]anthracene	56553		2.136		5.2E-09		4.0E-16		1.3E-09		6.5E-09
	Benzene	71432		0.376	9.6E-05	6.9E-11	2.3E-03	1.8E-12	0E+00	0E+00	0.002	7.1E-11
	Benzo[a]pyrene	50328		1.934		4.7E-08		3.7E-15		1.2E-08		5.9E-08
	Benzo[b]fluoranthene	205992		0.861		2.1E-09		1.6E-16		5.2E-10		2.6E-09
	Benzo[k]fluoranthene	207089		0.813		2.0E-10		1.5E-16		4.9E-11		2.5E-10
	bis(2-Chloroethyl) ether	111444		0.38		1.4E-09		2.2E-16		0.0E+00		1.4E-09
	Carbazole	86748		0.0552		3.7E-12				7.0E-14		3.8E-12
	Chromium	18540299		5.18	1.8E-03	8.7E-09	2.7E-05	7.5E-13	0E+00	0E+00	0.002	8.7E-09
	Dibenz[a,h]anthracene	53703		0.245		6.0E-09		5.1E-16		1.5E-09		7.5E-09
	Dibromochloromethane	124481		0.0767	3.9E-06	2.2E-11		5.7E-13	7.4E-07	4.1E-12	0.000005	2.6E-11
	Dichlorobenzene, 1,4-	106467		0.198	2.9E-06	3.6E-12	1.6E-05	4.6E-13	0E+00	0E+00	0.00002	4.0E-12
	Ethylbenzene	100414		3.504	3.6E-05	1.3E-10	4.1E-04	3.4E-12	0E+00	0E+00	0.0004	1.3E-10
	Indeno[1,2,3-cd]pyrene	193395		0.198		4.8E-10		3.7E-17		1.2E-10		6.0E-10
	Iron	7439896		8533	1.2E-02				0E+00		0.012	
	Mercury, Inorganic Salts	7487947		2.443	8.3E-03				0E+00		0.008	
	Methylene Chloride	75092		0.459	7.8E-06	1.2E-11	1.4E-04	2.1E-13	0E+00	0E+00	0.0001	1.2E-11
	Naphthalene	91203		6.152	3.1E-04		2.9E-02	9.8E-12	7.7E-05		0.030	9.8E-12
	Naphthalene, 1-Methyl	90120		3.532	5.1E-05	3.4E-10			0E+00	0E+00	0.0001	3.4E-10
	Naphthalene, 2-Methyl	91576		3.084	7.8E-04				0E+00		0.001	
	4,6-Dinitro-2-methylphenol	534521		8.811	1.1E-01				2.1E-02		0.13	
	n-Butylbenzene		Ethylbenzene	6.023	6.1E-05	2.2E-10	7.0E-04	5.8E-12	0E+00	0E+00	0.001	2.3E-10
	n-Propylbenzene		Ethylbenzene	2.224	2.3E-05	8.2E-11	2.6E-04	2.1E-12	0E+00	0E+00	0.0003	8.4E-11
	Tetrachloroethane, 1,1,2,2-	79345		0.0447	2.3E-06	3.0E-11		4.5E-18	0E+00	0E+00	0.000002	3.0E-11
	Trimethylbenzene, 1,2,4-	95636		7.034			8.4E-02				0.084	
	Vanadium	7440622		40.71	8.3E-03				0.0E+00		0.01	
	Total (Low Aroclor-1268)				3.0E-01	1.1E-07	1.2E-01	2.5E-11	5.6E-02	2.2E-08	0.47	1.3E-07
	Total (High Aroclor-1268)				3.5E-01	1.1E-07	1.2E-01	2.5E-11	7.1E-02	2.2E-08	0.54	1.3E-07

Table A17E
CTE Risk Calculations Including TEG Data - Excavation Worker - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Excavation Worker												
	Aluminum	7429905		6250	6.4E-03		6.5E-04		0E+00		0.007	
	Antimony	7440360		7.074	1.8E-02				0E+00		0.018	
	Aroclor 1254 - High Risk	11097691		1.847	9.4E-02	1.2E-08		1.8E-15	2.5E-02	3.3E-09	0.12	1.6E-08
	Aroclor 1260 - High Risk	11096825		4.377	2.2E-01	2.9E-08		4.3E-15	5.9E-02	7.8E-09	0.28	3.7E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	5.164	7.5E-02	3.5E-08		5.1E-15	2.0E-02	9.2E-09	0.095	4.4E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	5.164	2.6E-01	3.5E-08		5.1E-15	7.0E-02	9.2E-09	0.33	4.4E-08
	Arsenic, Inorganic	7440382		2.149	7.3E-03	1.1E-08	7.5E-05	1.6E-14	4.2E-04	6.1E-10	0.008	1.1E-08
	Benz[a]anthracene	56553		1.564		3.8E-09		3.0E-16		9.4E-10		4.8E-09
	Benzo[a]pyrene	50328		0.985		2.4E-08		1.9E-15		5.9E-09		3.0E-08
	Benzo[b]fluoranthene	205992		0.78		1.9E-09		1.5E-16		4.7E-10		2.4E-09
	Benzo[k]fluoranthene	207089		0.73		1.8E-10		1.4E-16		4.4E-11		2.2E-10
	Chloroform	67663		0.0407	4.1E-06	4.2E-12	1.0E-04	7.7E-13	0E+00	0E+00	0.0001	5.0E-12
	Chromium	18540299		14.94	5.1E-03	2.5E-08	7.8E-05	2.2E-12	0E+00	0E+00	0.005	2.5E-08
	Chrysene	218019		2.265		5.5E-11		4.3E-17		1.4E-11		6.9E-11
	Cobalt	7440484		0.511	1.7E-03		4.5E-05	7.9E-15	0E+00		0.002	7.9E-15
	Dibenz[a,h]anthracene	53703		0.688		1.7E-08		1.4E-15		4.1E-09		2.1E-08
	Indeno[1,2,3-cd]pyrene	193395		0.531								
	Iron	7439896		5153	7.5E-03				0E+00		0.0075	
	Manganese	7439965		88.26	6.4E-04		9.2E-04		0E+00		0.002	
	Mercury, Inorganic Salts	7487947		4.936	1.7E-02				0E+00		0.017	
	Naphthalene	91203		3.447	1.8E-04		1.6E-02	5.5E-12	4.3E-05		0.017	5.5E-12
	Naphthalene, 1-Methyl	90120		1.312	1.9E-05	1.3E-10			0E+00	0E+00	0.00002	1.3E-10
	n-Butylbenzene		Ethylbenzene	0.723	7.4E-06	2.7E-11	8.4E-05	6.9E-13	0E+00	0E+00	0.0001	2.7E-11
	Tetrachloroethene	127184		0.0371	3.8E-06	6.7E-11	7.2E-11	3.8E-19	0E+00	0E+00	0.000004	6.7E-11
	Trimethylbenzene, 1,2,4-	95636		0.134			1.6E-03				0.002	
	Vanadium	7440622		8.954	1.8E-03				0E+00		0.002	
	Zinc	7440666		1177	4.0E-03				0.0E+00		0.004	
	Total (Low Aroclor-1268)				4.6E-01	1.6E-07	2.0E-02	9.2E-12	1.0E-01	3.2E-08	0.59	1.9E-07
	Total (High Aroclor-1268)				6.5E-01	1.6E-07	2.0E-02	9.2E-12	1.5E-01	3.2E-08	0.82	1.9E-07

Table A18B
RME Risk Calculations Including TEG Data - Current Trespasser - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1260 - High Risk	11096825		0.454	1.7E-03	9.5E-09		1.8E-15	3.7E-03	2.1E-08	0.005	3.0E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	5.1E-04	1.0E-08		1.9E-15	1.1E-03	2.2E-08	0.002	3.2E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	1.8E-03	1.0E-08		1.9E-15	3.9E-03	2.2E-08	0.006	3.2E-08
	Arsenic, Inorganic	7440382		1.402	3.4E-04	2.2E-08	4.5E-06	4.2E-14	1.6E-04	1.0E-08	0.0005	3.2E-08
	Benz[a]anthracene	56553		0.213		1.6E-09		1.6E-16		3.3E-09		4.9E-09
	Benzo[a]pyrene	50328		0.195		1.5E-08		1.5E-15		3.0E-08		4.5E-08
	Benzo[b/k]fluoranthene	205992		0.605		4.6E-10		4.6E-16		9.4E-10		1.4E-09
	Benzo[b]fluoranthene	205992		0.096		7.3E-10		7.3E-17		1.5E-09		2.2E-09
	Bis(2-ethylhexyl)phthalate	117817		4.298	1.6E-05	6.3E-10		7.1E-17	2E-05	1E-09	0.00004	1.6E-09
	Chromium	18540299		5.756	1.4E-04	3.0E-08	2.8E-06	3.3E-12	0E+00	0E+00	0.0001	3.0E-08
	Dibenz[a,h]anthracene	53703		0.0111		8.5E-10		9.2E-17		1.7E-09		2.6E-09
	Indeno[1,2,3-cd]pyrene	193395		0.051		3.9E-10		3.9E-17		8.0E-10		1.2E-09
	Iron	7439896		8657	9.0E-04				0.0E+00		0.001	
	Mercury, Inorganic Salts	7487947		12.57	3.1E-03				0E+00		0.003	
	Vanadium	7440622		10.61	1.6E-04				0E+00		0.0002	
	Total (Low Aroclor-1268)				6.8E-03	9.1E-08	7.3E-06	3.4E-12	5.0E-03	9.3E-08	0.01	1.8E-07
	Total (High Aroclor-1268)				8.0E-03	9.1E-08	7.3E-06	3.4E-12	7.7E-03	9.3E-08	0.02	1.8E-07

Table A18C
RME Risk Calculations Including TEG Data - Current Trespasser - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1221 - High Risk	11104282		3.457	1.3E-02	7.2E-08		2.0E-10	2.8E-02	1.6E-07	0.040	2.3E-07
	Aroclor 1254 - High Risk	11097691		1.376	5.0E-03	2.9E-08		5.4E-15	1.1E-02	6.3E-08	0.016	9.2E-08
	Aroclor 1260 - High Risk	11096825		1.128	4.1E-03	2.4E-08		4.4E-15	9.1E-03	5.2E-08	0.013	7.5E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	1.1E-02	2.1E-07		4.0E-14	2.3E-02	4.7E-07	0.034	6.8E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	3.7E-02	2.1E-07		4.0E-14	8.1E-02	4.7E-07	0.12	6.8E-07
	Arsenic, Inorganic	7440382		1.592	3.9E-04	2.5E-08	5.1E-06	4.7E-14	1.8E-04	1.2E-08	0.0006	3.7E-08
	Benz[a]anthracene	56553		0.208		1.6E-09		1.6E-16		3.2E-09		4.8E-09
	Benzo[a]pyrene	50328		0.211		1.6E-08		1.6E-15		3.3E-08		4.9E-08
	Benzo[b/k]fluoranthene	205992		0.398		3.0E-10		3.0E-16		6.2E-10		9.2E-10
	Benzo[b]fluoranthene	205992		0.199		1.5E-09		1.5E-16		3.1E-09		4.6E-09
	Carbazole	86748		0.046		9.6E-12				1.5E-12		1.1E-11
	Chromium	18540299		7.741	1.9E-04	4.0E-08	3.7E-06	4.5E-12	0E+00	0E+00	0.0002	4.0E-08
	Dibenz[a,h]anthracene	53703		0.171		1.3E-08		1.4E-15		2.7E-08		4.0E-08
	Indeno[1,2,3-cd]pyrene	193395		0.189		1.4E-09		1.4E-16		3E-09		4.4E-09
	Iron	7439896		6603	6.9E-04				0.0E+00		0.0007	
	Mercury, Inorganic Salts	7487947		3.984	9.7E-04				0E+00		0.001	
	Total (Low Aroclor-1268)				3.5E-02	4.3E-07	8.9E-06	2.1E-10	7.1E-02	8.2E-07	0.11	1.3E-06
	Total (High Aroclor-1268)				6.1E-02	4.3E-07	8.9E-06	2.1E-10	1.3E-01	8.2E-07	0.19	1.3E-06

Table A18D
RME Risk Calculations Including TEG Data - Current Trespasser - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		12427	9.1E-04		1.2E-04		0E+00		0.001	
	Antimony	7440360		4.655	8.5E-04				0E+00		0.0009	
	Aroclor 1016	12674112		2.211	2.3E-03	1.6E-09		3.1E-16	5.1E-03	3.6E-09	0.007	5.2E-09
	Aroclor 1254 - High Risk	11097691		1.785	6.5E-03	3.7E-08		7.0E-15	1.4E-02	8.2E-08	0.021	1.2E-07
	Aroclor 1260 - High Risk	11096825		0.731	2.7E-03	1.5E-08		2.9E-15	5.9E-03	3.4E-08	0.009	4.9E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	2.3E-03	4.7E-08		8.8E-15	5.1E-03	1.0E-07	0.007	1.5E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	8.1E-03	4.7E-08		8.8E-15	1.8E-02	1.0E-07	0.026	1.5E-07
	Arsenic, Inorganic	7440382		8.584	2.1E-03	1.3E-07	2.8E-05	2.5E-13	9.9E-04	6.4E-08	0.003	2.0E-07
	Benz[a]anthracene	56553		0.588		4.5E-09		4.5E-16		9.2E-09		1.4E-08
	Benzene	71432		0.0613	1.1E-06	3.5E-11	3.5E-05	1.2E-12	0E+00	0E+00	0.00004	3.6E-11
	Benzo[a]pyrene	50328		0.291		2.2E-08		2.2E-15		4.5E-08		6.8E-08
	Benzo[b]fluoranthene	205992		0.484		3.7E-09		3.7E-16		7.6E-09		1.1E-08
	Benzo[k]fluoranthene	207089		0.261		2.0E-10		2.0E-16		4.1E-10		6.1E-10
	Carbazole	86748		0.0474		9.9E-12				1.6E-12		1.1E-11
	Chromium	18540299		7.627	1.9E-04	4.0E-08	3.7E-06	4.4E-12	0E+00	0E+00	0.0002	4.0E-08
	Dibenz[a,h]anthracene	53703		0.297		2.3E-08		2.5E-15		4.6E-08		6.9E-08
	Dibromochloromethane	124481		0.152	5.6E-07	1.3E-10		4.5E-12	9E-07	2E-10	0.000001	3.5E-10
	Dichlorobenzene, 1,4-	106467		0.0296	3.1E-08	1.7E-12	2.2E-07	2.7E-13	0.0E+00	0.0E+00	0.0000002	1.9E-12
	Ethylbenzene	100414		3.839	2.8E-06	4.4E-10	4.1E-05	1.5E-11	0.0E+00	0.0E+00	0.00004	4.6E-10
	Indeno[1,2,3-cd]pyrene	193395		0.312		2.4E-09		2.4E-16		4.9E-09		7.2E-09
	Iron	7439896		11105	1.2E-03				0.0E+00		0.001	
	Mercury, Inorganic Salts	7487947		3.798	9.2E-04				0E+00		0.001	
	Methylene Chloride	75092		0.227	2.8E-07	1.8E-11	6.3E-06	4.2E-13	0E+00	0E+00	0.000007	1.8E-11
	Naphthalene	91203		3.552	1.3E-05		1.6E-03	2.3E-11	3E-05		0.002	2.3E-11
	Naphthalene, 1-Methyl	90120		2.11	2.2E-06	6.4E-10			0.0E+00	0.0E+00	0.000002	6.4E-10
	Naphthalene, 2-Methyl	91576		2.744	5.0E-05				0E+00		0.00005	
	4,6-Dinitro-2-methylphenol	534521		32	2.9E-02				4.6E-02		0.08	
	n-Butylbenzene		Ethylbenzene	4.03	2.9E-06	4.6E-10	4.3E-05	1.6E-11	0E+00	0E+00	0.00005	4.8E-10
	n-Propylbenzene		Ethylbenzene	1.334	9.7E-07	1.5E-10	1.4E-05	5.1E-12	0E+00	0E+00	0.00002	1.6E-10
	Tetrachloroethane, 1,1,2,2-	79345		0.0286	1.0E-07	6.0E-11		1.1E-17	0E+00	0E+00	0.0000001	6.0E-11
	Trimethylbenzene, 1,2,4-	95636		3.367			3.7E-03				0.004	
	Vanadium	7440622		33.66	4.9E-04				0E+00		0.0005	
	Total (Low Aroclor-1268)				5.0E-02	3.3E-07	5.6E-03	6.9E-11	7.8E-02	4.0E-07	0.13	7.3E-07
	Total (High Aroclor-1268)				5.6E-02	3.3E-07	5.6E-03	6.9E-11	9.0E-02	4.0E-07	0.15	7.3E-07

Table A18E

RME Risk Calculations Including TEG Data - Current Trespasser - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		3037	2.2E-04		2.9E-05		0E+00		0.0003	
	Antimony	7440360		11.77	2.1E-03				0E+00		0.002	
	Aroclor 1254 - High Risk	11097691		2.533	9.3E-03	5.3E-08		1.0E-14	2.0E-02	1.2E-07	0.030	1.7E-07
	Aroclor 1260 - High Risk	11096825		7.447	2.7E-02	1.6E-07		2.9E-14	6.0E-02	3.4E-07	0.087	5.0E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	6.6E-03	1.3E-07		2.5E-14	1.4E-02	2.9E-07	0.021	4.2E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	2.3E-02	1.3E-07		2.5E-14	5.1E-02	2.9E-07	0.074	4.2E-07
	Arsenic, Inorganic	7440382		1.176	2.9E-04	1.8E-08	3.8E-06	3.5E-14	1.4E-04	8.7E-09	0.0004	2.7E-08
	Benz[a]anthracene	56553		0.888		6.8E-09		6.7E-16		1.4E-08		2.1E-08
	Benzo[a]pyrene	50328		0.868		6.6E-08		6.6E-15		1.4E-07		2.0E-07
	Benzo[b]fluoranthene	205992		0.73		5.6E-09		5.5E-16		1.1E-08		1.7E-08
	Benzo[k]fluoranthene	207089		0.544		4.1E-10		4.1E-16		8.5E-10		1.3E-09
	Chloroform	67663		0.0266	1.9E-07	8.6E-12	6.3E-06	2.0E-12	0.0E+00	0.0E+00	0.000007	1.1E-11
	Chromium	18540299		19.75	4.8E-04	1.0E-07	9.5E-06	1.1E-11	0E+00	0E+00	0.0005	1.0E-07
	Chrysene	218019		1.987		1.5E-10		1.5E-16		3.1E-10		4.6E-10
	Cobalt	7440484		0.823	2.0E-04		6.6E-06	5.1E-14	0.0E+00		0.0002	5.1E-14
	Dibenz[a,h]anthracene	53703		0.297		2.3E-08		2.5E-15		4.6E-08		6.9E-08
	Indeno[1,2,3-cd]pyrene	193395		0.545		4.2E-09		4.1E-16		8.5E-09		1.3E-08
	Iron	7439896		5852	6.1E-04				0.0E+00		0.0006	
	Manganese	7439965		29.38	1.5E-05		2.8E-05		0E+00		0.00004	
	Mercury, Inorganic Salts	7487947		5.571	1.4E-03				0E+00		0.001	
	Naphthalene	91203		0.618	2.3E-06		2.7E-04	4.0E-12	5E-06		0.0003	4.0E-12
	Naphthalene, 1-Methyl	90120		0.524	5.5E-07	1.6E-10			0.0E+00	0.0E+00	0.0000005	1.6E-10
	n-Butylbenzene		Ethylbenzene	0.0852	6.2E-08	9.8E-12	9.2E-07	3.3E-13	0E+00	0E+00	0.000001	1.0E-11
	Tetrachloroethene	127184		0.022	1.6E-07	1.2E-10	3.9E-12	9.0E-19	0.0E+00	0.0E+00	0.0000002	1.2E-10
	Trimethylbenzene, 1,2,4-	95636		0.0673			7.4E-05				0.00007	
	Vanadium	7440622		6.32	9.2E-05				0E+00		0.0001	
	Zinc	7440666		2105	5.1E-04				0E+00		0.0005	
	Total (Low Aroclor-1268)				4.9E-02	5.7E-07	4.3E-04	1.8E-11	9.5E-02	9.7E-07	0.14	1.5E-06
	Total (High Aroclor-1268)				6.5E-02	5.7E-07	4.3E-04	1.8E-11	1.3E-01	9.7E-07	0.20	1.5E-06

Table A19B
CTE Risk Calculations Including TEG Data - Current Trespasser - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1260 - High Risk	11096825		0.454	8.3E-05	4.7E-10		4.5E-16	6.4E-04	3.6E-09	0.001	4.1E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	2.5E-05	5.1E-10		4.8E-16	1.9E-04	3.9E-09	0.0002	4.4E-09
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	8.8E-05	5.1E-10		4.8E-16	6.8E-04	3.9E-09	0.001	4.4E-09
	Arsenic, Inorganic	7440382		1.402	1.7E-05	1.1E-09	1.1E-06	1.0E-14	2.8E-05	1.8E-09	0.00005	2.9E-09
	Benz[a]anthracene	56553		0.213		8.1E-11		4.0E-17		5.8E-10		6.6E-10
	Benzo[a]pyrene	50328		0.195		7.4E-10		3.7E-16		5.3E-09		6.1E-09
	Benzo[b/k]fluoranthene	205992		0.605		2.3E-11		1.1E-16		1.6E-10		1.9E-10
	Benzo[b]fluoranthene	205992		0.096		3.7E-11		1.8E-17		2.6E-10		3.0E-10
	Bis(2-ethylhexyl)phthalate	117817		4.298	7.9E-07	3.1E-11		1.8E-17	4E-06	2E-10	0.000005	2.0E-10
	Chromium	18540299		5.756	7.0E-06	1.5E-09	7.0E-07	8.3E-13	0E+00	0E+00	0.000008	1.5E-09
	Dibenz[a,h]anthracene	53703		0.0111		4.2E-11		2.3E-17		3.0E-10		3.4E-10
	Indeno[1,2,3-cd]pyrene	193395		0.051		1.9E-11		9.7E-18		1.4E-10		1.6E-10
	Iron	7439896		8657	4.5E-05				0E+00		0.00005	
	Mercury, Inorganic Salts	7487947		12.57	1.5E-04				0E+00		0.0002	
	Vanadium	7440622		10.61	7.8E-06				0E+00		0.00001	
	Total (Low Aroclor-1268)				3.4E-04	4.6E-09	1.8E-06	8.5E-13	8.7E-04	1.6E-08	0.001	2.1E-08
	Total (High Aroclor-1268)				4.0E-04	4.6E-09	1.8E-06	8.5E-13	1.4E-03	1.6E-08	0.002	2.1E-08

Table A19C
CTE Risk Calculations Including TEG Data - Current Trespasser - Quadrant 2

Quad 2 Trespasser Risk/Hazard Calculations (CTE)

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1221 - High Risk	11104282		3.457	6.3E-04	3.6E-09		5.1E-11	4.9E-03	2.8E-08	0.005	3.1E-08
	Aroclor 1254 - High Risk	11097691		1.376	2.5E-04	1.4E-09		1.4E-15	1.9E-03	1.1E-08	0.002	1.2E-08
	Aroclor 1260 - High Risk	11096825		1.128	2.1E-04	1.2E-09		1.1E-15	1.6E-03	9.1E-09	0.002	1.0E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	5.3E-04	1.1E-08		9.9E-15	4.1E-03	8.1E-08	0.005	9.2E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	1.8E-03	1.1E-08		9.9E-15	1.4E-02	8.1E-08	0.016	9.2E-08
	Arsenic, Inorganic	7440382		1.592	1.9E-05	1.2E-09	1.3E-06	1.2E-14	3.2E-05	2.1E-09	0.00005	3.3E-09
	Benz[a]anthracene	56553		0.208		7.9E-11		4.0E-17		5.7E-10		6.5E-10
	Benzo[a]pyrene	50328		0.211		8.0E-10		4.0E-16		5.7E-09		6.6E-09
	Benzo[b/k]fluoranthene	205992		0.398		1.5E-11		7.6E-17		1.1E-10		1.2E-10
	Benzo[b]fluoranthene	205992		0.199		7.6E-11		3.8E-17		5.4E-10		6.2E-10
	Carbazole	86748		0.046		4.8E-13				2.6E-13		7.4E-13
	Chromium	18540299		7.741	9.4E-06	2.0E-09	9.4E-07	1.1E-12	0E+00	0E+00	0.00001	2.0E-09
	Dibenz[a,h]anthracene	53703		0.171		6.5E-10		3.5E-16		4.7E-09		5.3E-09
	Indeno[1,2,3-cd]pyrene	193395		0.189		7.2E-11		3.6E-17		5.1E-10		5.9E-10
	Iron	7439896		6603	3.4E-05				0E+00		0.00003	
	Mercury, Inorganic Salts	7487947		3.984	4.9E-05				0E+00		0.00005	
	Total (Low Aroclor-1268)				1.7E-03	2.2E-08	2.2E-06	5.2E-11	1.2E-02	1.4E-07	0.014	1.7E-07
	Total (High Aroclor-1268)				3.0E-03	2.2E-08	2.2E-06	5.2E-11	2.3E-02	1.4E-07	0.026	1.7E-07

Table A19D
CTE Risk Calculations Including TEG Data - Current Trespasser - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		12427	4.5E-05		3.0E-05		0E+00		0.00008	
	Antimony	7440360		4.655	4.3E-05				0E+00		0.00004	
	Aroclor 1016	12674112		2.211	1.2E-04	8.1E-11		7.6E-17	8.9E-04	6.2E-10	0.001	7.0E-10
	Aroclor 1254 - High Risk	11097691		1.785	3.3E-04	1.9E-09		1.8E-15	2.5E-03	1.4E-08	0.003	1.6E-08
	Aroclor 1260 - High Risk	11096825		0.731	1.3E-04	7.6E-10		7.2E-16	1.0E-03	5.9E-09	0.001	6.6E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	1.2E-04	2.3E-09		2.2E-15	9.0E-04	1.8E-08	0.001	2.0E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	4.1E-04	2.3E-09		2.2E-15	3.1E-03	1.8E-08	0.004	2.0E-08
	Arsenic, Inorganic	7440382		8.584	1.0E-04	6.7E-09	6.9E-06	6.4E-14	1.7E-04	1.1E-08	0.0003	1.8E-08
	Benz[a]anthracene	56553		0.588		2.2E-10		1.1E-16		1.6E-09		1.8E-09
	Benzene	71432		0.0613	5.6E-08	1.8E-12	8.8E-06	2.9E-13	0E+00	0E+00	0.000009	2.1E-12
	Benzo[a]pyrene	50328		0.291		1.1E-09		5.5E-16		7.9E-09		9.0E-09
	Benzo[b]fluoranthene	205992		0.484		1.8E-10		9.2E-17		1.3E-09		1.5E-09
	Benzo[k]fluoranthene	207089		0.261		9.9E-12		5.0E-17		7.1E-11		8.1E-11
	Carbazole	86748		0.0474		4.9E-13				2.7E-13		7.7E-13
	Chromium	18540299		7.627	9.3E-06	2.0E-09	9.2E-07	1.1E-12	0E+00	0E+00	0.00001	2.0E-09
	Dibenz[a,h]anthracene	53703		0.297		1.1E-09		6.2E-16		8.1E-09		9.2E-09
	Dibromochloromethane	124481		0.152	2.8E-08	6.7E-12		1.1E-12	1.5E-07	3.7E-11	0.0000002	4.4E-11
	Dichlorobenzene, 1,4-	106467		0.0296	1.5E-09	8.3E-14	5.4E-08	6.8E-14	0E+00	0E+00	0.00000006	1.5E-13
	Ethylbenzene	100414		3.839	1.4E-07	2.2E-11	1.0E-05	3.7E-12	0E+00	0E+00	0.00001	2.6E-11
	Indeno[1,2,3-cd]pyrene	193395		0.312		1.2E-10		5.9E-17		8.5E-10		9.7E-10
	Iron	7439896		11105	5.8E-05				0E+00		0.00006	
	Mercury, Inorganic Salts	7487947		3.798	4.6E-05				0E+00		0.00005	
	Methylene Chloride	75092		0.227	1.4E-08	8.9E-13	1.6E-06	1.1E-13	0E+00	0E+00	0.000002	9.9E-13
	Naphthalene	91203		3.552	6.5E-07		3.9E-04	5.7E-12	4.6E-06		0.0004	5.7E-12
	Naphthalene, 1-Methyl	90120		2.11	1.1E-07	3.2E-11			0E+00	0E+00	0.0000001	3.2E-11
	Naphthalene, 2-Methyl	91576		2.744	2.5E-06				0E+00		0.000003	
	4,6-Dinitro-2-methylphenol	534521		32	1.5E-03				8.0E-03		0.009	
	n-Butylbenzene		Sur - Ethylbenzene	4.03	1.5E-07	2.3E-11	1.1E-05	3.9E-12	0E+00	0E+00	0.00001	2.7E-11
	n-Propylbenzene		Sur - Ethylbenzene	1.334	4.9E-08	7.7E-12	3.6E-06	1.3E-12	0E+00	0E+00	0.000004	8.9E-12
	Tetrachloroethane, 1,1,2,2-	79345		0.0286	5.2E-09	3.0E-12		2.9E-18	0E+00	0E+00	0.000000005	3.0E-12
	Trimethylbenzene, 1,2,4-	95636		3.367			9.3E-04				0.0009	
	Vanadium	7440622		33.66	2.5E-05				0.0E+00		0.00002	
	Total (Low Aroclor-1268)				2.5E-03	1.7E-08	1.4E-03	1.7E-11	1.4E-02	7.0E-08	0.017	8.6E-08
	Total (High Aroclor-1268)				2.8E-03	1.7E-08	1.4E-03	1.7E-11	1.6E-02	7.0E-08	0.020	8.6E-08

Table A19E
CTE Risk Calculations Including TEG Data - Current Trespasser - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		3037	1.1E-05		7.3E-06		0E+00		0.00002	
	Antimony	7440360		11.77	1.1E-04				0E+00		0.0001	
	Aroclor 1254 - High Risk	11097691		2.533	4.6E-04	2.6E-09		2.5E-15	3.6E-03	2.0E-08	0.004	2.3E-08
	Aroclor 1260 - High Risk	11096825		7.447	1.4E-03	7.8E-09		7.3E-15	1.0E-02	6.0E-08	0.012	6.8E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	3.3E-04	6.6E-09		6.2E-15	2.5E-03	5.0E-08	0.003	5.7E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	1.1E-03	6.6E-09		6.2E-15	8.8E-03	5.0E-08	0.010	5.7E-08
	Arsenic, Inorganic	7440382		1.176	1.4E-05	9.2E-10	9.5E-07	8.7E-15	2.4E-05	1.5E-09	0.00004	2.4E-09
	Benz[a]anthracene	56553		0.888		3.4E-10		1.7E-16		2.4E-09		2.8E-09
	Benzo[a]pyrene	50328		0.868		3.3E-09		1.6E-15		2.4E-08		2.7E-08
	Benzo[b]fluoranthene	205992		0.73		2.8E-10		1.4E-16		2.0E-09		2.3E-09
	Benzo[k]fluoranthene	207089		0.544		2.1E-11		1.0E-16		1.5E-10		1.7E-10
	Chloroform	67663		0.0266	9.7E-09	4.3E-13	1.6E-06	5.1E-13	0E+00	0E+00	0.000002	9.4E-13
	Chromium	18540299		19.75	2.4E-05	5.2E-09	2.4E-06	2.9E-12	0E+00	0E+00	0.00003	5.2E-09
	Chrysene	218019		1.987		7.6E-12		3.8E-17		5.4E-11		6.2E-11
	Cobalt	7440484		0.823	1.0E-05		1.7E-06	1.3E-14	0E+00		0.00001	1.3E-14
	Dibenz[a,h]anthracene	53703		0.297		1.1E-09		6.2E-16		8.1E-09		9.2E-09
	Indeno[1,2,3-cd]pyrene	193395		0.545		2.1E-10		1.0E-16		1.5E-09		1.7E-09
	Iron	7439896		5852	3.1E-05				0E+00		0.00003	
	Manganese	7439965		29.38	7.7E-07		7.1E-06		0E+00		0.000008	
	Mercury, Inorganic Salts	7487947		5.571	6.8E-05				0E+00		0.0001	
	Naphthalene	91203		0.618	1.1E-07		6.8E-05	9.9E-13	8.1E-07		0.00007	9.9E-13
	Naphthalene, 1-Methyl	90120		0.524	2.7E-08	7.9E-12			0E+00	0E+00	0.00000003	7.9E-12
	n-Butylbenzene		Sur - Ethylbenzene	0.0852	3.1E-09	4.9E-13	2.3E-07	8.2E-14	0E+00	0E+00	0.0000002	5.7E-13
	Tetrachloroethene	127184		0.022	8.0E-09	6.2E-12	9.8E-13	2.2E-19	0E+00	0E+00	0.000000008	6.2E-12
	Trimethylbenzene, 1,2,4-	95636		0.0673			1.9E-05				0.00002	
	Vanadium	7440622		6.32	4.6E-06				0E+00		0.000005	
	Zinc	7440666		2105	2.6E-05				0E+00		0.00003	
	Total (Low Aroclor-1268)				2.4E-03	2.8E-08	1.1E-04	4.5E-12	1.7E-02	1.7E-07	0.019	2.0E-07
	Total (High Aroclor-1268)				3.3E-03	2.8E-08	1.1E-04	4.5E-12	2.3E-02	1.7E-07	0.026	2.0E-07

Table A20B
CTE Risk Calculations Including TEG Data - Future Trespasser - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1260 - High Risk	11096825		0.454	8.3E-05	4.7E-10		4.5E-16	6.4E-04	3.6E-09	0.001	4.1E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	2.5E-05	5.1E-10		4.8E-16	1.9E-04	3.9E-09	0.0002	4.4E-09
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	8.8E-05	5.1E-10		4.8E-16	6.8E-04	3.9E-09	0.001	4.4E-09
	Arsenic, Inorganic	7440382		1.402	1.7E-05	1.1E-09	1.1E-06	1.0E-14	2.8E-05	1.8E-09	0.00005	2.9E-09
	Benz[a]anthracene	56553		0.213		8.1E-11		4.0E-17		5.8E-10		6.6E-10
	Benzo[a]pyrene	50328		0.195		7.4E-10		3.7E-16		5.3E-09		6.1E-09
	Benzo[b/k]fluoranthene	205992		0.605		2.3E-11		1.1E-16		1.6E-10		1.9E-10
	Benzo[b]fluoranthene	205992		0.096		3.7E-11		1.8E-17		2.6E-10		3.0E-10
	Bis(2-ethylhexyl)phthalate	117817		4.298	7.9E-07	3.1E-11		1.8E-17	4E-06	2E-10	0.000005	2.0E-10
	Chromium	18540299		5.756	7.0E-06	1.5E-09	7.0E-07	8.3E-13	0E+00	0E+00	0.000008	1.5E-09
	Dibenz[a,h]anthracene	53703		0.0111		4.2E-11		2.3E-17		3.0E-10		3.4E-10
	Indeno[1,2,3-cd]pyrene	193395		0.051		1.9E-11		9.7E-18		1.4E-10		1.6E-10
	Iron	7439896		8657	4.5E-05				0E+00		0.00005	
	Mercury, Inorganic Salts	7487947		12.57	1.5E-04				0E+00		0.0002	
	Vanadium	7440622		10.61	7.8E-06				0E+00		0.00001	
	Total (Low Aroclor-1268)				3.4E-04	4.6E-09	1.8E-06	8.5E-13	8.7E-04	1.6E-08	0.001	2.1E-08
	Total (High Aroclor-1268)				4.0E-04	4.6E-09	1.8E-06	8.5E-13	1.4E-03	1.6E-08	0.002	2.1E-08

Table A20C
CTE Risk Calculations Including TEG Data - Future Trespasser - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1221 - High Risk	11104282		3.457	6.3E-04	3.6E-09		5.1E-11	4.9E-03	2.8E-08	0.005	3.1E-08
	Aroclor 1254 - High Risk	11097691		1.376	2.5E-04	1.4E-09		1.4E-15	1.9E-03	1.1E-08	0.002	1.2E-08
	Aroclor 1260 - High Risk	11096825		1.128	2.1E-04	1.2E-09		1.1E-15	1.6E-03	9.1E-09	0.002	1.0E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	5.3E-04	1.1E-08		9.9E-15	4.1E-03	8.1E-08	0.005	9.2E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	1.8E-03	1.1E-08		9.9E-15	1.4E-02	8.1E-08	0.016	9.2E-08
	Arsenic, Inorganic	7440382		1.592	1.9E-05	1.2E-09	1.3E-06	1.2E-14	3.2E-05	2.1E-09	0.00005	3.3E-09
	Benz[a]anthracene	56553		0.208		7.9E-11		4.0E-17		5.7E-10		6.5E-10
	Benzo[a]pyrene	50328		0.211		8.0E-10		4.0E-16		5.7E-09		6.6E-09
	Benzo[b/k]fluoranthene	205992		0.398		1.5E-11		7.6E-17		1.1E-10		1.2E-10
	Benzo[b]fluoranthene	205992		0.199		7.6E-11		3.8E-17		5.4E-10		6.2E-10
	Carbazole	86748		0.046		4.8E-13				2.6E-13		7.4E-13
	Chromium	18540299		7.741	9.4E-06	2.0E-09	9.4E-07	1.1E-12	0E+00	0E+00	0.00001	2.0E-09
	Dibenz[a,h]anthracene	53703		0.171		6.5E-10		3.5E-16		4.7E-09		5.3E-09
	Indeno[1,2,3-cd]pyrene	193395		0.189		7.2E-11		3.6E-17		5.1E-10		5.9E-10
	Iron	7439896		6603	3.4E-05				0E+00		0.00003	
	Mercury, Inorganic Salts	7487947		3.984	4.9E-05				0E+00		0.00005	
	Total (Low Aroclor-1268)				1.7E-03	2.2E-08	2.2E-06	5.2E-11	1.2E-02	1.4E-07	0.014	1.7E-07
	Total (High Aroclor-1268)				3.0E-03	2.2E-08	2.2E-06	5.2E-11	2.3E-02	1.4E-07	0.026	1.7E-07

Table A20D
CTE Risk Calculations Including TEG Data - Future Trespasser - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		12427	4.5E-05		3.0E-05		0E+00		0.00008	
	Antimony	7440360		4.655	4.3E-05				0E+00		0.00004	
	Aroclor 1016	12674112		2.211	1.2E-04	8.1E-11		7.6E-17	8.9E-04	6.2E-10	0.001	7.0E-10
	Aroclor 1254 - High Risk	11097691		1.785	3.3E-04	1.9E-09		1.8E-15	2.5E-03	1.4E-08	0.003	1.6E-08
	Aroclor 1260 - High Risk	11096825		0.731	1.3E-04	7.6E-10		7.2E-16	1.0E-03	5.9E-09	0.001	6.6E-09
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	1.2E-04	2.3E-09		2.2E-15	9.0E-04	1.8E-08	0.001	2.0E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	4.1E-04	2.3E-09		2.2E-15	3.1E-03	1.8E-08	0.004	2.0E-08
	Arsenic, Inorganic	7440382		8.584	1.0E-04	6.7E-09	6.9E-06	6.4E-14	1.7E-04	1.1E-08	0.0003	1.8E-08
	Benz[a]anthracene	56553		0.588		2.2E-10		1.1E-16		1.6E-09		1.8E-09
	Benzene	71432		0.0613	5.6E-08	1.8E-12	8.8E-06	2.9E-13	0E+00	0E+00	0.000009	2.1E-12
	Benzo[a]pyrene	50328		0.291		1.1E-09		5.5E-16		7.9E-09		9.0E-09
	Benzo[b]fluoranthene	205992		0.484		1.8E-10		9.2E-17		1.3E-09		1.5E-09
	Benzo[k]fluoranthene	207089		0.261		9.9E-12		5.0E-17		7.1E-11		8.1E-11
	Carbazole	86748		0.0474		4.9E-13				2.7E-13		7.7E-13
	Chromium	18540299		7.627	9.3E-06	2.0E-09	9.2E-07	1.1E-12	0E+00	0E+00	0.00001	2.0E-09
	Dibenz[a,h]anthracene	53703		0.297		1.1E-09		6.2E-16		8.1E-09		9.2E-09
	Dibromochloromethane	124481		0.152	2.8E-08	6.7E-12		1.1E-12	1.5E-07	3.7E-11	0.0000002	4.4E-11
	Dichlorobenzene, 1,4-	106467		0.0296	1.5E-09	8.3E-14	5.4E-08	6.8E-14	0E+00	0E+00	0.00000006	1.5E-13
	Ethylbenzene	100414		3.839	1.4E-07	2.2E-11	1.0E-05	3.7E-12	0E+00	0E+00	0.00001	2.6E-11
	Indeno[1,2,3-cd]pyrene	193395		0.312		1.2E-10		5.9E-17		8.5E-10		9.7E-10
	Iron	7439896		11105	5.8E-05				0E+00		0.00006	
	Mercury, Inorganic Salts	7487947		3.798	4.6E-05				0E+00		0.00005	
	Methylene Chloride	75092		0.227	1.4E-08	8.9E-13	1.6E-06	1.1E-13	0E+00	0E+00	0.000002	9.9E-13
	Naphthalene	91203		3.552	6.5E-07		3.9E-04	5.7E-12	4.6E-06		0.0004	5.7E-12
	Naphthalene, 1-Methyl	90120		2.11	1.1E-07	3.2E-11			0E+00	0E+00	0.0000001	3.2E-11
	Naphthalene, 2-Methyl	91576		2.744	2.5E-06				0E+00		0.000003	
	4,6-Dinitro-2-methylphenol	534521		32	1.5E-03				8.0E-03		0.009	
	n-Butylbenzene		Sur - Ethylbenzene	4.03	1.5E-07	2.3E-11	1.1E-05	3.9E-12	0E+00	0E+00	0.00001	2.7E-11
	n-Propylbenzene		Sur - Ethylbenzene	1.334	4.9E-08	7.7E-12	3.6E-06	1.3E-12	0E+00	0E+00	0.000004	8.9E-12
	Tetrachloroethane, 1,1,2,2-	79345		0.0286	5.2E-09	3.0E-12		2.9E-18	0E+00	0E+00	0.000000005	3.0E-12
	Trimethylbenzene, 1,2,4-	95636		3.367			9.3E-04				0.0009	
	Vanadium	7440622		33.66	2.5E-05				0.0E+00		0.00002	
	Total (Low Aroclor-1268)				2.5E-03	1.7E-08	1.4E-03	1.7E-11	1.4E-02	7.0E-08	0.017	8.6E-08
	Total (High Aroclor-1268)				2.8E-03	1.7E-08	1.4E-03	1.7E-11	1.6E-02	7.0E-08	0.020	8.6E-08

Table A20E
CTE Risk Calculations Including TEG Data - Future Trespasser - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		3037	1.1E-05		7.3E-06		0E+00		0.00002	
	Antimony	7440360		11.77	1.1E-04				0E+00		0.0001	
	Aroclor 1254 - High Risk	11097691		2.533	4.6E-04	2.6E-09		2.5E-15	3.6E-03	2.0E-08	0.004	2.3E-08
	Aroclor 1260 - High Risk	11096825		7.447	1.4E-03	7.8E-09		7.3E-15	1.0E-02	6.0E-08	0.012	6.8E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	3.3E-04	6.6E-09		6.2E-15	2.5E-03	5.0E-08	0.003	5.7E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	1.1E-03	6.6E-09		6.2E-15	8.8E-03	5.0E-08	0.010	5.7E-08
	Arsenic, Inorganic	7440382		1.176	1.4E-05	9.2E-10	9.5E-07	8.7E-15	2.4E-05	1.5E-09	0.00004	2.4E-09
	Benz[a]anthracene	56553		0.888		3.4E-10		1.7E-16		2.4E-09		2.8E-09
	Benzo[a]pyrene	50328		0.868		3.3E-09		1.6E-15		2.4E-08		2.7E-08
	Benzo[b]fluoranthene	205992		0.73		2.8E-10		1.4E-16		2.0E-09		2.3E-09
	Benzo[k]fluoranthene	207089		0.544		2.1E-11		1.0E-16		1.5E-10		1.7E-10
	Chloroform	67663		0.0266	9.7E-09	4.3E-13	1.6E-06	5.1E-13	0E+00	0E+00	0.000002	9.4E-13
	Chromium	18540299		19.75	2.4E-05	5.2E-09	2.4E-06	2.9E-12	0E+00	0E+00	0.00003	5.2E-09
	Chrysene	218019		1.987		7.6E-12		3.8E-17		5.4E-11		6.2E-11
	Cobalt	7440484		0.823	1.0E-05		1.7E-06	1.3E-14	0E+00		0.00001	1.3E-14
	Dibenz[a,h]anthracene	53703		0.297		1.1E-09		6.2E-16		8.1E-09		9.2E-09
	Indeno[1,2,3-cd]pyrene	193395		0.545		2.1E-10		1.0E-16		1.5E-09		1.7E-09
	Iron	7439896		5852	3.1E-05				0E+00		0.00003	
	Manganese	7439965		29.38	7.7E-07		7.1E-06		0E+00		0.000008	
	Mercury, Inorganic Salts	7487947		5.571	6.8E-05				0E+00		0.0001	
	Naphthalene	91203		0.618	1.1E-07		6.8E-05	9.9E-13	8.1E-07		0.00007	9.9E-13
	Naphthalene, 1-Methyl	90120		0.524	2.7E-08	7.9E-12			0E+00	0E+00	0.00000003	7.9E-12
	n-Butylbenzene		Sur - Ethylbenzene	0.0852	3.1E-09	4.9E-13	2.3E-07	8.2E-14	0E+00	0E+00	0.0000002	5.7E-13
	Tetrachloroethene	127184		0.022	8.0E-09	6.2E-12	9.8E-13	2.2E-19	0E+00	0E+00	0.000000008	6.2E-12
	Trimethylbenzene, 1,2,4-	95636		0.0673			1.9E-05				0.00002	
	Vanadium	7440622		6.32	4.6E-06				0E+00		0.000005	
	Zinc	7440666		2105	2.6E-05				0E+00		0.00003	
	Total (Low Aroclor-1268)				2.4E-03	2.8E-08	1.1E-04	4.5E-12	1.7E-02	1.7E-07	0.019	2.0E-07
	Total (High Aroclor-1268)				3.3E-03	2.8E-08	1.1E-04	4.5E-12	2.3E-02	1.7E-07	0.026	2.0E-07

Table A21B

RME Risk Calculations Including TEG Data - Future Trespasser Resident - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1260 - High Risk	11096825		0.454	3.6E-03	2.1E-08		3.9E-15	7.9E-03	4.5E-08	0.012	6.6E-08
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	1.1E-03	2.2E-08		4.1E-15	2.4E-03	4.8E-08	0.004	7.0E-08
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	3.8E-03	2.2E-08		4.1E-15	8.5E-03	4.8E-08	0.012	7.0E-08
	Arsenic, Inorganic	7440382		1.402	7.4E-04	4.8E-08	9.8E-06	9.0E-14	3.5E-04	2.2E-08	0.0011	7.0E-08
	Benz[a]anthracene	56553		0.213		3.5E-09		3.5E-16		7.2E-09		1.1E-08
	Benzo[a]pyrene	50328		0.195		3.2E-08		3.2E-15		6.6E-08		9.8E-08
	Benzo[b/k]fluoranthene	205992		0.605		1.0E-09		1.0E-15		2.0E-09		3.0E-09
	Benzo[b]fluoranthene	205992		0.096		1.6E-09		1.6E-16		3.2E-09		4.8E-09
	Bis(2-ethylhexyl)phthalate	117817		4.298	3.4E-05	1.4E-09		1.5E-16	5E-05	2E-09	0.00009	3.5E-09
	Chromium	18540299		5.756	3.0E-04	6.5E-08	6.0E-06	7.2E-12	0E+00	0E+00	0.0003	6.5E-08
	Dibenz[a,h]anthracene	53703		0.0111		1.8E-09		2.0E-16		3.8E-09		5.6E-09
	Indeno[1,2,3-cd]pyrene	193395		0.051		8.4E-10		8.4E-17		1.7E-09		2.6E-09
	Iron	7439896		8657	2.0E-03				0.0E+00		0.002	
	Mercury, Inorganic Salts	7487947		12.57	6.6E-03				0E+00		0.007	
	Vanadium	7440622		10.61	3.4E-04				0E+00		0.0003	
	Total (Low Aroclor-1268)				1.5E-02	2.0E-07	1.6E-05	7.3E-12	1.1E-02	2.0E-07	0.03	4.0E-07
	Total (High Aroclor-1268)				1.7E-02	2.0E-07	1.6E-05	7.3E-12	1.7E-02	2.0E-07	0.03	4.0E-07

Table A21C
RME Risk Calculations Including TEG Data - Future Trespasser- Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aroclor 1221 - High Risk	11104282		3.457	2.7E-02	1.6E-07		4.4E-10	6.0E-02	3.4E-07	0.088	5.0E-07
	Aroclor 1254 - High Risk	11097691		1.376	1.1E-02	6.2E-08		1.2E-14	2.4E-02	1.4E-07	0.035	2.0E-07
	Aroclor 1260 - High Risk	11096825		1.128	8.9E-03	5.1E-08		9.6E-15	2.0E-02	1.1E-07	0.029	1.6E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	2.3E-02	4.6E-07		8.6E-14	5.0E-02	1.0E-06	0.073	1.5E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	8.0E-02	4.6E-07		8.6E-14	1.8E-01	1.0E-06	0.26	1.5E-06
	Arsenic, Inorganic	7440382		1.592	8.4E-04	5.4E-08	1.1E-05	1.0E-13	4.0E-04	2.6E-08	0.0012	8.0E-08
	Benz[a]anthracene	56553		0.208		3.4E-09		3.4E-16		7.0E-09		1.0E-08
	Benzo[a]pyrene	50328		0.211		3.5E-08		3.5E-15		7.1E-08		1.1E-07
	Benzo[b/k]fluoranthene	205992		0.398		6.6E-10		6.6E-16		1.3E-09		2.0E-09
	Benzo[b]fluoranthene	205992		0.199		3.3E-09		3.3E-16		6.7E-09		1.0E-08
	Carbazole	86748		0.046		2.1E-11				3.3E-12		2.4E-11
	Chromium	18540299		7.741	4.1E-04	8.8E-08	8.1E-06	9.7E-12	0E+00	0E+00	0.0004	8.8E-08
	Dibenz[a,h]anthracene	53703		0.171		2.8E-08		3.1E-15		5.8E-08		8.6E-08
	Indeno[1,2,3-cd]pyrene	193395		0.189		3.1E-09		3.1E-16		6E-09		9.5E-09
	Iron	7439896		6603	1.5E-03				0.0E+00		0.0015	
	Mercury, Inorganic Salts	7487947		3.984	2.1E-03				0E+00		0.002	
	Total (Low Aroclor-1268)				7.5E-02	9.4E-07	1.9E-05	4.5E-10	1.5E-01	1.8E-06	0.23	2.7E-06
	Total (High Aroclor-1268)				1.3E-01	9.4E-07	1.9E-05	4.5E-10	2.8E-01	1.8E-06	0.41	2.7E-06

Table A21D
RME Risk Calculations Including TEG Data - Future Trespasser - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		12427	2.0E-03		2.6E-04		0E+00		0.002	
	Antimony	7440360		4.655	1.8E-03				0E+00		0.0018	
	Aroclor 1016	12674112		2.211	5.0E-03	3.5E-09		6.6E-16	1.1E-02	7.7E-09	0.016	1.1E-08
	Aroclor 1254 - High Risk	11097691		1.785	1.4E-02	8.1E-08		1.5E-14	3.1E-02	1.8E-07	0.045	2.6E-07
	Aroclor 1260 - High Risk	11096825		0.731	5.8E-03	3.3E-08		6.2E-15	1.3E-02	7.3E-08	0.019	1.1E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	5.0E-03	1.0E-07		1.9E-14	1.1E-02	2.2E-07	0.016	3.2E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	1.8E-02	1.0E-07		1.9E-14	3.9E-02	2.2E-07	0.057	3.2E-07
	Arsenic, Inorganic	7440382		8.584	4.5E-03	2.9E-07	6.0E-05	5.5E-13	2.1E-03	1.4E-07	0.007	4.3E-07
	Benz[a]anthracene	56553		0.588		9.7E-09		9.7E-16		2.0E-08		3.0E-08
	Benzene	71432		0.0613	2.4E-06	7.6E-11	7.6E-05	2.6E-12	0E+00	0E+00	0.00008	7.9E-11
	Benzo[a]pyrene	50328		0.291		4.8E-08		4.8E-15		9.8E-08		1.5E-07
	Benzo[b]fluoranthene	205992		0.484		8.0E-09		8.0E-16		1.6E-08		2.4E-08
	Benzo[k]fluoranthene	207089		0.261		4.3E-10		4.3E-16		8.8E-10		1.3E-09
	Carbazole	86748		0.0474		2.1E-11				3.4E-12		2.5E-11
	Chromium	18540299		7.627	4.0E-04	8.6E-08	8.0E-06	9.6E-12	0E+00	0E+00	0.0004	8.6E-08
	Dibenz[a,h]anthracene	53703		0.297		4.9E-08		5.3E-15		1.0E-07		1.5E-07
	Dibromochloromethane	124481		0.152	1.2E-06	2.9E-10		9.8E-12	2E-06	5E-10	0.000003	7.5E-10
	Dichlorobenzene, 1,4-	106467		0.0296	6.7E-08	3.6E-12	4.7E-07	5.9E-13	0.0E+00	0.0E+00	0.0000005	4.2E-12
	Ethylbenzene	100414		3.839	6.1E-06	9.5E-10	9.0E-05	3.2E-11	0.0E+00	0.0E+00	0.00010	9.9E-10
	Indeno[1,2,3-cd]pyrene	193395		0.312		5.2E-09		5.1E-16		1.1E-08		1.6E-08
	Iron	7439896		11105	2.5E-03				0.0E+00		0.003	
	Mercury, Inorganic Salts	7487947		3.798	2.0E-03				0E+00		0.002	
	Methylene Chloride	75092		0.227	6.0E-07	3.8E-11	1.4E-05	9.2E-13	0E+00	0E+00	0.000014	3.9E-11
	Naphthalene	91203		3.552	2.8E-05		3.4E-03	4.9E-11	6E-05		0.003	4.9E-11
	Naphthalene, 1-Methyl	90120		2.11	4.8E-06	1.4E-09			0.0E+00	0.0E+00	0.000005	1.4E-09
	Naphthalene, 2-Methyl	91576		2.744	1.1E-04				0E+00		0.00011	
	4,6-Dinitro-2-methylphenol	534521		32	6.3E-02				1.0E-01		0.16	
	n-Butylbenzene		Ethylbenzene	4.03	6.4E-06	1.0E-09	9.4E-05	3.4E-11	0E+00	0E+00	0.00010	1.0E-09
	n-Propylbenzene		Ethylbenzene	1.334	2.1E-06	3.3E-10	3.1E-05	1.1E-11	0E+00	0E+00	0.00003	3.4E-10
	Tetrachloroethane, 1,1,2,2-	79345		0.0286	2.3E-07	1.3E-10		2.5E-17	0E+00	0E+00	0.0000002	1.3E-10
	Trimethylbenzene, 1,2,4-	95636		3.367			8.0E-03				0.008	
	Vanadium	7440622		33.66	1.1E-03				0E+00		0.0011	
	Total (Low Aroclor-1268)				1.1E-01	7.2E-07	1.2E-02	1.5E-10	1.7E-01	8.7E-07	0.29	1.6E-06
	Total (High Aroclor-1268)				1.2E-01	7.2E-07	1.2E-02	1.5E-10	2.0E-01	8.7E-07	0.33	1.6E-06

Table A21E
RME Risk Calculations Including TEG Data - Future Trespasser - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC (mg/kg)	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Trespasser												
	Aluminum	7429905		3037	4.8E-04		6.4E-05		0E+00		0.0005	
	Antimony	7440360		11.77	4.7E-03				0E+00		0.005	
	Aroclor 1254 - High Risk	11097691		2.533	2.0E-02	1.1E-07		2.2E-14	4.4E-02	2.5E-07	0.064	3.7E-07
	Aroclor 1260 - High Risk	11096825		7.447	5.9E-02	3.4E-07		6.4E-14	1.3E-01	7.4E-07	0.189	1.1E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	1.4E-02	2.8E-07		5.4E-14	3.1E-02	6.3E-07	0.046	9.1E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	5.0E-02	2.8E-07		5.4E-14	1.1E-01	6.3E-07	0.159	9.1E-07
	Arsenic, Inorganic	7440382		1.176	6.2E-04	4.0E-08	8.2E-06	7.6E-14	2.9E-04	1.9E-08	0.0009	5.9E-08
	Benz[a]anthracene	56553		0.888		1.5E-08		1.5E-15		3.0E-08		4.5E-08
	Benzo[a]pyrene	50328		0.868		1.4E-07		1.4E-14		2.9E-07		4.4E-07
	Benzo[b]fluoranthene	205992		0.73		1.2E-08		1.2E-15		2.5E-08		3.7E-08
	Benzo[k]fluoranthene	207089		0.544		9.0E-10		9.0E-16		1.8E-09		2.7E-09
	Chloroform	67663		0.0266	4.2E-07	1.9E-11	1.4E-05	4.4E-12	0.0E+00	0.0E+00	0.000014	2.3E-11
	Chromium	18540299		19.75	1.0E-03	2.2E-07	2.1E-05	2.5E-11	0E+00	0E+00	0.0011	2.2E-07
	Chrysene	218019		1.987		3.3E-10		3.3E-16		6.7E-10		1.0E-09
	Cobalt	7440484		0.823	4.3E-04		1.4E-05	1.1E-13	0.0E+00		0.0004	1.1E-13
	Dibenz[a,h]anthracene	53703		0.297		4.9E-08		5.3E-15		1.0E-07		1.5E-07
	Indeno[1,2,3-cd]pyrene	193395		0.545		9.0E-09		9.0E-16		1.8E-08		2.7E-08
	Iron	7439896		5852	1.3E-03				0.0E+00		0.0013	
	Manganese	7439965		29.38	3.3E-05		6.2E-05		0E+00		0.00009	
	Mercury, Inorganic Salts	7487947		5.571	2.9E-03				0E+00		0.003	
	Naphthalene	91203		0.618	4.9E-06		5.9E-04	8.6E-12	1E-05		0.0006	8.6E-12
	Naphthalene, 1-Methyl	90120		0.524	1.2E-06	3.4E-10			0.0E+00	0.0E+00	0.0000012	3.4E-10
	n-Butylbenzene		Ethylbenzene	0.0852	1.3E-07	2.1E-11	2.0E-06	7.1E-13	0E+00	0E+00	0.000002	2.2E-11
	Tetrachloroethene	127184		0.022	3.5E-07	2.7E-10	8.5E-12	1.9E-18	0.0E+00	0.0E+00	0.0000003	2.7E-10
	Trimethylbenzene, 1,2,4-	95636		0.0673			1.6E-04				0.00016	
	Vanadium	7440622		6.32	2.0E-04				0E+00		0.0002	
	Zinc	7440666		2105	1.1E-03				0E+00		0.0011	
	Total (Low Aroclor-1268)				1.1E-01	1.2E-06	9.3E-04	3.9E-11	2.1E-01	2.1E-06	0.31	3.3E-06
	Total (High Aroclor-1268)				1.4E-01	1.2E-06	9.3E-04	3.9E-11	2.8E-01	2.1E-06	0.43	3.3E-06

Table A22B
RME Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	Conc	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aroclor 1260 - High Risk	11096825		0.454	3.1E-02	5.3E-07		7.8E-14	1.7E-02	3.0E-07	0.05	8.31E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	9.5E-03	5.7E-07		8.3E-14	5.3E-03	3.2E-07	0.01	8.86E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	3.3E-02	5.7E-07		8.3E-14	1.9E-02	3.2E-07	0.05	8.86E-07
	Arsenic, Inorganic	7440382		1.402	6.4E-03	1.2E-06	6.6E-05	1.8E-12	7.7E-04	1.5E-07	0.007	1.38E-06
	Benz[a]anthracene	56553		0.213		9.1E-08		7.1E-15		4.7E-08		1.39E-07
	Benzo[a]pyrene	50328		0.195		8.4E-07		6.5E-14		4.3E-07		1.27E-06
	Benzo[b/k]fluoranthene	205992		0.605		2.6E-08		2.0E-14		1.3E-08		3.94E-08
	Benzo[b]fluoranthene	205992		0.096		4.1E-08		3.2E-15		2.1E-08		6.25E-08
	Bis(2-ethylhexyl)phthalate	117817		4.298	2.9E-04	3.5E-08		3.1E-15	1.2E-04	1.4E-08	0.000	4.94E-08
	Chromium	18540299		5.756	2.6E-03	1.7E-06	4.1E-05	1.5E-10	0E+00	0E+00	0.003	1.69E-06
	Dibenz[a,h]anthracene	53703		0.0111		4.8E-08		4.0E-15		2.5E-08		7.22E-08
	Indeno[1,2,3-cd]pyrene	193395		0.051		2.2E-08		1.7E-15		1.1E-08		3.32E-08
	Iron	7439896		8657	1.7E-02				0E+00		0.017	
	Mercury, Inorganic Salts	7487947		12.57	5.7E-02				0E+00		0.057	
	Vanadium	7440622		10.61	2.9E-03				0E+00		0.003	
	Total (Low Aroclor-1268)				1.3E-01	5.1E-06	1.1E-04	1.5E-10	2.4E-02	1.3E-06	0.15	6.45E-06
	Total (High Aroclor-1268)				1.5E-01	5.1E-06	1.1E-04	1.5E-10	3.7E-02	1.3E-06	0.19	6.45E-06
Child Resident												
	Aroclor 1260 - High Risk	11096825		0.454	2.9E-01	1.0E-06		1.6E-14	1.1E-01	3.8E-07	0.40	1.37E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	8.8E-02	1.1E-06		1.7E-14	3.3E-02	4.0E-07	0.12	1.46E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	3.1E-01	1.1E-06		1.7E-14	1.2E-01	4.0E-07	0.43	1.46E-06
	Arsenic, Inorganic	7440382		1.402	6.0E-02	2.3E-06	6.6E-05	3.6E-13	4.8E-03	1.9E-07	0.06	2.49E-06
	Benz[a]anthracene	56553		0.213		1.7E-07		1.4E-15		6.0E-08		2.30E-07
	Benzo[a]pyrene	50328		0.195		1.6E-06		1.3E-14		5.5E-07		2.11E-06
	Benzo[b/k]fluoranthene	205992		0.605		4.8E-08		4.0E-15		1.7E-08		6.54E-08
	Benzo[b]fluoranthene	205992		0.096		7.7E-08		6.4E-16		2.7E-08		1.04E-07
	Bis(2-ethylhexyl)phthalate	117817		4.298	2.7E-03	6.6E-08		6.2E-16	7.4E-04	1.8E-08	0.003	8.37E-08
	Chromium	18540299		5.756	2.5E-02	3.2E-06	4.1E-05	2.9E-11	0E+00	0E+00	0.025	3.15E-06
	Dibenz[a,h]anthracene	53703		0.0111		8.9E-08		8.0E-16		3.1E-08		1.20E-07
	Indeno[1,2,3-cd]pyrene	193395		0.051		4.1E-08		3.4E-16		1.4E-08		5.51E-08
	Iron	7439896		8657	1.6E-01				0E+00		0.16	
	Mercury, Inorganic Salts	7487947		12.57	5.4E-01				0E+00		0.54	
	Vanadium	7440622		10.61	2.7E-02				0E+00		0.03	
	Total (Low Aroclor-1268)				1.2E+00	9.6E-06	1.1E-04	3.0E-11	1.5E-01	1.7E-06	1.3	1.12E-05
	Total (High Aroclor-1268)				1.4E+00	9.6E-06	1.1E-04	3.0E-11	2.3E-01	1.7E-06	1.6	1.12E-05
Lifetime Resident (Cancer Risk Only)[(1)]						1.4E-05		1.5E-10		2.7E-06		1.64E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table A22C
RME Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	Conc	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aroclor 1221 - High Risk	11104282		3.457	2.4E-01	4.1E-06		8.8E-09	1.3E-01	2.3E-06	0.4	6.3E-06
	Aroclor 1254 - High Risk	11097691		1.376	9.4E-02	1.6E-06		2.4E-13	5.3E-02	9.0E-07	0.15	2.5E-06
	Aroclor 1260 - High Risk	11096825		1.128	7.7E-02	1.3E-06		1.9E-13	4.3E-02	7.4E-07	0.12	2.1E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	2.0E-01	1.2E-05		1.7E-12	1.1E-01	6.6E-06	0.31	1.8E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	6.9E-01	1.2E-05		1.7E-12	3.9E-01	6.6E-06	1.08	1.8E-05
	Arsenic, Inorganic	7440382		1.592	7.3E-03	1.4E-06	7.5E-05	2.1E-12	8.7E-04	1.7E-07	0.008	1.6E-06
	Benz[a]anthracene	56553		0.208		8.9E-08		6.9E-15		4.6E-08		1.4E-07
	Benzo[a]pyrene	50328		0.211		9.0E-07		7.0E-14		4.7E-07		1.4E-06
	Benzo[b/k]fluoranthene	205992		0.398		1.7E-08		1.3E-14		8.8E-09		2.6E-08
	Benzo[b]fluoranthene	205992		0.199		8.5E-08		6.6E-15		4.4E-08		1.3E-07
	Carbazole	86748		0.046		5.4E-10				2.2E-11		5.6E-10
	Chromium	18540299		7.741	3.5E-03	2.3E-06	5.5E-05	2.0E-10	0E+00	0E+00	0.004	2.3E-06
	Dibenz[a,h]anthracene	53703		0.171		7.3E-07		6.2E-14		3.8E-07		1.1E-06
	Indeno[1,2,3-cd]pyrene	193395		0.189		8.1E-08		6.3E-15		4.2E-08		1.2E-07
	Iron	7439896		6603	1.3E-02				0E+00		0.013	
	Mercury, Inorganic Salts	7487947		3.984	1.8E-02				0E+00		0.018	
	Total (Low Aroclor-1268)				6.5E-01	2.4E-05	1.3E-04	9.0E-09	3.4E-01	1.2E-05	0.99	3.6E-05
	Total (High Aroclor-1268)				1.1E+00	2.4E-05	1.3E-04	9.0E-09	6.2E-01	1.2E-05	1.76	3.6E-05
Child Resident												
	Aroclor 1221 - High Risk	11104282		3.457	2.2E+00	7.6E-06		1.8E-09	8.4E-01	2.9E-06	3.0	1.0E-05
	Aroclor 1254 - High Risk	11097691		1.376	8.8E-01	3.0E-06		4.7E-14	3.3E-01	1.1E-06	1.2	4.2E-06
	Aroclor 1260 - High Risk	11096825		1.128	7.2E-01	2.5E-06		3.9E-14	2.7E-01	9.3E-07	1.0	3.4E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	1.8E+00	2.2E-05		3.5E-13	7.0E-01	8.4E-06	2.5	3.1E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	6.5E+00	2.2E-05		3.5E-13	2.4E+00	8.4E-06	8.9	3.1E-05
	Arsenic, Inorganic	7440382		1.592	6.8E-02	2.6E-06	7.5E-05	4.1E-13	5.5E-03	2.1E-07	0.073	2.8E-06
	Benz[a]anthracene	56553		0.208		1.7E-07		1.4E-15		5.8E-08		2.2E-07
	Benzo[a]pyrene	50328		0.211		1.7E-06		1.4E-14		5.9E-07		2.3E-06
	Benzo[b/k]fluoranthene	205992		0.398		3.2E-08		2.6E-15		1.1E-08		4.3E-08
	Benzo[b]fluoranthene	205992		0.199		1.6E-07		1.3E-15		5.6E-08		2.2E-07
	Carbazole	86748		0.046		1.0E-09				2.7E-11		1.0E-09
	Chromium	18540299		7.741	3.3E-02	4.2E-06	5.5E-05	3.9E-11	0E+00	0E+00	0.03	4.2E-06
	Dibenz[a,h]anthracene	53703		0.171		1.4E-06		1.2E-14		4.8E-07		1.8E-06
	Indeno[1,2,3-cd]pyrene	193395		0.189		1.5E-07		1.3E-15		5.3E-08		2.0E-07
	Iron	7439896		6603	1.2E-01				0E+00		0.12	
	Mercury, Inorganic Salts	7487947		3.984	1.7E-01				0E+00		0.17	
	Total (Low Aroclor-1268)				6.0E+00	4.6E-05	1.3E-04	1.8E-09	2.1E+00	1.5E-05	8.2	6.0E-05
	Total (High Aroclor-1268)				1.1E+01	4.6E-05	1.3E-04	1.8E-09	3.9E+00	1.5E-05	14.5	6.0E-05
Lifetime Resident (Cancer Risk Only)[1]						6.5E-05		9.0E-09		2.4E-05		8.93E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table A22D
RME Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	Conc	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aluminum	7429905		12427	1.7E-02		1.8E-03		0E+00		0.019	
	Antimony	7440360		4.655	1.6E-02				0E+00		0.016	
	Aroclor 1016	12674112		2.211	4.3E-02	9.1E-08		1.3E-14	2.4E-02	5.1E-08	0.07	1.4E-07
	Aroclor 1254 - High Risk	11097691		1.785	1.2E-01	2.1E-06		3.1E-13	6.8E-02	1.2E-06	0.19	3.3E-06
	Aroclor 1260 - High Risk	11096825		0.731	5.0E-02	8.6E-07		1.3E-13	2.8E-02	4.8E-07	0.08	1.3E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	4.4E-02	2.6E-06		3.8E-13	2.4E-02	1.5E-06	0.07	4.1E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	1.5E-01	2.6E-06		3.8E-13	8.5E-02	1.5E-06	0.24	4.1E-06
	Arsenic, Inorganic	7440382		8.584	3.9E-02	7.6E-06	4.0E-04	1.1E-11	4.7E-03	9.0E-07	0.04	8.5E-06
	Benz[a]anthracene	56553		0.588		2.5E-07		2.0E-14		1.3E-07		3.8E-07
	Benzene	71432		0.0613	2.1E-05	2.0E-09	5.1E-04	5.2E-11	0.0E+00	0.0E+00	0.0005	2.0E-09
	Benzo[a]pyrene	50328		0.291		1.2E-06		9.7E-14		6.5E-07		1.9E-06
	Benzo[b]fluoranthene	205992		0.484		2.1E-07		1.6E-14		1.1E-07		3.2E-07
	Benzo[k]fluoranthene	207089		0.261		1.1E-08		8.7E-15		5.8E-09		1.7E-08
	Carbazole	86748		0.0474		5.6E-10				2.2E-11		5.8E-10
	Chromium	18540299		7.627	3.5E-03	2.2E-06	5.4E-05	1.9E-10	0E+00	0E+00	0.004	2.2E-06
	Dibenz[a,h]anthracene	53703		0.297		1.3E-06		1.1E-13		6.6E-07		1.9E-06
	Dibromochloromethane	124481		0.152	1.0E-05	7.5E-09		2.0E-10	4.2E-06	3.0E-09	0.00001	1.1E-08
	Dichlorobenzene, 1,4-	106467		0.0296	5.8E-07	9.4E-11	3.2E-06	1.2E-11	0E+00	0E+00	0.000004	1.1E-10
	Ethylbenzene	100414		3.839	5.3E-05	2.5E-08	6.0E-04	6.5E-10	0E+00	0E+00	0.0007	2.5E-08
	Indeno[1,2,3-cd]pyrene	193395		0.312		1.3E-07		1.0E-14		6.9E-08		2.0E-07
	Iron	7439896		11105	2.2E-02				0E+00		0.022	
	Mercury, Inorganic Salts	7487947		3.798	1.7E-02				0E+00		0.017	
	Methylene Chloride	75092		0.227	5.2E-06	1.0E-09	9.2E-05	1.9E-11	0E+00	0E+00	0.0001	1.0E-09
	Naphthalene	91203		3.552	2.4E-04		2.3E-02	9.9E-10	1.3E-04		0.023	9.9E-10
	Naphthalene, 1-Methyl	90120		2.11	4.1E-05	3.6E-08			0E+00	0E+00	0.00004	3.6E-08
	Naphthalene, 2-Methyl	91576		2.744	9.4E-04				0E+00		0.001	
	4,6-Dinitro-2-methylphenol	534521		32	5.5E-01				2.2E-01		0.77	
	n-Butylbenzene		Ethylbenzene	4.03	5.5E-05	2.6E-08	6.3E-04	6.8E-10	0E+00	0E+00	0.0007	2.7E-08
	n-Propylbenzene		Ethylbenzene	1.334	1.8E-05	8.6E-09	2.1E-04	2.2E-10	0E+00	0E+00	0.0002	8.8E-09
	Tetrachloroethane, 1,1,2,2-	79345		0.0286					0E+00	0E+00		
	Trimethylbenzene, 1,2,4-	95636		3.367			5.4E-02				0.054	
	Vanadium	7440622		33.66	9.2E-03				0E+00		0.009	
	Total (Low Aroclor-1268)				9.3E-01	1.9E-05	8.1E-02	3.0E-09	3.7E-01	5.7E-06	1.38	2.4E-05
	Total (High Aroclor-1268)				1.0E+00	1.9E-05	8.1E-02	3.0E-09	4.3E-01	5.7E-06	1.55	2.4E-05

Table A22D
RME Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 3

Child Resident												
	Aluminum	7429905		12427	1.6E-01		1.8E-03		0E+00		0.16	
	Antimony	7440360		4.655	1.5E-01				0E+00		0.15	
	Aroclor 1016	12674112		2.211	4.0E-01	1.7E-07		2.7E-15	1.5E-01	6.4E-08	0.56	2.3E-07
	Aroclor 1254 - High Risk	11097691		1.785	1.1E+00	3.9E-06		6.1E-14	4.3E-01	1.5E-06	1.57	5.4E-06
	Aroclor 1260 - High Risk	11096825		0.731	4.7E-01	1.6E-06		2.5E-14	1.8E-01	6.1E-07	0.64	2.2E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	4.1E-01	4.9E-06		7.7E-14	1.5E-01	1.8E-06	0.56	6.7E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	1.4E+00	4.9E-06		7.7E-14	5.4E-01	1.8E-06	1.97	6.7E-06
	Arsenic, Inorganic	7440382		8.584	3.7E-01	1.4E-05	4.0E-04	2.2E-12	3.0E-02	1.1E-06	0.40	1.5E-05
	Benz[a]anthracene	56553		0.588		4.7E-07		3.9E-15		1.7E-07		6.4E-07
	Benzene	71432		0.0613	2.0E-04	3.7E-09	5.1E-04	1.0E-11	0.0E+00	0.0E+00	0.0007	3.7E-09
	Benzo[a]pyrene	50328		0.291		2.3E-06		1.9E-14		8.2E-07		3.1E-06
	Benzo[b]fluoranthene	205992		0.484		3.9E-07		3.2E-15		1.4E-07		5.2E-07
	Benzo[k]fluoranthene	207089		0.261		2.1E-08		1.7E-15		7.3E-09		2.8E-08
	Carbazole	86748		0.0474		1.0E-09				2.8E-11		1.1E-09
	Chromium	18540299		7.627	3.3E-02	4.2E-06	5.4E-05	3.9E-11	0E+00	0E+00	0.033	4.2E-06
	Dibenz[a,h]anthracene	53703		0.297		2.4E-06		2.2E-14		8.3E-07		3.2E-06
	Dibromochloromethane	124481		0.152	9.7E-05	1.4E-08		3.9E-11	2.6E-05	3.8E-09	0.0001	1.8E-08
	Dichlorobenzene, 1,4-	106467		0.0296	5.4E-06	1.8E-10	3.2E-06	2.4E-12	0E+00	0E+00	0.000009	1.8E-10
	Ethylbenzene	100414		3.839	4.9E-04	4.6E-08	6.0E-04	1.3E-10	0E+00	0E+00	0.001	4.6E-08
	Indeno[1,2,3-cd]pyrene	193395		0.312		2.5E-07		2.1E-15		8.8E-08		3.4E-07
	Iron	7439896		11105	2.0E-01				0E+00		0.20	
	Mercury, Inorganic Salts	7487947		3.798	1.6E-01				0E+00		0.16	
	Methylene Chloride	75092		0.227	4.8E-05	1.9E-09	9.2E-05	3.7E-12	0E+00	0E+00	0.0001	1.9E-09
	Naphthalene	91203		3.552	2.3E-03		2.3E-02	2.0E-10	8.0E-04		0.026	2.0E-10
	Naphthalene, 1-Methyl	90120		2.11	3.9E-04	6.7E-08			0E+00	0E+00	0.0004	6.7E-08
	Naphthalene, 2-Methyl	91576		2.744	8.8E-03				0E+00		0.009	
	4,6-Dinitro-2-methylphenol	534521		32	5.1E+00				1.4E+00		6.5	
	n-Butylbenzene		Ethylbenzene	4.03	5.2E-04	4.9E-08	6.3E-04	1.4E-10	0E+00	0E+00	0.001	4.9E-08
	n-Propylbenzene		Ethylbenzene	1.334	1.7E-04	1.6E-08	2.1E-04	4.5E-11	0E+00	0E+00	0.0004	1.6E-08
	Tetrachloroethane, 1,1,2,2-	79345		0.0286	1.8E-05	6.3E-09		1.0E-16	0E+00	0E+00	0.00002	6.3E-09
	Trimethylbenzene, 1,2,4-	95636		3.367			5.4E-02				0.054	
	Vanadium	7440622		33.66	8.6E-02				0E+00		0.086	
	Total (Low Aroclor-1268)				8.7E+00	3.5E-05	8.1E-02	6.1E-10	2.3E+00	7.2E-06	11.1	4.2E-05
	Total (High Aroclor-1268)				9.7E+00	3.5E-05	8.1E-02	6.1E-10	2.7E+00	7.2E-06	12.5	4.2E-05
Lifetime Resident (Cancer Risk Only)[1]						5.0E-05		3.0E-09		1.2E-05		6.2E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table A22E
RME Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	Conc	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aluminum	7429905		3037	4.2E-03		4.3E-04		0E+00		0.005	
	Antimony	7440360		11.77	4.0E-02				0E+00		0.040	
	Aroclor 1254 - High Risk	11097691		2.533	1.7E-01	3.0E-06		4.4E-13	9.7E-02	1.7E-06	0.27	4.6E-06
	Aroclor 1260 - High Risk	11096825		7.447	5.1E-01	8.7E-06		1.3E-12	2.8E-01	4.9E-06	0.79	1.4E-05
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	1.2E-01	7.4E-06		1.1E-12	6.9E-02	4.1E-06	0.19	1.1E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	4.3E-01	7.4E-06		1.1E-12	2.4E-01	4.1E-06	0.67	1.1E-05
	Arsenic, Inorganic	7440382		1.176	5.4E-03	1.0E-06	5.5E-05	1.5E-12	6.4E-04	1.2E-07	0.006	1.2E-06
	Benz[a]anthracene	56553		0.888		3.8E-07		3.0E-14		2.0E-07		5.8E-07
	Benzo[a]pyrene	50328		0.868		3.7E-06		2.9E-13		1.9E-06		5.6E-06
	Benzo[b]fluoranthene	205992		0.73		3.1E-07		2.4E-14		1.6E-07		4.8E-07
	Benzo[k]fluoranthene	207089		0.544		2.3E-08		1.8E-14		1.2E-08		3.5E-08
	Chloroform	67663		0.0266	3.6E-06	4.8E-10	9.2E-05	8.9E-11	0E+00	0E+00	0.0001	5.7E-10
	Chromium	18540299		19.75	9.0E-03	5.8E-06	1.4E-04	5.0E-10	0E+00	0E+00	0.009	5.8E-06
	Chrysene	218019		1.987		8.5E-09		6.6E-15		4.4E-09		1.3E-08
	Cobalt	7440484		0.823	3.8E-03		9.7E-05	2.2E-12	0E+00		0.004	2.2E-12
	Dibenz[a,h]anthracene	53703		0.297		1.3E-06		1.1E-13		6.6E-07		1.9E-06
	Indeno[1,2,3-cd]pyrene	193395		0.545		2.3E-07		1.8E-14		1.2E-07		3.5E-07
	Iron	7439896		5852	1.1E-02				0E+00		0.011	
	Manganese	7439965		29.38	2.9E-04		4.1E-04		0E+00		0.0007	
	Mercury, Inorganic Salts	7487947		5.571	2.5E-02				0E+00		0.025	
	Naphthalene	91203		0.618	4.2E-05		4.0E-03	1.7E-10	2.2E-05		0.004	1.7E-10
	Naphthalene, 1-Methyl	90120		0.524	1.0E-05	8.9E-09			0E+00	0E+00	0.00001	8.9E-09
	n-Butylbenzene		Ethylbenzene	0.0852	1.2E-06	5.5E-10	1.3E-05	1.4E-11	0E+00	0E+00	0.00001	5.6E-10
	Tetrachloroethene	127184		0.022	3.0E-06	7.0E-09	5.7E-11	3.9E-17	0E+00	0E+00	0.000003	7.0E-09
	Trimethylbenzene, 1,2,4-	95636		0.0673			1.1E-03				0.001	
	Vanadium	7440622		6.32	1.7E-03				0E+00		0.002	
	Zinc	7440666		2105	9.6E-03				0E+00		0.010	
	Total (Low Aroclor-1268)				9.2E-01	3.2E-05	6.3E-03	7.8E-10	4.5E-01	1.4E-05	1.38	4.6E-05
	Total (High Aroclor-1268)				1.2E+00	3.2E-05	6.3E-03	7.8E-10	6.2E-01	1.4E-05	1.85	4.6E-05

Table A22E
RME Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	Conc	Ingestion		Inhalation		Dermal		Total	
					Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Child Resident												
	Aluminum	7429905		3037	3.9E-02		4.3E-04		0E+00		0.039	
	Antimony	7440360		11.77	3.8E-01				0E+00		0.38	
	Aroclor 1254 - High Risk	11097691		2.533	1.6E+00	5.6E-06		8.7E-14	6.1E-01	2.1E-06	2.23	7.7E-06
	Aroclor 1260 - High Risk	11096825		7.447	4.8E+00	1.6E-05		2.6E-13	1.8E+00	6.2E-06	6.6	2.2E-05
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	1.1E+00	1.4E-05		2.2E-13	4.3E-01	5.2E-06	1.58	1.9E-05
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	4.0E+00	1.4E-05		2.2E-13	1.5E+00	5.2E-06	5.53	1.9E-05
	Arsenic, Inorganic	7440382		1.176	5.0E-02	1.9E-06	5.5E-05	3.1E-13	4.1E-03	1.6E-07	0.054	2.1E-06
	Benz[a]anthracene	56553		0.888		7.1E-07		5.9E-15		2.5E-07		9.6E-07
	Benzo[a]pyrene	50328		0.868		6.9E-06		5.8E-14		2.4E-06		9.4E-06
	Benzo[b]fluoranthene	205992		0.73		5.8E-07		4.9E-15		2.0E-07		7.9E-07
	Benzo[k]fluoranthene	207089		0.544		4.4E-08		3.6E-15		1.5E-08		5.9E-08
	Chloroform	67663		0.0266	3.4E-05	9.0E-10	9.2E-05	1.8E-11	0E+00	0E+00	0.0001	9.2E-10
	Chromium	18540299		19.75	8.4E-02	1.1E-05	1.4E-04	1.0E-10	0E+00	0E+00	0.084	1.1E-05
	Chrysene	218019		1.987		1.6E-08		1.3E-15		5.6E-09		2.1E-08
	Cobalt	7440484		0.823	3.5E-02		9.7E-05	4.5E-13	0E+00		0.035	4.5E-13
	Dibenz[a,h]anthracene	53703		0.297		2.4E-06		2.2E-14		8.3E-07		3.2E-06
	Indeno[1,2,3-cd]pyrene	193395		0.545		4.4E-07		3.6E-15		1.5E-07		5.9E-07
	Iron	7439896		5852	1.1E-01				0E+00		0.11	
	Manganese	7439965		29.38	2.7E-03		4.1E-04		0E+00		0.003	
	Mercury, Inorganic Salts	7487947		5.571	2.4E-01				0E+00		0.24	
	Naphthalene	91203		0.618	4.0E-04		4.0E-03	3.5E-11	1.4E-04		0.004	3.5E-11
	Naphthalene, 1-Methyl	90120		0.524	9.6E-05	1.7E-08			0E+00	0E+00	0.0001	1.7E-08
	n-Butylbenzene		Ethylbenzene	0.0852	1.1E-05	1.0E-09	1.3E-05	2.9E-12	0E+00	0E+00	0.00002	1.0E-09
	Tetrachloroethene	127184		0.022	2.8E-05	1.3E-08	5.7E-11	7.8E-18	0E+00	0E+00	0.00003	1.3E-08
	Trimethylbenzene, 1,2,4-	95636		0.0673			1.1E-03				0.001	
	Vanadium	7440622		6.32	1.6E-02				0E+00		0.02	
	Zinc	7440666		2105	9.0E-02				0E+00		0.090	
	Total (Low Aroclor-1268)				8.6E+00	6.0E-05	6.3E-03	1.6E-10	2.8E+00	1.8E-05	11.4	7.7E-05
	Total (High Aroclor-1268)				1.1E+01	6.0E-05	6.3E-03	1.6E-10	3.9E+00	1.8E-05	15.4	7.7E-05
Lifetime Resident (Cancer Risk Only)[(1)]						8.5E-05		7.8E-10		2.9E-05		1.1E-04

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yeild a aggregate risk for the two receptors over the 30 year exposure period.

Table A23B
CTE Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 1

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aroclor 1260 - High Risk	11096825		0.454	1.6E-02	8.0E-08		2.3E-14	1.5E-02	7.5E-08	0.03	1.6E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	4.7E-03	8.5E-08		2.5E-14	4.5E-03	8.0E-08	0.01	1.7E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	1.7E-02	8.5E-08		2.5E-14	1.6E-02	8.0E-08	0.03	1.7E-07
	Arsenic, Inorganic	7440382		1.402	3.2E-03	1.9E-07	6.6E-05	5.5E-13	6.5E-04	3.7E-08	0.004	2.2E-07
	Benz[a]anthracene	56553		0.213		1.4E-08		2.1E-15		1.2E-08		2.6E-08
	Benzo[a]pyrene	50328		0.195		1.3E-07		1.9E-14		1.1E-07		2.3E-07
	Benzo[b/k]fluoranthene	205992		0.605		3.9E-09		6.0E-15		3.4E-09		7.3E-09
	Benzo[b]fluoranthene	205992		0.096		6.2E-09		9.6E-16		5.4E-09		1.2E-08
	Bis(2-ethylhexyl)phthalate	117817		4.298	1.5E-04	5.3E-09		9.4E-16	9.9E-05	3.6E-09	0.000	8.9E-09
	Chromium	18540299		5.756	1.3E-03	2.5E-07	4.1E-05	4.4E-11	0E+00	0E+00	0.0014	2.5E-07
	Dibenz[a,h]anthracene	53703		0.0111		7.1E-09		1.2E-15		6.2E-09		1.3E-08
	Indeno[1,2,3-cd]pyrene	193395		0.051		3.3E-09		5.1E-16		2.9E-09		6.1E-09
	Iron	7439896		8657	8.5E-03				0E+00		0.008	
	Mercury, Inorganic Salts	7487947		12.57	2.9E-02				0E+00		0.029	
	Vanadium	7440622		10.61	1.5E-03				0E+00		0.001	
	Total (Low Aroclor-1268)				6.4E-02	7.7E-07	1.1E-04	4.4E-11	2.0E-02	3.4E-07	0.08	1.1E-06
	Total (High Aroclor-1268)				7.5E-02	7.7E-07	1.1E-04	4.4E-11	3.1E-02	3.4E-07	0.11	1.1E-06
Child Resident												
	Aroclor 1260 - High Risk	11096825		0.454	1.5E-01	1.7E-07		5.2E-15	7.3E-02	8.4E-08	0.22	2.5E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	0.484	4.4E-02	1.8E-07		5.6E-15	2.2E-02	8.9E-08	0.07	2.7E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	0.484	1.5E-01	1.8E-07		5.6E-15	7.8E-02	8.9E-08	0.23	2.7E-07
	Arsenic, Inorganic	7440382		1.402	3.0E-02	3.8E-07	6.6E-05	1.2E-13	3.2E-03	4.1E-08	0.03	4.3E-07
	Benz[a]anthracene	56553		0.213		2.8E-08		4.7E-16		1.3E-08		4.2E-08
	Benzo[a]pyrene	50328		0.195		2.6E-07		4.3E-15		1.2E-07		3.8E-07
	Benzo[b/k]fluoranthene	205992		0.605		8.1E-09		1.3E-15		3.8E-09		1.2E-08
	Benzo[b]fluoranthene	205992		0.096		1.3E-08		2.1E-16		6.0E-09		1.9E-08
	Bis(2-ethylhexyl)phthalate	117817		4.298	1.4E-03	1.1E-08		2.1E-16	4.9E-04	4.0E-09	0.002	1.5E-08
	Chromium	18540299		5.756	1.2E-02	5.3E-07	4.1E-05	9.7E-12	0E+00	0E+00	0.012	5.3E-07
	Dibenz[a,h]anthracene	53703		0.0111		1.5E-08		2.7E-16		6.9E-09		2.2E-08
	Indeno[1,2,3-cd]pyrene	193395		0.051		6.8E-09		1.1E-16		3.2E-09		1.0E-08
	Iron	7439896		8657	7.9E-02				0E+00		0.08	
	Mercury, Inorganic Salts	7487947		12.57	2.7E-01				0E+00		0.27	
	Vanadium	7440622		10.61	1.4E-02				0E+00		0.014	
	Total (Low Aroclor-1268)				5.93E-01	1.59E-06	1.06E-04	9.88E-12	9.91E-02	3.73E-07	0.69	1.97E-06
	Total (High Aroclor-1268)				7.04E-01	1.59E-06	1.06E-04	9.88E-12	1.55E-01	3.73E-07	0.86	1.97E-06
Lifetime Resident (Cancer Risk Only)[1]						2.2E-06		4.5E-11		6.4E-07		2.9E-06

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table A23C
CCTE Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 2

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aroclor 1221 - High Risk	11104282		3.457	1.2E-01	6.1E-07		2.7E-09	1.1E-01	5.7E-07	0.23	1.2E-06
	Aroclor 1254 - High Risk	11097691		1.376	4.7E-02	2.4E-07		7.1E-14	4.4E-02	2.3E-07	0.09	4.7E-07
	Aroclor 1260 - High Risk	11096825		1.128	3.9E-02	2.0E-07		5.8E-14	3.6E-02	1.9E-07	0.07	3.9E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	9.9E-02	1.8E-06		5.2E-13	9.3E-02	1.7E-06	0.19	3.5E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	3.5E-01	1.8E-06		5.2E-13	3.3E-01	1.7E-06	0.67	3.5E-06
	Arsenic, Inorganic	7440382		1.592	3.6E-03	2.1E-07	7.5E-05	6.2E-13	7.3E-04	4.2E-08	0.004	2.5E-07
	Benz[a]anthracene	56553		0.208		1.3E-08		2.1E-15		1.2E-08		2.5E-08
	Benzo[a]pyrene	50328		0.211		1.4E-07		2.1E-14		1.2E-07		2.5E-07
	Benzo[b/k]fluoranthene	205992		0.398		2.6E-09		4.0E-15		2.2E-09		4.8E-09
	Benzo[b]fluoranthene	205992		0.199		1.3E-08		2.0E-15		1.1E-08		2.4E-08
	Carbazole	86748		0.046		8.1E-11				5.4E-12		8.6E-11
	Chromium	18540299		7.741	1.8E-03	3.4E-07	5.5E-05	5.9E-11	0E+00	0E+00	0.0018	3.4E-07
	Dibenz[a,h]anthracene	53703		0.171		1.1E-07		1.9E-14		9.6E-08		2.1E-07
	Indeno[1,2,3-cd]pyrene	193395		0.189		1.2E-08		1.9E-15		1.1E-08		2.3E-08
	Iron	7439896		6603	6.5E-03				0E+00		0.006	
	Mercury, Inorganic Salts	7487947		3.984	9.1E-03				0E+00		0.009	
	Total (Low Aroclor-1268)				3.2E-01	3.7E-06	1.3E-04	2.7E-09	2.9E-01	3.0E-06	0.61	6.6E-06
	Total (High Aroclor-1268)				5.7E-01	3.7E-06	1.3E-04	2.7E-09	5.2E-01	3.0E-06	1.09	6.6E-06
Child Resident												
	Aroclor 1221 - High Risk	11104282		3.457	1.1E+00	1.3E-06		5.9E-10	5.6E-01	6.4E-07	1.66	1.9E-06
	Aroclor 1254 - High Risk	11097691		1.376	4.4E-01	5.0E-07		1.6E-14	2.2E-01	2.5E-07	0.66	7.6E-07
	Aroclor 1260 - High Risk	11096825		1.128	3.6E-01	4.1E-07		1.3E-14	1.8E-01	2.1E-07	0.54	6.2E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	10.1	9.2E-01	3.7E-06		1.2E-13	4.6E-01	1.9E-06	1.39	5.5E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	10.1	3.2E+00	3.7E-06		1.2E-13	1.6E+00	1.9E-06	4.86	5.5E-06
	Arsenic, Inorganic	7440382		1.592	3.4E-02	4.4E-07	7.5E-05	1.4E-13	3.7E-03	4.7E-08	0.038	4.8E-07
	Benz[a]anthracene	56553		0.208		2.8E-08		4.6E-16		1.3E-08		4.1E-08
	Benzo[a]pyrene	50328		0.211		2.8E-07		4.7E-15		1.3E-07		4.1E-07
	Benzo[b/k]fluoranthene	205992		0.398		5.3E-09		8.8E-16		2.5E-09		7.8E-09
	Benzo[b]fluoranthene	205992		0.199		2.7E-08		4.4E-16		1.2E-08		3.9E-08
	Carbazole	86748		0.046		1.7E-10				6.0E-12		1.7E-10
	Chromium	18540299		7.741	1.6E-02	7.1E-07	5.5E-05	1.3E-11	0E+00	0E+00	0.017	7.1E-07
	Dibenz[a,h]anthracene	53703		0.171		2.3E-07		4.1E-15		1.1E-07		3.3E-07
	Indeno[1,2,3-cd]pyrene	193395		0.189		2.5E-08		4.2E-16		1.2E-08		3.7E-08
	Iron	7439896		6603	6.0E-02				0E+00		0.060	
	Mercury, Inorganic Salts	7487947		3.984	8.5E-02				0E+00		0.085	
	Total (Low Aroclor-1268)				3.0E+00	7.6E-06	1.3E-04	6.0E-10	1.4E+00	3.3E-06	4.45	1.1E-05
	Total (High Aroclor-1268)				5.3E+00	7.6E-06	1.3E-04	6.0E-10	2.6E+00	3.3E-06	7.92	1.1E-05
Lifetime Resident (Cancer Risk Only)[1]						1E-05		3E-09		6E-06		1.6E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

Table A23D
CTE Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aluminum	7429905		12427	8.5E-03		1.8E-03		0E+00		0.010	
	Antimony	7440360		4.655	8.0E-03				0E+00		0.008	
	Aroclor 1016	12674112		2.211	2.2E-02	1.4E-08		4.0E-15	2.0E-02	1.3E-08	0.04	2.6E-08
	Aroclor 1254 - High Risk	11097691		1.785	6.1E-02	3.1E-07		9.2E-14	5.8E-02	3.0E-07	0.12	6.1E-07
	Aroclor 1260 - High Risk	11096825		0.731	2.5E-02	1.3E-07		3.8E-14	2.4E-02	1.2E-07	0.05	2.5E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	2.2E-02	3.9E-07		1.2E-13	2.1E-02	3.7E-07	0.04	7.6E-07
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	7.6E-02	3.9E-07		1.2E-13	7.2E-02	3.7E-07	0.15	7.6E-07
	Arsenic, Inorganic	7440382		8.584	2.0E-02	1.1E-06	4.0E-04	3.3E-12	4.0E-03	2.3E-07	0.02	1.4E-06
	Benz[a]anthracene	56553		0.588		3.8E-08		5.9E-15		3.3E-08		7.1E-08
	Benzene	71432		0.0613	1.0E-05	3.0E-10	5.1E-04	1.5E-11	0E+00	0E+00	0.0005	3.1E-10
	Benzo[a]pyrene	50328		0.291		1.9E-07		2.9E-14		1.6E-07		3.5E-07
	Benzo[b]fluoranthene	205992		0.484		3.1E-08		4.8E-15		2.7E-08		5.8E-08
	Benzo[k]fluoranthene	207089		0.261		1.7E-09		2.6E-15		1.5E-09		3.1E-09
	Carbazole	86748		0.0474		8.3E-11				5.6E-12		8.9E-11
	Chromium	18540299		7.627	1.7E-03	3.4E-07	5.4E-05	5.8E-11	0E+00	0E+00	0.0018	3.4E-07
	Dibenz[a,h]anthracene	53703		0.297		1.9E-07		3.2E-14		1.7E-07		3.6E-07
	Dibromochloromethane	124481		0.152	5.2E-06	1.1E-09		5.9E-11	3.5E-06	7.6E-10	0.00001	1.9E-09
	Dichlorobenzene, 1,4-	106467		0.0296	2.9E-07	1.4E-11	3.2E-06	3.6E-12	0E+00	0E+00	0.000003	1.8E-11
	Ethylbenzene	100414		3.839	2.6E-05	3.7E-09	6.0E-04	1.9E-10	0E+00	0E+00	0.0006	3.9E-09
	Indeno[1,2,3-cd]pyrene	193395		0.312		2.0E-08		3.1E-15		1.8E-08		3.8E-08
	Iron	7439896		11105	1.1E-02				0E+00		0.011	
	Mercury, Inorganic Salts	7487947		3.798	8.7E-03				0E+00		0.009	
	Methylene Chloride	75092		0.227	2.6E-06	1.5E-10	9.2E-05	5.6E-12	0E+00	0E+00	0.00009	1.6E-10
	Naphthalene	91203		3.552	1.2E-04		2.3E-02	3.0E-10	1.1E-04		0.023	3.0E-10
	Naphthalene, 1-Methyl	90120		2.11	2.1E-05	5.4E-09			0E+00	0E+00	0.000021	5.4E-09
	Naphthalene, 2-Methyl	91576		2.744	4.7E-04				0E+00		0.00047	
	4,6-Dinitro-2-methylphenol	534521		32	2.7E-01				1.8E-01		0.46	
	n-Butylbenzene		Ethylbenzene	4.03	2.8E-05	3.9E-09	6.3E-04	2.0E-10	0E+00	0E+00	0.0007	4.1E-09
	n-Propylbenzene		Ethylbenzene	1.334	9.1E-06	1.3E-09	2.1E-04	6.7E-11	0E+00	0E+00	0.0002	1.4E-09
	Tetrachloroethane, 1,1,2,2-	79345		0.0286	9.8E-07	5.0E-10		1.5E-16	0E+00	0E+00	0.0000010	5.0E-10
	Trimethylbenzene, 1,2,4-	95636		3.367			5.4E-02				0.054	
	Vanadium Pentoxide	1314621		33.66	2.6E-03		3.4E-03	2.5E-11	0E+00		0.006	2.5E-11
	Total (Low Aroclor-1268)				4.6E-01	2.8E-06	8.5E-02	9.3E-10	3.1E-01	1.4E-06	0.86	4.2E-06
	Total (High Aroclor-1268)				5.2E-01	2.8E-06	8.5E-02	9.3E-10	3.6E-01	1.4E-06	0.96	4.2E-06

Table A23D
CTE Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 3

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Child Resident												
	Aluminum	7429905		12427	7.9E-02		1.8E-03		0E+00		0.08	
	Antimony	7440360		4.655	7.4E-02				0E+00		0.074	
	Aroclor 1016	12674112		2.211	2.0E-01	2.8E-08		8.9E-16	1.0E-01	1.4E-08	0.30	4.3E-08
	Aroclor 1254 - High Risk	11097691		1.785	5.7E-01	6.5E-07		2.0E-14	2.9E-01	3.3E-07	0.86	9.8E-07
	Aroclor 1260 - High Risk	11096825		0.731	2.3E-01	2.7E-07		8.4E-15	1.2E-01	1.3E-07	0.35	4.0E-07
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	2.231	2.0E-01	8.1E-07		2.6E-14	1.0E-01	4.1E-07	0.31	1.2E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	2.231	7.1E-01	8.1E-07		2.6E-14	3.6E-01	4.1E-07	1.07	1.2E-06
	Arsenic, Inorganic	7440382		8.584	1.8E-01	2.4E-06	4.0E-04	7.4E-13	2.0E-02	2.5E-07	0.20	2.6E-06
	Benz[a]anthracene	56553		0.588		7.8E-08		1.3E-15		3.7E-08		1.2E-07
	Benzene	71432		0.0613	9.8E-05	6.2E-10	5.1E-04	3.4E-12	0E+00	0E+00	0.0006	6.2E-10
	Benzo[a]pyrene	50328		0.291		3.9E-07		6.4E-15		1.8E-07		5.7E-07
	Benzo[b]fluoranthene	205992		0.484		6.5E-08		1.1E-15		3.0E-08		9.5E-08
	Benzo[k]fluoranthene	207089		0.261		3.5E-09		5.8E-16		1.6E-09		5.1E-09
	Carbazole	86748		0.0474		1.7E-10				6.2E-12		1.8E-10
	Chromium	18540299		7.627	1.6E-02	7.0E-07	5.4E-05	1.3E-11	0E+00	0E+00	0.016	7.0E-07
	Dibenz[a,h]anthracene	53703		0.297		4.0E-07		7.2E-15		1.9E-07		5.8E-07
	Dibromochloromethane	124481		0.152	4.9E-05	2.3E-09		1.3E-11	1.7E-05	8.4E-10	0.00007	3.2E-09
	Dichlorobenzene, 1,4-	106467		0.0296	2.7E-06	2.9E-11	3.2E-06	8.0E-13	0E+00	0E+00	0.000006	3.0E-11
	Ethylbenzene	100414		3.839	2.5E-04	7.7E-09	6.0E-04	4.3E-11	0E+00	0E+00	0.0008	7.8E-09
	Indeno[1,2,3-cd]pyrene	193395		0.312		4.2E-08		6.9E-16		1.9E-08		6.1E-08
	Iron	7439896		11105	1.0E-01				0E+00		0.101	
	Mercury, Inorganic Salts	7487947		3.798	8.1E-02				0E+00		0.081	
	Methylene Chloride	75092		0.227	2.4E-05	3.1E-10	9.2E-05	1.2E-12	0E+00	0E+00	0.00012	3.1E-10
	Naphthalene	91203		3.552	1.1E-03		2.3E-02	6.6E-11	5.3E-04		0.024	6.6E-11
	Naphthalene, 1-Methyl	90120		2.11	1.9E-04	1.1E-08			0E+00	0E+00	0.00019	1.1E-08
	Naphthalene, 2-Methyl	91576		2.744	4.4E-03				0E+00		0.0044	
	4,6-Dinitro-2-methylphenol	534521		32	2.6E+00				9.2E-01		3.48	
	n-Butylbenzene		Ethylbenzene	4.03	2.6E-04	8.1E-09	6.3E-04	4.5E-11	0E+00	0E+00	0.0009	8.1E-09
	n-Propylbenzene		Ethylbenzene	1.334	8.5E-05	2.7E-09	2.1E-04	1.5E-11	0E+00	0E+00	0.0003	2.7E-09
	Tetrachloroethane, 1,1,2,2-	79345		0.0286	9.1E-06	1.0E-09		3.3E-17	0E+00	0E+00	0.000009	1.0E-09
	Trimethylbenzene, 1,2,4-	95636		3.367			5.4E-02				0.054	
	Vanadium Pentoxide	1314621		33.66	2.4E-02		3.4E-03	5.6E-12	0E+00		0.027	5.6E-12
	Total (Low Aroclor-1268)				4.3E+00	5.8E-06	8.5E-02	2.1E-10	1.6E+00	1.6E-06	5.97	7.4E-06
	Total (High Aroclor-1268)				4.8E+00	5.8E-06	8.5E-02	2.1E-10	1.8E+00	1.6E-06	6.73	7.4E-06
Lifetime Resident (Cancer Risk Only)[(1)]						8.1E-06		9.6E-10		2.7E-06		1.1E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yeild a aggregate risk for the two receptors over the 30 year exposure period.

Table A23E
CTE Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Adult Resident												
	Aluminum	7429905		3037	2.1E-03		4.3E-04		0E+00		0.003	
	Antimony	7440360		11.77	2.0E-02				0E+00		0.020	
	Aroclor 1254 - High Risk	11097691		2.533	8.7E-02	4.5E-07		1.3E-13	8.2E-02	4.2E-07	0.17	8.7E-07
	Aroclor 1260 - High Risk	11096825		7.447	2.6E-01	1.3E-06		3.8E-13	2.4E-01	1.2E-06	0.49	2.5E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	6.1E-02	1.1E-06		3.2E-13	5.8E-02	1.0E-06	0.12	2.1E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	2.2E-01	1.1E-06		3.2E-13	2.0E-01	1.0E-06	0.42	2.1E-06
	Arsenic, Inorganic	7440382		1.176	2.7E-03	1.6E-07	5.5E-05	4.6E-13	5.4E-04	3.1E-08	0.003	1.9E-07
	Benz[a]anthracene	56553		0.888		5.7E-08		8.9E-15		5.0E-08		1.1E-07
	Benzo[a]pyrene	50328		0.868		5.6E-07		8.7E-14		4.9E-07		1.0E-06
	Benzo[b]fluoranthene	205992		0.73		4.7E-08		7.3E-15		4.1E-08		8.8E-08
	Benzo[k]fluoranthene	207089		0.544		3.5E-09		5.4E-15		3.1E-09		6.6E-09
	Chloroform	67663		0.0266	1.8E-06	7.3E-11	9.2E-05	2.7E-11	0E+00	0E+00	0.00009	9.9E-11
	Chromium	18540299		19.75	4.5E-03	8.7E-07	1.4E-04	1.5E-10	0E+00	0E+00	0.0046	8.7E-07
	Chrysene	218019		1.987		1.3E-09		2.0E-15		1.1E-09		2.4E-09
	Cobalt	7440484		0.823	1.9E-03		9.7E-05	6.7E-13	0E+00		0.0020	6.7E-13
	Dibenz[a,h]anthracene	53703		0.297		1.9E-07		3.2E-14		1.7E-07		3.6E-07
	Indeno[1,2,3-cd]pyrene	193395		0.545		3.5E-08		5.4E-15		3.1E-08		6.6E-08
	Iron	7439896		5852	5.7E-03				0E+00		0.0057	
	Manganese	7439965		29.38	1.4E-04		4.1E-04		0E+00		0.0006	
	Mercury, Inorganic Salts	7487947		5.571	1.3E-02				0E+00		0.013	
	Naphthalene	91203		0.618	2.1E-05		4.0E-03	5.2E-11	1.8E-05		0.004	5.2E-11
	Naphthalene, 1-Methyl	90120		0.524	5.1E-06	1.3E-09			0E+00	0E+00	0.0000051	1.3E-09
	n-Butylbenzene		Ethylbenzene	0.0852	5.8E-07	8.3E-11	1.3E-05	4.3E-12	0E+00	0E+00	0.00001	8.7E-11
	Tetrachloroethene	127184		0.022	1.5E-06	1.0E-09	5.7E-11	1.2E-17	0E+00	0E+00	0.0000015	1.0E-09
	Trimethylbenzene, 1,2,4-	95636		0.0673			1.1E-03				0.0011	
	Vanadium Pentoxide	1314621		6.32	5E-04		6E-04	5E-12	0E+00		0.0011	5E-12
	Zinc	7440666		2105	5E-03				0E+00		0.0048	
	Total (Low Aroclor-1268)				4.6E-01	4.8E-06	6.9E-03	2.4E-10	3.8E-01	3.5E-06	0.85	8.3E-06
	Total (High Aroclor-1268)				6.1E-01	4.8E-06	6.9E-03	2.4E-10	5.2E-01	3.5E-06	1.14	8.3E-06

Table A23E
CTE Risk Calculations Including TEG Data - Hypothetical Resident - Quadrant 4

Receptor	Parameter	CAS	Tox Surrogate	EPC	Ingestion		Inhalation		Dermal		Total	
				(mg/kg)	Hazard	Risk	Hazard	Risk	Hazard	Risk	Hazard	Risk
Child Resident												
	Aluminum	7429905		3037	1.9E-02		4.3E-04		0E+00		0.020	
	Antimony	7440360		11.77	1.9E-01				0E+00		0.19	
	Aroclor 1254 - High Risk	11097691		2.533	8.1E-01	9.3E-07		2.9E-14	4.1E-01	4.7E-07	1.22	1.4E-06
	Aroclor 1260 - High Risk	11096825		7.447	2.4E+00	2.7E-06		8.6E-14	1.2E+00	1.4E-06	3.58	4.1E-06
	Aroclor 1268 - 1016 RfD	11100144	Aroclor1254-1016	6.283	5.7E-01	2.3E-06		7.2E-14	2.9E-01	1.2E-06	0.86	3.5E-06
	Aroclor 1268 - High Risk	11100144	Aroclor1254	6.283	2.0E+00	2.3E-06		7.2E-14	1.0E+00	1.2E-06	3.02	3.5E-06
	Arsenic, Inorganic	7440382		1.176	2.5E-02	3.2E-07	5.5E-05	1.0E-13	2.7E-03	3.5E-08	0.028	3.6E-07
	Benz[a]anthracene	56553		0.888		1.2E-07		2.0E-15		5.5E-08		1.7E-07
	Benzo[a]pyrene	50328		0.868		1.2E-06		1.9E-14		5.4E-07		1.7E-06
	Benzo[b]fluoranthene	205992		0.73		9.7E-08		1.6E-15		4.6E-08		1.4E-07
	Benzo[k]fluoranthene	207089		0.544		7.3E-09		1.2E-15		3.4E-09		1.1E-08
	Chloroform	67663		0.0266	1.7E-05	1.5E-10	9.2E-05	5.9E-12	0E+00	0E+00	0.00011	1.6E-10
	Chromium	18540299		19.75	4.2E-02	1.8E-06	1.4E-04	3.3E-11	0E+00	0E+00	0.042	1.8E-06
	Chrysene	218019		1.987		2.6E-09		4.4E-16		1.2E-09		3.9E-09
	Cobalt	7440484		0.823	1.8E-02		9.7E-05	1.5E-13	0E+00		0.018	1.5E-13
	Dibenz[a,h]anthracene	53703		0.297		4.0E-07		7.2E-15		1.9E-07		5.8E-07
	Indeno[1,2,3-cd]pyrene	193395		0.545		7.3E-08		1.2E-15		3.4E-08		1.1E-07
	Iron	7439896		5852	5.3E-02				0E+00		0.053	
	Manganese	7439965		29.38	1.3E-03		4.1E-04		0E+00		0.0018	
	Mercury, Inorganic Salts	7487947		5.571	1.2E-01				0E+00		0.119	
	Naphthalene	91203		0.618	2.0E-04		4.0E-03	1.2E-11	9.2E-05		0.004	1.2E-11
	Naphthalene, 1-Methyl	90120		0.524	4.8E-05	2.8E-09			0E+00	0E+00	0.000048	2.8E-09
	n-Butylbenzene		Ethylbenzene	0.0852	5.4E-06	1.7E-10	1.3E-05	9.6E-13	0E+00	0E+00	0.00002	1.7E-10
	Tetrachloroethene	127184		0.022	1.4E-05	2.2E-09	5.7E-11	2.6E-18	0E+00	0E+00	0.000014	2.2E-09
	Trimethylbenzene, 1,2,4-	95636		0.0673			1.1E-03				0.0011	
	Vanadium Pentoxide	1314621		6.32	4.5E-03		6.4E-04	1.1E-12	0E+00		0.005	1.1E-12
	Zinc	7440666		2105	4.5E-02				0E+00		0.045	
	Total (Low Aroclor-1268)				4.3E+00	9.9E-06	6.9E-03	5.3E-11	1.9E+00	3.9E-06	6.19	1.4E-05
	Total (High Aroclor-1268)				5.7E+00	9.9E-06	6.9E-03	5.3E-11	2.6E+00	3.9E-06	8.34	1.4E-05
Lifetime Resident (Cancer Risk Only)[(1)]						1.4E-05		2.5E-10		6.7E-06		2.0E-05

Notes:
(1) Lifetime receptor risk was calculated by adding total child risk to the total adult risk times 0.8 (i.e., 24 yr/30yr) to yield a aggregate risk for the two receptors over the 30 year exposure period.

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APPENDIX B

RECOMMENDATIONS FOR DATA USAGE – HUMAN HEALTH BASELINE RISK ASSESSMENT (SUBMITTED TO USEPA AND EPD - JUNE 29, 2009)

APPENDIX C

CD-ROM WITH OU3 SOIL DATA SET

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APPENDIX D

SURROGATE RECOMMENDATIONS FOR COPC (USEPA - DECEMBER 4, 2009)

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APPENDIX E

REVISED COPC SCREENING PROCESS (SUBMITTED TO USEPA AND EPD - APRIL 25, 2011)

APPENDIX F

CD-ROM WITH PROUCL DATA FILES

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APPENDIX G

UNCERTAINTY ASSESSMENT – AROCLOR 1268 TOXICITY

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APPENDIX H

UNCERTAINTY ASSESSMENT – PAH SITE VS. BACKGROUND SOIL CONCENTRATIONS