RCRA Facility Investigation
Baseline Risk Assessment
Atlantic Research Corporation Facility
Gainesville, Virginia

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Contents

		Page
1.	**Introduction**	**1**
1.1	Purpose	1
1.2	Report Organization	1
1.3	Summary of Former Operations and Corrective Action/RFI Activities	2
1.3.1	Former Operations	2
1.3.2	Potentially Significant Releases to the Environment	2
1.3.3	SRFI and Corrective Action Activities	2
2.	**Environmental Setting**	**6**
2.1	Site Location and Physiography	6
2.2	Climate	6
2.3	Demographics	6
2.4	Current and Future On-Site Land Use	6
2.5	Current and Future Surrounding Land Use	8
2.6	Surface Water Hydrology	8
2.7	Regional Geology	9
2.8	Site Geology	9
2.9	Site Hydrogeology	10
2.9.1	Shallow Groundwater	10
2.9.2	Deep Groundwater	11
2.10	Groundwater Use	11
2.11	Background Metals in Soil	13
3.	**Data Selection and Preparation**	**14**
3.1	Data Selection	14
3.2	Data Preparation	14
4.	**Human Health Risk Assessment**	**18**
4.1	Exposure Assessment	18
4.1.1	Identification of Potential Human Exposures	18
4.1.1.1	Potentially Exposed Populations	18
4.1.1.2	Exposure Pathways	19
4.1.2	Exposure Concentrations	24
4.1.3	Fate and Transport Models	27
4.1.4	Exposure Factors	29
4.1.4.1	Routine Workers	29
4.1.4.2	Maintenance Workers	30
4.1.4.3	Construction Workers	32
4.1.4.4	Trespassers	34
4.1.4.5	Recreators	35
4.1.4.6	Residents	37
4.1.4.7	Off-Site Receptors	38
4.2	Toxicity Assessment	39

4.2.1 Cancer Toxicity Values 39
4.2.2 Noncancer Toxicity Values 40
4.2.3 Extrapolation of Toxicity Values 41
4.2.4 Lead 41
4.3 Risk Characterization 41
4.3.1 Cancer and Noncancer Risks 41
4.3.2 Risk Characterization for Potentially Exposed Populations 43
4.3.2.1 Background Soil Risks 43
4.3.2.2 On-Site Routine Workers 43
4.3.2.3 On-Site Maintenance Workers 46
4.3.2.4 On-Site Construction Workers 48
4.3.2.5 On-Site Trespassers 52
4.3.2.6 On-Site Recreators 53
4.3.2.7 On-Site Residents 54
4.3.2.8 Off-Site Routine Workers 62
4.3.2.9 Off-Site Maintenance Workers 63
4.3.2.10 Off-Site Residents 64
4.3.3 Soil Impact to Groundwater 65
4.3.3.1 Worst Case Leach Test Method 65
4.3.3.2 Equilibrium Partitioning Method 66
4.3.3.3 Results 66
4.3.4 Groundwater Comparison to Drinking Water Criteria 67
4.3.5 Uncertainty Analysis 68
4.3.5.1 Exposure Concentrations 68
4.3.5.2 Characterization of the Extent of Areas with Unacceptable Risks 69
4.3.5.3 Exposure Factors 70
4.3.5.4 On-Site Hypothetical Outdoor Worker Soil Exposure 70
4.3.5.5 On-Site Construction Worker Soil Exposure 71
4.3.5.6 Extrapolated Toxicity Values 73
4.3.5.7 Risk Characterization 73
4.3.5.8 Consideration for Thallium PPRTV Appendix Toxicity Values 73

5. Ecological Risk Assessment 75
5.1 Screening-level Ecological Risk Assessment 76
5.1.1 Step 1: Screening-level Problem Formulation 76
5.1.1.1 Environmental Setting 77
5.1.1.1.1 Terrestrial Habitats On-Site 77
5.1.1.1.2 Aquatic Habitats 78
5.1.1.1.3 Protected Species 78
5.1.1.2 Constituents Detected 82
5.1.1.3 Constituent Fate and Transport Pathways 82
5.1.1.4 Mechanisms of Ecotoxicity 83
5.1.1.4.1 Volatile Organic Compounds 84
5.1.1.4.2 Semivolatile Organic Compounds 84
5.1.1.4.3 Inorganic Constituents/Metals 85
5.1.1.4.4 Perchlorate, RDX, and HMX 85

5.1.1.4.5 Polychlorinated Biphenyls, Dioxins, and Furans 85
5.1.1.5 Potentially Exposed Receptors 87
5.1.1.6 Exposure Pathways and Conceptual Site Model 87
5.1.1.7 Identification of Generic Assessment and Measurement Endpoints 87
5.1.2 Step 1: Screening-Level Effects Evaluation 88
5.1.2.1 Surface Water Ecological Screening Values 88
5.1.2.2 Sediment Ecological Screening Values 89
5.1.2.3 Soil Ecological Screening Values 89
5.1.3 Step 2: Screening-Level Exposure Estimates 90
5.1.4 Step 2: Screening-Level Risk Characterization 90
5.1.5 SLERA Uncertainties Evaluation 90
5.1.6 SLERA Scientific Management Decision Point 91
5.2 Baseline Ecological Risk Assessment 91
5.2.1 Assessment Endpoints 92
5.2.2 Measurement Endpoints 92
5.2.3 Receptors and Exposure Pathways 93
5.2.4 BERA Wildlife Receptors 93
5.2.5 Assessment for Direct Contact Pathways 94
5.2.5.1 Exposure Assessment for Direct Contact Pathways 94
5.2.5.1.1 Consideration for Background Concentrations 95
5.2.5.1.2 Consideration for Central Tendency Concentrations 95
5.2.5.1.3 Frequency of Detects 96
5.2.5.1.4 Essential Nutrients and Electrolytes 96
5.2.5.2 Effects Assessment for Direct Contact Pathways 96
5.2.5.2.1 Surface Water 97
5.2.5.2.2 Sediment 97
5.2.5.2.3 Soil 99
5.2.5.3 Risk Characterization for Direct Contact Pathways 99
5.2.5.3.1 Surface Water 100
5.2.5.3.2 Sediment 100
5.2.5.3.3 Soil 100
5.2.6 Evaluation of Food Web Pathways 101
5.2.6.1 Exposure Assessment for Food Web Pathways 101
5.2.6.2 Effects Assessment for the Food Web Pathways 104
5.2.6.3 Risk Characterization for the Food Web Pathways 105
5.2.7 BERA (Step 3a) Uncertainties Evaluation 106
5.3 Summary and Step 3a BERA Scientific Management Decision Point 106

6. Summary and Conclusions 108
6.1 Human Health Risk Assessment 108
6.2 Ecological Risk Assessment 112

7. References 114

Contents

List of Tables

Table 2-1 Background Metals Summary
Table 4-1 Conceptual Site Model for Potential Human Exposures
Table 4-2a Cumulative Cancer Risks and Noncancer HIs for Soil Background
Table 4-2b Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
Table 4-2c Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
Table 4-2d Refined Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil During Outdoor Activities
Table 4-2e Refined Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil Vapor Intrusion
Table 4-3 Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Groundwater
Table 4-4 Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Sediment
Table 4-5 Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Surface Water
Table 4-6 Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
Table 4-7 Comparison of Groundwater Concentrations to Drinking Water Criteria
Table 4-8a Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers - Upper-Bound Cumulative Cancer Risks and Noncancer HIs
Table 4-8b Uncertainty Analysis – Exposure Factors – Outdoor Workers – Refined Cumulative Cancer Risks and Noncancer HIs
Table 4-9a Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
Table 4-9b Refined Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
Table 5-1 Threatened and Endangered Species
Table 5-2 Surface Water Data Summary
Table 5-3 Sediment Data Summary
Table 5-4 Surface Soil Data Summary
Table 5-5A Surface Water Ecological Screening Values
Table 5-5B Calculation of Hardness-Based Surface Water Ecological Screening Values
Table 5-6 Sediment Ecological Screening Values
Table 5-7 Surface Soil Ecological Screening Values
Table 5-6 Surface Water SLERA Screening
Table 5-7 Sediment SLERA Screening
Table 5-8 Surface Soil SLERA Screening
Table 5-9 Summary of Uncertainties for the SLERA
Table 5-10 Summary of Constituents Retained as COPECs for the BERA
Table 5-11 BERA Surface Water Screening
Table 5-12 BERA Sediment Screening
Table 5-13 BERA Surface Soil Screening
Table 5-14 Sediment Background versus Soil Background
Table 5-15 Calculation of EqP-Based Sediment Criteria
Table 5-16 Location-Specific BERA Sediment Screening
Table 5-17 Media Concentrations for Use in the Food Web Models

Table 5-18 Food Chain Input Variables and Receptor Parameters
Table 5-19 Uptake into Aquatic Invertebrates
Table 5-20 Uptake into Fish
Table 5-21 Uptake into Terrestrial Invertebrates
Table 5-22 Uptake into Prey Mammals
Table 5-23 Uptake Summary
Table 5-24 Calculation of Total Daily Intakes
Table 5-25 Toxicity Reference Values
Table 5-26 PCB Toxicity Reference Values
Table 5-27 Food Web Model Hazard Quotient Calculations
Table 5-28 Food Web Model Hazard Quotient Summary

List of Figures

Figure 1-1 Site Location
Figure 4-1A Soil Sampling Locations and Associated Sub-Areas
Figure 4-1B Locations with Upper-Bound Site-Related Cumulative Cancer Risks Above 10^{-4} or Noncancer HIs Above 1 for Soil (Assuming Industrial/Commercial Land Use)
Figure 4-1C Locations with Upper-Bound Site-Related Cumulative Cancer Risks Above 10-4 and Noncancer HIs Above 1 for Soil (Assuming Residential Land Use)
Figure 4-1D Locations with Refined Site-Related Cumulative Cancer Risks Above 10^{-4} or Noncancer HIs Above 1 for Soil (Assuming Industrial/Commercial Land Use)
Figure 4-1E Locations with Refined Site-Related Cumulative Cancer Risks Above 10^{-4} and Noncancer HIs Above 1 for Soil (Assuming Residential Land Use)
Figure 4-2 Locations with Upper-Bound Cumulative Cancer Risks Above 10^{-4} and Noncancer HIs Above 1 for Groundwater
Figure 4-3 Locations with Upper-Bound Cumulative Cancer Risks Above 10^{-4} and Noncancer HIs Above 1 for Sediment
Figure 4-4 Locations with Upper-Bound Cumulative Cancer Risks Above 10^{-4} and Noncancer HIs Above 1 for Surface Water
Figure 4-5 Locations Where Soil Concentrations Exceed Soil-Migration-to-Groundwater Criteria
Figure 4-6A Locations Where Shallow Groundwater Concentrations Exceed Drinking Water Criteria
Figure 4-6B Locations Where Deep Groundwater Concentrations Exceed Drinking Water Criteria
Figure 4-7 Uncertainty Analysis of Unacceptable Risk (230-BM Mercury)
Figure 4-8 Uncertainty Analysis of Unacceptable Risk (Unacceptable Homegrown Produce Exposure)
Figure 5-1A USEPA Eight-Step Ecological Risk Assessment Process
Figure 5-1B Expanded USEPA Eight-Step Ecological Risk Assessment Process
Figure 5-2 Site Layout
Figure 5-3A National Wetlands Inventory Map (Large Scale)
Figure 5-3B National Wetlands Inventory Map (Smaller Scale)
Figure 5-4 Food Web
Figure 5-5 Conceptual Site Model
Figure 5-6 Hazard Quotients for Two Scenarios

List of Appendices

Appendix A County Zoning and Land Use Plan Information
Appendix B Gainesville Associates Site Redevelopment Plan
Appendix C Database Used to Support Risk Assessment
Appendix D Human Health Risk Assessment Supporting Information and Calculations
Appendix E Ecological Risk Assessment Supporting Information and Calculations
Appendix F General Supporting Information and Figures

Acronyms and Abbreviations

ADD	Average Daily Dose
AhR	Aryl Hydrocarbon Receptor
AOPC	Areas of Potential Concern
ARC	Atlantic Research Corporation
AST	Above Ground Storage Tank
ATSDR	Agency for Toxic Substances and Disease Registry
AUF	Area Use Factor
AWQC	Ambient Water Quality Criteria
BAF	Bioaccumulation Factor
BERA	Baseline Ecological Risk Assessment
BGS	Below Ground Surface
BSAF	Biota-Sediment Accumulation Factor
CAS	Chemical Abstracts Service
CCC	Criterion Continuous Concentration
CHPPM	Center for Health Promotion and Preventive Medicine
CMC	Criterion Maximum Concentration
CMS	Corrective Measures Study
COPECs	Chemicals of Potential Concern
CSM	Conceptual Site Model
DAF	Dilution Attenuation Factor
DCA	Dichloroethane
DCE	Dichloroethene
EC	Exposure Concentration
EqP	Equilibrium Partitioning
ER	Effects Range
ERA	Ecological Risk Assessment
ESB	Equilibrium Partitioning Sediment Benchmarks
ESV	Ecotoxicity Screening Value
FT	Feet (or Foot)
FWS	United States Fish and Wildlife Service
GPD	Gallons per Day
GPM	Gallons per Minute

HI	Noncancer Hazard Index
HMX	Octogen
HQ	Chemical-Specific Noncancer Hazard Quotient
iPAC	Information Planning and Conservation System
IRIS	Integrated Risk Information System
Koc	Organic Carbon-Water Partition Coefficient
LADD	Lifetime Average Daily Dose
LEDDU	Large Explosive Devise Deactivation Unit
LOAEL	Lowest Observable Adverse Effects Level
MCL	Maximum Contaminant Level
MNA	Monitored Natural Attenuation
MtGW	Migration to Groundwater
NOAA	National Oceanic & Atmospheric Administration
NOAEL	No Observed Adverse Effects Level
NWI	National Wetlands Inventory
ORNL	Oak Ridge National Laboratory
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethene
PL	Public Land
PMD	Planned Mixed Use District
PMR	Planned Mixed Residential District
PPRTV	Provisional Peer Reviewed Toxicity Values
PWS	Public Water Supply
QAPP	Quality Assurance Project Plan
R&D	Research and Development
RAGS	Risk Assessment Guidance for Superfund
RCRA	Resource Conservation and Recovery Act
RDX	Cyclonite
RfC	Noncancer Inhalation Reference Concentration
RfD	Noncancer Reference Dose
RFI	RCRA Facility Investigation
RME	Reasonable Maximum Exposure
ROI	Receptors of Interest

RSL	Regional Screening Level
SF	Cancer Slope Factor
SLERA	Screening Level Ecological Risk Assessment
SMDP	Scientific Management Decision Point
SRFI	Supplemental RCRA Facility Investigation
SSL	Soil Screening Level
SVOC	Semi Volatile Organic Chemical
TCA	Trichloroethane
TCDD	Tetrachlorodibenzo-p-dioxin
TCE	Trichloroethene
TDI	Total Daily Intake
TEFs	Toxicity Equivalency Factors
TEQs	Toxicity Equivalency Quotients
TOC	Total Organic Carbon
TPH	Total Petroleum Hydrocarbons
TRV	Toxicity Reference Value
TTF	Thermal Treatment Facility
TTU	Thermal Treatment Unit
UCL	Upper Confidence Limit
UPL	Upper Prediction Limit
URF	Cancer Inhalation Unit Risk Factor
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VADEQ	Virginia Department of Environmental Quality
VaDGIF	Virginia Department of Game and Inland Fisheries
VaFWIS	Virginia Fish and Wildlife Information System
VDCR	Virginia Department of Conservation and Recreation
VOC	Volatile Organic Chemical
WHO	World Health Organization

Executive Summary

This report documents the methodology and results of a baseline human health and ecological risk assessment performed as part of the Supplemental Resource Conservation and Recovery Act (RCRA) Facility Investigation (SRFI) for the Atlantic Research Corporation (ARC) facility located in Gainesville, Virginia (the Site, USEPA RCRA ID No. VAD023741705). The baseline risk assessment evaluates potential human health and ecological risks from releases of hazardous waste and constituents at the areas investigated during the SRFI (Geosyntec 2009) that have not been remediated as part of ARC's interim measures program or previous corrective measures. The potential risks are evaluated under current and reasonably anticipated future land and groundwater uses at and surrounding the Site in the absence of additional remediation.

The purpose of the baseline risk assessment is to determine whether any reasonable maximum exposure, under current and reasonably anticipated future land use and groundwater use at and around the Site, is sufficiently high to warrant further corrective measures (including institutional controls), and if so, to establish remedial action objectives for such corrective measures.

The baseline human health risk assessment evaluated the following potentially exposed populations at and around the Site under current and reasonably expected future land use:

- On-site: routine workers; maintenance workers; construction workers; trespassers; recreators; and residents
- Off-site: residents; routine workers; and maintenance workers

The potential exposures of these receptors were evaluated using site characterization data representative of current and future site conditions, accounting for the removal of soil during the interim measures (IM) performed in accordance with the Soil IM Work Plan (Geosyntec 2012). For all on-site areas, the risk assessment assumed that an institutional control, in the form of a deed restriction prohibiting future potable and nonpotable groundwater use at the Site, will be established as part of corrective measures.

The following summarizes the key results of the human health risk assessment:

1. There are no unacceptable health risks from current exposures to any environmental media at or around the Site.
2. For future exposures to on-site soil, some areas of the Site have soil concentrations that pose an unacceptable risk under a future resident exposure scenario. These areas would warrant corrective measures if they are to be developed in the future for residential use.
3. For future exposures to on-site groundwater, no area of the Site has groundwater concentrations that pose an unacceptable risk to routine workers, trespassers, or recreators. However, some areas of the Site have groundwater concentrations that pose an unacceptable risk to maintenance workers, construction workers, and residents.

These areas would warrant corrective measures if development of the areas involve excavations that extend into groundwater or future residential use.

4. For future exposures to on-site sediment and surface water, no area of the Site has sediment or surface water concentrations that pose an unacceptable risk.

5. For future off-site exposures, there are no unacceptable health risks from exposure to any environmental media except for exposures from potential potable or nonpotable groundwater use.

The baseline ecological risk assessment evaluated the potential for ecological risks using the available soil, sediment, and surface water data, after accounting for removal of soil during the IMs. The evaluation considered the following ecological receptors:

- Sediment-dwelling invertebrates
- Aquatic invertebrates
- Great blue heron, red-tailed hawk, and mink

The baseline ecological risk assessment determined that the concentrations of constituents of potential concern in soil, sediment, and surface water are unlikely to pose a significant ecological risk.

1. Introduction

1.1 Purpose

This report documents the methodology and results of a baseline human health and ecological risk assessment performed as part of the Supplemental Resource Conservation and Recovery Act (RCRA) Facility Investigation (SRFI) for the Atlantic Research Corporation (ARC) facility located in Gainesville, Virginia (the Site, USEPA RCRA ID No. VAD023741705). The baseline risk assessment evaluates potential human health and ecological risks from releases of hazardous waste and constituents at the areas investigated during the SRFI (Geosyntec 2009) that have not been remediated as part of ARC's interim measures program or previous corrective measures. The potential risks are evaluated under current and reasonably anticipated future land and groundwater uses at and surrounding the Site in the absence of additional remediation.

The purpose of the baseline risk assessment is to determine whether any reasonable maximum exposure, under current and reasonably anticipated future land use and groundwater use at and around the Site, is sufficiently high to warrant further corrective measures (including institutional controls), and if so, to establish remedial action objectives for such corrective measures. The baseline risk assessment described in this report is consistent with USEPA human health and ecological risk assessment guidance. The baseline risk assessment described is also consistent with the methodologies and assumptions presented as follows to USEPA Region 3:

- ENVIRON's December 6, 2011 presentation to USEPA Region 3 entitled *RFI Baseline Risk Assessment Plan*;
- The conceptual site model, exposure factors and exposure modeling approach submitted on January 16, 2012 *(*ENVIRON 2012 January*)*; and
- ENVIRON's *Responses to USEPA Comments on the Human Health RA Materials* (ENVIRON 2012 August).

1.2 Report Organization

This report is organized as follows:

- Section 1: Introduction – the remainder of this section provides a brief summary of former operations, the SRFI, and corrective action activities at the Site.
- Section 2: Environmental Setting – this section summarizes the physical setting of the Site and describes the potential for human and ecological exposures.
- Section 3: Data Selection and Preparation – this section discusses the data selected for use in evaluating potential human and ecological exposures.
- Section 4: Human Health Risk Assessment – this section presents the methodology, assumptions, and results of the baseline human health risk assessment.
- Section 5: Ecological Risk Assessment – this section presents the methodology, assumptions, and results of the baseline ecological risk assessment.

- Section 6: Summary and Conclusions – this section summarizes the results of the baseline risk assessment as they pertain to the need for additional corrective measures.
- Section 7: References – this section lists the references cited in this risk assessment.

1.3 Summary of Former Operations and Corrective Action/RFI Activities

1.3.1 Former Operations

The ARC facility was operational from 1951 to 2005. Named the Pine Ridge Facility, it is located at 5945 Wellington Road in Gainesville, Virginia (Figure 1-1). The facility operated primarily as a solid rocket propellant production facility and a rocket motor and gas generator manufacturing and testing facility. Laboratory research, and development and design of propellant and air bag systems were also conducted at the Site.

Early operation of the facility was conducted by Susquehanna Corporation, until ARC became the operator in February 1972. On January 1, 1976, Texas Capital Investments, Inc., the owner of the Site at the time, entered into a lease with ARC to conduct, among other things, research and development and manufacturing operations for the United States Department of Defense. This lease was assigned by Texas Capital Investments, Inc. to Gainesville Associates, a Virginia general partnership, on December 30, 1976. On July 1, 1982, the lease was amended extending the lease term through December 31, 2012. According to documents on file with the Virginia State Corporation Commission, Gainesville Associates, LLC, a Virginia limited liability company, was created on January 6, 2005. Ownership of the Site was transferred from the general partnership to the limited liability company on or about January 7, 2005. Active facility operations were terminated by ARC in August 2004. The facility was subsequently closed and decommissioning of the Site was initiated.

1.3.2 Potentially Significant Releases to the Environment

Releases of various chemical of potential concern occurred via mechanisms related to Site operations, waste handling and spills. Impacts are related to several mechanisms, including: releases due to operations such as propellant mixing and grinding (primarily for perchlorate and RDX); releases during storage and staging (various COPECs); releases from aboveground and underground storage tanks (ASTs and USTs; primarily petroleum hydrocarbons); spills (known to have occurred for chlorinated solvents and PCBs); disposal of waste and debris in various areas of the Site; and waste treatment at several thermal treatment facilities at the Site. Impacted media include soils, groundwater, surface water, and sediment. Constituents detected include PCBs, perchlorate, RDX, and VOCs including PCE, 1,1,1-TCA, 1,1-DCE, and 1,1-DCA. Other constituents that are found with limited distribution and/or coincident with the PCBs, perchlorate, RDX, and VOCs include HMX, SVOCs (polycyclic aromatic hydrocarbons and plasticizers), and metals.

1.3.3 SRFI and Corrective Action Activities

Investigation and corrective action activities have been conducted by ARC at the Site since the late 1970s. This section provides a brief summary of these activities. Additional details can be found in the *Draft Final Supplemental RCRA Facility Investigation Report* (Geosyntec 2009), the *Soil Interim Measures Work Plan* (Geosyntec 2011), and the *Soil Interim Measures Interim Report* (Geosyntec 2012a).

In the late 1970s and early 1980s, ARC completed investigations of soils impacted with hazardous constituents and PCB at various locations throughout the facility Areas of impacted soil and buried waste that were identified during these investigations were removed as part of initial cleanup actions (ARC 1986, GTI 1990a).

In the late 1980s, the wastewater management systems at the Site were identified as potential sources of contamination requiring further assessment and investigation (GTI 1987b), and an investigation was completed under USEPA oversight as part of the RFI (GTI 1990a). This investigation identified several wastewater management systems that were potential sources of volatile organic compounds (VOCs), semi-volatile organic compound (SVOCs), or metals to soil or groundwater. At this time, several of the septic tanks and leach-fields were removed or decommissioned (GTI 1987, GTI 1990a).

In 1986, ARC began investigating VOCs, SVOCs and metals contamination in soil, groundwater, surface water, and sediment (GTI 1987a, GTI 1987b). This investigation led to the completion of a RFI (GTI 1990a), risk assessment (Geraghty and Miller 1990), Corrective Measures Study (CMS) (GTI 1991), interim measures for soil and groundwater (GTI 1990b), and corrective measures for soil and groundwater (GTI 1994), as summarized below.

The scope of the RFI was based on the results of a Plan of Action for Environmental Investigation and Interim Remedial Action conducted by the USEPA and ARC at the Site in 1987. The RFI assessed the sources, nature, extent, fate and transport, and potential impacts of contaminants released at various areas of the Site. The RFI identified buildings and other areas of concern where environmental impacts were likely. These areas were investigated during the RFI and a risk assessment (Geraghty & Miller 1990) was prepared. Based upon the results of the RFI and the risk assessment ARC completed a Corrective Measures Study in 1991 (GTI 1991).

A RCRA *Record of Decision* (ROD) was signed on September 30, 1991, approving the combination of corrective measures in the areas of Building 28 and 40. The approved corrective measures included: 1) excavation and soil shredding with on-site redeposition (VOC removal from the soil); 2) excavation of inorganic contaminated soil for off-site treatment and disposal; 3) pumping and treatment of the contaminated groundwater to address VOCs; and 4) monitoring of streams and the shallow and deep aquifers to evaluate the effectiveness of the soil remediation and the effectiveness in attaining the clean-up standards specified in the *Explanation of Significant Differences* (July 31, 1992) under intrinsic remediation.

In November 1992, the USEPA and ARC entered into a *Corrective Measure Implementation (CMI) Consent Order* governing the implementation of the corrective measures selected in the ROD. Residual chlorobenzene soil contamination, remnant of a previous release (which was addressed as per an October 1998 interim measure work plan), in the vicinity of Building 201 was also addressed as an interim measure.

Corrective measures for soil were completed in January 1994, including:

- The excavation and bioaugmented soil venting to address chlorobenzene contamination in the vicinity of Building 201;

- The excavation and off-site disposal of soil contaminated with metals in the vicinity of Building 28; and
- The excavation and shredding of soil contaminated with VOCs in the vicinity of Buildings 28, 40, and 201.

Corrective measures for groundwater were also conducted and included deep groundwater extraction and treatment (via carbon or air stripping). Shallow groundwater was monitored to evaluate the potential for using monitored natural attenuation (MNA) as a component of the remedy. Corrective measures for surface water included the installation of weirs and rip-rap within the on-site streams to promote VOC volatilization prior to potential migration beyond the Site boundary.

ARC has been implementing the streams and shallow and deep aquifer groundwater monitoring program since April 1994 (shallow wells and streams) and January 1987 (deep wells). In April 1997, ARC submitted two-year monitoring reports that showed that the soil remediation was successful. The reports recommended reducing the frequency of monitoring for the shallow and deep aquifers to annually and to operate the deep ground water remediation system in a pulse pump mode to enhance the reduction of contaminant levels and to expedite attaining ROD remediation goals. On June 5, 1998, USEPA approved the recommendation to modify the monitoring program; the approved modifications included: (1) monitoring select wells on a semi-annual basis, and the other non-pumping wells on an annual basis; and (2) measuring groundwater elevations at all accessible wells on a quarterly basis and pumping wells on bimonthly basis. USEPA also agreed with ARC's proposal to evaluate alternative treatment technologies to enhance the remediation of the shallow aquifer and to reduce the demand on the production wells in an effort to simulate natural attenuation conditions.

On November 8, 1998, ARC submitted a dual phase extraction pilot (DPE) test proposal. ARC proposed to evaluate the effectiveness of the DPE technology for remediating residual VOC contamination in the shallow groundwater in the vicinity of Building 40. Two scenarios were proposed: 1) evaluating treating the groundwater/soil adjacent to the stream (in the vicinity of well SW 40-06), and 2) evaluating treating the core contaminated groundwater area (in the vicinity of well SW40-07). ARC implemented the DPE pilot test from December 1998 through March 1999.

From August 1997 to December 1998, ARC operated the deep well groundwater pump and treatment system in a pulse-pumping mode. In late 1998, ARC began implementing a deep groundwater system shut down test by only operating selected production treatment wells on demand to supply non-contact cooling water for on-site production use. The test was conducted over a six month period.

On September 28, 2001 and December 14, 2001, ARC submitted a notification informing USEPA of the discovery of a perchlorate contaminant plume at the facility. As a result of the discovery of the perchlorate groundwater contamination plume, ARC determined that a supplemental RCRA investigation and interim measures were deemed necessary to evaluate the source and the risks, to delineate the extent of contamination, and to control and treat the

contaminant plume. As a result of this finding, the USEPA required ARC to complete the SRFI. The SRFI activities were completed between 2002 and 2009, and included the following:

- Installation of additional many shallow and deep groundwater monitoring wells to delineate and define the extent of perchlorate, VOCs, SVOCs, PCBs, metals, and nitroaromatics in groundwater;
- Sampling of surface water and sediment for perchlorate, VOCs, SVOCs, metals, nitroaromatics, and PCBs;
- Sampling of soil for PCBs, total petroleum hydrocarbons (TPH), SVOCs, VOCs, perchlorate, nitroaromatics, and metals site-wide, with both unbiased sampling on a regular grid across the entire site combined with biased sampling in areas with higher potential for impacts (e.g., drainage pathways, around buildings, beneath sumps and other wastewater management structures, the TTF, and debris collection areas);
- Sampling of concrete foundations and subslab soil for perchlorate and nitroaromatic impacts related to leaching through foundations;
- Soil gas sampling near multiple buildings and areas of potential concern (AOPCs) where there was potential for VOC impacts based on materials handling and site history;
- Removal of all but one remaining aboveground storage tanks (ASTs) and underground storage tanks (USTs) on-site and sampling of soil as necessary;
- Removal of 18 sumps and the sampling of soil and water within the excavations;
- Identification of surficial debris areas and soil sampling beneath the debris;
- Site-wide geophysical surveying to identify potential burial areas; and
- Test pitting in areas of identified geophysical anomalies and in previously remediated areas that had been used for burial to confirm completeness of debris removal.

The SRFI identified additional areas on the property where soil and/or debris removal was potentially warranted under the CMI Order. As a result, in 2012, ARC began implementing soil interim measures to mitigate potentially significant soil exposure risks.. The rationale, objectives, and approach for the soil interim measures were presented in the *Soil Interim Measures Work Plan* (Geosyntec 2011), which was approved by the USEPA on April 8, 2011. Generally, the objective of these interim measures is to remove soil and buried debris that would pose an unacceptable risk under future commercial/industrial land use at the Site.

Groundwater corrective measures completed to date consist of the construction and operation of the following systems to control and treat VOCs and perchlorate: (1) a recirculation-based *in-situ* bioremediation system in deep groundwater in the northern central portion of the Site; (2) a recirculation-based *in-situ* bioremediation system in the deep groundwater in the south central portion of the Site; and (3) infiltration trenches coupled with passive bioremediation stimulated through either injection of electron donors or amendment of mulch to the trenches for treatment of groundwater prior to discharge to surface water.

2. Environmental Setting

This section describes the environmental setting at the Site, including topography, climate, demographics, land use, hydrology, geology, hydrogeology, surface water/drainage, groundwater use, background soil characterization, and conceptual Site models for human and ecological exposures.

2.1 Site Location and Physiography

The Site is located in the north-central portion of Virginia approximately 35 miles west of Washington, D.C. and 1.5 miles east-southeast of the town of Gainesville in Prince William County (see Figure 1-1). The Site is bordered to the northeast by the Norfolk & Southern Railroad right-of-way, Interstate 66, Route 234, and light industry, to the southwest by Wellington Road (Virginia Road 674), light industry and the Jiffy Lube Live Pavilion (an outdoor amphitheater), to the northwest by light industry, and an asphalt and concrete manufacturing plant, and to the southeast by light industry (Figure 2-1).

2.2 Climate

The National Oceanic & Atmospheric Administration (NOAA) operates a weather monitoring station at Washington Dulles Airport (which is approximately 15 miles from Gainesville, Virginia) where temperature, precipitation, wind direction, and other climatic parameters are measured. The following is a summary of the NOAA climatological data for this station.

Annual precipitation in the area averages 41.8 inches and is evenly distributed throughout 9 months of the year and relatively low during the winter months (December to February). Over the thirty year data period, May is typically the wettest (4.22 inches of precipitation on average), while February is typically the driest (2.77 inches of precipitation on average).

The average annual temperature of the area is 54.2°F. July is typically the warmest month of the year, with an average temperature of 75.7°F; the coldest month is typically January, with an average temperature of 31.7°F.

The average relative humidity is 54% (morning) to 81% (afternoon).

The prevailing wind is from the south, primarily between 5 and 15 miles per hour.

2.3 Demographics

According to the United States Census Bureau, the population of Gainesville in 2010 was 11,481 and increased 162% between 2000 and 2010. Of the 11,481 people, 8% were under the age of 5, 22% were between the ages of 5 and 18, 64.7% were between the ages of 18 and 65, and 5.3% were 65 years or older. The racial makeup of Gainesville in 2010 was 88.77% Caucasian, 6.80% African American, 0.23% Native American, 1.37% Asian, 0.05% Pacific Islander, 1.53% from other races, and 1.26% from two or more races.

2.4 Current and Future On-Site Land Use

The Site comprises 420 acres. The central portion of the Site is improved with several buildings which were formerly used by ARC for administrative/office functions, rocket testing, solid rocket

propellant and rocket motor production, research and development (R&D), and as a RCRA interim permitted thermal treatment facility (TTF) (for energetic waste treatment). The Site is currently inactive; the facility was decommissioned by ARC in 2005. No part of the Site is currently in use for any operational, R&D, storage, or manufacturing functions. At present, two buildings in the former administration area (Bldgs. 150 and 153) are utilized for administration and sample processing by environmental technicians conducting environmental investigation and remediation work at the Site.

According to the Prince William County Zoning map, which was most recently revised on November 22, 2011, the Site is currently zoned as M-1 heavy industrial (see Appendix A, Attachment A-1). The Prince William County Long Range Land Use Map indicates the projected land use plan for the Site is EI – industrial employment (see Appendix A, Attachment A-2). This land use classification allows for manufacturing, industrial parks, truck and auto repair, wholesale/distribution, and warehousing. The Long Range Land Use Map also indicates that the County is considering whether to conduct a study of the Site to determine if it might represent an area which could be designated as a Center of Commerce[1] or a Center of Community[2] in the future. As of the preparation of this baseline risk assessment, the County has not yet decided whether to undertake this potential study.

Gainesville Associates filed a rezoning and special exemption application with Prince William County in January 2008 to rezone the Site from M-1 heavy industrial to a Planned Mixed Residential District (PMR) and Planned Mixed Use District (PMD) in order to accommodate redeveloping the Site into a mixed commercial/residential, transit-oriented community – to be known as Prince William Station (see Appendix B). An integral component of the proposal is the construction of a commuter rail station on the Virginia Railway Express line, which would link the Site with Alexandria, Virginia and Washington, D.C. As presented in Appendix B, the rezoning application indicates the intent to rezone the property into 5 distinct areas (or Landbays). Landbays A (76 acres) and C (64 acres) are proposed for Mixed Use: Business Office and General Business use. Landbays E (114 acres) and D (94 acres) are proposed for Urban Density Residential, High Density Residential, Medium Density Residential, Office Low-Rise, and Secondary Commercial uses. Landbay B is proposed for Mixed Use: Business Office, General Business and Mixed Use: Business Residential uses. Overall, per this application, Landbays B, D, and E have the potential for commercial/industrial or residential land uses while Landbays A and C have the potential for commercial/industrial land use only. As of the preparation of this baseline risk assessment, Prince William County has not issued a ruling on the proposal. As such, it is uncertain whether the Site will be rezoned and/or used for any purpose other than heavy industrial at this time.

Based on the Site's current zoning and the County's Long Range land use plan for the Site, the most likely future use for the Site is commercial/industrial. However, based on the rezoning

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1 Centers of Commerce are defined by Prince William County as planned urban centers where a variety of activities with a regional draw allows people to work, shop, dine, live and enjoy entertainment.

2 Centers of Community are defined by Prince William County as neighborhood centers for residents to live, shop, dine, recreate, and congregate.

application filed by Gainesville Associates and the fact that the County is considering conducting a study of the Site to determine its potential to serve as a Center of Commerce or a Center of Community, it is possible that future land use at portions of the Site could include a mix of commercial, industrial, and/or residential uses. Because of this possibility, this risk assessment includes an evaluation of exposures under the assumption that future land use at the Site could include residential in addition to commercial/industrial uses. The assumptions regarding the portions of the Site which could be changed to residential land use were based upon Land Use Plan submitted to Gainesville Associates with its rezoning application, which generally shows potential residential development in the southern half of the Site and mixed use commercial/business development in the northern half of the Site.

2.5 Current and Future Surrounding Land Use

Gainesville, Virginia is located within a 45-minute drive of Washington, D.C. The Site and town are also adjacent to I-66, a major transportation corridor, and the Manassas Line of the Virginia Railway Express, which provides service between Manassas, Virginia and Washington, D.C.

According to the Prince William County Zoning map, which provides the zoning for the county as of November 2011, zoning in Prince William County includes industrial, business, office, planned areas, residential, and agricultural classifications.

The Site is bordered by University Boulevard to the northwest, Wellington Road to the southwest, Piney Branch Lane to the southeast, and tracks of the Norfolk Southern Railroad to the northeast. Land located beyond these buffer areas surrounding the Site is zoned M-1 heavy industrial, M-2 light industrial, and A-1 agricultural (see Appendix A, Attachment A-1). Areas zoned M-1 and M-2 are present to the northwest, southwest, and southeast of the site, and are improved with auto body shops, a gas station, and industrial facilities. With the exception of I-66 and Route 234, the area northeast of the site is predominately zoned A-1 agricultural, which includes a portion of the Conway Robinson Memorial State Forest. There are also areas within a half mile of the Site currently zoned as planned mixed residential (PMR).

The Prince William County Long Range Land Use Map indicates the projected land use plan for most of the area surrounding the site is EI – industrial employment. This land use classification provides for manufacturing, industrial parks, truck and auto repair, wholesale/distribution, and warehousing. Two small areas northeast of the site are zoned as public land (PL), which indicates areas proposed for planned public facilities, institutions, or other government installations such as detention/correctional facilities, government centers, judicial centers, and related facilities.

2.6 Surface Water Hydrology

The Site lies within the Occoquan Drainage Basin, which is a part of the Potomac River Basin. There are several on-site surface water features, including man-made ponds (previously used for emergency fire supply and for boiler operation), wetlands and streams. Drainage patterns within the Site are shown in Appendix F (see Attachment F-1). The ponds are fed by surface water runoff, streams, and precipitation. Most of the on-site streams reflect a dendritic pattern with principal directions of flow to the south and southeast. The streams converge toward the

southern end of the Site to form Piney Branch Creek, which drains into Broad Run, a stream located approximately three miles south of the Site.

Broad Run is one of the main tributaries into the Occoquan Reservoir, located approximately 15 miles downstream of the Site. The Occoquan Reservoir is a 2,100 acre Fairfax Water Authority impoundment, which forms the boundary between Fairfax and Prince William Counties. Fairfax County Water Authority manages the Occoquan as a water supply impoundment, which serves residents of Fairfax County and the City of Alexandria[3]. The current VPDES permit for discharges from the Site (i.e., Outfalls 001 and 002) identifies the surface water as follows: Stream Basin = Potomac River, Subbasin = Potomac River, Section = 7a, and Stream Class = III. According to 9VAC25-260-390, this water body designation does not have the designation "PWS" (Public Water Supply).

2.7 Regional Geology

As discussed in the SRFI (Geosyntec 2009), the regional geology can be described as a thin layer of unconsolidated sediments overlying bedrock of the Piedmont physiographic province of Virginia. The Site is located within the Culpeper basin within this province. The regional bedrock consists of igneous rocks (basalt and diabase) and sedimentary units incorporated within or thermally metamorphosed along contacts with the diabase. The regional bedrock is Early Jurassic in age, with predominant rock types being basalt, sandstone, siltstone, diabase, hornfels, and granofels. The diabase, which is platy to massive in nature, was magma that intruded into the host sedimentary rocks as dikes, sills and stocks. Randomly oriented, well-developed, widely spaced and subhorizontal joints generally overlain by a thin cover of overburden are characteristic features of the diabase. Thin to thick bedding, with a thin cover of overburden, are characteristic features of the thermally metamorphosed rocks. Regionally, the overburden consists of soil, saprolite (weathered bedrock), colluvial, terrace or lag gravels and alluvial deposits. Average overburden thickness ranges from 3 (overlying metasedimentary bedrock) to 20 feet (overlying diabase bedrock).

2.8 Site Geology

As discussed in the SRFI (Geosyntec 2009), beneath the Site the geology consists of thin, unconsolidated overburden overlying diabase, sedimentary, and metasedimentary bedrock. The overburden consists of fine-grained materials, including sandy-silty clay to sandy silt with clay lenses. Soil types include the Catlett-Sycoline complex, Manassas silt loam, Montalto silty clay loam, Syocline-Kelly complex, Waxpool silt loam and miscellaneous saprolite material (according to the definitions described in the Natural Resources Conservation Service Soil Survey completed for Prince William County). Consistent with saprolite, the overburden is often found to contain large boulders originating from the bedrock. The overburden has been characterized to have moderate to poor drainage, with thickness ranging from 0 to 20 feet below ground surface (ft bgs) with most of the Site underlain by less than 10 feet of overburden (see Appendix F, Attachments F-2 and F-3).

[3] http://www.dgif.virginia.gov/fishing/waterbodies/display.asp?id=97

Four bedrock types have been identified beneath the Site: (1) a diabase intrusion; (2) metamorphosed sedimentary rock in proximity to the diabase; (3) metamorphosed basalt; and (4) sedimentary bedrock (siltstones and sandstones). Beneath most of the Site, the diabase overlies the metasedimentary bedrock. The diabase pinches out and the metasedimentary bedrock outcrops/subcrops in the north-central portion of the Site and dips beneath the diabase to the south and west (see Appendix F, Attachments F-4 and F-5).

As explained in the SRFI (Geosyntec 2009), the upper portion (typically less than 120 ft bgs) of the diabase appears to be fractured, with discrete, water-bearing fractures encountered in many boreholes, with the frequency of fracture encounter decreasing with depth. Below 120 ft, the diabase becomes massive and does not conduct groundwater. The fractures in the diabase appear to be nearly vertical (85° to 90° dip; GTI 1990a). The groundwater yields from the fractured diabase are typically low (typically < 0.5 gallons per minute [gpm], with maximum rates <10 gpm). Dry boreholes installed into the diabase are common.

Conductive fractures are more frequently encountered in the metasedimentary bedrock, with groundwater yields exceeding 150 gpm in some cases. Intersection of high-yielding fractures is infrequent, but appears to occur more often along a nearly north-south corridor ranging from approximately Building 78 to Building 40. Higher capacity wells (i.e., >50 gpm) include DW-13 (>80 gpm), IW-3 (>150 gpm) and IW-4 (>100 gpm). Dry boreholes installed into the metasediment are less common than those in the diabase, but still occur.

Two lineaments (Nelms and Richardson 1990) have been identified at the Site, trending N 50° W and N 12° E (see Appendix F, Attachment F-4). The N 50° W lineament is located cross-strike of the diabase although primarily off-site (to the south), and may provide a preferential groundwater pathway once the groundwater migrates off-site. The N 12° E lineament, which trends along-strike of the diabase through the Site between Building 78 to Building 40, may provide a preferential pathway for groundwater migration in bedrock on-site.

2.9 Site Hydrogeology

Groundwater elevations within the saprolite overburden and upper weathered diabase bedrock exhibit similar trends and behavior, and thus are considered to act as a single groundwater zone. Groundwater in the metasedimentary bedrock is separated from this shallow groundwater zone by the lower massive portion of the diabase bedrock and exhibits distinctly different behavior, including artesian conditions in the southern portion of the Site. Therefore, groundwater encountered in the metasedimentary bedrock is considered to be a separate deep groundwater zone.

2.9.1 Shallow Groundwater

Appendix F, Attachment F-6 shows the locations of shallow groundwater monitoring wells at the Site and provides a potentiometric surface map for the shallow groundwater zone using water level data collected during September 2008.

The shallow groundwater zone potentiometric surface mimics the ground surface topography across the Site. Water elevations within the fractured upper interval of the diabase are similar and show consistent trends to those found in the overburden, suggesting unconfined to semi-

confined behavior and slight downward or upward flow within the shallow groundwater zone. Groundwater in the shallow zone flows predominantly toward the south with the south central portion of the Site representing the main point of discharge off-site. Within the Site there are areas where shallow groundwater discharges to nearby surface water.

As discussed in the SRFI (Geosyntec 2009), the shallow water table is found between about 5 and 15 ft bgs. Typical hydraulic conductivity values for wells screened in the shallow groundwater zone range from 3.1 to 42.5 gpd/ft^2, with an average of 13.3 gpd/ft^2 (Environmental Alliance 2003). This low hydraulic conductivity results in low well yields, typically in the range of <0.1 gpm to <5 gpm. Horizontal hydraulic gradients within the shallow groundwater zone range from 0.006 ft/ft to 0.06 ft/ft near surface water bodies.

2.9.2 Deep Groundwater

Appendix F, Attachment F-7 shows the locations of deep groundwater monitoring wells and extraction and injection wells at the Site that are monitoring competent metasedimentary bedrock beneath the Site. This Attachment provides the groundwater potentiometric surface for the deep groundwater zone with the groundwater extraction and treatment system operating. Appendix F, Attachment F-8 provides the potentiometric surface for the deep groundwater zone with the groundwater extraction and treatment system not operating.

As discussed in the SRFI (Geosyntec 2009), groundwater in bedrock typically migrates downward in the north central portion of the Site where the metasedimentary bedrock outcrops/subcrops, then moves horizontally beneath the diabase. Groundwater flow within the metasedimentary bedrock deep groundwater zone below the diabase is primarily controlled by fractures and is limited by the connectivity of the fracture network. The average transmissivity in the metasedimentary bedrock ranges from 0.17 to 0.32 ft^2/min (Environmental Alliance 2003), with highly variable well yields ranging from <15 gpm to >150 gpm in areas along a north-south transect through Buildings 78 to 40.

When the deep groundwater treatment system is not operating (see Attachment F-8), groundwater migrates in the deep groundwater zone from the area of the primary deep groundwater contamination source (area bounded by Buildings 78, 76, 70 and 107) to the south and west from injection well IW-8. When the system is operating with recirculation at 76 gpm (see Attachment F-7), a groundwater divide to the north of Building 40 and south of IW-20 is created by groundwater extraction from DW-13, indicating capture of deep groundwater migrating from the primary source area. The potentiometric surface outside of the area influenced by the recirculation is relatively flat, indicating limited groundwater flow. Under both recirculation and non-recirculation conditions, groundwater migration off-site from the deep groundwater zone predominantly occurs at the central portion of the southern boundary of the Site.

2.10 Groundwater Use

Groundwater is not currently being used at the Site for any purpose. A public water supply system is available and all new developments in Prince William County are required to connect

to it under existing County ordinances (*Prince William County, Virginia, Code of Ordinances, Section 32-250.74*)[4]. In addition, the property owner intends to supplement the County ordinance on groundwater use restrictions by establishing additional institutional controls, to prohibit all groundwater uses (including nonpotable) at the property, as part of the corrective action for the Site. The potential to use shallow groundwater is also limited since shallow groundwater is not sufficiently permeable to yield economically significant quantities of water to wells (Geosyntec 2009). Given the intention of the property owner, the existing County ordinance, and the limited yield potential of shallow groundwater, on-site potable and nonpotable groundwater exposures are not reasonably expected at the Site in the future.

As discussed in the Final SRFI Report (Geosyntec 2009), deep groundwater is currently being used off-site but only at locations upgradient to the Site. Of the 24 properties bordering the Site, only three are known to have existing wells (formerly used for potable water and/or irrigation).

According to the SRFI, two of these three wells are located upgradient of the Site:

- A groundwater supply well on the SW Rodgers Site located at 5816 Wellington Road (0.2 miles northwest and upgradient of the Site).
- A groundwater supply well, used for potable water supply on a seasonal basis, located at the Manassas Battlefield Park (12521 Lee Hwy, Manassas, VA), approximately 1.25 miles north (and upgradient) of the Site. The average annual usage for this well in 2006 was 32,081 gallons.

According to the SRFI, the third well is located downgradient of the Site but it no longer in use:

- A groundwater supply well is located on the Jiffy Lube Live (formerly Nissan Pavilion) property at the southern portion of the property. This well was historically used to obtain potable water and it was sampled by ARC during the 1989-1990 RFI. At the time, Nissan Pavilion reported that this well was no longer in use.

In summary, future off-site exposure to shallow groundwater via any use is not expected given the limited yield potential. Further, future off-site groundwater exposures via potable use are not reasonably expected given the existing County ordinance. Future off-site exposure to deep groundwater via nonpotable uses would be possible since there is no restriction on the installation of wells in areas off-site or downgradient of the Site. However, as presented in the *Evaluation of the Potential for Off-Site Migration of Contaminants in Groundwater and Surface Water at the Atlantic Research Corporation* (Geosyntec 2011) concluded that off-site migration of COPCs via shallow and deep groundwater is not a concern. The memorandum also concluded that the operation of the groundwater treatment system provides effective hydraulic containment and treatment of COPCs in groundwater. USEPA agreed with these conclusions in a memorandum to the Sequa Corporation dated March 13, 2012 (USEPA 2012a).

[4] http://library.municode.com/index.aspx?clientId=14114

2.11 Background Metals in Soil

As described in Geosyntec's May 2011 *Summary of the Evaluation of the Background Metals Dataset*, a large number of soil samples have been collected and analyzed for metals from undeveloped portions of the Site. The subset of these samples that is believed to characterize background metal concentrations was identified as samples that meet the following criteria:

- No other chemical except metals was detected in soil at the sample location;
- Sample location was not located within 100 feet of buildings or other structures where manufacturing, waste handling, or related activities were historically conducted;
- The sample was not collected from within the extents of geophysical anomalies, surface debris pile locations, wastewater structures, or drainage pathways;
- The sample was located outside the boundaries of all excavation areas (i.e., the TTF); and
- The sample was collected from outside the area of maximum airborne deposition from the Thermal Treatment Units, as defined by gravitational deposition model results represented by the contours shown in Appendix F, Attachment F-9.

In total, 84 locations were found to meet the above criteria. For these 84 locations, the dataset consists of data from 93 samples (not counting duplicate samples). The 84 locations are shown in Appendix F, Attachment F-9.

Table 2-1 summarizes the metals data for each sample in the background dataset and includes summary statistics that characterize the concentration distribution of each metal. Table 2-1 also includes the 95% upper confidence limit (UCL) on the mean and the 99% upper prediction limit (UPL) for each metal, except for bismuth which was not detected in any sample. The 95% UCLs and 99% UPLs were calculated using ProUCL (Version 4.1.00, USEPA 2011) with the Kaplan-Meier method for datasets that include concentrations below detection limits. The 95% UCLs on the mean were calculated as estimates of the background soil metal concentrations to which receptors at the Site would be exposed. As further discussed in Section 4.3, these UCLs are used to estimate the cumulative cancer and noncancer risks associated with background exposures at the Site. These background risks are then used to facilitate the estimation of site-related cumulative cancer and noncancer risks (i.e., risks in excess of background risks) in making determinations regarding whether corrective measures are warranted. The 99% UPLs were calculated as upper estimates of background soil metal concentrations. As further discussed in Section 4.3.3.3, these UPLs were used in the evaluation of the potential for soil to impact groundwater and were used to determine whether measured soil concentrations are greater than background concentrations.

3. Data Selection and Preparation

3.1 Data Selection

The objectives of the SRFI data collection and strategies for determining when additional data collection is warranted were described in the Draft *Final Supplemental RCRA Facility Investigation Report (SRFI Report)* (Geosyntec 2009).

Data available as of February 28, 2012 were considered for use in the risk assessment. All soil, groundwater, surface water, and sediment data collected during the SRFI are evaluated in the baseline risk assessment, except as discussed below.

Soil data from areas that have been or will be excavated are not included in the baseline risk assessment since they do not reflect current or future soil concentrations at the Site. This includes soil data from areas that have been or will be excavated as part of the ongoing interim measures, as discussed in the *Soil Interim Measures Work Plan* (Geosyntec 2011), and soil data from the Thermal Treatment Units (TTU) remediation area.

Composite samples, which include soil from multiple locations, were collected from some areas of the Site. These composite samples were analyzed for perchlorate, nitroaromatics, SVOCs, PCBs and metals. Some of the composite samples had constituent concentrations that required analysis of soil from each of the locations that made up the composite sample. The data from these composite samples are not used in the risk assessment. Instead, the risk assessment uses the data from each of the sampling locations that replaced a composite sample.

Groundwater concentrations at the Site have remained generally stable during the period of SRFI sampling. Therefore, only the two most recent years of data collected from all monitoring wells in each well zone were included in the baseline risk assessment. Additionally, only the two most recent years of data collected at each surface water monitoring location were included in the baseline risk assessment, since these concentrations are considered to be representative of current and future conditions at the Site.

Sediment data collected from areas of the streams that are considered ephemeral, as shown by a dotted line on Attachment F-10 in Appendix F (Geosyntec 2009), are conservatively evaluated as both soil and sediment to account for periods when these areas are wet and dry.

3.2 Data Preparation

Validation of all soil, groundwater, sediment and surface water data used in the risk assessment was performed in accordance with the project Quality Assurance Project Plans (QAPPs), which have been revised to reflect USEPA comments (Environmental Alliance 2002, Geosyntec 2007, Geosyntec 2012). Summaries of the data validation results are provided in the *Addendum to the Draft Final SRFI Report* (Geosyntec 2012b).

In addition, the following procedures were used to prepare the data to support quantitative risk assessment. These procedures, which are based on USEPA guidance on human health risk assessment (USEPA 1989), are as follows:

- Constituent concentrations qualified as not detected (i.e., U or UJ qualified data) during data validation are evaluated as non-detects;
- Constituent concentrations qualified as not usable (i.e., R qualified data) during data validation are not included in the risk assessment;
- Constituent concentrations which were identified as having insufficient QA/QC testing completed during laboratory analysis, or for which these data were not available, are not included in the risk assessment (see Geosyntec 2012);
- Concentrations qualified as estimated (i.e., J qualified data) are included for quantitative assessment;
- Concentrations in duplicate field samples are averaged to obtain a representative concentration for the sample location. When a constituent was detected in only one sample of a duplicate pair, the average of the detected concentration and one half the quantitation limit is used in further calculations;
- The concentrations of 1,3-dichloropropene (total), methylphenol (total), PCBs (total) and xylenes (total) are the sums of the concentrations of the isomers or Aroclors that were detected and half the quantitation limits of the isomers or Aroclors that were not detected in the same sample but were detected in the same matrix at the Site. If no isomer or Aroclor was detected in a sample, the constituent is considered to not be detected in the sample;
- For dioxins, individual dioxin concentrations were summed using the 2005 World Health Organization (WHO) toxicity equivalency factors (TEFs);
- In addition to being sampled and analyzed for Aroclors, groundwater monitoring wells BW TTU-02D, SW 40-51 and SW 5-04 were also sampled and analyzed once for PCB congeners. Since the PCB congener results did not indicate higher PCBs (total) concentrations or congener concentration which would alter the risk assessment conclusions, these congener specific results were not used in the risk assessment;
- Concentrations of metals in soil and sediment that are at or below the site-specific background levels[5], which are summarized on Table 2-1 (and discussed in Section 2.11), are considered to be background and not site-related. Metal concentrations in soil and sediment samples that are in excess of the site-specific background exposure levels (i.e., 95% UCLs on the mean) are considered to be site-related, and are used in the calculation of site-related risks; and
- As a conservative assumption, all concentrations of organic constituents detected in on-site matrices are assumed to be site-related;
- For soil samples that were analyzed for total chromium, the trivalent and/or hexavalent chromium concentrations were estimated from the total chromium data using the following procedures:

[5] These background concentrations represent 95% upper confidence limits (UCLs) on the mean and represent background soil exposure concentrations – the average background soil concentration to which a receptor would be exposed.

- For samples that were analyzed for both hexavalent chromium and total chromium, the trivalent chromium concentration was estimated by subtracting the hexavalent chromium concentration from the total concentration. For these samples, only the hexavalent chromium concentration reported by the laboratory and the estimated trivalent chromium concentration are used in the risk assessment.

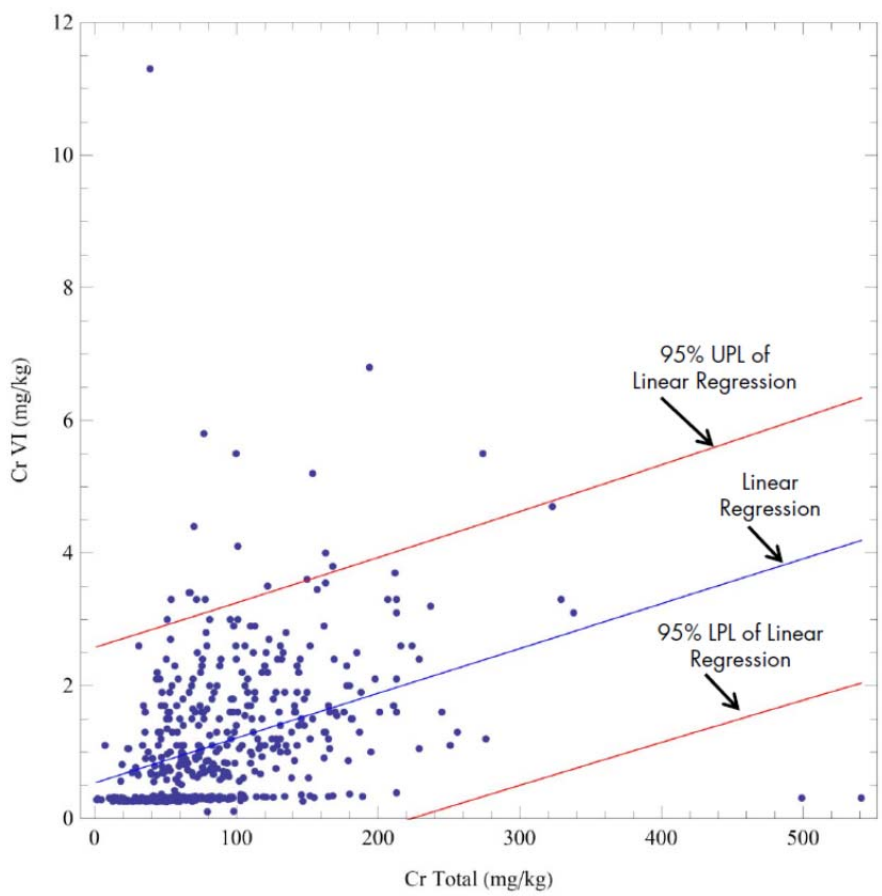
- For soil samples that were analyzed for only total chromium, the hexavalent chromium concentrations were estimated from the total chromium concentrations based on the relationship between total chromium and hexavalent chromium in the soil samples that were analyzed for both types of chromium. This relationship was derived by linear regression of hexavalent chromium concentrations on total chromium concentrations from the soil samples that have both types of data. The regression equation is as follows (see figure below):

$$y = 0.5348 + 0.006755\ x$$

where y is the hexavalent chromium concentration in mg/kg and x is total chromium concentration in mg/kg. To provide conservative (higher) estimates of hexavalent chromium concentrations, hexavalent chromium concentrations were estimated using the 95% upper prediction limit (UPL) on the above regression equation, which is given by the following:

$$y = 0.5348 + 0.006755\ x + 1.965\ (1.0812 - 0.0001035\ x + 5.870E\text{-}07\ x^2)^{0.5}$$

Regression Analysis of Paired Cr VI and Cr (total) Soil Concentrations



The hexavalent chromium concentration for a particular sample was estimated using this equation with the total chromium concentration reported by the laboratory for that sample. The trivalent chromium concentration for that sample was then estimated by subtracting the estimated hexavalent chromium concentration from the total chromium concentration. These estimated trivalent and hexavalent chromium concentrations are used in the risk assessment instead of the total chromium concentration for that sample.

No constituent that was detected in soil, groundwater, sediment or surface water was excluded from the risk assessment, except as discussed above.

4. Human Health Risk Assessment

4.1 Exposure Assessment

The potential exposures that are relevant under current and reasonably expected future land use at and around the Site are discussed in this section. The potentially exposed populations and exposure pathways are discussed below in Section 4.1.1.

For potential exposures via ingestion and dermal contact, as discussed in this section, exposure is quantified in terms of a dose, as follows:

$$Dose = Concentration \cdot Intake$$

The dose for evaluating cancer risk is averaged over a lifetime and is called the lifetime average daily dose (LADD). For evaluating long term (or chronic) noncancer effects, the dose is averaged over the duration of potential exposure and is called the average daily dose (ADD). The concentration term in the dose equation refers to the average chemical concentration in an environmental medium to which a population is exposed over a specified duration. The intake term refers to the intake rate of the contaminated environmental medium, which is a function of the magnitude, frequency, and duration of exposure. The methods for estimating the concentration term are discussed in Sections 4.1.2 and 4.1.3. The exposure factors that are used to quantify the magnitude, frequency, and duration of potential exposures are discussed in Section 4.1.4.

Potential exposures via inhalation are quantified as an average daily concentration in air. The exposure concentration for evaluating cancer risk is averaged over a lifetime. For evaluating chronic noncancer effects, the exposure concentration is averaged over the period of exposure. The methods for estimating the concentration term are discussed in Sections 4.1.2 and 4.1.3.

The environmental setting at and around the Site, including climate, geology, hydrogeology, land cover, surface water bodies, water supply, and groundwater use, is discussed in Section 2 and therefore, is not repeated in this section.

4.1.1 Identification of Potential Human Exposures

4.1.1.1 Potentially Exposed Populations

As discussed in Section 2.4, the Site occupies approximately 420 acres in Gainesville, Virginia. The site is zoned for heavy industry and is currently inactive. Future land use at the Site is expected to remain commercial/industrial, although a rezoning and special exemption application was filed by Gainesville Associates with Prince William County in January 2008. The application requested that the Site be rezoned from M-1 heavy industrial to a Planned Mixed Residential District (PMR) and Planned Mixed Use District (PMD) in order to redevelop the Site into a mixed commercial/residential, transit-oriented community as discussed in Section 2.4.

Based on the available information regarding land use at and surrounding the site, the potentially exposed populations at and in the vicinity of the Site identified under current and reasonably expected future land use are summarized on Table 4-1. Workers comprise the main

receptor population at the Site under both current and reasonably expected future land use. Since rezoning of the property has been proposed, potential exposures to residents and recreators have also been assessed. Under current and reasonably expected future conditions, other populations with potentially significant on-site exposures are maintenance workers, construction workers, and trespassers. The Site is currently surrounded by industrial/commercial properties and mixed use residential properties. The land use for these areas is expected to generally remain unchanged, as discussed in Section 2.5. As such, the largest potentially exposed off-site populations are routine workers, maintenance workers, and residents.

4.1.1.2 Exposure Pathways

The exposure pathways evaluated in the risk assessment for the on- and off-site receptor populations are summarized in the conceptual site model (CSM) presented on Table 4-1.

On-site

On-site receptors evaluated in the risk assessment include routine workers, maintenance workers, construction workers, trespassers, recreators, and residents. The potential exposures to environmental media evaluated for each receptor are discussed below.

Routine Workers

The Site is currently inactive with potential exposures limited to workers involved with site remediation activities, and therefore, outside the scope of this risk assessment. In the future, the primary receptor population at the Site is expected to consist of workers who are engaged in routine commercial and/or industrial activities that generally take place indoors. During limited time outdoors, workers could be exposed to soil in unpaved or uncovered areas. Potential routes of exposure to surface soil would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

These workers also could be exposed via inhalation of constituents from the subsurface soil and shallow groundwater, if constituents were to volatilize and migrate to outdoor air or migrate through cracks in the building foundation into indoor air. In the portions of the Site which are currently paved or will be paved in the future, exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the pavement will prevent any significant vapor migration. If pavement were to be removed, exposure in these areas to vapors which have migrated to outdoor air could be higher. Exposure via inhalation of vapors that could volatilize and migrate into indoor air is also possible where buildings currently exist or could exist in the future.

Exposure of routine workers to groundwater via potable or nonpotable groundwater use is not a current exposure scenario, as on-site groundwater is not currently used as a potable or nonpotable water supply at the Site. Future use of groundwater on the Site for a potable or nonpotable water supply is also not reasonably anticipated as a Prince

William County ordinance requires future developments to connect to the public water supply system[6]. In addition, to supplement this ordinance, it is anticipated that a site-wide environmental covenant prohibiting any future potable and nonpotable groundwater use at the Site will be established as part of the final corrective measures. Although on-site potable and nonpotable groundwater exposures are not reasonably expected, this risk assessment includes a comparison of all on-site groundwater data to drinking water criteria (i.e., Federal MCLs or equivalent drinking water criteria for chemicals without Federal MCLs) to provide a basis for determining the appropriate extent of the supplemental groundwater institutional controls.

Maintenance Workers

While the Site is currently inactive, active subsurface utilities still exist at the Site and may require occasional maintenance. No significant exposure during such activities is expected, however, because the Site's current Health and Safety protocol (Geosyntec 2007) requires workers to take proper precautions and use appropriate PPE to prevent any unacceptable exposures. Potential exposure would be possible during maintenance activities under future use of the Site should similar health and safety controls not be maintained. Maintenance worker exposure involving subsurface activities is expected to be of limited size and duration (e.g., installation or repair of underground utilities, or removal or repair of pavement, etc.). Potential routes of exposure to surface and subsurface soil during such activities would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

Maintenance workers could encounter shallow groundwater during some excavation activities assumed to occur to depths up to 10 feet below the ground surface[7]. Potential routes of exposure to groundwater would include incidental ingestion, dermal contact, and inhalation of vapor.

Maintenance workers could encounter sediment and surface water in on-site ponds and streams during occasional utility maintenance activities (e.g., storm sewer outfall maintenance, etc.). Potential routes of exposure to sediment would include incidental ingestion and dermal contact. Potential routes of exposure to surface water would incidental ingestion, dermal contact, and inhalation of vapor.

Construction Workers

According to the property owner, the site is proposed to be redeveloped in the future. Construction workers engaged in site redevelopment activities could be exposed to surface and subsurface soil in any area of the Site. Potential routes of exposure to surface and subsurface soil during such activities would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

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6 Prince William County, Virginia, Code of Ordinances (Chapter 32-250-.74)

7 Roughly half of the site may have a depth to groundwater that is shallow enough (less than 5 ft to 7 ft) to be encountered by maintenance workers during subsurface maintenance activities such as repairing underground utilities.

Construction workers could encounter shallow groundwater during some excavation activities assumed to occur to depths up to 10 feet below the ground surface[8]. Potential routes of exposure to groundwater would include incidental ingestion, dermal contact, and inhalation of vapor.

Construction workers engaged in site redevelopment could also encounter sediment and surface water in on-site ponds and streams. Potential routes of exposure to sediment would include incidental ingestion and dermal contact. Potential routes of exposure to surface water would include incidental ingestion, dermal contact, and inhalation of vapor.

Trespassers

Currently, the Site is fenced, gated and locked. Security is present on-site several times a week to inspect the site security measures. Trespasser exposure is expected to be limited in duration and extent. In the future, potential trespasser exposure would be possible and potentially more frequently if security measures are not maintained. While on-site, trespassers could be exposed to surface soil in uncovered areas. Potential routes of exposure to surface soil would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates. Trespassers also could be exposed via inhalation of constituents from subsurface soil and shallow groundwater, if the constituents were to volatilize and migrate to outdoor air.

Trespassers could encounter sediment and surface water in on-site ponds and streams. Potential routes of exposure to sediment would include incidental ingestion and dermal contact. Potential routes of exposure to surface water would incidental ingestion, dermal contact, and inhalation of vapor. Trespassers could also be exposed to contaminants in surface water via fish ingestion.

Recreators

The Site is currently inactive and no recreational use is allowed on-site. When the Site is redeveloped, recreators could access the Site and potentially be exposed to soil, groundwater, surface water, and sediment during their limited time on-site. Recreators could be exposed to soil in unpaved or uncovered areas. Potential routes of exposure to surface soil would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

Future recreators could also be exposed via inhalation of constituents from the subsurface soil and shallow groundwater, if constituents were to volatilize and migrate to outdoor air. In the portions of the Site which are currently paved or will be paved in the future, exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the pavement will prevent any significant vapor migration. If pavement were to be removed, exposure in these areas to vapors which have migrated to outdoor air could be higher.

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[8] Roughly half of the site may have a depth to groundwater that is shallow enough (less than 5 ft to 7 ft) to be encountered by construction workers during subsurface construction activities such as the construction of building foundations.

Future recreators could encounter sediment and surface water in on-site ponds and streams. Potential routes of exposure to sediment would include incidental ingestion and dermal contact. Potential routes of exposure to surface water would incidental ingestion, dermal contact, and inhalation of vapor. Recreators could also be exposed to contaminants in surface water via fish ingestion.

Residents

The Site is currently inactive and being decommissioned, and is not zoned for residential use. If the Site were to be redeveloped for residential use in the future, on-site residents are expected to spend the majority of their time indoors. During their limited time outdoors, residents could be exposed to soil in unpaved or uncovered areas. Potential routes of exposure to surface soil would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates. Residents could also be exposed to contaminants in root-zone soil (< 3 ft bgs) via ingestion of homegrown produce.

Future residents also could be exposed via inhalation of constituents from the subsurface soil and shallow groundwater, if constituents were to volatilize and migrate to outdoor air or migrate through cracks in the building foundation into indoor air. In the portions of the Site which are currently paved or will be paved in the future, exposure to constituents via inhalation of vapors that could volatilize and migrate to outdoor air would be significantly reduced since the pavement will prevent any significant vapor migration. If pavement were to be removed, exposure in these areas to vapors which have migrated to outdoor air could be higher. Exposure via inhalation of vapors that could volatilize and migrate into indoor air is possible where buildings currently exist or could exist in the future.

Exposure of future residents to groundwater via potable or nonpotable groundwater use is not a reasonably expected exposure scenario. This is because on-site groundwater is not currently used as a potable or nonpotable water supply at the Site. On-site groundwater will also not be used as a potable or nonpotable water supply at the Site in the future given the County ordinance requiring future developments to connect to the public water supply system and the expectation that a site-wide environmental covenant prohibiting any future potable and nonpotable groundwater use at the Site will be established as part of the final corrective measures remedy. Although on-site potable and nonpotable groundwater exposures are not reasonably expected, this risk assessment includes a comparison of all on-site groundwater data to drinking water criteria (i.e., Federal MCLs or equivalent drinking water criteria for chemicals without Federal MCLs) to provide a basis for determining the appropriate extent of groundwater institutional controls.

Residents could also encounter sediment and surface water in on-site ponds and streams. Potential routes of exposure to sediment would include incidental ingestion and dermal contact. Potential routes of exposure to surface water would incidental ingestion, dermal contact, and inhalation of vapor. Residents could also be exposed to contaminants in surface water via fish ingestion.

Off-site

Off-site receptors evaluated in the risk assessment include routine workers, maintenance workers, and residents. The potential exposures evaluated for each receptor are discussed below.

Routine Workers

Off-site routine workers could be exposed to contaminants in on-site soil and groundwater, if airborne particulates and vapor from on-site soil or airborne vapor from on-site groundwater were to migrate off-site.

Off-site routine workers could be exposed to on-site constituents if on-site groundwater were to migrate off-site (e.g., via vapor intrusion into off-site buildings and/or groundwater use). However, based on USEPA's review of Geosyntec's 2011 *Evaluation of Potential for Off-Site Migration of Contaminants in Groundwater and Surface Water*, USEPA concluded that off-site migration of constituents of potential concern via shallow groundwater or in deep groundwater is not a concern (USEPA 2012a). In addition, USEPA concluded that operation of the Northern Deep Groundwater Treatment System provides effective hydraulic containment and treatment of constituents of potential concern in deep groundwater. Further, exposure of off-site routine workers to groundwater via potable groundwater uses is not expected because groundwater is not a current or reasonably expected future water supply downgradient of the Site, as discussed in Section 2.10. Off-site exposure of routine workers to groundwater via nonpotable groundwater use is not a current exposure scenario and, while unlikely given USEPA's conclusions regarding off-site migration of groundwater contamination (USEPA 2012a), this risk assessment conservatively evaluates off-site nonpotable groundwater exposure as a potential a future exposure scenario since there is no restriction on the installation of wells in areas off-site or downgradient of the Site.

Maintenance Workers

Off-site workers could be exposed to contaminants in on-site soil and groundwater, if airborne particulates and vapor from on-site soil or airborne vapor from on-site groundwater were to migrate off-site.

In the future, off-site workers performing maintenance activities in areas off-site could be exposed to on-site constituents if on-site groundwater were to migrate off-site and these workers encounter shallow groundwater during excavation activities. Potential routes of exposure to off-site shallow groundwater would include incidental ingestion, dermal contact, and inhalation of vapor. As noted above, based upon USEPA's review of Geosyntec's 2011 *Evaluation of Potential for Off-Site Migration of Contaminants in Groundwater and Surface Water*, USEPA concluded that off-site migration of constituents of potential concern via shallow groundwater or in deep groundwater is not a concern (USEPA 2012a). In addition, USEPA concluded that operation of the Northern Deep Groundwater Treatment System provides effective hydraulic containment and treatment of constituents of potential concern in deep groundwater. Given this, while unlikely, this baseline risk assessment conservatively evaluates off-site groundwater contact exposure as a potential future exposure scenario.

Residents

Off-site residents could be exposed to contaminants in on-site soil and groundwater, if airborne particulates and vapor from on-site soil or airborne vapor from on-site groundwater were to migrate off-site.

Off-site residents could be exposed to on-site constituents if on-site groundwater were to migrate off-site (e.g., vapor intrusion into residential building and/or groundwater use). However, based upon USEPA's review of Geosyntec's 2011 *Evaluation of Potential for Off-Site Migration of Contaminants in Groundwater and Surface Water*, USEPA concluded that off-site migration of constituents of potential concern via shallow groundwater or in deep groundwater is not a concern (USEPA 2012a). In addition, USEPA concluded that operation of the Northern Deep Groundwater Treatment System provides effective hydraulic containment and treatment of constituents of potential concern in deep groundwater. Further, exposure of off-site residents to groundwater via potable groundwater uses is not expected because groundwater is not a current or reasonably expected future water supply downgradient of the Site, as discussed in Section 2.10. Off-site exposure of residents to groundwater via nonpotable groundwater use is not a current exposure scenario and, while unlikely given USEPA's conclusions regarding off-site migration of groundwater contamination (USEPA 2012a), this risk assessment conservatively evaluates off-site nonpotable groundwater exposure as a potential future exposure scenario since there is no restriction on the installation of wells in areas off-site or downgradient of the Site.

4.1.2 Exposure Concentrations

Soil Exposure Concentrations

Soil risk estimates were initially calculated for the area characterized by each soil sample location to facilitate the identification of areas that might require remediation to address potentially significant risks. The area around each soil sample location was estimated using a Thessien polygon tessellation (where polygon boundaries are halfway between neighboring sample locations), as shown in Figure 4-1a. To streamline risk calculations, the highest detected concentration for each constituent at each soil sample location from any depth was initially used, except for the homegrown produce consumption scenario. For this latter scenario, the highest detected concentration in root-zone soil (i.e., ≤ 3 ft bgs; Sanders 1997) was initially used, assuming the concentrations do not decrease over time due to plant uptake, volatilization, or leaching. For soil sampling locations without data from within the root zone depth, data from the shallowest sample were used. This initial set of soil concentrations provides upper-bound estimates on the actual exposure concentrations, and as such, the cumulative cancer and noncancer risk estimates calculated using these concentrations are considered upper-bound estimates.

If an upper-bound cumulative cancer or noncancer risk estimate for exposure at a soil sampling location exceeds USEPA risk management limits (i.e., cumulative cancer risk greater than 10^{-4} and/or hazard index (HI) greater than 1), then more representative exposure concentrations were estimated, except for the vapor intrusion and homegrown produce consumption scenarios. The refined exposure concentrations were estimated

by considering the soil data within a square half-acre area around the soil sample location. A half-acre area is sufficiently small for evaluating potential future residential exposures (USEPA 1996), other than vapor intrusion and gardening, and is conservative for commercial/industrial exposures.

For each of these half-acre exposure areas, 95% UCLs on the mean were calculated but for only those constituents that contributed most to the cumulative risk estimates. For the remaining constituents, the maximum concentrations were still used as exposure concentrations. The UCLs were conservatively calculated using the maximum detected concentrations at each sample location within the half-acre area. The calculations were performed using ProUCL (Version 4.1.00) including the application of the Kaplan-Meier method for datasets with non-detects. For this assessment, the recommended values from ProUCL were used for expediency. It is noted that the values for UCLs reported by ProUCL may provide estimates of the mean concentration that are higher than those specified in USEPA guidance[9] resulting in conservative estimates of exposure. The UCLs were then used to estimate the cumulative cancer risk and HI for the half-acre exposure area. Where such refinements were made, the specific refinement for each case and rationale are discussed in Section 4.3.2.

This approach (i.e., refining the exposure concentrations for only the chemicals contributing most to the cumulative risk) is efficient in that it avoids calculations (such as calculating UCLs) that would not materially affect the cumulative cancer risk and/or HI estimates, and is consistent with USEPA guidance (USEPA 1989). This approach is also conservative because it uses the maximum detected concentration, rather than the 95% UCL, for many constituents. The uncertainties associated with using such conservative estimates of exposure concentrations in evaluating the significance of potential exposures is discussed in Section 4.3.5.1.

In evaluating exposure of residents to soil via the ingestion of home grown produce, if the upper-bound media-specific cumulative risk estimate for exposure at a sampling location exceeds USEPA risk management limits (i.e., cumulative cancer risk greater than 10^{-4} and/or hazard index (HI) greater than 1), then the exposure analysis was refined to account for contaminant depletion by leaching and plant uptake over the exposure period per USEPA guidance (USEPA 1989, USEPA 1996, USEPA 2005b).

In evaluating soil vapor intrusion exposures, if the upper-bound media-specific cumulative risk estimate for exposure at a sampling location exceeds USEPA risk management limits (i.e., cumulative cancer risk greater than 10^{-4} and/or hazard index (HI) greater than 1), then the exposure analysis was refined to account for the available contaminant mass in the subsurface (see Section 4.1.3 for more detail). Specifically, the refined soil vapor intrusion calculations were refined to consider a mass balance check

[9] The recommended UCLs from ProUCL are not necessarily 95% UCLs, but may represent up to 99% UCLs, and may assume the data follow a distribution (e.g., normal or lognormal) which could provide more or less conservative estimates of the mean concentration than those specified for risk estimates in USEPA guidance (USEPA 1989).

which ensured that the assumed mass of a constituent infiltrating into the building over the assumed exposure period did not exceed an upper-bound estimate of the constituent's mass in the vadose zone underlying the building.

Groundwater Exposure Concentrations

To assess potential exposures to groundwater under current and reasonably expected future conditions, the highest detected concentration for each constituent among the last two years of data collected from all monitoring wells was used in the risk assessment. Groundwater data from wells that characterize the shallowest most groundwater quality in a given area were used to calculate vapor intrusion risk estimates. Groundwater data from wells which characterize groundwater quality within 15 feet of the ground surface, which is the maximum depth to which workers are reasonably expected to be exposed during subsurface activities (e.g., via excavation)[10], are used to calculate risk estimates for exposures during excavations that encounter groundwater.

In addition, the maximum detected concentrations in unfiltered and filtered water samples (when both are available) are conservatively used to evaluate all exposure routes even though filtered concentrations are more appropriate for calculating risks for the dermal and inhalation exposure routes. The uncertainties associated with the use of such conservative estimates of exposure concentrations in evaluating the significance of potential exposures is discussed in Section 4.3.5.1.

As discussed in more detail in Section 4.3.4, detected groundwater concentrations on-site were used to evaluate potential future off-site receptor exposure to groundwater through potable and nonpotable use. This is a conservative approach since, as discussed in the memorandum *Evaluation of the Potential for Off-Site Migration of Contaminants in Groundwater and Surface Water at the Atlantic Research Corporation* (Geosyntec 2011) submitted to USEPA, it was concluded that off-site migration of COPCs in groundwater is not a concern. The memorandum also concluded that the operation of the Northern Deep Groundwater Treatment System provides effective hydraulic containment and treatment of COPCs in deep groundwater. A list of the COPCs used in this evaluation is presented in the SRFI (Geosyntec 2009). USEPA agreed with these conclusions in a memorandum to the Sequa Corporation dated March 13, 2012 (USEPA 2012a).

Sediment Exposure Concentrations

To assess potential exposures to sediment under current and future conditions, the highest detected concentration for each constituent is used in the risk assessment.

[10] Note that the exposure frequencies assumed for worker contact with groundwater were based upon the fa ct that roughly half of the Site may have a depth to groundwater that is fairly shallow (less than 5 ft to 7 ft). The depth of 15 ft bgs is assumed to be the maximum depth to which workers might excavate during subsurface maintenance activities such as repairing underground utilities or during construction of structures.

Surface Water Exposure Concentrations

To assess potential exposures to surface water under current and future conditions, the highest detected concentration for each constituent among the last two years of data collected from all monitoring locations is used in the risk assessment. Future site redevelopment may result in the elimination or modification of some surface water features on the Site. However, this risk assessment assumes that future sediment and surface water exposures will be no higher than those quantified based upon current conditions.

4.1.3 Fate and Transport Models

The following models are used in the risk assessment to estimate exposure concentrations for the exposure scenarios discussed in Section 4.1.1. These models are used by USEPA and state regulatory agencies for conservative, screening level analysis. The following are brief descriptions of the models. Further details of these models are provided in Appendix D.

Vapor Intrusion into Buildings

Indoor air concentrations from migration of vapors from soil and groundwater into a building are estimated using the model described by Johnson and Ettinger (1991), which USEPA recommends for screening level evaluations (USEPA 2004a). Indoor air concentrations from migration of vapors from soil were initially calculated assuming that contamination exists to an infinite depth. As described in Section 4.1.2 above, if this assumption results in risk estimates above USEPA risk management limits, then the indoor air concentrations were calculated with a mass balance check, as discussed further in Appendix D.

The calculations in this risk assessment conservatively use default building characteristics and generic soil properties recommended by USEPA (2004a) that are representative of the soil types at the Site. To evaluate future exposure in commercial/industrial buildings USEPA's generic residential building parameters are conservatively used, with the exception of the ventilation rate ($Q_{building}$), and the assumed pressure differential, because commercial/industrial buildings typically have higher ventilation rates than residential buildings and lower long-term pressure differentials. Specifically, to evaluate commercial/industrial buildings the human health risk assessment used an indoor air exchange rate of 1 hr^{-1} and a pressure differential of 1 Pa, based on professional judgment.

A discussion of the model and the input parameters used in the assessment is provided in Appendix D.

Vapor Emission from Exposed Water

The model for estimating vapor emissions from exposed water surfaces in excavations is based on mass transfer coefficients recommended in USEPA guidance (USEPA 1995).

A discussion of the model and the input parameters used in the calculation is provided in Appendix D.

Vapor Emission from Exposed Soil

Vapor emissions from exposed soil are estimated using the Jury model (Jury et al. 1983) based on depletion over time assuming conservatively that the soil is contaminated from the ground surface to an infinite depth.

A discussion of the model is provided in Appendix D.

Air Dispersion

Annual average air concentrations are estimated using the empirical correlations presented in USEPA's *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (USEPA 2002), assuming a square source area, and correlation coefficients for the Harrisburg, Pennsylvania meteorological area, which is the area nearest to the Site among the locations with available correlation coefficients. For soil exposures, the source area for routine workers, maintenance workers, and construction workers are conservatively based on 66 acres, the size of the largest former operational area of the site (see Appendix F, Attachment F-11).

For groundwater exposures during excavations to the water table, the source area is based on a 15 ft by 15 ft excavation. The outdoor air concentrations due to vapor emission from the excavation area are estimated using USEPA's SCREEN3 air dispersion model (USEPA 1995). For this scenario, the maximum 1 hour air concentrations are converted to maximum 24 hour average air concentrations using a conservative factor of 0.4 (USEPA 1995).

Dust Emission

Emission of respirable soil particulates (PM_{10}) for routine worker and resident exposures to outdoor soil are calculated using the wind erosion model recommended by USEPA (1996) with USEPA default soil parameters, and wind speed and anemometer height from the nearest weather station which is located at Washington Dulles Airport, Sterling, Virginia (NOAA 2010).

The air concentration of respirable soil particulates during maintenance activities is conservatively set at 50 micrograms per cubic meter ($\mu g/m^3$). The PM_{10} level of 50 ug/m^3 is based on a time-weighted average assuming maintenance workers spend 1/3 of their exposure period excavating into the subsurface and 2/3 of their exposure period conducting maintenance activities that do not involve excavation into the subsurface. In calculating the time-weighted average, the 24-hour average NAAQS for PM_{10} of 150 ug/m^3 was used as the PM_{10} concentration during excavations and a PM_{10} concentration of 1 ug/m^3 was used for the time during maintenance activities that do not involve excavation. The PM_{10} concentration during non-excavation maintenance activities is expected to be less than 1 ug/m^3, based on the wind erosion model recommended by USEPA (1996) using site specific wind speed from Washington Dulles Airport (NOAA 2010).

The PM_{10} level for construction activities is set at 50 ug/m^3, which is the former annual average NAAQS for PM_{10}, since construction workers are assumed to be performing

excavations for a work year. It is conservatively assumed that the PM_{10} concentration would be at this limit every day for the entire period of construction worker exposure.

Residential Garden Vegetable Uptake

The uptake of soil contamination by homegrown produce is estimated using the methods outlined in the *Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities* (USEPA 2005b). The uptake of soil contamination by homegrown produce is calculated assuming that the entire root zone is contaminated and soil concentrations do not deplete. As discussed in Appendix D9, the estimate of contaminant uptake was refined for certain constituents to account for depletion over time using the Jury model (Jury et al. 1983). A discussion of the model and the input parameters used in the assessment is provided in Appendix D.

Uncertainties inherent in the models and the conservative assumptions that are used in this risk assessment to address such uncertainties (particularly the estimation of exposure concentrations) are discussed in Section 4.3.5.

4.1.4 Exposure Factors

The exposure factors for evaluating the exposure scenarios summarized in the CSM for potential human exposure (see Table 4-1) and discussed in Section 4.1.1 are discussed in this section. A table of these exposure factors is presented in Appendix D. In this risk assessment, standard default exposure factors recommended by USEPA for estimating RME are used where available and appropriate. Where standard default exposure factors are not available or appropriate for an exposure scenario, the evaluation is conducted using similarly conservative exposure factors that are based on site-specific considerations and professional judgment.

4.1.4.1 Routine Workers

In this risk assessment, potential exposure of routine workers to soil and groundwater is conservatively evaluated using the standard default exposure factors that USEPA (1991a) recommends for estimating RME. According to USEPA, the standard default exposure factors are conservative assumptions about the magnitude, frequency, and duration of exposures, which, in combination, are intended to provide estimates of exposures that are higher than actual exposures to a large portion (90% to 99%) of a potentially exposed population.

Soil Ingestion Rate

The soil ingestion rate of 50 mg/day is USEPA's standard default value for evaluating RME in commercial/industrial settings (USEPA 1991a).

Soil Dermal Contact Rate and Absorption

The dermal contact rate is the product of the exposed skin surface area and the soil-to-skin adherence factor. The exposed skin surface area of 3,300 cm^2/day and the soil-to-skin adherence factor of 0.2 mg/cm^2 are USEPA's recommended values for evaluating RME in commercial/industrial settings (USEPA 2004b). The exposed skin surface area is based on the 50th percentile area of the head, hands, and forearms. The soil-to-skin adherence factor is based on the 50th percentile weighted soil-to-skin adherence factor for utility workers, which EPA has determined to be a high-end contact activity in

commercial/industrial settings (USEPA 2004b). The absorbed dose from dermal contact with soil is estimated by multiplying the dermal contact rate by USEPA-recommended absorption factors for absorption from soil (USEPA 2004b).

Soil PM_{10}/Vapor and Groundwater Vapor Exposure Time

Routine workers are assumed to be at the site and inhale vapors and particulates from site-related sources for 8 hours per day, the USEPA recommended value for full-time workers (USEPA 2009b).

Exposure Frequency and Duration

The exposure frequency of 250 days/year is USEPA's standard default value for evaluating RME in commercial/industrial settings (USEPA 1991a). It is based on a 5-day work week and 50 weeks per year. The exposure duration of 25 years is EPA's standard default value for evaluating RME in commercial/industrial settings (USEPA 1991a). It is the 95th percentile job tenure of workers in manufacturing. This combination of exposure frequency and exposure duration is expected to be conservative for the amount of time that workers are actually exposed to soil during outdoor activities, as routine workers spend the majority of their time indoors. USEPA has recommended the use of these values for evaluating high-end routine worker exposures (USEPA 1991a).

Body Weight

The body weight of 70 kg is EPA's standard value for assessing exposure of adults (USEPA 1991a).

Averaging Time

The averaging time for evaluating cancer risk is equal to a lifetime of 70 years, and the averaging time for evaluating noncancer risk is equal to the exposure duration (USEPA 1989).

4.1.4.2 Maintenance Workers

The exposure factors used for evaluating potential exposure of maintenance workers to soil, groundwater, sediment and surface water are as follows:

Soil Ingestion Rate

The ingestion rate of 100 mg/day is based on professional judgment regarding the mix of soil contact activities. The value assumes 1/3 of the activities will be similar to those of construction workers (with soil ingestion rate of 200 mg/day) and 2/3 of the activities will be similar to those of routine workers (with soil ingestion rate of 50 mg/day).

Soil and Sediment Dermal Contact Rate and Absorption

The dermal contact rate is the product of the exposed skin surface area and soil-to-skin adherence factor. The exposed skin surface area of 3,300 cm^2/day and the soil-to-skin adherence factor of 0.2 mg/cm^2 are USEPA's recommended values for evaluating RME in commercial/industrial settings (USEPA 2004b). The exposed skin surface area is

based on the 50th percentile area of the head, hands, and forearms. The soil-to-skin adherence factor is based on the 50th percentile weighted soil-to-skin adherence factor for utility workers, which EPA has determined to be a high-end contact activity, and is higher than or equal to the 50th percentile weighted soil-to-skin adherence factor for grounds keepers, landscapers, irrigation installers, gardeners, construction workers, and heavy equipment operators (USEPA 2004b, Exhibit 3-3).

Soil Exposure Frequency

The exposure frequency of 80 days/year is based on professional judgment regarding the number of days per year of maintenance activities involving soil contact. It is the number of work days in 16 weeks (4 months) of such activities.

Groundwater and Surface Water Ingestion

The incidental groundwater ingestion rate is the product of the hourly ingestion rate and exposure time. The ingestion rate of 0.005 L/hour is 1/10 of EPA's recommended value for incidental ingestion while swimming (USEPA 1989) and represents a very conservative estimate of incidental groundwater ingestion that could occur while workers are in an excavation pit. The exposure time of 2 hours/day for contact with groundwater or surface water during maintenance activities is based on professional judgment.

Groundwater and Surface Water Dermal Contact

The exposed skin surface area of 3,300 cm^2 is based on the USEPA-recommended exposed skin surface area for evaluating high-end contact with soil by workers in industrial settings (USEPA 2004b). Workers are conservatively assumed to be covered with groundwater over this exposed skin surface area for 2 hours per event. Chemical-specific permeability coefficient (K_p) for dermal absorption from groundwater are estimated following USEPA guidance (USEPA 1992a, USEPA 2004b).

Groundwater Exposure Frequency

The exposure frequency of 40 days/year assumes that 50% of the construction work (80 days/year) involves excavations that encounter groundwater, based on professional judgment.

Soil PM_{10}/Vapor and Groundwater Vapor Inhalation Exposure Time

Maintenance workers are assumed to be at the site and inhale vapors and particulates from soil and vapors from groundwater for 8 hours per day, the USEPA recommended value for full-time workers (USEPA 2009b).

Sediment Ingestion Rate

The ingestion rate of 50 mg/day is 50% of the soil ingestion rate assumed for maintenance workers (see above), based on professional judgment that simultaneous contact with surface water in this scenario would tend to wash sediment off hands and thereby reduce incidental sediment ingestion during hand-to-mouth contact.

Sediment and Surface Water Exposure Frequency

The exposure frequency of 50 days/year is based on 1 day/week of maintenance activities involving surface water contact for 50 weeks/year, based on professional judgment.

Surface Water Vapor Inhalation Exposure Time

The exposure time assumes 2 hours/day is spent performing maintenance activities at surface water bodies, based on professional judgment.

Exposure Duration

The exposure duration of 10 years is between the 90th percentile and 95th percentile job tenure of workers in construction (Burmaster 2000). Burmaster (2000) showed that the 90th and 95th percentiles are 7.7 years and 12.5 years, respectively. He used the same data to confirm that the 95th percentile job tenure for manufacturing workers match USEPA's industrial worker ED of 25 years (USEPA 1991a).

Body Weight

The BW of 70 kg is USEPA's standard value for assessing exposure of adults (USEPA 1991a).

Averaging Time

The averaging time for evaluating cancer risk is equal to a lifetime of 70 years, and the averaging time for evaluating noncancer risk is equal to the exposure duration (USEPA 1989).

4.1.4.3 Construction Workers

The exposure factors used for evaluating potential exposure of construction workers to soil and groundwater during excavations associated with redevelopment construction activities are as follows:

Soil Ingestion Rate

The ingestion rate of 200 mg/day is the 90th percentile from the adult soil ingestion study published by Stanek et al. (1997). It is more appropriate than the 95th percentile (330 mg/day) from the same study because in a study of only 10 adults, the 95th percentile is at or beyond the highest observed ingestion rate, and as such, has far more uncertainty than the 90th percentile. Using the 90th percentile is also consistent with EPA guidance on selecting exposure factors for estimating the RME. Since the 330 mg/day ingestion rate is based on very limited data that might not be appropriate for representing actual exposure, risk estimates for construction worker exposure to soil calculated using the higher ingestion rate are included in the uncertainty analysis.

Soil Dermal Contact Rate and Absorption

The dermal contact rate is the product of exposed skin surface area and soil-to-skin adherence factor. The exposed skin surface area of 3,300 cm^2/day and the soil-to-skin adherence factor of 0.2 mg/cm^2 are EPA's recommended values for evaluating RME in

commercial/industrial settings (USEPA 2004b). The exposed skin surface area is based on the 50th percentile area of the head, hands, and forearms. The soil-to-skin adherence factor is based on the 50th percentile weighted soil-to-skin adherence factor for utility workers, which USEPA has determined to be a high-end contact activity, and is higher than or equal to the 50th percentile weighted soil-to-skin adherence factor for grounds keepers, landscapers, irrigation installers, gardeners, construction workers, and heavy equipment operators (USEPA 2004b, Exhibit 3-3).

Soil Exposure Frequency

The exposure frequency of 250 days/year is based on professional judgment regarding the number of days of soil excavation or other high-intensity soil contact activities. This exposure frequency is expected to be conservative for the amount of time that workers are actually exposed to soil in excavations or during other high-intensity soil contact activities (as opposed to the total time for construction, which typically includes time not associated with high-intensity soil contact activities). It is based on a 5-day work week and 50 weeks per year.

Groundwater Ingestion

The incidental groundwater ingestion rate is the product of the hourly ingestion rate and exposure time. The ingestion rate of 0.005 L/hour is 1/10 of USEPA's recommended value for incidental ingestion while swimming (USEPA 1989). The exposure time of 2 hours/day is the time in contact with groundwater during construction activities, based on professional judgment.

Groundwater Dermal Contact

The exposed skin surface area of 3,300 cm^2 is based on the 50th percentile area of the head, hands, and forearms (USEPA 2004b). Workers are conservatively assumed to be covered with groundwater over this exposed skin surface area for 2 hours/event. Chemical-specific permeability coefficient (K_p) for dermal absorption from groundwater are estimated following USEPA guidance (USEPA 1992a, USEPA 2004b).

Groundwater Exposure Frequency

The exposure frequency of 125 days/year assumes that 50% of the construction work (250 days/year) involves excavations that encounter groundwater, based on professional judgment.

Exposure Time

Construction workers are assumed to be at the site and inhale vapors and particulates from site-related sources for 8 hours per day, the USEPA recommended value for full-time workers (USEPA 2009b).

Exposure Duration

The exposure duration of 1 year is based on professional judgment regarding the duration of site redevelopment activities.

Body Weight

The BW of 70 kg is EPA's standard value for assessing exposure of adults (USEPA 1991a).

Averaging Time

The averaging time for evaluating cancer risk is equal to a lifetime of 70 years, and the averaging time for evaluating noncancer risk is equal to the exposure duration (USEPA 1989).

Construction worker exposure to sediment and surface water is expected to be equal to or less than that of maintenance workers since construction workers are assumed to be exposed to sediment and surface water for the same exposure frequency and shorter duration as than a maintenance worker.

4.1.4.4 Trespassers

Exposure factors for trespassers are discussed below to show that a trespasser's exposures to soil and groundwater are expected to be lower than a routine worker's exposures, which are discussed in Section 4.1.4.1, and therefore, quantitative evaluation of a trespasser's exposures is unnecessary. The following exposure factors for a trespasser are conservatively assumed to be equal to those of an adolescent age 6 to 16 years old.

Soil Ingestion Rate

A soil ingestion rate of 100 mg/day is used for adolescent trespassers. USEPA has recommended the use of this value for evaluating high-end exposures of adolescent and adult residents to soil (USEPA 1991a).

Soil Dermal Contact Rate and Absorption

The exposed skin area of 4,140 cm^2/day is based on the 50th percentile male and female areas of forearms, lower legs, hands and head for ages 6 to 16. The soil-to-skin adherence factor of 0.2 mg/cm^2 is the value recommended by USEPA for evaluating high-end exposures of child and adolescent residents to soil (USEPA 2004b). The absorbed dose from dermal contact with soil is estimated by multiplying the dermal contact rate by USEPA-recommended absorption factors for absorption from soil (USEPA 2004b).

Exposure Time

Trespassers are assumed to be at the Site and inhale vapors and particulates from site-related sources for 2 hours per day while trespassing.

Exposure Frequency and Duration

The exposure frequency of 32 days/year for contact with soil is based on a conservative assumption that trespassers visit the Site 2 days/weeks for the four months of the year when the temperature is above 65 degrees F in Sterling, Virginia (which is the nearest city to Gainesville, Virginia with an extensive data record). The exposure duration of 10 years is based on the assumed age range of the trespassers.

Body Weight

The body weight of 39 kg is the mean body weight of 6 to 16 year olds (USEPA 1997a).

Averaging Time

The averaging time for evaluating cancer risk is equal to a lifetime of 70 years, and the averaging time for evaluating noncancer risk is equal to the exposure duration (USEPA 1989).

These exposure factors are included in Appendix D to allow comparison with the exposure factors for routine workers that are discussed in Section 4.1.4.1. A review of Attachment D1 of Appendix D shows that the intakes for a trespasser's exposure to soil and groundwater are lower than those for the routine worker being evaluated in the risk assessment. Therefore, a quantitative evaluation of a trespasser's exposures to soil and groundwater is not necessary and is not included. The appropriateness of this approach is discussed in Appendix D.

Trespasser exposure to sediment and surface water, including fish ingestion, is expected to be equal to or less than that of on-site recreators since recreators are assumed to be the same age range (6 to 16 years old). Trespassers are assumed to be exposed to sediment and surface water for the same exposure frequency and duration as recreators.

4.1.4.5 Recreators

The exposure factors used for evaluating potential exposure of recreators to soil, groundwater, sediment and surface water, including fish ingestion, are presented below. For surface water and sediment, exposure factors are used to evaluate exposures for a high intensity scenario (e.g. swimming during summer months) and for a low intensity scenario (e.g. fishing during spring and fall). Exposure factors for recreator exposure to groundwater via inhalation of vapors that volatilize and migrate into outdoor air are discussed below to show that recreator exposure to groundwater are expected to be lower than a resident's exposure as discussed in Section 4.1.4.6. Therefore, quantitative evaluation of a recreator's exposure to groundwater is unnecessary.

Soil and Sediment Ingestion Rate

The ingestion rate of 50 mg/day is 50% of the USEPA's standard default soil ingestion rate for adult residents (USEPA 1991a), based on professional judgment that simultaneous contact with surface water in this scenario would tend to wash sediment off hands and thereby reduce incidental sediment ingestion during hand-to-mouth contact.

Soil and Sediment Dermal Contact Rate

For the high intensity recreator, the exposed skin surface area of 5,050 cm^2/day is based on the 50th percentile male and female areas of the head, hands, forearms, lower legs, and feet for ages 6 to 16 (USEPA 1997a).

For the low intensity recreator, the exposed skin surface area of 4,190 cm^2/day is based on the 50th percentile male and female areas of the face, hands, forearms lower legs and feet for ages 6 to 16 (USEPA 1997a).

The soil-to-skin adherence factor of 0.2 mg/cm^2 is the same as that for adult and child residents (USEPA 2004b).

Surface Water Ingestion

For the high intensity recreators, the incidental surface water ingestion rate is the product of the hourly ingestion rate and exposure time. The ingestion rate of 0.05 L/hr is EPA's recommended value for incidental ingestion while swimming (USEPA 1989). The exposure time of 2 hours/day for swimming is based on professional judgment.

For low intensity recreators, the ingestion rate of 0.005 L/hr is 1/10 of EPA's recommended value for incidental ingestion while swimming (USEPA 1989). The exposure time of 4 hours/day assumes half the day at the site involves wading and/or fishing, based on professional judgment.

Surface Water Dermal Contact

For high intensity recreators, the exposed skin surface area of 12,300 cm^2 is the 50th percentile male and female total body area for ages 6 to 16 (USEPA 1997a).

For the low intensity recreator, the exposed skin surface area of 4,190 cm^2 is based on the 50th percentile male and female areas of the face, hands, forearms lower legs and feet for ages 6 to 16 (USEPA 1997a).

Chemical-specific permeability coefficient (K_p) for dermal absorption from surface water are estimated following USEPA guidance (USEPA 1992a, USEPA 2004b).

Groundwater and Surface Water Vapor Inhalation Exposure and Event Time

For high intensity recreators, the exposure and event time assumes 2 hours/day is spent at surface water bodies, based on professional judgment.

For low intensity recreators, the exposure and event time of 4 hours/day assumes half the day is spent at the site wading and/or fishing, based on professional judgment.

Exposure Frequency

For the high intensity recreator, the exposure frequency of 26 days/year is based on 2 days/week of swimming during the 92 days in June to August (the months when the air temperature is at least 70°F (NOAA 2010, using data for Washington Dulles Airport, Washington, D.C.), based on professional judgment.

For the low intensity recreator, the exposure frequency of 26 days/year is based on time spent wading and/or fishing in the spring and fall, based on professional judgment.

Exposure Duration

The exposure duration of 10 years is the number of years from age 6 to age 16.

Body weight

The body weight of 39 kg is the mean body weight of 6 to 16 year olds (USEPA 1997a).

Averaging Time

The averaging time for evaluating cancer risk is equal to a lifetime of 70 years, and the averaging time for evaluating noncancer risk is equal to the exposure duration (USEPA 1989).

Fish Ingestion Rate

The ingestion rate of 0.0175 kg/day is the value USEPA uses in developing ambient water quality criteria (USEPA 2000b) for the general adult population and sport anglers. This is an annualized rate for ingestion of fish from all sources, which must be used with an exposure frequency of 365 days/year. The annual fish ingestion rate is approximately 6.4 kg (14 lbs) per person. This ingestion rate is essentially the same as the 95th percentile value of 0.018 kg/day for recreational freshwater anglers based on the median values from the three populations surveyed in the key studies discussed in USEPA's *Exposure Factors Handbook* (1997a).

Fraction of Fish Ingested from Site

The fraction of fish ingested from the Site is assumed to be 0.5 (or 3.2 kg/year per person), based on professional judgment considering the size of the ponds at the Site relative to off-site surface water bodies in the vicinity of the Site and the expectation that recreational users are likely to catch at least half of their fish from off-site surface water bodies.

4.1.4.6 Residents

Residents could be present at the Site in the future if residences were to be included in the future redevelopment of the Site.

Soil Ingestion Rate

The soil ingestion rates of 200 and 100 mg/day are USEPA's standard default value for evaluating RME in residential settings for children and adults, respectively (USEPA 1991a).

Soil Dermal Contact Rate and Absorption

The dermal contact rate is the product of the exposed skin surface area and the soil-to-skin adherence factor. The exposed skin surface area of 2,800 and 5,700 cm^2/day and soil-to-skin adherence factor of 0.2 and 0.07 mg/cm^2 are the USEPA's recommended values for evaluating high-end contact with soil by children and adults, respectively (USEPA 2004b).

Homegrown Produce Ingestion Rate

The homegrown produce ingestion rates of 0.0044 and 0.01 kg dry weight/day are the 50th percentiles for consumption of homegrown vegetables by children and adults, respectively (USEPA 1997a). These ingestion rates can be further supported when considering ingestion rates that can be derived for children and adults based on a mass balance approach in which the amount of produce consumed by a family equals the

amount of produce grown by the family – specifically 0.0053 and 0.0107 kg dry weight/day, respectively. The mass balance derivation is presented in Appendix D.

Exposure Time

Residents are assumed to be at home and inhale vapors and particulates for 24 hours per day, which is a conservative estimate.

Exposure Frequency

The exposure frequency of 350 days/year is EPA's standard default value for evaluating RME in residential settings (USEPA 1991a). It is based on 7 days/week for 50 weeks/year.

Exposure Duration

The exposure duration of 30 years is EPA's standard default value for evaluating RME in residential settings (USEPA 1991a). It is the 90th percentile for time spent at one residence.

Averaging Time

The averaging time for evaluating cancer risk is equal to a lifetime of 70 years, and the averaging time for evaluating noncancer risk is equal to the exposure duration (USEPA 1989).

Residential exposure to sediment and surface water is expected to be equal to or less than that of recreators since residents are assumed to be exposed to sediment and surface water for the same exposure frequency and duration as recreators.

4.1.4.7 Off-Site Receptors

Exposure of off-site receptors (i.e., routine workers, maintenance workers, and residents) to contaminants in on-site soil, assuming airborne particulates and vapor from on-site soil were to migrate off-site, was conservatively assessed by using on-site residential inhalation exposure to on-site soil. The exposure of any off-site receptor to on-site soil via inhalation is expected to be equal to or lower than that of an on-site resident. Therefore, the quantitative evaluation of off-site receptor exposures to on-site soil is unnecessary.

As noted above, based upon USEPA's review of Geosyntec's 2011 *Evaluation of Potential for Off-Site Migration of Contaminants in Groundwater and Surface Water*, USEPA concluded that off-site migration of constituents of potential concern via shallow groundwater or in deep groundwater is not a concern (USEPA 2012a). Given this, while unlikely, this baseline risk assessment conservatively evaluates a number of off-site groundwater exposure scenarios as potential hypothetical future exposure scenarios:

- Future, off-site routine worker exposure to constituents in on-site groundwater that could potentially migrate off-site in the future, volatilize and subsequently migrate into indoor or outdoor air was conservatively assessed by using on-site routine worker exposure to groundwater. Off-site routine worker exposure to off-site groundwater concentrations is expected to be lower than on-site routine worker exposure to on-site groundwater.

Therefore, the quantitative evaluation of off-site routine worker exposures to groundwater is unnecessary.

- Future off-site maintenance worker exposure to constituents in on-site groundwater that could potentially migrate off-site in the future was conservatively assessed by using on-site maintenance worker exposure to groundwater. Off-site maintenance worker exposure to off-site groundwater is expected to be lower than on-site maintenance worker exposure to on-site groundwater. Therefore, quantitative evaluation of off-site maintenance worker exposures to groundwater is unnecessary. Off-site maintenance worker exposure to constituents in on-site sediment and surface water that could migrate off-site in the future was assessed using on-site maintenance worker exposure to on-site sediment and surface water. Off-site maintenance worker exposure to off-site sediment and surface water is expected to be lower than on-site maintenance worker exposure to on-site sediment and surface water. Therefore, the quantitative evaluation of off-site maintenance worker exposures to sediment and surface water is unnecessary.

- Finally, future off-site residential exposure to constituents in on-site groundwater that could migrate off-site in the future, volatilize and subsequently migrate into indoor or outdoor air was assessed using on-site residential exposure to groundwater. Off-site residential exposure to off-site groundwater is expected to be lower than on-site residential exposure to on-site groundwater. Therefore, the quantitative evaluation of off-site residential exposures to groundwater is unnecessary.

4.2 Toxicity Assessment

A toxicity assessment identifies potential adverse health effects that are associated with exposure to chemicals, and determines the dose response relationship between exposure and the occurrence of adverse effects. The toxicity values used in this risk assessment were compiled from USEPA's hierarchy of sources (USEPA 2003a), as follows:

1. Integrated Risk Information System (IRIS);
2. Provisional Peer Reviewed Toxicity Values (PPRTV); and
3. Other Toxicity Values.

When a toxicity value was not available from the first two tiers of the hierarchy, other USEPA and non-USEPA sources (e.g., Agency for Toxic Substances and Disease Registry (ATSDR)) of toxicity values were consulted. The toxicity values used in the risk assessment and their sources are summarized in Appendix D and are discussed below. The toxicity values used in this risk assessment are current as of March 2012.

4.2.1 Cancer Toxicity Values

For chemicals that USEPA assessed prior to the 2005 *Guidelines for Carcinogen Risk Assessment* (USEPA 2005a), USEPA considers chemicals belonging to the following cancer weight of evidence groups as human carcinogens:

- <u>Group A - Known Human Carcinogen</u>: Sufficient evidence of carcinogenicity in humans;

- Group B1 - Probable Human Carcinogen: Limited evidence of carcinogenicity in humans;
- Group B2 - Probable Human Carcinogen: Sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans; and
- Group C - Possible Human Carcinogen: Limited evidence of carcinogenicity in animals and inadequate or lack of evidence in humans.

For chemicals that USEPA assessed after the 2005 *Guidelines for Carcinogen Risk Assessment* (USEPA 2005a), USEPA uses the following cancer weight of evidence groups:

- Carcinogenic to Humans
- Likely to be Carcinogenic to Humans
- Suggestive Evidence of Carcinogenic Potential
- Inadequate Information to Assess Carcinogenic Potential

As shown in Appendix D, many of the constituents in this risk assessment are not designated as Group A or as being "Carcinogenic to Humans", which means USEPA acknowledges that there is either inadequate evidence or a lack of evidence that these constituents cause cancer in humans. Therefore, evaluating these constituents as human carcinogens in the risk assessment is highly conservative.

Cancer slope factors (SFs) and unit risk factors (URFs) for these constituents and their sources are shown in Appendix D. The oral SFs and inhalation URFs represent 95% upper confidence bounds on the probability of getting cancer over a lifetime per unit dose. As recognized by USEPA, there is significant scientific evidence that some of the SFs and URFs may be overly conservative and may ignore the potential existence of threshold doses. Nonetheless, they are used here as conservative assessment tools.

4.2.2 Noncancer Toxicity Values

Constituents designated by USEPA as belonging to the cancer weight-of-evidence Group D (Not Classifiable as to Human Carcinogenicity) are considered noncarcinogens. Constituents not designated as belonging to any cancer group are also treated as noncarcinogens. Chronic and subchronic reference doses (RfDs) and chronic and subchronic inhalation reference concentrations (RfCs) and their sources are shown in Appendix D.

The oral RfDs and inhalation RfCs represent conservative estimates of the daily exposure to the human population, including sensitive subpopulations (e.g., children), which are likely to be without an appreciable risk of deleterious effects during a lifetime. These RfDs and RfCs typically incorporate several safety factors to account for uncertainties in their derivation, which in combination often result in overall uncertainty factors of 1,000 or more. Furthermore, for many constituents, there is significant scientific debate about the validity of these RfDs and RfCs, and the association of these doses and concentrations to potential adverse health consequences. Nonetheless, the RfDs and RfCs are used here as conservative assessment tools.

4.2.3 Extrapolation of Toxicity Values

The USEPA sources of toxicity values listed above do not provide dermal toxicity values for any of the constituents. Therefore, oral toxicity values (i.e., oral SFs and RfDs) are used as dermal toxicity values in this risk assessment. Adjustments to the oral toxicity values, where appropriate, are made in this route-to-route extrapolation following USEPA guidance (USEPA 2004b).

The USEPA sources of toxicity values listed above do not provide inhalation toxicity values (URFs and RfCs) for all of the constituents. Route-to-route extrapolation from oral toxicity values was not performed to obtain inhalation toxicity values for these constituents consistent with USEPA guidance on performing inhalation risk assessments (USEPA 2009b).

Uncertainties introduced by using extrapolated toxicity values are discussed in Section 4.3.5.6.

4.2.4 Lead

Exposure of residents to lead in soil during outdoor activities is evaluated using a residential screening level of 400 mg/kg (40 CFR Part 745, Federal Register Volume 66, No. 4, January 5, 2001). Exposure of routine workers to lead in soil during outdoor activities is evaluated using an industrial screening level of 2,240 mg/kg. These screening levels are calculated following USEPA guidance (USEPA 2003b), including updates (USEPA 2009c). The industrial screening level is intended to protect female workers of child-bearing age who contact soil. The derivation of the industrial soil screening level is presented in Appendix D (Attachment D2).

4.3 Risk Characterization

The health significance of the potential exposures described in Section 4.1 is discussed in the following subsections. Section 4.3.1 describes the methods for quantifying cancer risks and noncancer HIs. Section 4.3.2 discusses the risk estimates and the significance of the potential exposures. Section 4.3.3 discusses an evaluation and the significance of potential soil leaching to groundwater exposures. Uncertainties in the risk evaluation are discussed in Section 4.3.5.

4.3.1 Cancer and Noncancer Risks

The cancer risk associated with potential exposure to a carcinogenic chemical via ingestion and dermal contact is calculated by multiplying an estimate of the LADD for a particular exposure scenario by the cancer SF for the chemical, as follows:

$$Risk = LADD \cdot SF$$

For the inhalation route, the cancer risk is calculated using the chemical concentration in air (C_{air}) and the URF, as follows:

$$Risk = C_{air} \cdot URF \cdot \frac{ET \cdot ED \cdot EF}{AT_c}$$

where ET is exposure time, EF is exposure frequency, ED is exposure duration, and AT_c is the averaging time for carcinogens.

The noncancer HQ associated with potential exposure via ingestion and dermal contact is calculated by dividing an estimate of the ADD for a particular exposure scenario by the RfD for the chemical, as follows:

$$HQ = \frac{ADD}{RfD}$$

For the inhalation route, the HQ is calculated using C_{air} and the RfC, as follows:

$$HQ = \frac{C_{air}}{RfC} \cdot \frac{ET \cdot ED \cdot EF}{AT_{nc}}$$

where AT_{nc} is the averaging time for noncarcinogens.

The media-specific cumulative cancer risk and noncancer HI from exposure to the combination of constituents at an area are estimated following USEPA guidance (USEPA 1989), as follows:

$$Cumulative\ Risk = \sum_i Risk_i$$

$$Hazard\ Index = \sum_i HQ_i$$

where:

$Risk_i$ = estimated cancer risk for the ith constituent

HQ_i = hazard quotient for the ith constituent

This approach may result in estimates of media-specific cumulative cancer risk and HI that are more conservative than necessary. For example, different chemicals may cause different and unrelated noncancer health effects, so summing the HQs for their individual effects would overestimate the significance of their combined effects. Nonetheless, this approach is used here as a conservative assessment tool.

Media-specific cumulative cancer risk and HIs for each receptor population are compared with USEPA's cancer risk limit of 10^{-4} and HI limit of 1, respectively, to determine whether corrective measures are warranted for a particular area of the Site (61 FR 19432, May 1, 1996; USEPA April 22, 1991).

For exposures to soil, the cumulative cancer risk and HI estimates for each receptor population are calculated in two ways: (1) without accounting for cancer and noncancer risks associated with exposure to background levels of metals in soil (i.e., the background risks associated with the concentrations on Table 2-1); and (2) accounting for the background risks from exposure to background metals in soil. In the discussion in Section 4.3.2, the first set of risk estimates are identified as “total” risks and the second set of risk estimates are identified as “site-related” risks. The total risks provide a means for identifying high background levels of metals, and the site-related risks provide the basis for determining whether corrective measures are warranted.

Specifically, the need for corrective measures is determined by comparing the site-related risks to the USEPA's limits for excess lifetime cumulative cancer risk and HI which are 10^{-4} and 1, respectively (61 FR 19432, May 1, 1996; USEPA April 22, 1991).

As discussed in Section 4.1.2, the site-related soil risk estimates were initially calculated using maximum detected concentrations for each soil sample location, to streamline the identification of areas with potentially significant risks and the constituents that drive the risk estimates, even though such concentrations overestimate the RME. For a location where these upper-bound risk estimates exceed 10^{-4} or 1, respectively, the exposure concentrations for the constituents that contributed most to the upper-bound risk estimates were refined (e.g., using UCLs on the mean instead of the maximum concentrations, applying the principle of mass conservation) to derive refined cumulative cancer risk and HI estimates, which are then compared to the USEPA risk management limits.

4.3.2 Risk Characterization for Potentially Exposed Populations

4.3.2.1 Background Soil Risks

For each receptor, estimates of chemical-specific and cumulative cancer risk and HI associated with exposure to background concentrations of metals in soil, as discussed in Section 2.11, are shown on Table 4-2a. The background cancer and noncancer risk estimates on Table 4-2a were calculated using the exposure factors discussed in Section 4.1.4 and toxicity values discussed in Section 4.2. As indicated on Table 4-2a, the background cumulative cancer risk among the five on-site receptors range from 4×10^{-7} (for construction workers) to 2×10^{-5} (for residents). The background HIs among these receptors range from 0.1 (for recreators) to 1 (for residents). As discussed above, the total soil risk estimates for each receptor population were calculated without accounting for these background risks; the site-related soil risk estimates were calculated to account for these background risks.

4.3.2.2 On-Site Routine Workers

Soil

Potential exposure of on-site routine workers to constituents in soil at each location is evaluated in this risk assessment by conservatively assuming the following two alternate hypothetical cases: (1) the soil at each location is outdoors and workers are assumed to be exposed to the outdoor soil for the entire work day; or (2) the soil at each location is under an occupied building and workers are assumed to be exposed to constituents in the soil via vapor intrusion for the entire work day. Using these alternate hypothetical cases is conservative and efficient because it avoids the need to prorate the portion of the work day spent indoors and/or outdoors, and risk estimates for any combination of indoor and outdoor time periods would not exceed the higher of the risk estimates for the two alternative hypothetical cases.

Potential exposures for each hypothetical case were first evaluated using upper-bound estimates of RME cumulative cancer risk and HIs to streamline the risk assessment, as explained in Section 4.3.1. The initial estimates were calculated using the highest observed concentrations for all constituents detected in soil at a location. These estimates are conservative upper-bound estimates because the site-related RME risks for a location would be lower if they were calculated using: (1) site-related metal concentrations (i.e., those in excess of the site-specific background levels); (2) concentrations representative of the average

concentrations to which receptors would be exposed at the area; and (3) site-specific exposure factors that account for the magnitude, frequency, and duration of exposures appropriate for the area.

The upper-bound estimates of total cumulative cancer risk and HI for potential exposure of routine workers for each alternate hypothetical case (i.e., all day exposure to soil during outdoor activities or all day exposure to soil constituents via vapor intrusion) are summarized on Table 4-2b. These risk estimates include contributions from background metal concentrations. This table shows that three soil sampling locations have upper-bound total HI estimates that exceed the USEPA risk management limit of 1 for either hypothetical case.

The site-related risk estimates are summarized on Table 4-2c. As discussed above, these risk estimates differ from the total risk estimates on Table 4-2b since they are calculated using metal concentrations in excess of the site-specific background levels presented on Table 2-1. Table 4-2c shows that the same three locations identified on Table 4-2b have upper-bound site-related HI estimates that exceed USEPA's limit of 1. These locations (as well as all the locations listed on Tables 4-2b and 4-2c) are shown on Figure 4-1b, and are listed below according to the Landbay designations in the property owner's current site redevelopment plan:

For exposure to soil during outdoor activities:

- Landbay D (proposed residential use) – locations 42 GP-28 and 2 GP-09

For exposure to soil via vapor intrusion:

- Landbay B (proposed mixed use) – location GP 76-05

The HI estimates for routine worker exposure to soil during outdoor activities at each of the two locations in Landbay D are due to detected concentrations of PCBs (total). As such, a 95% UCL on the mean for PCBs (total) was conservatively calculated for a half-acre exposure area around each location. The 95% UCL on the mean was calculated by using the maximum concentration from each soil sample location within the half-acre exposure area, as shown in Figures 4-1b. The locations and their associated soil exposure area are listed below:

Soil Exposure Area	Location
42GP28/42GP19Area	42 GP-28
SRA 6 (South)	2 GP-09

The refined risk estimates for each of these soil exposure areas are shown on Table 4-2d. This table shows that using a conservative estimate of the 95% UCL on the mean PCBs (total) concentration for each exposure area reduces the HI estimates to at or below USEPA's limit of 1. Therefore, potential exposure of routine workers to soil during outdoor activities at these locations does not result in risk estimates that would warrant further evaluation for corrective action.

For location GP 76-05, the upper-bound noncancer HI estimate for vapor intrusion exposure is due to detected concentrations of 1,1-dichloroethene and 1,1,1-trichloroethane. This upper-

bound noncancer HI is also based upon the highly conservatively assumption that the maximum constituent concentrations in soil are present immediately under the building foundation and that they remain at these concentrations over the entire exposure period (i.e., the constituent's mass is infinite). The noncancer HI estimate for routine worker exposure to soil at this location via vapor intrusion was refined by using accounting for mass balance. This mass balance check ensures that the constituent mass assumed to enter the building via vapor intrusion does not exceed a conservative estimate of the total mass of the constituent in the soil under the building (see Appendix D for details of this calculation). As shown on Table 4-2e, when accounting for the mass balance for this exposure scenario, the noncancer HI estimate for routine worker exposure to soil at this location via vapor intrusion is below USEPA's limit of 1. Therefore, potential exposure of routine workers to soil via vapor intrusion at this location does not result in risk estimates that would warrant further evaluation for corrective action.

As discussed in Section 4.2.4, exposure of routine workers to lead in soil during outdoor activities is evaluated using an industrial screening level of 2,240 mg/kg. This screening level is calculated following USEPA guidance (USEPA 2003b), including updates (USEPA 2009c), and is intended to protect female workers of child-bearing age who contact soil. The derivation of this soil screening level is presented in Appendix D. The maximum detected lead concentration in soil at the Site is 243 mg/kg not including soil data from areas that have been or will be excavated as part of the ongoing interim measures as discussed Section 3. This is well below this industrial screening level. Therefore, potential exposure of workers to lead concentrations in soil at the Site does not result in risk estimates that would warrant further evaluation for corrective action.

Groundwater

On-site routine workers could be exposed to constituents in shallow groundwater to the extent that such constituents volatilize and migrate into outdoor air or migrate through cracks in building foundations into indoor air, as discussed in Section 4.1.1.2. The cumulative cancer risk and noncancer HIs for routine worker exposure to groundwater are calculated using the highest detected concentration for each constituent among the two most recent years of data collected from each on-site monitoring well. The results are summarized on Table 4-3. This table shows that these cumulative cancer risk and noncancer HI estimates for routine worker exposure to groundwater are all below USEPA's limits. Therefore, potential routine worker exposure to groundwater at the Site does not result in risk estimates that would warrant further evaluation for corrective action.

The groundwater monitoring locations, listed on Table 4-3, are shown on Figure 4-2. The details of these calculations are presented in Appendix D.

Currently, groundwater is not used at the Site for potable or nonpotable purposes. Under the County zoning ordinance, groundwater cannot be used in the future for potable purposes, as discussed in Section 2.10. However, because future nonpotable groundwater use would still be possible, the property owner intends to establish institutional controls to prevent any such on-site use of groundwater. To facilitate establishing such institutional controls, the groundwater data are compared to drinking water criteria as discussed in more detail in Section 4.3.4.

4.3.2.3 On-Site Maintenance Workers

Soil

On-site maintenance workers could be exposed to on-site soil during occasional subsurface maintenance or construction activities. The upper-bound estimates of total cumulative cancer risk and noncancer HI for these exposures are summarized on Table 4-2b. These upper-bound estimates are based on the highest detected concentrations from any depth for all constituents at each location. This table shows that no location has an upper-bound total cumulative cancer risk or noncancer HI that exceeds USEPA's limits. The same conclusion is shown by the site-related risk estimates summarized on Table 4-2c. Therefore, potential maintenance worker exposure to soil at the Site does not result in risk estimates that would warrant further evaluation for corrective action.

The soil sampling locations listed on Tables 4-2b and 4-2c are shown on Figure 4-1a. The details of these calculations are presented in Appendix D.

Groundwater

On-site maintenance workers could be exposed to on-site shallow groundwater during occasional subsurface maintenance or construction activities that encounter groundwater. The upper-bound cumulative cancer risk and noncancer HI for these exposures are calculated using the highest detected concentration for each constituent among the two most recent years of data collected from each on-site shallow monitoring well. As summarized on Table 4-3, six of the groundwater sampling locations exhibit concentrations resulting in noncancer HI estimates above USEPA's limit of 1. These locations are shown on Figure 4-2 and are listed below by Landbay defined in the property owner's current site redevelopment plan (see Appendix B):

Landbay	Location	Chemicals of Concern	Primary Exposure Pathway
Landbay B	BW 78-10D	Perchlorate	Ingestion, Dermal
	BW 78-11S		
	BW 78-12S		
	SW 78-03D		
Landbay D	SW 5-04	1,1-Dichloroethene, 1,1,1-Trichloroethane, Trichloroethene, PCBs (total)	Vapor Inhalation, Dermal
Landbay E	SW 40-07A	Tetrachloroethene, Trichloroethene	Vapor Inhalation

The details of these calculations are presented in Appendix D.

- Location BW 78-10D is located in Landbay B and exhibits an upper-bound noncancer HI of 4 for maintenance worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 143 mg/L (HQ of 4) which was detected in May 2005 and represents the most recent analysis from this well. Therefore, potential maintenance worker exposure to shallow groundwater at this

location could potentially result in risk estimates that would warrant further evaluation for corrective action.

- Location BW 78-11S is located in Landbay B and exhibits an upper-bound noncancer HI of 2 for maintenance worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 77 mg/L (HQ of 2) which was detected in May 2006 and represents the most recent analysis from this well. Therefore, potential maintenance worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

- Location BW 78-12S is located in Landbay B and exhibits an upper-bound noncancer HI of 3 for maintenance worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 95.9 mg/L (HQ of 3) which was detected in March 2005. Therefore, potential maintenance worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

- Location SW 78-03D is located in Landbay B and exhibits an upper-bound noncancer HI of 10 for maintenance worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 398 mg/L (HQ of 10) which was detected in March 2005. Therefore, potential maintenance worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

- Location SW 5-04 is located in Landbay D and exhibits an upper-bound noncancer HI of 3 for maintenance worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a PCBs (total) concentration of 3.35 ug/L (HQ of 2) and to a lesser extent a concentration of trichloroethene of 240 ug/L (HQ of 0.5), a concentration of 1,1,1-trichloroethane of 340,000 ug/L (HQ of 0.2), and a concentration of 1,1-dichloroethene of 5,600 ug/L (HQ of 0.1). Therefore, potential maintenance worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

- Location SW 40-07A is located in Landbay E and exhibits an upper-bound noncancer HI of 2 for maintenance worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a TCE concentration of 0.67 mg/L (HQ of 1.7) and a PCE concentration of 5 mg/L (HQ of 0.6). The TCE concentration of 0.67 mg/L and the PCE concentration of 5 mg/L represent the averages of a duplicate pair of samples collected and analyzed in September 2011. Therefore, potential maintenance worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Sediment

On-site maintenance workers could be exposed to on-site sediment during occasional maintenance activities that encounter sediment. Site-related cumulative cancer risks and

noncancer HI were calculated using the highest detected concentration for each constituent from each on-site sediment sample location (see Table 4-4). For metals, the site-related risk estimates were calculated using metal concentrations in excess of the site-specific background levels on Table 2-1. Table 4-4 shows that none of the locations exhibit upper-bound site-related cumulative cancer risks or noncancer HIs exceeding USEPA's risk management limits. Therefore, potential maintenance worker exposure to sediment at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

The sediment sample locations listed on Table 4-4 are shown on Figure 4-3. The details of these calculations are presented in Appendix D.

Surface Water

On-site maintenance workers could be exposed to on-site surface water during occasional maintenance activities that encounter surface water. Cumulative cancer risks and HIs were calculated using the highest detected concentration for each constituent from each on-site surface water sample location (see Table 4-5). This table shows that none of the locations exhibit upper-bound site-related cumulative cancer risks or noncancer HIs exceeding USEPA's risk management limits. Therefore, potential maintenance worker exposure to surface water at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

The surface water sample locations listed on Table 4-5 are shown on Figure 4-4. The details of these calculations are presented in Appendix D.

4.3.2.4 On-Site Construction Workers

Soil

On-site construction workers could be exposed to on-site soil during future site redevelopment construction activities. The upper-bound estimates of total cumulative cancer risk and HI for these exposures, based on the highest detected concentrations from any depth for all constituents at each location, are summarized on Table 4-2b. This table shows that 41 locations have an upper-bound total HI that exceeds USEPA's risk management limit of 1.

The site-related risk estimates are summarized on Table 4-2c. As discussed above, these risk estimates differ from the total risk estimates on Table 4-2b only in that they are calculated using metal concentrations in excess of the site-specific background levels on Table 2-1. This table shows that no location has an upper-bound cumulative cancer risk estimate that exceeds USEPA's cancer risk management limit of 10^{-4} and only one location (IM11-2 in Landbay B – proposed for mixed use) has an upper-bound site-related noncancer HI that exceeds USEPA's risk management limit of 1. This location as well as all the locations listed on Table 4-2c are shown on Figure 4-1b. The details of these calculations are presented in Appendix D.

The noncancer HI at location IM11-2 is due to a manganese concentration of 12,900 mg/kg. As described in Section 4.1.2, a 95% UCL on the mean manganese concentration was conservatively calculated for a half-acre exposure area around location IM11-2. The 95% UCL on the mean was calculated by using the maximum concentrations from each soil sample location within the half-acre exposure area. The half-acre exposure area around IM11-2 is

designated as SRA 9 (see Figures 4-1b and 4-1c). The refined noncancer HI estimate for construction worker exposure to soil in exposure area SRA 9 is shown on Table 4-2d. This table shows that using a conservative estimate of the 95% UCL on the mean concentration for manganese and cobalt[11] in SRA 9 reduces the HI estimate to USEPA's risk management limit of 1. Therefore, potential construction worker exposure to soil in this area would not result in risk estimates that would warrant further evaluation for corrective action.

Groundwater

On-site construction workers could be exposed to groundwater during future site redevelopment construction activities that encounter groundwater. The cumulative cancer risk and noncancer HIs are calculated using the highest detected concentration for each constituent among the two most recent years of data collected from each on-site monitoring well and are summarized on Table 4-3. As summarized on Table 4-3, 13 locations exhibit detected concentrations which result in upper-bound noncancer HI estimates for construction worker exposure to shallow groundwater that exceed USEPA's risk management limit of 1. These locations are shown on Figure 4-2 and are listed below:

Landbay	Location	Chemicals of Concern	Primary Exposure Pathway
Landbay A	SW 105-03D	Perchlorate	Ingestion, Dermal
Landbay B	BW 78-02D		
	BW 78-10D		
	BW 78-11S		
	BW 78-12D		
	BW 78-12S		
	GP 78-01		
	SW 74-04		
	SW 78-03D		
Landbay D	BW 16-04D	Perchlorate	Ingestion, Dermal
	SW 5-04	1,1-Dichloroethene, 1,1,1-Trichloroethane, Trichloroethene, PCBs (total)	Vapor Inhalation. Dermal
Landbay E	SW 40-07A	Tetrachloroethene, Trichloroethene	Vapor Inhalation
	SW 40-55	Perchlorate	Ingestion, Dermal

The details of these calculations are presented in Appendix D.

Location SW 105-03D is located in Landbay A and exhibits an upper-bound noncancer HI of 3 for construction worker exposure to shallow groundwater. This location-specific upper-bound

[11] Rather than using the maximum concentration of cobalt in SRA 9 as an exposure concentration, a conservative estimate of the 95% UCL on the mean concentration for cobalt was also calculated and used.

noncancer HI is due to a perchlorate concentration of 28 mg/L (HQ of 3) which was detected in September 2011. Therefore, potential construction worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location BW 78-02D is located in Landbay B and exhibits an upper-bound noncancer HI of 2 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 14 mg/L (HQ of 1.6) which was detected in May 2006. Therefore, potential construction worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location BW 78-10D is located in Landbay B and exhibits an upper-bound noncancer HI of 20 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 143 mg/L (HQ of 20) which was detected in May 2005 and represents the most recent analysis from this well. Therefore, potential construction worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location BW 78-11S is located in Landbay B and exhibits an upper-bound noncancer HI of 9 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 77 mg/L (HQ of 9) which was detected in May 2006 and represents the most recent analysis from this well. Therefore, potential construction worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location BW 78-12D is located in Landbay B and exhibits an upper-bound noncancer HI of 4 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 32 mg/L (HQ of 4) which was detected in October 2009. Therefore, potential construction worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location BW 78-12S is located in Landbay B and exhibits an upper-bound noncancer HI of 10 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 95.9 mg/L (HQ of 10) which was detected in March 2005. Therefore, potential construction worker exposure to groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location GP 78-01 is located in Landbay B and exhibits an upper-bound noncancer HI of 2 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 16.5 mg/L (HQ of 2) which was detected in August 2002 and represents the most recent analysis from this well. Therefore, potential construction worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location SW 74-04 is located in Landbay B and exhibits an upper-bound noncancer HI of 4 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 30.3 mg/L (HQ of 3.5) and a PCE concentration of 1.4 mg/L (HQ of 0.4). The perchlorate concentration of 30.3 mg/L was detected in a sample collected in March 2005. The PCE concentration of 1.4 mg/L was detected in a November 2004 sample. Therefore, potential construction worker exposure to groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location SW 78-03D is located in Landbay B and exhibits an upper-bound noncancer HI of 50 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 398 mg/L (HQ of 50) which was detected in March 2005. Therefore, potential construction worker exposure to groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location BW 16-04D is located in Landbay D and exhibits an upper-bound noncancer HI of 2 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 14 mg/L (HQ of 2) which was detected in September 2011 and represents the most recent analysis from this well. Therefore, potential construction worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location SW 5-04 is located in Landbay D and exhibits an upper-bound noncancer HI of 5 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a PCBs (total) concentration of 3.35 ug/L (HQ of 4) and to a lesser extent a concentration of trichloroethene of 240 ug/L (HQ of 0.5), a concentration of 1,1,1-trichloroethane of 340,000 ug/L (HQ of 0.8), and a concentration of 1,1-dichloroethene of 5,600 ug/L (HQ of 0.5). The TCE concentration of 240 ug/L represents the average of a duplicate pair of samples collected and analyzed in September 2011. The 1,1,1-trichloroethane concentration of 340,000 ug/L represents the average of a duplicate pair of samples collected and analyzed in September 2011. Finally, the 1,1-DCE concentration of 5,600 ug/L represents the average of a duplicate pair of samples collected and analyzed in September 2011. Therefore, potential construction worker exposure to shallow groundwater at this location could potentially result in risk estimates that would warrant further evaluation for corrective action.

Location SW 40-07A is located in Landbay E and exhibits an upper-bound noncancer HI of 3 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a TCE concentration of 0.67 mg/L (HQ of 1.3) and a PCE concentration of 5 mg/L (HQ of 1.4). The TCE concentration of 0.67 mg/L and the PCE concentration of 5 mg/L represent the averages of a duplicate pair of samples collected and analyzed in September 2011. More recent samples and analyses for TCE and PCE in this well are not available. Because TCE (nervous system) and PCE (immune system, cardiovascular) cause different and unrelated noncancer health effects, summing the HQs for their individual effects overestimates the significance of their combined effects. When segregated by their individual target health effect, the noncancer HI for each effect is equal to or below USEPA's risk

management limit of 1. See Appendix D for more details. Therefore, potential construction worker exposure to shallow groundwater at this location would not result in risk estimates that would warrant further evaluation for corrective action.

Location SW 40-55 is located in Landbay E and exhibits an upper-bound noncancer HI of 3 for construction worker exposure to shallow groundwater. This location-specific upper-bound noncancer HI is due to a perchlorate concentration of 27 mg/kg (HQ of 3) detected in a sample collected in November 2006. Three subsequent samples, which were collected from this location in February 2007, October 2007, and May 2008 and analyzed for perchlorate, exhibited concentrations ranging from 1.4 mg/L to 2.4 mg/L (about 8 times lower). If these lower and most recent concentrations were used as the exposure concentration, the resulting HQ for perchlorate would be about 0.4 and the noncancer HI for this location would be below USEPA's risk management limit. Therefore, potential construction worker exposure to shallow groundwater at this location would not result in risk estimates that would warrant further evaluation for corrective action.

Sediment and Surface Water

Potential exposure of on-site construction workers to sediment and surface water are evaluated indirectly in this risk assessment using exposure estimates for on-site maintenance workers, as explained in Section 4.1.4.3. This streamlines the risk assessment and is conservative because construction worker exposures to sediment and surface water are expected to be no higher than that of a maintenance worker. Therefore, the cumulative cancer risk and noncancer HI estimates for construction workers are expected to be no higher than the estimates discussed in Section 4.3.2.3. As discussed in Section 4.3.2.3, the upper-bound estimates of site-related cancer and noncancer risks for on-site maintenance worker exposure to sediment and surface water do not exceed the USEPA risk management limits. Therefore, potential construction worker exposure to sediment and surface water at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

4.3.2.5 On-Site Trespassers

Soil and Groundwater

Potential exposure of on-site trespassers to soil and groundwater are evaluated indirectly in this risk assessment using exposure estimates for on-site routine workers, as explained in Section 4.1.4.4. This streamlines the risk assessment and is conservative because trespasser exposures would be lower than routine worker exposures. Therefore, the cumulative cancer risk and HI estimates for trespassers are expected to be no higher than the estimates discussed in Section 4.3.2.2. As discussed in Section 4.3.2.2, the estimates of site-related cancer and noncancer risks for on-site routine worker exposure to soil and groundwater during outdoor activities do not exceed the USEPA risk management limits. Therefore, potential trespasser exposure to soil and groundwater at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

Sediment and Surface Water

Potential exposure of on-site trespassers to sediment and surface water, including fish ingestion, are evaluated indirectly in this risk assessment using exposure estimates for on-site recreators, as explained in Section 4.1.4.4. This streamlines the risk assessment and is

conservative because trespasser exposures to sediment and surface water are expected to be equal to that of a recreator. Therefore, the cumulative cancer risk and HI estimates for trespassers are expected to be no higher than the estimates discussed in Section 4.3.2.6. As discussed in Section 4.3.2.6, the upper-bound estimates of site-related cumulative cancer and noncancer risks for on-site recreator exposure to sediment and surface water do not exceed the USEPA risk management limits. Therefore, potential trespasser exposure to sediment and surface water at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

4.3.2.6 On-Site Recreators

Soil

In the future, if the Site is redeveloped according to the property owner's current redevelopment plan, recreators could access the Site and potentially be exposed to soil. The upper-bound estimates of total cumulative cancer risk and noncancer HI for these exposures, based on the highest detected concentrations from any depth for all constituents at each location, are summarized on Table 4-2b. This table shows that none of the locations have upper-bound total cumulative cancer risks or noncancer HIs that exceed USEPA's risk management limits. The same conclusion is shown by the site-related risk estimates summarized on Table 4-2c. Therefore, potential recreator exposure to soil at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

The soil sampling locations listed on Tables 4-2b and 4-2c are shown on Figure 4-1a. The details of these calculations are presented in Appendix D.

Groundwater

In the future, if the Site is redeveloped according to the property owner's current redevelopment plan, recreators could access the Site and potentially be exposed to groundwater via inhalation of vapors that volatilize and migrate into outdoor air. Potential exposures of on-site recreators to groundwater are evaluated indirectly in this risk assessment using exposure estimates for on-site residents, as explained in Section 4.1.4.5. This streamlines the risk assessment and is conservative because recreator exposures would be lower than a resident's exposures. Therefore, the cumulative cancer risk and noncancer HI estimates for recreators are expected to be no higher than the estimates discussed in Section 4.3.2.7. As discussed in Section 4.3.2.7, the upper-bound estimates of cumulative cancer and noncancer risks for on-site residential exposure to groundwater during outdoor activities do not exceed the USEPA risk management limits. Therefore, potential recreator exposure to groundwater at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

Sediment

In the future, if the Site is redeveloped according to the property owner's current redevelopment plan, recreators could access the Site and potentially be exposed to sediment. Site-related cumulative cancer risk and noncancer HIs were calculated using the highest detected concentration for each constituent from each on-site sediment sample location (see Table 4-4). This table shows that none of the locations have upper-bound site-related cumulative cancer risks or noncancer HIs that exceed USEPA's risk management limits. Therefore, potential

recreator exposure to sediment at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

The sediment sample locations listed on Table 4-4 are shown on Figure 4-3. The details of these calculations are presented in Appendix D.

Surface Water

In the future, if the Site is redeveloped according to the property owner's current redevelopment plan, recreators could access the Site and potentially be exposed to surface water, including fish ingestion. Cumulative cancer risks and noncancer HIs have been calculated using the highest detected concentration for each constituent from each on-site surface water sample location (see Table 4-5). This table shows that none of the locations has upper-bound site-related cumulative cancer risk or HI that exceed USEPA's risk management limits. Therefore, potential recreator exposure to surface water at the Site would not result in risk estimates that would warrant further evaluation for corrective action.

The surface water sample locations listed on Table 4-5 are shown on Figure 4-4. The details of these calculations are presented in Appendix D.

4.3.2.7 On-Site Residents

Soil

Potential exposure of on-site residents to constituents in soil at each location is evaluated in this risk assessment by conservatively assuming the following two alternate hypothetical cases: (1) the soil at each location is outdoors and residents are exposed to the outdoor soil for the entire day; or (2) the soil at each location is under an occupied building and residents are exposed to constituents in the soil via assumed vapor intrusion for the entire day. Evaluating two hypothetical cases is conservative, as discussed in Section 4.3.2.2.

The upper-bound estimates of total cumulative cancer risk and HI for potential exposure of residents to soil for each alternate hypothetical case (i.e., all day exposure to outdoor soil or all day exposure to soil constituents via vapor intrusion) are summarized on Table 4-2b. These risk estimates include contributions from background metal concentrations. This table shows that 209 of the locations have upper-bound total cumulative cancer risks and/or noncancer HIs exceeding USEPA's risk management limits for either hypothetical case.

The site-related risk estimates are summarized on Table 4-2c. As discussed above, these risk estimates differ from the total risk estimates on Table 4-2b only in that they are calculated using metal concentrations in excess of the site-specific background levels on Table 2-1. Table 4-2c shows that 41 locations have an upper-bound site-related cumulative cancer risk and/or noncancer HI estimates exceeding USEPA's risk management limits of 10^{-4} and 1, respectively. These locations are shown on Figure 4-1c and are listed below according to Landbay in the property owner's current site redevelopment plan:

For outdoor activities (27 locations):

- Landbay A (proposed industrial/commercial use) - 2 locations

- Landbay B (proposed mixed use) – 4 locations
- Landbay C (proposed industrial/commercial use) – 2 locations
- Landbay D (proposed residential use) – 18 locations
- Landbay E (proposed residential use) – 1 location

For vapor intrusion (14 locations):

- Landbay A (proposed industrial/commercial use) - 2 locations
- Landbay B (proposed mixed use) – 5 locations
- Landbay D (proposed residential use) – 2 locations
- Landbay E (proposed residential use) – 5 location

Exposure to Soil during Outdoor Activities

As described in Section 4.1.2, 95% UCLs on the mean for the chemicals that contribute most significantly to the risk estimates for soil exposure during outdoor activities were calculated for a half-acre exposure area around each location. The 95% UCLs on the mean were calculated by using the maximum concentration from each soil sample location within the half-acre exposure area, as shown in as shown on Figure 4-1c. Some locations with upper-bound site-related cumulative cancer risks and/or noncancer HIs exceeding USEPA's risk management limits cannot be refined because too few (e.g., less than 8) sample locations are available within the exposure area, as shown on Figure 4-1c. For the soil exposure areas with a sufficient number of soil sample locations (i.e., at least 8) to calculate a UCL, the locations with the associated soil exposure areas and the chemicals that contribute the most significantly to the risk estimates are listed below:

Soil Exposure Area	Location	Chemicals of Concern	Primary Exposure Pathways of Concern
42 GP-28/42 GP-19 Area	42 GP-08	PCBs (total)	Ingestion, Dermal
	42 GP-19		Ingestion, Dermal
	42 GP-28		Ingestion, Dermal
	42 GP-39		Ingestion, Dermal
Area 42TP6-185	42TP6-185	Cobalt, Iron, Vanadium, and Zinc	Ingestion
IM-3	6450-2000	Benzo(a)anthracene, Dibenz(a,h)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene	Ingestion, Dermal
	6450-2000SE		Ingestion, Dermal
SRA 3	A8S154	PCBs (total)	Ingestion, Dermal
	A8S155		
SRA 4	42 GP-25	PCBs (total)	Ingestion, Dermal
	42 GP-35		
	43G122		
	SRA4-10		

Soil Exposure Area	Location	Chemicals of Concern	Primary Exposure Pathways of Concern
	SRA4-19		
SRA 5	15 GP-04	PCBs (total)	Ingestion, Dermal
	SRA5-13		
	SRA5-28		
	SRA5-34		
SRA 6 (Mid)	2 GP-03	PCBs (total)	Ingestion, Dermal
	2 GP-11		
SRA 6 (North)	2 GP-02	PCBs (total)	Ingestion, Dermal
SRA 6 (South)	2 GP-09	PCBs (total)	Ingestion, Dermal
Insufficient Sample Locations To Calculate 95% UCL on the Mean	116G18	Cobalt, Iron	Ingestion
	3300-3050	Cobalt, Iron, Zinc	Ingestion
	3600-3800		
	5850-2600	Perchlorate, Cobalt	Ingestion
	6600-112	Cobalt	Ingestion

The refined risk estimates for each of these soil exposure areas are shown on Table 4-2d. This table shows that four of these soil exposure areas (i.e., 42 GP-28/42 GP-19 Area, IM-3, SRA 3 and SRA 6 (South)) have refined site-related cumulative cancer risk or noncancer HIs exceeding USEPA's risk management limits. The chemicals that contribute the most to the risk estimates for these areas are the same as listed in the above table. The following lists areas of the Site with potentially unacceptable risks for residential contact with soil during outdoor activities.

- 42 GP-28/42 GP-19 Area [HI of 4]
- IM-3 [Cancer Risk of $4x10^{-4}$]
- SRA 3 [HI of 2]
- SRA 6 (South) [HI of 2]
- 116G18 [HI of 2]
- 3300-3050 [HI of 2]
- 3600-3800 [HI of 2]
- 5850-2600 [HI of 3]
- 6600-112 [HI of 2]

Exposure area 42 GP-28/42 GP-19 is located in Landbay D and exhibits a noncancer HI of 4 for resident exposure to soil during outdoor activities. Therefore, potential future residential exposure to soil in this area could result in risk estimates that would warrant further evaluation for corrective action. This noncancer HI is due to a PCBs (total) exposure concentration of 23 mg/kg (HQ of 4). The exposure pathways of concern for this constituent are ingestion and dermal contact with soil.

Exposure area IM-3 is located in Landbay C and exhibits a cumulative cancer risk of $4x10^{-4}$ for resident exposure to soil during outdoor activities. Therefore, potential future residential exposure to soil in this area could result in risk estimates that would warrant further evaluation for corrective action. This cumulative cancer risk is due to a benzo(a)pyrene exposure concentration of 3.18 mg/kg (risk of $2x10^{-4}$), a dibenz(a,h)anthracene exposure concentration of 1.14 mg/kg (risk of $8x10^{-5}$), a benzo(a)anthracene exposure concentration of 11.2 mg/kg (risk of $3x10^{-5}$), and a benzo(b)fluoranthrene exposure concentration of 4.5 mg/kg (risk of $3x10^{-5}$). Given these constituents, the exposure pathways of concern are ingestion and dermal contact with soil.

Exposure area SRA 3 extends across both Landbay B and Landbay D and exhibits a noncancer HI of 2 for residential exposure to soil during outdoor activities. Therefore, potential future residential exposure to soil in this area could result in risk estimates that would warrant further evaluation for corrective action. This noncancer HI is due to a PCBs (total) exposure concentration of 6 mg/kg (HQ of 2). The exposure pathways of concern for this constituent are ingestion and dermal contact with soil.

Exposure area SRA 6 (South) is located in Landbay D and exhibits a noncancer HI of 2 for residential exposure to soil during outdoor activities. Therefore, potential future residential exposure to soil in this area could result in risk estimates that would warrant further evaluation for corrective action. This noncancer HI is due to a PCBs (total) exposure concentration of 8.51 mg/kg (HQ of 2). The exposure pathways of concern for this constituent are ingestion and dermal contact with soil.

Location 116G18 is located in Landbay B and exhibits an upper-bound noncancer HI of 2 for residential exposure to soil during outdoor activities. This upper-bound noncancer HI is due to a detected cobalt concentration of 146 mg/kg (HQ of 1.2) and a detected iron concentration of 100,000 mg/kg (HQ of 0.2). Because cobalt (thyroid) and iron (gastrointestinal) cause different and unrelated noncancer health effects, summing the HQs for their individual effects overestimates the significance of their combined effects. When segregated by their individual target health effect the noncancer HI for each effect is equal to or below USEPA's risk management limit of 1 (see Appendix D for supporting information). Therefore, potential future residential exposure to soil at this location would not result in risk estimates that would warrant further evaluation for corrective action.

Location 3300-3050 is located in Landbay A and exhibits an upper-bound noncancer HI of 2 for residential exposure to soil during outdoor activities. This upper-bound noncancer HI is due to a detected cobalt concentration of 120 mg/kg (HQ of 0.9) and a detected concentration of iron of 130,000 mg/kg (HQ of 0.4). Because cobalt (thyroid) and iron (gastrointestinal) cause different and unrelated noncancer health effects, summing the HQs for their individual effects overestimates the significance of their combined effects. When segregated by their individual target health effect the noncancer HI for each effect is equal to or below USEPA's risk management limit of 1 (see Appendix D for supporting information). Therefore, potential future residential exposure to soil at this location would not result in risk estimates that would warrant further evaluation for corrective action.

Location 3600-3800 is located in Landbay A and exhibits an upper-bound noncancer HI of 2 for residential exposure to soil during outdoor activities. This upper-bound noncancer HI is due to a detected cobalt concentration of 157 mg/kg (HQ of 1.3), a detected concentration of iron of 132,000 mg/kg (HQ of 0.4), a detected concentration of vanadium of 509 mg/kg (HQ of 0.2), and a detected concentration of manganese of 6,140 mg/kg (HQ of 0.1). Because cobalt (thyroid) and iron (gastrointestinal), vanadium (decreased hair cystine) and manganese (central nervous system) cause different and unrelated noncancer health effects, summing the HQs for their individual effects overestimates the significance of their combined effects. When segregated by their individual target health effect the noncancer HI for each effect is equal to or below USEPA's risk management limit of 1 (see Appendix D for supporting information). Therefore, potential future residential exposure to soil at this location would not result in risk estimates that would warrant further evaluation for corrective action.

Location 5850-2600 is located in Landbay B and exhibits an upper-bound noncancer HI of 2 for residential exposure to soil during outdoor activities. Therefore, potential future residential exposure to soil in this area could result in risk estimates that would warrant further evaluation for corrective action. This upper-bound noncancer HI is due to a detected perchlorate concentration of 420 mg/kg (HQ of 2). Given this constituent, the exposure pathway of concern is ingestion of soil.

Location 6600-112 is located in Landbay E and exhibits an upper-bound noncancer HI of 2 for residential exposure to soil during outdoor activities. This upper-bound noncancer HI is predominantly due to a detected cobalt concentration of 145 mg/kg (HQ of 1.2) and a detected concentration of manganese of 5,950 mg/kg (HQ of 0.1). Because cobalt (thyroid) and manganese (central nervous system) cause different and unrelated noncancer health effects, summing the HQs for their individual effects overestimates the significance of their combined effects. When segregated by their individual target health effect the noncancer HI for each effect is equal to or below USEPA's risk management limit of 1 (see Appendix D for supporting information). Therefore, potential future residential exposure to soil at this location would not result in risk estimates that would warrant further evaluation for corrective action.

Exposure to Lead in Soil

Exposure of residents to lead in soil is evaluated using a residential criterion of 400 mg/kg (40 CFR Part 745, Federal Register Volume 66, No. 4, January 5, 2001). This criterion is USEPA's recommended threshold for residential exposure to lead in soil and is based on a blood lead modeling approach designed to be protective of potential exposures to soil lead in residential settings. The maximum detected lead concentration at the Site following the completion of remediation planned as part of the soil IM activities is 243 mg/kg detected at DP-119 (Landbay B); this maximum detected concentration is below 400 mg/kg. Therefore, potential exposure of residents to on-site soil is not expected to be significant.

Exposure to Soil Via Vapor Intrusion

The location-specific upper-bound site-related cumulative cancer risks and noncancer HIs for residential exposure via vapor intrusion are summarized on Table 4-2c; the risk estimates exceeding USEPA's risk management limits are predominantly due to bromomethane, cumene, 1,1-dichloroethene (DCE), 1,2-dichlorobenzene, naphthalene, mercury, tetrachloroethene

(PCE),1,2,4-trichlorobenzene,1,1,1-trichloroethane (TCA), trichloroethene (TCE), and xylenes (total). These upper-bound risks are based upon a highly conservative assumption that the maximum constituent concentration is immediately under the building foundation and remains constant over time (i.e., the constituent mass is infinite). The risk estimates were refined by accounting for limited mass, which ensures that the constituent mass assumed to enter the building via vapor intrusion does not exceed a conservative estimate of the total constituent mass in the soil under a building (see Appendix D for this calculation). As shown on Table 4-2e, two locations have refined site-related HI estimates that exceed USEPA's risk management limits (i.e., locations 3150-2000 and 230-BM).

- Location 3150-2000 is located in Landbay D and exhibits a noncancer HI of 7 for residential exposure to soil via vapor intrusion. This noncancer HI is due to a 1,2,4-trichlorobenezene exposure concentration of 1.4 mg/kg (HQ of 6). Therefore, potential future residential exposure to soil via vapor intrusion in this area could result in risk estimates that would warrant further evaluation for corrective action.

- Location 230-BM is located in Landbay E and exhibits a noncancer HI of 3 for residential exposure to soil via vapor intrusion. This noncancer HI is due to a mercury exposure concentration of 2.6 mg/kg (HQ of 3). Therefore potential future residential exposure to soil via vapor intrusion in this area could result in risk estimates that would warrant further evaluation for corrective action.

Exposure to Soil Via Homegrown Produce Consumption

Residents could also be exposed to constituents of concern in soil via the ingestion of homegrown produce, assuming the site is developed for residential purposes in the future. Since metal concentrations do not contribute significantly to these risk estimates (see Table 4-2a and Appendix D, Attachment D7), only site-related risk estimates for homegrown produce are discussed. Location-specific upper-bound cumulative cancer risks and noncancer HIs were initially calculated assuming the concentrations in shallow soil do not deplete over time; these risk estimates are summarized on Table 4-2c. This table shows that 296 of the locations have upper-bound site-related cumulative cancer risk or HI exceeding USEPA's risk management limits. The HI estimates that exceed USEPA risk management limit of 1 are predominantly due to perchlorate concentrations in shallow soil. The cumulative cancer risk estimates that exceed USEPA's risk management limit of 10^{-4} are due to PAH concentrations in shallow soil.

Based on the upper-bound estimates for this hypothetical exposure pathway, refined site-related estimates of cumulative cancer risk and HI for potential exposure of residents to soil via homegrown produce ingestion were calculated accounting for the depletion of the perchlorate[12] concentrations over the exposure period, are summarized on Table 4-2c. As shown on this table, a total of 99 have upper-bound site-related cumulative cancer risk or HI exceeding

[12] Given the chemical/physical properties of perchlorate, depletion of perchlorate concentrations in soil would be significant over the exposure period. In contrast to perchlorate, the depletion of PAH concentrations in soil over the exposure period would not be significant given the chemical/physical properties of these chemicals. As such, the depletion of PAH concentrations over the exposure period was not considered since such depletion would be too small to significantly reduce the exposure estimate. Depletion of perchlorate was considered in the refined exposure calculations.

USEPA's risk management limits. The locations that have refined site-related cumulative cancer risk or HI exceeding USEPA's risk management limits are shown on Figure 4-1c and are listed below according to Landbay in the property owner's current site development plan:

- Landbay A (proposed industrial/commercial use) - 32 locations
- Landbay B (proposed mixed use) – 47 locations
- Landbay C (proposed industrial/commercial use) – 1 location
- Landbay D (proposed residential use) – 13 locations
- Landbay E (proposed residential use) – 6 locations

In the areas identified on Figure 4-1c, potential future residential exposure to soil via the consumption of homegrown produce could result in risk estimates that would warrant further evaluation for corrective action.

The details of these calculations are presented in Appendix D.

Groundwater

On-site residents could be exposed to constituents in on-site shallow groundwater to the extent that such constituents volatilize and migrate into outdoor air or migrate through cracks in building foundations into indoor air, as discussed in Section 4.1.1.2. Cumulative cancer risk and noncancer HIs were calculated using the highest detected concentration for each constituent among the two most recent years of data collected from each on-site monitoring location and are summarized on Table 4-3.

Exposure to Groundwater Via Vapor Intrusion

Table 4-3 shows that four locations exhibited noncancer HIs for residential exposure to constituents in on-site groundwater via vapor intrusion exceeding USEPA's risk management limits. The groundwater monitoring locations that exhibit upper-bound HI exceeding USEPA's risk management limits are shown on Figure 4-2 and are listed below according to Landbay in the property owner's current site development plan:

Landbay	Location	Chemicals of Concern
Landbay D	SW 5-04	1,1-Dichloroethene, 1,1,1-Trichloroethane, Trichloroethene
Landbay E	SW 40-07A	Tetrachloroethene, Trichloroethene
	MPIT 40 B-03	Trichloroethene
	SW 47-03	Trichloroethene

- Location SW 5-04 is located in Landbay D and exhibits a noncancer HI of 2 for residential exposure to groundwater via vapor intrusion. This noncancer HI is due to a detected concentration of TCE of 240 ug/L (HQ of 0.9) and a detected concentration of 1,1,1-trichloroethane of 340 mg/L (HQ of 0.5). The TCE concentration of 240 ug/L and the 1,1,1-trichloroethane concentration of 340 mg/L reflect the average concentrations

resulting from a duplicate pair of samples collected in September 2011. Because TCE (immune system, cardiovascular) and 1,1,1-trichloroethane (liver) cause different and unrelated noncancer health effects, summing the HQs for their individual effects overestimates the significance of their combined effects. When segregated by their individual target health effect the noncancer HI for each effect is equal to or below USEPA's risk management limit of 1 (see Appendix D for supporting details). Therefore, potential future residential exposure to groundwater via vapor intrusion at this location would not result in risk estimates that would warrant further evaluation for corrective action.

- Location SW 40-07A is located in Landbay E and exhibits a noncancer HI of 3 for residential exposure to groundwater via vapor intrusion. This noncancer HI is due to a detected concentration of TCE of 0.67 mg/L (HQ of 2) and a detected concentration of PCE of 5 mg/L (HQ of 0.8). These concentrations of TCE and PCE are based upon the most recent sample taken from this well in September 2011. Therefore, potential future residential exposure to groundwater via vapor intrusion at this location could result in risk estimates that would warrant further evaluation for corrective action.

- Location MPIT 40 B-03 is located in Landbay E and exhibits a noncancer HI of 2 for residential exposure to groundwater via vapor intrusion. This noncancer HI is predominantly due to a detected concentration of TCE of 0.38 mg/L (HQ of 1) and a detected concentration of PCE of 0.7 mg/L (HQ of 0.1). Because TCE (immune system, cardiovascular) and PCE (nervous system) cause different and unrelated noncancer health effects, summing the HQs for their individual effects overestimates the significance of their combined effects. When segregated by their individual target health effect the noncancer HI for each effect is equal to or below USEPA's risk management limit of 1 (see Appendix D for supporting details). Therefore, potential future residential exposure to groundwater via vapor intrusion at this location would not result in risk estimates that would warrant further corrective action.

- Location SW 47-03 is located in Landbay E and exhibits a noncancer HI of 2 for residential exposure to groundwater via vapor intrusion. The noncancer HI is due to a detected concentration of TCE of 0.53 mg/L (HQ of 2) which was detected in a sample collected from this well in March 2005. Therefore, potential future residential exposure to groundwater via vapor intrusion at this location could result in risk estimates that would warrant further evaluation for corrective action.

Exposure to Groundwater Via Volatilization to Outdoor Air

As presented on Table 4-3, cumulative cancer risk and HIs for residential exposure to constituents in on-site groundwater via inhalation of vapors that could volatilize and migrate into outdoor air are below USEPA's risk management limits. Therefore, potential future residential exposure to groundwater via inhalation of vapors that have volatilized and migrated into outdoor air would not result in risk estimates that would warrant further evaluation for corrective action.

The details of these calculations are presented in Appendix D.

Exposure to Groundwater Via Potable and Nonpotable Uses

Currently, groundwater is not used at the Site for potable or nonpotable purposes. In addition, as restricted by the existing County zoning ordinance, groundwater cannot be used in the future for potable purposes on-site, as discussed in Section 2.10. However, because there are no restrictions on the use of groundwater for nonpotable purposes, the property owner intends to implement an institutional control (i.e., deed restriction) to prevent any potential future use of groundwater. Regardless, as discussed further in Section 4.3.4, this risk assessment identifies concentrations and the locations where potentially significant groundwater concentrations were detected.

Sediment and Surface Water

Potential exposure of on-site residents to sediment and surface water are evaluated indirectly in this risk assessment using exposure estimates for on-site recreators, as explained in Section 4.1.4.6. This streamlines the risk assessment and is conservative because residential exposures to sediment and surface water are expected to be equal or less than that of a recreator. Therefore, the cumulative cancer risk and noncancer HI estimates for a resident are expected to be no higher than the estimates discussed in Section 4.3.2.6. As discussed in Section 4.3.2.6, the upper-bound estimates of site-related cumulative cancer risk for on-site recreator exposure to sediment and surface water during outdoor activities (and by analogy, on-site residential exposure to sediment and surface water) do not exceed the USEPA's risk management limits. Therefore, potential future residential exposure to sediment or surface water at the Site would not result in risk estimates which would warrant further evaluation for corrective action.

4.3.2.8 Off-Site Routine Workers

Soil

Potential exposure of off-site routine workers to on-site soil, if airborne particulates and vapor from on-site soil were to migrate off-site, is evaluated indirectly in this risk assessment using exposure estimates for off-site residents, as explained in Section 4.1.4.7. This streamlines the risk assessment and is conservative because off-site routine worker exposures would be lower than off-site residential exposures. Therefore, the cumulative cancer risk and HI estimates for off-site routine workers are expected to be no higher than the estimates discussed in Section 4.3.2.10. As discussed in Section 4.3.2.10, the upper-bound estimates of site-related cumulative cancer risk for off-site residential exposure to soil via inhalation of airborne vapor and particulates do not exceed the USEPA risk management limits. Therefore, potential off-site routine worker exposure to on-site soil via the inhalation of airborne particulates and vapors would not result in risk estimates which would warrant further evaluation for corrective action.

Groundwater

No site-related groundwater contamination currently extends off-site. Future exposure of off-site routine workers via vapor intrusion from groundwater contaminants that could migrate off-site in the future, if any, was evaluated indirectly in this risk assessment using the vapor intrusion risk estimates for on-site routine workers, as explained in Section 4.1.4.7. This streamlines the risk assessment and is conservative because off-site routine worker exposures to off-site groundwater are expected to be less than that of an on-site routine worker. Therefore, the

cumulative cancer risk and HI estimates for off-site routine workers are expected to be no higher than the estimates discussed in Section 4.3.2.2. As discussed in Section 4.3.2.2, the upper-bound estimates of cumulative cancer risk for on-site routine worker exposure to groundwater via vapor intrusion do not exceed the USEPA's risk management limits. Therefore, potential future off-site routine worker exposure to groundwater contamination (should it migrate off-site in the future) would not result in risk estimates which would warrant further evaluation for corrective action.

As discussed in Section 2.10, there are no drinking water supply wells downgradient of the Site and groundwater cannot be for potable purposes for new developments, under the County zoning ordinance, as discussed in Section 2.10. Therefore, groundwater is not expected to be used as a drinking water supply in the future downgradient of the Site. However, future nonpotable groundwater use may be possible. Therefore this pathway was conservatively evaluated by comparing groundwater concentrations to drinking water criteria (see Section 4.3.4).

As shown on Figure 4-6b, there are deep wells on the downgradient (southern) edge of the site where groundwater concentrations exceed drinking water criteria. While these locations are outside of the current zone of hydraulic influence of the ongoing interim measures being conducted by ARC, it was determined that off-site migration of constituents of potential concern (COPCs) is not a concern, as discussed further in Section 4.3.4.

4.3.2.9 Off-Site Maintenance Workers

Soil

Potential exposure of off-site maintenance workers to on-site soil, if airborne particulates and vapor from on-site soil were to migrate off-site, is evaluated indirectly in this risk assessment using exposure estimates for off-site residents, as explained in Section 4.1.4.7. This streamlines the risk assessment and is conservative because off-site maintenance worker exposures would be lower than off-site residential exposures. Therefore, the cumulative cancer risk and HI estimates for off-site maintenance workers are expected to be no higher than the estimates discussed in Section 4.3.2.10. As discussed in Section 4.3.2.10, the upper-bound estimates of site-related cumulative cancer risk for off-site residential exposure to soil via inhalation of airborne vapor and particulates do not exceed the USEPA's risk management limits. Therefore, potential off-site maintenance worker exposure to on-site soil via the inhalation of airborne particulates and vapors would not result in risk estimates which would warrant further evaluation for corrective action.

Groundwater

No site-related groundwater contamination currently extends off-site. Future exposure of off-site maintenance workers to on-site groundwater that could migrated off-site in the future are evaluated indirectly in this risk assessment using exposure estimates for on-site maintenance workers, as explained in Section 4.1.4.7. This streamlines the risk assessment and is conservative because off-site maintenance worker exposures to off-site groundwater are expected to less than that of an on-site maintenance worker. Therefore, the cumulative cancer risk and HI estimates for off-site maintenance workers are expected to be no higher than the estimates discussed in Section 4.3.2.3. As discussed in Section 4.3.2.3, the upper-bound

estimates of site-related cumulative cancer risk for on-site maintenance worker exposure to groundwater exceed the USEPA risk management limits for 5 locations. As shown on Figure 4-2, none of these locations are within 1,100 feet of the downgradient (southern) Site boundary and the downgradient perimeter wells do not have concentrations that pose an unacceptable risk.

Sediment and Surface Water

Potential exposure of off-site maintenance workers to sediment and surface water are evaluated indirectly in this risk assessment using exposure estimates for on-site maintenance workers, as explained in Section 4.1.4.7. This streamlines the risk assessment and is conservative because off-site maintenance worker exposures to on-site sediment and surface water are expected to be equal or less than that of on-site maintenance workers. Therefore, the cumulative cancer risk and HI estimates for off-site maintenance workers are expected to be no higher than the estimates discussed in Section 4.3.2.3. As discussed in Section 4.3.2.3, the upper-bound estimates of site-related cumulative cancer risk for on-site maintenance worker exposure to sediment and surface water do not exceed the USEPA's risk limits. Therefore, potential exposure of off-site maintenance workers to sediment and surface water would not result in risk estimates which would warrant further evaluation for corrective action.

4.3.2.10 Off-Site Residents

Soil

Residents could be exposed to on-site soil, if airborne particulates and vapor from on-site soil were to migrate off-site. The upper-bound estimates of total cumulative cancer risk and HI for potential exposure of off-site residents to soil based on the highest observed concentrations from any depth for all constituents at each location are summarized on Table 4-2b. This table shows that none of the locations exhibit upper-bound total cumulative cancer risks or noncancer HIs exceeding USEPA's risk management limits. Therefore, potential off-site resident exposure to on-site soil via the inhalation of airborne particulates and vapors would not result in risk estimates which would warrant further evaluation for corrective action.

The details of these calculations are presented in Appendix D.

Groundwater

No site-related groundwater contamination currently extends off-site. Future exposure of off-site residents to on-site groundwater that could migrated off-site in the future was evaluated indirectly in this risk assessment using exposure estimates for on-site residents, as explained in Section 4.1.4.7. This streamlines the risk assessment and is conservative because off-site residential exposures to off-site groundwater are expected to less than that of on-site residents. Therefore, the cumulative cancer risk and HI estimates for off-site residents are expected to be no higher than the estimates discussed in Section 4.3.2.7. As discussed in Section 4.3.2.7, the upper-bound estimates of cumulative cancer risk for on-site residential exposure to groundwater via vapor intrusion to indoor air exceed the USEPA risk management limits for four locations. As shown on Figure 4-2, none of these locations are within 500 feet of the downgradient (southern) Site boundary and the downgradient perimeter wells do not have concentrations that pose an unacceptable risk.

As discussed in Section 2.10, there are no drinking water supply wells downgradient of the Site and groundwater cannot be for potable purposes for new developments, under the County zoning ordinance, as discussed in Section 2.10. Therefore, exposure to groundwater from potable use is not reasonably expected in the future. However, because future nonpotable groundwater use may be possible, this pathway was conservatively evaluated by comparing groundwater concentrations to drinking water criteria to identify potentially significant concentrations (see Section 4.3.4). As shown on Figure 4-6b, there are deep wells on the downgradient (southern) edge of the Site where groundwater concentrations marginally exceed drinking water criteria. While these locations are outside of the current zone of hydraulic influence of ARC's ongoing groundwater remediation system, it was determined that off-site migration of COPCs is not a concern, as discussed further in Section 4.3.4.

4.3.3 Soil Impact to Groundwater

In addition to the assessment of exposures to constituents detected in groundwater, the significance of potential future exposures to constituents that could migrate from soil to shallow groundwater was evaluated.

For this evaluation, soil migration to shallow groundwater (MtGW) was assessed using the procedure outlined in USEPA's *Soil Screening Guidance* (USEPA 1996 May). Specifically, soil migration to groundwater criteria ($C_{soil\text{-}MtGW}$) protective of current and reasonably expected future shallow groundwater exposure pathways, as listed below, are calculated using two methods described by USEPA (USEPA 1996 May): a worst-case leach method; and an equilibrium partitioning method. The higher criteria from the two methods are selected as the more representative soil MtGW criterion for each constituent, as discussed below.

The soil MtGW criteria were calculated using the most stringent criteria applicable for each of the following groundwater exposure scenarios:

- Protection of Worker Groundwater Contact and Groundwater Vapor Intrusion Exposures: residential vapor intrusion criteria[13], construction worker contact criteria[13], and maintenance worker contact criteria[13].
- Protection of Surface Water Exposures: surface water criteria (Ambient Water Quality Criteria (AWQC)[14] and recreator surface water contact[13])

4.3.3.1 Worst Case Leach Test Method

For the leach test method, soil-pore water concentrations can be estimated from the soil data by assuming a hypothetical worst-case leach test in which the entire mass of the constituent in soil is extracted into the leaching fluid. With this assumption, and based on the procedures specified in USEPA's leach test (SW-846, Method 1312), the concentration of a constituent in soil can be divided by 20 (which is the ratio of the mass of leaching fluid to the mass of soil in the leaching test) to estimate its soil-pore water concentration. Using this assumption, the

[13] Criteria are the lower of the criteria calculated at either the target cancer risk of $1x10^{-5}$ or target HQ of 1.
[14] AWQC are chosen based on the following hierarchy: 1) Chronic Virginia AWQS, 2) Acute Virginia AWQS, 3) USEPA Region 3 AWQS and 4) USEPA Region 5 AWQS.

acceptable hypothetical soil concentration that could leach to groundwater is calculated as follows:

$$C_{soil-MtGW-LT} = C_{gw} \cdot DAF \cdot \frac{M_{fluid}}{M_{soil}} \cdot \frac{1}{\rho_{fluid}}$$

where C_{gw} is the acceptable constituent concentration in shallow groundwater (represented by the lowest value for each groundwater exposure scenario), *DAF* is the dilution attenuation factor, M_{fluid}/M_{solid} is the mass ratio of extraction fluid to soil (20 kg-extraction fluid per kg-soil), and ρ_{fluid} is the density of the extraction fluid (approximately 1 kg/L). For constituents that are relatively mobile, the leach test method provides a more realistic (yet conservative) soil-pore water concentration because it accounts for a finite amount of constituent mass in the soil.

4.3.3.2 Equilibrium Partitioning Method

The equilibrium partitioning method uses the theoretical "equilibrium-partitioning" (also called "soil/water partition") method as described in USEPA's 1996 *Soil Screening Guidance*. The acceptable hypothetical concentration of a constituent in soil is calculated as follows:

$$C_{soil-MtGW-Eq} = C_{gw} \cdot DAF \cdot \left(K_d + \frac{\theta_w + \theta_a H}{\rho_b} \right)$$

where C_{gw} is the acceptable constituent concentration in shallow groundwater (represented by the lowest value for each groundwater exposure scenario), *DAF* is the dilution attenuation factor, ρ_b is the soil dry bulk density, *H* is the Henry's law constant, K_d is the soil-water distribution coefficient, θ_w is water-filled porosity, and θ_a is the air-filled porosity. For constituents that are relatively immobile in the subsurface, the equilibrium partitioning method provides a more realistic (yet conservative) soil-pore water concentration because it assumes that the constituent concentration in soil remains constant (since the constituent is immobile, its concentration in soil does not significantly decrease over time).

4.3.3.3 Results

A comparison of the soil concentrations from the deepest soil sample at each soil sampling location to the soil MtGW criteria are presented on Table 4-6. In order to be considered an exceedance, detected concentrations in the deepest sample must be greater than soil background concentrations and the soil MtGW criteria. For this analysis, the soil background concentrations used are 99% upper-prediction limits (UPLs) using the background dataset discussed in Section 2.11.

Locations where at least one detected soil concentration from the deepest sample exceeds the background concentration (i.e., the UPL) and the soil MtGW criteria are presented on Figure 4-5. They are also listed below by groundwater exposure scenario and according to Landbay in the property owner's current site development plan:

Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures:

- No exceedances

Protection of Surface Water Exposures:

- Landbay A (proposed industrial/commercial use) - 60 locations
- Landbay B (proposed mixed use) – 65 locations
- Landbay C (proposed industrial/commercial use) – 5 locations
- Landbay D (proposed residential use) – 41 locations
- Landbay E (proposed residential use) – 58 locations

Current and reasonably expected future exposures to shallow groundwater at the Site include exposure of workers to groundwater via direct contact during excavation activities and exposure of residents and workers to groundwater via vapor intrusion. There are no soil concentrations from the deepest soil sample collected at any soil sampling location that exceed background concentrations and the soil MtGW criteria protective of worker exposures to groundwater during excavations or resident/worker exposure to groundwater via vapor intrusion.

The use of soil MtGW criteria to assess potential discharges of shallow groundwater to surface water is overly conservative because it does not account for the dilution and attenuation of groundwater contamination as groundwater moves through the subsurface to a surface water body and as the groundwater moves across the groundwater/surface water interface. Risks to human health associated with current and reasonable expected future exposures to surface water based on actual surface water sampling data are assessed in this risk assessment in Sections 4.3.2.3 (maintenance workers), 4.3.2.4 (construction workers), 4.3.2.5 (trespassers), 4.3.2.6 (recreators), 4.3.2.7 (residents). Potential ecological risks to the environment based on actual sampling data are assessed in Section 5.

As presented in Section 4.3.2.3 (maintenance workers), 4.3.2.4 (construction workers), 4.3.2.5 (trespassers), 4.3.2.6 (recreators), and 4.3.2.7 (residents) there are no locations of the Site with surface water concentrations which would result in cumulative cancer risks or noncancer HIs above USEPA's risk management limits of 10^{-4} and 1, respectively, when considering future resident, maintenance worker, construction worker, trespasser, or recreator exposure to sediment or surface water. Given these results, the significance of potential future human exposures to constituents that could migrate from soil to shallow groundwater is not a significant exposure pathway which would warrant further evaluation for corrective action.

4.3.4 Groundwater Comparison to Drinking Water Criteria

To identify concentrations in on-site groundwater that could pose a risk to on-site or off-site receptors in the future through exposures via potable and nonpotable use, detected groundwater concentrations on-site were compared to drinking water criteria. The drinking water criteria are the Federal MCLs, or the USEPA Regional Screening Level (RSL) for tap water ingestion (at a target cancer risk of 10^{-5} and a target HQ of 1) for constituents without MCLs. A comparison of the maximum detected groundwater concentrations at each location (based on the last two years of data available from each location for each constituent) to the

drinking water criteria are presented on Table 4-7. Locations where at least one of the maximum detected groundwater concentrations exceeding the drinking water criteria are presented on Figure 4-6a (shallow wells) and Figure 4-6b (deep wells). As discussed in the memorandum *Evaluation of the Potential for Off-Site Migration of Contaminants in Groundwater and Surface Water at the Atlantic Research Corporation* (Geosyntec 2011) submitted to USEPA, it was concluded that off-site migration of COPCs in groundwater is not a concern. The memorandum also concluded that the operation of the Northern Deep Groundwater Treatment System provides effective hydraulic containment and treatment of COPCs in deep groundwater. A list of the COPCs used in this evaluation is presented in the SRFI (Geosyntec 2009). USEPA agreed with these conclusions in a memorandum to the Sequa Corporation dated March 13, 2012 (USEPA 2012a).

4.3.5 Uncertainty Analysis

4.3.5.1 Exposure Concentrations

Most exposure concentrations for soil in this risk assessment are based on the highest concentrations detected in soil at each location, and refinements to the exposure concentrations (e.g., UCLs) are calculated only when an upper-bound estimate of the RME media-specific cumulative cancer risk or noncancer HI exceeds USEPA's risk management limits. As discussed in Section 4.3.2, this approach streamlines the risk assessment by avoiding the calculation of refinements (e.g., UCLs) that would not materially affect risk assessment conclusions regarding the need for interim measures and/or corrective measures.

However, this approach inflates the cumulative cancer risk and noncancer HI estimates that do not exceed USEPA's risk management limits, since these estimates are entirely based on maximum detected concentrations. As explained in Section 4.1.2, the use of maximum detected concentrations for all constituents introduces more conservatism than necessary for RME estimates because it assumes simultaneous worst case exposure to all constituents constantly, when the RME generally would not have all constituents at worst case concentrations at all times. The inflation of these risk and HI estimates makes them closer to the USEPA's cumulative cancer risk limit of 10^{-4} or noncancer HI limit of 1 than they would be if refinements such as UCLs were used for all constituents.

The above discussion regarding soil exposure concentrations also applies to groundwater exposure concentrations for the excavation scenarios, since maintenance workers and construction workers would not be expected to be exposed to groundwater with the maximum detected concentrations of every constituent during every on or off-site excavation.

For the groundwater vapor intrusion scenarios, the use of maximum detected concentrations also overstates the RME risk. This is because the groundwater under an individual on-site or off-site building is unlikely to have the maximum detected concentrations of all constituents. However, these upper bound estimates can be useful for identifying constituents for which significant risk is possible, so that risk based concentration limits for such constituents can be used to identify specific locations where significant exposures might occur.

Most exposure concentrations that are based on mathematical modeling of constituent transfer from soil or groundwater to air are conservative for the same reasons discussed above, since

the model estimates are based on the use of maximum detected concentrations in soil or groundwater. In addition, some model estimates are conservative because they do not account for the reduction of constituent concentration or mass in the soil or groundwater as constituents transfer from these media. Even for models that account for reduction of mass in the soil (e.g., Jury model), risk calculations for ingestion and dermal contact with soil assume soil concentrations remain constant, which is consistent with USEPA practice but contradicts the mass conservation principle. As a result, risk estimates that are based on the sum of risk estimates from soil and soil vapor/particulates are more conservative than necessary for RME estimates. These include almost all of the risk estimates discussed in Section 4.3.2.

4.3.5.2 Characterization of the Extent of Areas with Unacceptable Risks

As discussed in Section 4.3.2, areas of the Site with soil concentrations that pose an unacceptable risk under residential land use are shown on Figure 4-1e. The extent of the areas shown on this figure was determined by a Thessien polygon tessellation that used all soil sampling locations regardless of whether samples from each location were analyzed for all constituents, as shown in Figure 4-1a and described in Section 4.1.2. As such, some of the areas with unacceptable risk shown on this figure could be underestimated because some of the sample locations adjacent to an area were not analyzed for the constituent(s) having detected concentrations that contributed to an unacceptable risk estimate.

To identify the areas where risks may be underestimated, each sample location with an unacceptable risk estimate was reviewed to determine if the constituents causing the unacceptable risk (i.e., COPCs) were analyzed at the surrounding soil sampling locations. This review found only two situations where the size of an area shown on Figure 4-1e could be underestimated as a result of lacking data for these COPCs at some surrounding sample locations. These two situations are discussed below.

- As discussed in Section 4.3.2.7, location 230-BM is located in Landbay E and has a noncancer HI of 3 for residential exposure to soil via vapor intrusion. This noncancer HI is almost entirely due to a mercury concentration of 2.6 mg/kg. A review of the soil sampling locations around 230-BM indicates that some of the adjacent sampling locations were not analyzed for mercury, which means the mercury concentration at 230-BM could represent an area larger than shown on Figure 4-1e (original area = 0.03 acres). The size of this larger area is shown on Figure 4-7 (alternative area = 0.43 acres). The polygons on Figure 4-7 are from a Thiessen polygon tessellation that uses only sampling locations that were analyzed for mercury.

- As discussed in Section 4.3.2.7, on-site residents could be exposed to contaminants in soil via the ingestion of homegrown produce. The locations with unacceptable risk via the ingestion of homegrown produce are shown on Figure 4-1c. These locations are identified almost entirely due to concentrations of perchlorate. A review of the data around each of these locations indicates that several of the surrounding sampling locations were not analyzed for perchlorate, which means the perchlorate concentration at some areas could represent larger areas than shown on Figure 4-1c (original total area = 7.3 acres). The larger areas are shown on Figure 4-8 (alternative total area = 9.8

acres), which is based on a Thiessen polygon tessellation that uses only sampling locations that were analyzed for perchlorate.

4.3.5.3 Exposure Factors

As discussed in Section 4.1.4, most of the exposure factors used in the risk assessment are high-end (i.e., 90th to 95th percentile) estimates of the magnitude, frequency, and duration of potential exposures. When several such high-end factors are multiplied, the resulting estimates of dose will be higher than the 90th percentile of the distribution of exposures in the potentially exposed population and could be higher than the exposure to the maximally exposed individual, particularly when such exposure factors are combined with exposure concentrations that are based on maximum detected concentrations (as discussed above).

Also, the use of generic default exposure factors for evaluation of potential exposure of workers to soil is more conservative than necessary for RME estimates, which allow the use of site specific considerations (USEPA 1989). For example, the "fraction contacted" terms used in this evaluation assume that routine workers are exposed to soil for an entire work day at each area, but workers at commercial/industrial sites generally spend only a part of the work day at a particular part of a site.

4.3.5.4 On-Site Hypothetical Outdoor Worker Soil Exposure

Because there is some uncertainty in the current site redevelopment plans, other land uses and exposure scenarios that are not expected in the current site redevelopment plans may be possible. One such possible future land use could involve having workers who will be outdoors and in contact with soil every day for the entire exposure period (i.e., ingesting soil at 100 mg/day for 250 days/year over 25 years). It is important to note that, while some details of the current site redevelopment plan may change, such changes would not likely alter the types of land uses considered for future development. Currently the development plan does not anticipate use which would involve land activities where workers would be expected to work all day outdoors every day for 25 years. However, as requested by USEPA, a hypothetical outdoor worker scenario has been evaluated as part the uncertainty analysis. This specific uncertainty analysis provides a very conservative perspective for how the risk estimates could change in the event that future land use at the Site is not consistent with the expected future land uses in the current site redevelopment plans (i.e., mixed residential and light-industrial/commercial land use).

Potential exposure of on-site hypothetical outdoor workers to constituents in soil at each location is evaluated in this uncertainty analysis by conservatively assuming the workers are exposed to the outdoor soil for the entire work day.

The upper-bound estimates of site-related cumulative cancer risk and noncancer HI for potential exposure of hypothetical full-time outdoor workers is based on the highest observed concentrations for all constituents in soil at each location. These upper-bound risks results are summarized on Table 4-8a. This table shows that three of the locations have upper-bound site-related noncancer HI estimates which exceed USEPA's risk management limit of 1 (i.e., 2 GP-09, 42 GP-19, and 42 GP-28). Two of these three locations (2 GP-09 and 42 GP-28) also have

routine worker upper-bound site-related noncancer HIs above USEPA risk management limit of 1 (see Section 4.3.2.2).

The noncancer HIs estimate for on-site hypothetical outdoor worker exposure to soil at each of the three locations is due to PCBs (total) concentrations. As such, a 95% UCL on the PCBs (total) concentration was calculated for a half-acre exposure area around each location. The 95% UCL on the mean was calculated by using the maximum concentration from each soil sample location within the half-acre exposure area. The soil locations and their associated exposure area are listed below:

Exposure Area	Location
42 GP-28/42 GP-19Area	42 GP-28 42 GP-19
SRA 6 (South)	2 GP-09

The refined risk estimates for each of these exposure areas are shown on Table 4-8b. This table shows that using conservative estimates of the 95% UCL on the mean PCBs (total) concentration for each exposure area reduces the noncancer HI estimates to at or below USEPA's risk management limit of 1. Therefore, the addition of the hypothetical outdoor worker would not change the conclusions of the risk assessment.

The details of these calculations are presented in Appendix D.

4.3.5.5 On-Site Construction Worker Soil Exposure

The soil ingestion rate for estimating exposure of construction workers to soil in this risk assessment is 200 mg/day. As noted in Section 4.1.4.3, this ingestion rate is based on USEPA-compiled soil-to-hand adherence data for construction-related activities (USEPA 1997a), and is believed to be plausible, conservative, and consistent with the expectation that incidental soil ingestion is associated primarily with hand-to-mouth contact. More recently, USEPA guidance (2002 December) recommends an ingestion rate of 330 mg/day that is based on the variability in the data from a single soil ingestion study that involved a very small number of individuals. This ingestion rate was not used in the risk calculations discussed in Section 4.3.2.4 because it is based on very limited data that might not be appropriate for representing actual exposure. However, risk estimates for construction worker exposure to soil were calculated using the higher ingestion rate of 330 mg/day and these risk estimates were compared to those calculated using 200 mg/day on Table 4-8a. Using the ingestion rate of 330 mg/day, four additional locations have an upper-bound location-specific noncancer HI exceeding USEPA's risk management limit of 1, as listed below**:**

Landbay A (proposed industrial/commercial use):

- 3600-3800 (HI of 2 due to manganese, iron and cobalt)

Landbay B (proposed mixed use)

- 5850-2600 (HI of 2 due to perchlorate)

Landbay D (proposed residential use)

- 2 GP-09 (HI of 2 due to PCBs [total])
- 42 GP-28 (HII of 2 due to PCBs [total])

Location 3600-3800 is located in Landbay A and exhibits an upper-bound noncancer HI of 2 for construction worker exposure to soil assuming an ingestion rate of 330 mg/day. This location-specific upper-bound noncancer HI is primarily the result of the manganese concentration of 6,140 mg/kg (HQ of 1), but the iron concentration of 132,000 mg/kg (HQ of 0.3) also contributes to the cumulative noncancer HI of 2. Because manganese (neurological) and iron (gastrointestinal) cause different and unrelated noncancer health effects, summing the HQs for their individual effects overestimates the significance of their combined effects (see Appendix D for supporting details). When segregated by their individual target health effect, the noncancer HI for each effect is equal to or below USEPA's risk management limit of 1.

Location 5850-2600 is located in Landbay B and exhibits an upper-bound noncancer HI of 2 for construction worker exposure to soil assuming an ingestion rate of 330 mg/day. This location-specific upper-bound noncancer HI is primarily the result of the perchlorate concentration of 420 mg/kg (HQ of 2) which was observed at 2-4 ft bgs. This detected concentration is from one of four soil samples collected at this location in November 2008 and analyzed for perchlorate. The following perchlorate concentrations were observed at this sample location:

- 56 mg/kg (0-2 ft bgs)
- 420 mg/kg (2-4 ft bgs)
- 7.15 mg/kg (4-8 ft bgs)
- 0.36 mg/kg (8-9.5 ft bgs)

Based upon these results, a depth-weighted vertical average concentration at this location is calculated to be 103 mg/kg. Using this depth-weighted vertical average concentration for perchlorate as an exposure concentration to which the construction worker receptor would be exposed on average during excavations with equal chance of extending to any of these depths, results in a noncancer HQ of 0.5 for perchlorate and a noncancer HI of 0.7, below USEPA's risk management limit.

Location 2 GP-09 is located within exposure area SRA 6 (South) and exhibits an upper-bound noncancer HI of 2 for construction worker exposure to soil assuming an ingestion rate of 330 mg/day. This location-specific upper-bound noncancer HI is primarily the result of the PCBs (total) concentration of 24.2 mg/kg. As presented on Table 4-8b, using a refined exposure concentration for PCBs (total) which is based upon using the 95% UCL on the mean PCBs (total) concentration in SRA 6 (South) results in a noncancer HI for construction worker exposure of 0.9, below USEPA's risk management limit.

Location 42 GP-28 is located within exposure area 42GP28/42GP19 and exhibits an upper-bound noncancer HI of 2 for construction worker exposure to soil assuming an ingestion rate of 330 mg/day. This location-specific upper-bound noncancer HI is primarily the result of the

PCBs (total) concentration of 23 mg/kg. As presented on Table 4-8b, using a refined exposure concentration for PCBs (total) which is based upon using the 95% UCL on the mean PCBs (total) concentration in exposure area 42GP28/42GP19 results in a noncancer HI for construction worker exposure of 1, equal to USEPA's risk management limit.

4.3.5.6 Extrapolated Toxicity Values

As discussed in Section 4.2.3, the dermal toxicity values used in the risk assessment are oral toxicity values that were extrapolated to the dermal route without chemical-specific judgment regarding whether such extrapolation might be appropriate for a particular chemical. This is consistent with USEPA guidance (2004b) and is a conservative approach to ensure that potential risk via the dermal route is not overlooked. However, some constituents might exhibit different degrees of toxicity for the dermal route relative to the oral route. For such constituents, the extrapolation approach used in the risk evaluation could introduce uncertainty.

4.3.5.7 Risk Characterization

The summation of cancer risks and HQs for multiple constituents, as described in Section 4.3.1, is based on USEPA guidance (1989) to assume dose additivity, which means that constituents in a mixture are assumed to have no synergistic or antagonistic interactions and each constituent has the same mode of action and elicits the same health effects. In general, this approach can introduce significant uncertainty. However, the majority of the media-specific cumulative cancer risk and HI estimates in this risk assessment are dominated by contributions from no more than a few constituents, so that the media-specific cumulative risk estimates are nearly the same as those for the few key constituents.

4.3.5.8 Consideration for Thallium PPRTV Appendix Toxicity Values

No toxicity values are currently available for thallium, and therefore, the risk estimates presented in this risk assessment may be low for locations where thallium was detected. The USEPA's RSL tables list a value that is based on the use of a toxicity value discussed in the appendix to the PPRTV paper for thallium (USEPA 2010 October). Although the PPRTV appendix indicates that "Screening Value" in the appendix may be of limited use to risk assessors, such uses may not include RCRA risk assessments because USEPA's OSWER Directive 9285.7-53 states that toxicity values for CERCLA and RCRA risk assessments should be from the three-tier hierarchy of sources described in the Directive. PPRTV Appendix Values are not on the hierarchy—they are below Tier 3, "Other (Peer-Reviewed) Toxicity Values". For thallium, no toxicity value from any of the three tiers specified in the OSWER Directive is available. In fact, the Tier 1 source (IRIS) considered the study used to derive the PPRTV appendix value and determined that the study was not of sufficient quality to establish a toxicity value (USEPA 2009 September). In addition USEPA explains that the PPRTV appendix values are not defensible as the primary drivers in making cleanup decisions because they are based on limited information (USEPA 2009 September, *Nitroaniline PPRTV paper*). With consideration for this limitation, use of the PPRTV Appendix oral RfD for thallium would not be defensible in quantifying risk in order to support RCRA corrective measures decisions and the risk characterization results for soil presented in Section 4.3.2 did not utilize the PPRTV Appendix oral RfD for thallium.

To help assess the uncertainty associated with not using the thallium oral RfD from the PPRTV appendix, the refined site-related noncancer HI estimates for each receptor's exposure to soil were recalculated to include the PPRTV Appendix oral RfD for thallium. The results of the recalculated upper-bound risk estimates are shown on Table 4-9a.

A comparison of Tables 4-2c and 4-9a show that no additional locations have upper-bound site-related risk estimates that exceed USEPA risk management limits for routine worker and maintenance worker exposure to soil during outdoor activities, one additional location has upper-bound site-related risk estimates that exceed USEPA risk management limits for construction worker exposure, and 43 additional locations have upper-bound site-related risk estimates that exceed USEPA risk management limits for residential exposure. The maximum HQ that thallium contributed to these estimates is 5.1.

Consistent with the methodology implemented for the baseline risk assessment, refined exposure concentrations were calculated for thallium at the locations exhibiting upper-bound risk estimates above USEPA's risk management limits. The refined risk estimates are shown on Table 4-9b. A comparison of Tables 4-2d and 4-9b shows that no additional soil exposure areas have risk estimates for routine worker exposure to soil during outdoor activities that exceed USEPA's risk management limits, one additional soil exposure area has risk estimates for construction worker exposure that exceed USEPA's risk management limits, and five additional soil exposure areas have risk estimates for residential exposure that exceed USEPA's risk management limits.

Thallium was not detected in groundwater or surface water data collected within 2 years of the most recent analysis at each location. Thallium was detected at two sediment sampling locations (i.e., Infall 001 and Infall 002), but the use of the appendix toxicity value does not change the conclusions of the risk assessment.

5. Ecological Risk Assessment

The first step in the ERA process is a screening-level ecological risk assessment (SLERA) which conservatively estimates the potential for ecological risks. The SLERA is followed, as needed, by a baseline ecological risk assessment (BERA) which focuses on the constituents, media, and receptors identified in the SLERA as needing further evaluation. The ERA is conducted in a manner consistent with key elements of the following USEPA ERA guidance:

- *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments Interim Final* (1997b);
- *Guidelines for Ecological Risk Assessment* (1998);
- *ECO-Update: Role of Screening-level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessment* (2001a);
- *Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment* (2001b); and
- *Generic Ecological Assessment Endpoints (GEAEs) for Ecological Risk Assessment* (2003).

The USEPA ERA approach is an 8-Step process, as illustrated on Figures 5-1A and 5-1B. Steps 1 and 2 comprise the screening-level ERA (SLERA), while Steps 3 through 8 comprise the baseline ERA (BERA) (USEPA 1997b, USEPA 1998, USEPA 2001a). The purpose of a SLERA is to either indicate that there is a high probability that there are no ecologically significant risks or to indicate the need for additional consideration (USEPA 1997b). A SLERA evaluates the potential risk to ecological receptors exposed to constituents by providing a conservative estimate of the risks that may exist, and incorporates uncertainty in a conservatively protective manner. A BERA is more complex than a SLERA and typically incorporates more realistic exposure information to more realistically assess potential risks. Only those receptors and constituents identified as presenting potentially significant risks in the SLERA are carried forward into a BERA.

Step 3 of the BERA (the Problem Formulation) is commonly presented in two parts: Step 3a and Step 3b. Step 3a of the ERA process is an opportunity for iterative refinement of potential risks using methods similar to those used in Steps 1 and 2 (USEPA 2001a). Specifically, constituents of potential ecological concern (COPECs) that are identified in the SLERA are re-evaluated and may be eliminated from further consideration based on the refinement of certain assumptions, such as realistic exposure estimates, consideration of more realistic measures of effect, and consideration of spatial distribution of constituents. Only those chemicals and receptors that are identified as potentially significant following the refined screening analysis in Step 3a are carried forward into the full BERA (Steps 3b through 8).

Within the ERA process, there are clearly-defined scientific management decision points (SMDP) (USEPA 1997b, USEPA 2001a). The SMDPs represent critical steps in the process where ecological risk management decision-making occurs. Generally, the following types of decisions are considered at the SMDPs:

- Whether the available information is adequate to conclude that ecological risks are negligible and, therefore, there is no need for any further action on the basis of ecological risk;
- Whether the available information is not adequate to make a decision at this point, and the process will continue; and,
- Whether the available information indicates a potential for adverse ecological effects, and a more thorough assessment or remediation is warranted.

The remainder of this ERA is organized as follows:

- Section 5.1 provides the SLERA;
- Section 5.2 provides Step 3a of the BERA; and
- Section 5.3 provides the Conclusions and SMDP.

5.1 Screening-level Ecological Risk Assessment

This SLERA includes the following steps and is organized as follows:

- Section 5.1.1 provides the Step 1: Screening-Level Problem Formulation;
- Section 5.1.2 provides the Step 1: Screening-Level Ecological Effects Evaluation;
- Section 5.1.3 provides the Step 2: Screening-level Exposure Estimate;
- Section 5.1.4 provides the Step 2: Screening-Level Risk Calculation;
- Section 5.1.5 provides the SLERA Uncertainties Evaluation; and,
- Section 5.1.6 provides the conclusions and SMDP for the SLERA.

5.1.1 Step 1: Screening-level Problem Formulation

The screening-level problem formulation defines the reasons for conducting the SLERA and the methods for analyzing and characterizing risks. Information pertaining to site characterization, potential receptors, sources and effects of stressors, and ecosystem characteristics is vital to the problem formulation. The screening-level problem formulation provides the information used to establish the overall goals, breadth, and focus of an SLERA (USEPA 1997b, USEPA 1998, USEPA 2001a).

The screening-level problem formulation identifies: 1) the assessment endpoints that reflect the management and ecosystem attributes that are to be protected; 2) the methods that are used to evaluate potential risks for each of the assessment endpoints; and 3) a conceptual site model (CSM) that describes the relationships between stressors and the assessment endpoints. The remainder of this section presents the following components of the screening-level problem formulation:

- Environmental Setting;
- Constituents Detected;
- Constituent Fate and Transport Pathways;

- Mechanisms of Ecotoxicity;
- Potentially Exposed Receptors;
- Identification of Potentially Complete Exposure Pathways and Conceptual Site Model; and
- Identification of Generic Assessment and Measurement Endpoints.

5.1.1.1 Environmental Setting

This characterization of the environmental setting is based on previous site reports along with a field survey conducted in November 2011 by a qualified environmental biologist from ENVIRON. Supplementary information from literature which supports this environmental setting is provided in Appendix E, and includes:

- National Wetlands Inventory (NWI) Maps and information
- Protected species information

The Site, taken as a whole, is a mix of habitats that include pine/hardwood forest, open fields and grasslands, and scattered shrubs/open fields that have been left largely undeveloped or unlandscaped and unmaintained since Site activities ceased in 2004 (though many areas were largely untended before then, too). This area is starting to experience natural succession from open fields to forests. A variety of wildlife uses this area, potentially because it is a refuge in the continuing development of the larger regional landscape. The mosaic and range of habitat types (mature forest to open fields; ephemeral drainages to perennially flowing streams to ponds) provides habitat for a diverse variety of wildlife receptors.

An ENVIRON biologist conducted a survey of the site in 2011. Site operational areas and associated habitats (both terrestrial and aquatic) were reviewed to broadly evaluate the ecological community at the Site. This survey included visual and/or auditory observations for flora and fauna within the property boundary. Detailed findings of the ecological characterization are provided in Appendix E; a summary of these findings is presented below.

5.1.1.1.1 Terrestrial Habitats On-Site

Approximately 85 percent of the Site is vegetated and consists of mixed pine/hardwood forest, open field/grassland, and scattered shrub/open fields. A diverse canopy of tree species, midstory/shrub species, and herbaceous flora exists within the terrestrial habitats. The forested areas of the site are largely dominated by oaks and hickories, with a few pine species in some areas (Appendix E). Within the open fields, vegetation is dominated by grasses and sedges with various shrubs and young trees lending structure as the fields continue to become overgrown. Common wildlife receptors noted on site include deer, coyote, beaver, fox, raccoons, rabbits, small mammals, wild turkeys, hawks, numerous songbirds, waterfowl, frogs, turtles, and snakes (Appendix E). More birds, and a larger diversity of birds, were observed than other taxa. The site could be expected to support a variety of terrestrial wildlife receptors typical for this area.

5.1.1.1.2 Aquatic Habitats

A total of eleven ephemeral drainages, three perennial streams (Streams 1, 2, and 5), and six intermittent streams (upper reaches of Streams 1, 2, and 5, as well as Streams 3, 4, and 6) drain the property. The locations of the surface water features are depicted on Figure 5-2. Ephemeral drainages are linear drainage features that convey storm water during and shortly after rain events. These systems are incapable of supporting aquatic life. Intermittent streams are those that have seasonal or periodic groundwater contribution. These systems can provide habitat for some short-lived aquatic taxa. Perennial streams are systems that are primarily fed by groundwater and are capable of supporting aquatic life throughout the year. All of these linear surface water features have morphology that is typical of streams in the area.

Three open water features (Ponds 1, 2, and 3) were also observed on the property. These features are relatively shallow, man-made ponds that typically impound linear surface water features. Impoundment structures for these ponds are comprised of earthen dams with various water control structure devices.

The current National Wetlands Inventory (NWI) map of the area indicates wetlands along some of the perennial drainages (Figures 5-3a and 5-3b). Based on the available mapping and site visit, wetlands are possibly present on the site. The largest of these wetland-like systems (Wetland F) is a beaver-influenced wetland located along the southern property line where Stream 1 exits the property at a culvert beneath Wellington Road. Other wetland-like areas on the property include herbaceous systems adjacent to open waters (Wetlands E and G), an herbaceous wetland-like area within an abandoned pond (Wetland A), herbaceous wetland-like areas within the field of the Rocket Test Area (Wetlands B and C), forested wetland-like areas along stream margins (Wetlands H, F, and K), and two potentially isolated wetland-like areas (Wetlands I and J).

Wildlife receptors noted on site in the aquatic areas included green and blue herons, waterfowl, raccoons, songbirds, frogs, turtles, and aquatic insects (Appendix E). The Site could be expected to support a variety of aquatic wildlife receptors typical for this area.

5.1.1.1.3 Protected Species

A literature review of protected species that could potentially inhabit the site was performed. The US Fish and Wildlife Service's (FWS) Information Planning and Conservation System (iPAC) was used to identify which Federally-listed threatened or endangered species that might occur near the site (the iPAC report is included in Appendix E). The Virginia Department of Conservation and Recreation's (VDCR) Natural Heritage Resources Information database was used to identify which state-listed threatened and endangered species might occur in Prince William County (the database results are included in Appendix E). Virginia also maintains the Virginia's Fish and Wildlife Information System (VaFWIS) that shows potential rare species within a three mile radius of a designated point (the report is included in Appendix E). It is unclear why the two Virginia state systems (VCDR and VaFWIS) do not report the same species.

The federally-listed threatened and endangered species potentially occurring near the site include (iPAC 2012):

- Dwarf wedgemussel, a bivalve clam;
- Harperella, a flowering plant; and
- Small Whorled Pogonia, a flowering plant.

The additional state-listed threatened and endangered species potentially occurring in Prince William County are (VCDR 2012):

- Bald Eagle, a raptoral bird;
- Brook Floater, a bivalve clam;
- Virginia Piedmont Water Boatman, an aquatic insect; and
- Torrey's Mountain Mint, a plant.

Additionally, Virginia's Fish and Wildlife Information System (VaFWIS 2012) indicates the following additional species might be present within 3 miles of the site:

- Upland sandpiper, an aquatic bird;
- Loggerhead shrike, a raptoral bird;
- Henslow's Sparrow, a songbird;
- Yellow lance, a bivalve clam,
- Atlantic sturgeon, a fish,
- Persius duskywing, a butterfly;
- Regal fritillary, a butterfly;
- Appalachian grizzled skipper, a butterfly;
- Dotted Skipper, a butterfly; and
- Wood turtle, a reptile.

A summary of the preferred habitat and status of these organisms is provided on Table 5-1.

There are four state-listed threatened birds potentially in the area of the site, which include the bald eagle, upland sandpiper, loggerhead shrike, and Henslow's sparrow. The bald eagle is additionally a federal species of concern.

- The bald eagle is associated with larger bodies of water, and is unlikely to be present at the Site because the water bodies are too small.
- The upland sandpiper prefers large grazed/occasionally mowed grassy fields or prairie sloughs. This habitat is not found at the Site, and therefore this bird is unlikely to be present at the site.
- The loggerhead shrike prefers open country with scattered trees and shrubs. Suitable habitat for this bird is possibly present at the Site.

- The Henslow's sparrow requires open grasslands of greater than 250 acres (Currier, 2001); therefore, this site is not suitable to support a population of this species (despite the presence of smaller open field habitats).

There is one state-listed threatened reptile potentially in the area of the site, the wood turtle. Wood turtles live along permanent streams along the borders of woods, or areas with a low canopy cover. The Site is along the far southern end of the species' preferred range, and is unlikely to occur at the Site.

There is one federally-listed endangered species potentially in the area of the Site, the Atlantic sturgeon. The aquatic features of the site are too small, too far inland, and often too ephemeral for sturgeon. It is extremely unlikely that sturgeon would be found here.

There is one state-listed endangered bivalve, one federally listed endangered bivalve, and one bivalve that is a federal species of concern that are potentially in the area of the Site.

- The brook floater is a state-listed endangered bivalve. It is typically found in riffles and moderate rapids with sandy shoals or riffles with gravel bottoms. This habitat is rarely found or absent at the Site, and it is unlikely to be present at the Site.
- The dwarf wedgemussel is a federally listed endangered species. This mussel lives on muddy sand, sandy, and gravel stream bottoms that are nearly silt free. Given the disturbed, landscaped, and altered nature of parts of the Site, silt-free waters are exceedingly rare or absent, and it is unlikely to be present at the Site.
- The yellow lance is a federal species of concern. It prefers clean, coarse to medium sized sands as substrate, on occasion, specimens are also found in gravel substrates. This habitat is rare or absent, and it is unlikely to be present at the Site.

Additionally, the reproduction of all three of these species depends on their larvae parasitizing fish hosts. Given the small size and/or ephemeral nature of many of the water bodies on site, there may not be sufficient hosts for their larvae, which makes it further unlikely they will be present on Site.

There are five insects that are federal species of concern that may potentially occur in the area of the Site. Among these organisms, the Appalachian grizzled skipper (a butterfly) is a state-listed threatened species and the Virginia piedmont water boatman is a bug that is a state-listed endangered species.

- The Persius Duskywing is a butterfly that is a federal species of concern. It occurs in jack pine barrens, pitch pine-scrub oak barrens, oak savannas, scrubby ridgetops, or powerlines within such settings. This habitat is not present or rare at the Site, and it is unlikely that this insect will be found at the Site.
- The Regal Fritillary is a butterfly that is a federal species of concern. It is mostly found in anthropogenic habitats such as wet meadows, pastures, hayfields, old fields, along streams in open areas. Although this species may require relatively large habitats on the order of perhaps 50 hectares for a marginally viable occurrence it is possible that this insect will have suitable habitat at the Site.

- The Appalachian Grizzled Skipper is a butterfly that is a federal species of concern and a state-listed threatened species. Habitat for this species is openings within jack pine or pine-oak barrens, including trap rock glades and associated woodland. Shale barrens, pastures and powerlines on south to west facing shale slopes, always with much bare rock or soil also are frequent habitat. It is possible that this insect will have suitable habitat at the site.
- The Dotted Skipper is a butterfly that is a federal species of concern. It is restricted to xeric to ultaxeric sandy situations or very nearly so. Sparse stunted grasses and patches of xeric bare white sand appear to be constant habitat feature. This habitat is not present or exceedingly rare at the Site, and it is unlikely that this insect will be found at the Site.
- The Virginia Piedmont water boatman (according to the Virginia Department of Game and Inland Fisheries, VaDGIF, 2005) is known from only five locations in Virginia (Fluvanna, Hanover, Caroline, and Prince William counties). Surveys were conducted by VCDR in 1997 at 27 sites, but the organism was only collected in one site. Historical and recent collections were made in fairly deep pools found in streams with a matrix of riffles, runs, and pools. Riparian vegetation included grasses, forbs, and blackberries. The pools in on site are generally relatively shallow, and lack the complex morphology needed to support this organism and it is unlikely to be found on site.

There are three federally-listed plants that may potentially occur in the area of the Site.

- Harperella is a federally listed endangered plant that occurs in three habitat types: rocky/gravelly shoals or cracks in bedrock outcrops beneath the water surface in clear, swift-flowing streams (usually in microsites that are sheltered from rapidly moving water); edges of intermittent pineland ponds or low, wet savannah meadows on the Coastal Plain; and granite outcrop seeps. This habitat is not present or exceedingly rare at the Site, and it is unlikely that this plant will be found at the Site.
- The Small Whorled pogonia is a federally-threatened species and a state-listed endangered species. It is ordinary looking third-growth upland forests with an open understory and a closed canopy where the topography is typically moderately sloping or almost level. The pogonia is found in soils that are acidic sandy loams with low nutrient content. This habitat is not present or exceedingly rare at the Site, and it is unlikely that this plant will be found at the Site.
- Torey's Mountain Mint grows in dry rocky deciduous woods, which are not typically found on site, and it is unlikely to be found on site. This habitat is not present or exceedingly rare at the Site, and it is unlikely that this plant will be found at the Site.

In conclusion, no federally endangered or threatened species or their habitats were identified as likely to occur at the Site. Suitable habitat for protected species is limited only to the loggerhead shrike (state-listed threatened species) and one butterfly federal species of concern, and one butterfly federal species of concern that is also a state-listed threatened species. All other listed species are not likely to occur based on existing site conditions that are dissimilar to those species' preferred habitats.

5.1.1.2 Constituents Detected

Data available as of February 28, 2012 were considered for use in the risk assessment. All soil, surface water, and sediment data collected during the SRFI are evaluated in the baseline risk assessment, except as discussed in Section 3. With specific regards for the ERA, the following data were utilized:

- Surface water data from the last two years were used for the ERA to characterize current conditions. The maximum concentration at each location was used to calculate site-wide central tendency concentrations. This allows a conservative estimation of a site wide exposure point at the surface water sampling locations where multiple samples were collected.
- All available sediment data were used in the ERA; and
- All soil data from depths shallower than 2 feet bgs were used in the ERA[15]. This focuses the ERA on the soil strata where wildlife receptors are most likely to be present.

VOCs, SVOCs, inorganic constituents, explosives, PCBs (total), and dioxins/furans were detected in the site media relevant to the ERA. Tables 5-2, 5-3, and 5-4 detail the constituents detected in the media relevant to the ERA in surface water, sediment, and soil respectively (including frequency of detection, maximum concentration, and analytical limits). Appendix E provides a record of the data used in this ERA.

5.1.1.3 Constituent Fate and Transport Pathways

The screening-level problem formulation describes the fate and transport pathways that might allow a constituent to reach environmental media in contact with an organism. Identifying potential pathways and routes of exposure is important because these factors have a strong influence on the ecological effect of a constituent. This information is ultimately used to develop the CSM.

Releases of various COPECs occurred via mechanisms related to Site operations, waste handling and spills. Impacts are related to several mechanisms, including: release due to standard operations such as propellant mixing and grinding (primarily for perchlorate and RDX); releases during storage and staging (various COPECs); releases from aboveground and underground storage tanks (ASTs and USTs; primarily petroleum hydrocarbons); spills (known to have occurred for chlorinated solvents and PCBs (total)); waste disposal through burial of waste and debris in various areas of the Site; and waste treatment at several thermal treatment facilities at the Site. Impacted media include soils, surface water, and sediment. Constituents detected include PCBs (total), perchlorate, RDX, and VOCs including PCE, 1,1,1-TCA, 1,1-DCE, and 1,1-DCA. Other constituents that are found with limited distribution and/or coincident with the PCBs (total), perchlorate, RDX, and VOCs include HMX, SVOCs (polycyclic aromatic hydrocarbons and plasticizers), and metals.

[15] If a soil sampling location did not have a shallow sample (0-2 ft bgs) then data from the shallowest sample collected at that location was used.

The predominant transport mechanisms for the COPECs after release to soil are dissolution and migration via overland flow through drainage pathways to surface water, or infiltration through the soil into groundwater. Impacts to sediment at this Site typically occur due to deposition of suspended soil transported during precipitation events in surface runoff from soil source areas. As a result, the constituents most frequently detected in sediment are those that are naturally occurring in soils (metals, carbon disulfide) and those that preferentially sorb to soils (e.g., PCBs (total) and SVOCs).

- VOCs migrate as vapors in the vadose zone originating from VOCs in unsaturated soil within former VOC release areas, and from VOCs in groundwater. While VOCs can sorb to organic material in soil and sediment, they also naturally attenuate where conditions conducive to biodegradation exist or via volatilization in surface water.
- Metals, PCBs (total) and SVOCs have low solubilities and higher sorptive affinities for soil, and are relatively immobile as a result. Migration of these constituents into surface water may occur through transport of contaminated soil in overland surface water runoff, but not generally through leaching into groundwater. This is confirmed by the insignificant groundwater impacts detected on Site and detection in sediments only. Metals are also naturally present in all environmental media across the entire site, and thus are difficult to differentiate from anthropogenic sources.
- Perchlorate is an inorganic compound often used as a propellant. It is a highly soluble salt, and may be quite mobile in water and/or ground water (USEPA 2012b). Once present in water, it tends to stay dissolved rather than partition into sediment or volatilize into the air (USEPA 2012b). Therefore, sediment exposures are expected to be dominated by exposure to pore water, which is assumed to be equal to surface water (USEPA 2002). Shallow groundwater discharge to surface water has resulted in low level concentrations of perchlorate in surface water bodies. Due to its high solubility, perchlorate is not generally found in sediment, as it dissolves readily in water. Perchlorate naturally attenuates in water with anaerobic and reducing conditions, as occurs in Site groundwater.
- The nitroaromatics RDX and HMX have similar physical properties and fate and transport. They are relatively insoluble in water, and are unlikely to bind to soil or sediment (ATSDR 2001, ATSDR 1997). Both RDX and HMX photodegrade once they enter surface waters, which also explains their low frequency of detections in surface water (ATSDR 1997). Photodegradation half-lives of HMX and RDX may be on the order of days to a few weeks depending on the clarity of the water (ATSDR 1997, CHPPM 2001, CHPPM 2002). The bioaccumulation potential of both compounds is relatively low (ATSDR 1997, CHPPM 2002).

5.1.1.4 Mechanisms of Ecotoxicity

Information about the mechanisms of toxicity is presented without consideration of constituent concentrations, because the descriptions seek to convey a general understanding of possible effects rather than describe the concentrations at which these effects might occur. As such, the descriptions provided are not meant to imply that these effects have occurred, are occurring, or may occur in the future at the site.

The mechanisms of ecotoxicity for constituents vary depending on a wide range of factors, such as constituent concentration, the wildlife receptor species exposed, the exposure route (e.g., ingestion or direct contact), and physical factors (e.g., pH, temperature, oxygen levels) site.

5.1.1.4.1 Volatile Organic Compounds

VOCs tend to attenuate rapidly in surface soil due to their inherent volatility. Although reports on the effects of VOCs on wildlife under field conditions are limited, there have been extensive studies or the effects of VOCs under laboratory conditions. In laboratory test organisms, inhaled VOCs are typically metabolized in the liver, which may cause liver damage or the release of more toxic secondary metabolites. VOCs are not known to bioaccumulate because they are so rapidly metabolized and because of their tendency to volatilize in the environment. Excessive exposures to VOCs may cause neurological damage, and some are mutagenic, carcinogenic, fetotoxic, and/or teratogenic at high levels of exposure under laboratory conditions (USEPA 2003 October).

5.1.1.4.2 Semivolatile Organic Compounds

SVOCs include a wide variety of compound classes, such as phenols, organochlorine alkenes, phthalates, polynuclear aromatic hydrocarbons, and pesticides. SVOCs vary greatly in regard to their toxicity (particularly the mechanisms), bioaccumulative potential, and tendency to metabolize. Excessive exposures to SVOCs or their metabolites may cause neurological damage and some are mutagenic, carcinogenic, fetotoxic, and/or teratogenic at high levels of exposure under laboratory conditions (USEPA 2003 October, Newman 1998, Sample et al. 1996).

Polycyclic aromatic hydrocarbons (PAHs; such as benzo(a)pyrene, chrysene, fluoranthene, and pyrene) are often released as a result of human activities, such as the incomplete combustion of fossil fuels or other organic materials. Some of these compounds are persistent and are known to be mammalian carcinogens, though the ecological effects of PAHs are not well characterized. Primary non-point sources of PAHs to the environment are aerial fallout (or rainout), road runoff (from the wear and leaching of asphalt, tire wear, vehicle exhaust, and dripping vehicle fluids), and combined storm sewer runoff (domestic sewage contains some PAHs). Most PAHs are sorbed to solid particles in the environment, which significantly reduces the bioavailability and toxicity of the sorbed PAHs.

PAHs have been shown to cause changes in liver enzymes and cell membranes but, in general, are not viewed as acutely toxic in vertebrates because they are metabolized by the liver (USEPA 2007). PAHs are metabolized in the liver, where toxicity is associated with cytochrome P450-mediated conversion of the parent compound to toxic metabolic intermediates. Because PAHs are largely metabolized in fish, this diminishes risks to higher trophic levels, though does not entirely protect the fish from toxicity (Fuchsman et al. 2001). Sub-lethal effects attributed to PAHs in aquatic animals include reduced reproductive ability and fertility, developmental abnormalities, delayed or retarded maturation, histological changes, and carcinogenesis (Eisler 1987).

5.1.1.4.3 Inorganic Constituents/Metals

The potential adverse impacts on wildlife from trace metals (such as arsenic, barium, beryllium, chromium, copper, lead, and zinc) are well understood (Newman 1998). Chromium, copper, and zinc are essential for healthy enzyme function, and some organisms cannot survive without these metals. However, these naturally occurring constituents may cause adverse effects when exposure occurs at concentrations that significantly exceed background concentrations. The toxicity and effects of trace metals may be greatly influenced by pH, hardness, and organic carbon content of the water in which they occur (USEPA 2007 June).

Imbalances in the essential trace metals may cause a decrease in photosynthetic ability, poor spawning/hatching success, teratogenesis, susceptibility to predation and disease, reduced growth, mortality, histopathological changes, organ dysfunction of the liver or kidneys, neurological defects, changes in respiration and osmoregulation, and anemia. Some metals may bioaccumulate, but this mechanism is thought to be of minor ecological concern. Because these constituents are naturally occurring, many organisms have a capacity (albeit limited) to biotransform and/or eliminate naturally occurring inorganics (USEPA 2007).

5.1.1.4.4 Perchlorate, RDX, and HMX

Perchlorate may bioaccumulate into plants, food crops, and has been detected in milk – but bioaccumulation in to animals is still not well known and is thought to be low (USEPA 2002, ATSDR 2008, USEPA 2012 May). Perchlorate toxicity tests with invertebrates indicate acute and chronic systemic toxicity in sufficient concentration, and inhibition of reproduction at lower concentrations (USEPA 2002). Plant testing indicates effects in growth and survival (USEPA 2002). In vertebrates, perchlorate is a known to inhibit iodine transport from the bloodstream into the thyroid (Greer 2002). In fish, perchlorate may lead to slow development, improper scale and pigment formation, small size, and abnormal thyroid formation in larvae (Crane et al. 2005). In terrestrial vertebrates, perchlorate exposure may be associated with thyroid and pituitary hormones, thyroid histopathology, and changes in brain morphometry (USEPA 2002).

Avian studies indicated that the HMX was retained as an indigestible bolus in the crop, and no remarkable effects were noted (CHPPM 2001). HMX has generally low acute oral toxicity in rodents, presumably due to low gut uptake of ingested HMX (ATSDR 1997, CHPPM 2001). Subacute effects in mammals include low body weight, as well as changes in the liver, spleen, kidneys, and blood (ATSDR 1997).

RDX, unlike HMX, appeared to readily be absorbed through the mammalian gut where it is presumably metabolized in the liver and generally leaves the body through urine and exhaled CO2 (CHPPM 2002). High doses led to tremors and death (CHPPM 2002). Mammalian studies show relatively low toxicity, though subacute doses led to some changes in organ morphology in the liver and spleen as well as in blood cells in mice, rats, dogs, and monkeys (CHPPM 2002). Avian studies indicate that RDX leads to decreased body weight, hematological effects, and decrease in egg production (CHPPM 2002).

5.1.1.4.5 Polychlorinated Biphenyls, Dioxins, and Furans

PCBs, dioxins, and furans are mixtures of chlorinated compounds that possess varying degrees of chlorination. The composition of commercial mixtures can be altered in the environment

through processes such as chemical and biological transformation, volatilization, and preferential bioaccumulation. The more highly chlorinated congeners tend to adsorb strongly to soil and sediment and persist in the environment. In addition, these constituents bioaccumulate in the food chain and because of their stability and lipophilicity, are stored in fatty tissues. PCBs, dioxins, and furans bind with the aryl hydrocarbon receptor (AhR) and have a common mechanism of toxicological action and are generally considered as a group (USEPA 2009a). Only organisms that have an AhR are susceptible to toxicity from these constituents, and only higher vertebrates, such as fish, birds, and mammals have been shown to have this receptor (USEPA 2009a). PCBs, dioxins, and furans have lesser, if any, effects on invertebrates because they do not have the AhR (Fuschman et al. 2006, USEPA 2009a). Additionally, these constituents have almost no effects on plants because plants also lack an AhR (ORNL 1997, USEPA 2009a).

Although the method of action is similar among these constituents, they vary in the extent that they can bond with this specific receptor to cause biological effects and they are frequently assessed in terms of their relative potency compared to 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) (USEPA 2009a). Dioxins, furans, and dioxin-like PCBs are expressed in terms of toxicity equivalency quotients (TEQs), which is a quantity of 2,3,7,8-TCDD with the same, equivalent, toxicity. The TEQs are calculated by multiplying a toxicity equivalency factor (TEF) by the constituent concentrations. The TEFs used are from USEPA (2008a), Table 2. The calculations showed that the total TEQ calculated using the mammal TEFs was greater than those calculated using the fish or bird TEFs. As a result, the ecological risk assessment utilizes the 2,3,7,8-TCDD (TEQ) concentrations calculated using the mammal TEFs.

PCBs, dioxins, and furans are frequently associated with reproductive and developmental effects in early life stages (USEPA 2008a). Effects that have been associated with high levels of exposure to PCBs in laboratory test animals include thyroid, liver, immunological alterations, neurodevelopmental changes, reproductive toxicity, reduced birth weight, dermal and ocular changes, and cancer (ATSDR 2011). Some PCBs, dioxins, and furans have “non-dioxin-like” effects and are not thought to act via binding to the AhR. These “non-coplanar” or “non-ortho-substituted” constituents may act through multiple pathways, and may have neurological, neuroendocrine, endocrine, immunological and carcinogenic effects (USEPA 2008a).

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5.1.1.5 Potentially Exposed Receptors

The identification of potentially exposed receptors focuses the SLERA on those organisms that are most likely to be significant for characterizing risks from site-related constituents within the study area. The simplified food web developed for wildlife at the site sums up the ecological linkages among the potentially exposed receptors (Figure 5-4).

The base of the terrestrial food chain consists of terrestrial invertebrates (from earthworms to insects) and primary production from plants. These are consumed by small vertebrates such as passerine birds and small herbivorous mammals. The top of the terrestrial food chain consists of predatory birds and mammals.

The base of the aquatic food chain consists of benthic invertebrates (worms, some crustaceans, some insects). These are consumed by fish and amphibians, which are in turn consumed by birds and piscivorous mammals.

5.1.1.6 Exposure Pathways and Conceptual Site Model

The potentially complete exposure pathways that are evaluated are illustrated in the ecological CSM in Figure 5-5. The potentially complete exposure routes are exposures to constituents via direct contact with the surface water, sediment, and soil, and ingestion of site media, or ingestion of organisms with bioaccumulative compounds in their tissues.

The constituent fate and transport pathways are discussed in Section 5.1.1.3 ("Constituent Fate and Transport"). To summarize, constituents moved from their origin point to soil and from there into groundwater, surface water, and sediment. Additionally, constituents may bioconcentrate or bioaccumulate in organisms and move into higher-trophic level organisms through the food web.

5.1.1.7 Identification of Generic Assessment and Measurement Endpoints

Assessment endpoints are the explicit expression of the ecological values to be protected (USEPA 1997b, USEPA 2003). They are expressed in terms of the entity (e.g., mammal populations) and the attribute (survival and reproductive ability) (USEPA 2003). The selection of assessment endpoints depends on knowledge of the receiving environment, knowledge about the constituents released (including ecotoxicological properties and concentrations that cause adverse impacts), and understanding of the values that will drive risk management decision making (Suter et al. 1995).

> *"For the SLERA, assessment endpoints are any adverse effects on ecological receptors, where receptors are plant and animal populations and communities, habitats, and sensitive environments. Many of the ecotoxicity screening values are based on generic assessment endpoints (e.g., protection of aquatic communities from changes in structure or function) and are assumed to be widely applicable to sites around the United States"* (USEPA 1997b).

Since direct measurement of assessment endpoints is often difficult (or impossible), surrogate endpoints (called measurement endpoints) are used to provide the information necessary to evaluate whether the values associated with the assessment endpoint are being protected. A measurement endpoint is a measurable ecological characteristic and/or response to a stressor

(USEPA 1998, USEPA 2003). Measurement endpoints, such as mortality, reproductive effects, and reduced growth are not directly measured in the SLERA. Rather, they are indirectly evaluated in the SLERA through the use of hazard quotients (HQs). An HQ is the ratio of a constituent concentration to a conservative ecotoxicity screening value relevant for the receptors being evaluated.

Surrogate receptors must also be identified in order to perform necessary SLERA exposure estimates and risk calculations. These species are generally selected based on consideration of presence at the site as well as known or suspected sensitivity and exposure to the constituents of potential concern (USEPA 1997b).

The SLERA assessment endpoints and measurement endpoints for the site are identified as follows:

Ecological Receptor	Assessment Endpoint	SLERA Measurement Endpoint
Aquatic biota (such as invertebrates)	Aquatic community diversity, structure, and function	Comparison of maximum detected concentrations to surface water ecotoxicity screening values
Sediment-dwelling biota (such as insects)	Benthic community diversity, structure, and function	Comparison of maximum detected concentrations to sediment ecotoxicity screening values
Mammals and birds	Mammal and bird population survival and reproductive ability	Comparison of maximum detected concentrations to surface soil ecotoxicity screening values

5.1.2 Step 1: Screening-Level Effects Evaluation

The screening-level ecological effects evaluation involves the identification of appropriate ecotoxicity screening values (ESVs). ESVs are based on contaminant concentrations associated with a low probability of unacceptable risks to ecological receptors (USEPA 2001). Since these concentrations are based on conservative endpoints and sensitive ecological effects data, they represent a preliminary screening of site contaminant concentrations to determine if there is a need to conduct further investigations at the site. Exceedances of the ecological screening values may indicate the need for further evaluation of the potential ecological risks at the site. The decision concerning the potential need for further evaluation requires the weighing of such factors as the frequency, magnitude, and pattern of these exceedances (USEPA 2001, USEPA 2001).

5.1.2.1 Surface Water Ecological Screening Values

Surface water ESVs are identified onTable 5-5a for chemicals detected in surface water. ESV selection is based on the following hierarchy for the designation of a single ESV for use in the SLERA.

- The VA DEQ Water Control Board issued water quality standards for aquatic life (2011). The chronic standards are preferentially used when present, and the acute standards are used if no chronic standard is available.

- USEPA Region 3 freshwater surface water screening benchmarks (USEPA 2006). Most of these benchmarks are designed to only be used for comparison with dissolved concentrations of constituents. They are used as a comparison for total concentrations in addition, as that is a conservative comparison.

Criteria used as ESVs in the SLERA are freshwater chronic values (when available) as these values are intended to be protective of long-term exposures and are generally more conservative than acute values. Table 5-5b shows the calculation of site-specific hardness-based criteria. The VA DEQ criterion for 1,2-Dichloroethene (CAS number 540-59-0) was used as a surrogate for cis-1,2-Dichloroethene given the similarity of the chemical structure. For nitrogen, the VA DEQ criterion for ammonia-nitrogen of 2.69 mg/L was used assuming that the pH is 7.5, the temperature of the waterbodies on site peaks at 22 degrees Celsius, and that early life stages of fish are present. While this does not characterize every water body on site (some are far too small or ephemeral to support fish), this is a conservative initial screening value. For total phosphorus, VA DEQ recommends 40 ug/L for most water bodies, so that value was used as the initial screening criterion.

5.1.2.2 Sediment Ecological Screening Values

Sediment ESVs are identified on Table 5-6 for chemicals detected in sediment. ESV selection is based on the following hierarchy for the designation of a single ESV for use in the SLERA.

- USEPA Region 3 Freshwater Sediment Screening Benchmarks (USEPA 2006).
- USEPA Region 5 Ecological Screening-Levels (USEPA 2003): This source of criteria is a USEPA compilation of criteria from many sources. Region 5 often has criteria where other sources are lacking.
- ORNL Ecological Sediment Water Preliminary Remediation Goals (ORNL 1997).

These criteria are intended to ensure protection of the organisms that live and feed in direct contact with sediment (i.e., sediment benthos).

5.1.2.3 Soil Ecological Screening Values

Soil ESVs are identified on Table 5-7 for chemicals detected in soil. ESV selection is based on the following hierarchy for the designation of a single ESV for use in the SLERA.

- Eco-SSL (USEPA 2007): The Eco-SSLs are based on a careful literature survey for values for plants and invertebrates in soil, and a conservative food web model for mammals and birds exposed to soil. The value used in the SLERA is the minimum value among avian and mammal receptor groups.
- USEPA Region 5 Soil Ecological Screening Levels: This source of criteria is a compilation of criteria from many sources, and their soil criteria are based on shrews, voles, plants and invertebrates.
- USEPA Region 4 Ecological Soil Criteria (USEPA Region 4 2001): The Region 4 criteria are from numerous sources.

- Eco SSL for Explosives (Kuperman et al. 2006): These values are from a series of US Army- toxicity testing experiments with three different organisms. They tested freshly amended and weathered energetic compound/soil mixtures. Values used are the minimum values from those studies.
- Dutch Soil Criteria (RIVM 2000): These criteria come from a variety of literature sources.
- Oregon DEQ Ecological Soil Criteria are the minimum value for plants, invertebrates, birds, and mammals. These values are from a variety of resources and include conservative food web models for birds and mammals.

These criteria are intended to ensure protection of the organisms that live and feed in direct contact with soil (i.e., microbes, soil invertebrates, plants, but some criteria are based on vertebrates).

5.1.3 Step 2: Screening-Level Exposure Estimates

Maximum detected concentrations are used as the exposure estimates for the SLERA (USEPA 1997b). Tables 5-6, 5-7, and 5-8 report the maximum values identified for surface water, sediment, and surface soil. Using the maximum detected concentration is a conservative approach for effectively screening out constituents that are unlikely to cause unacceptable risks.

5.1.4 Step 2: Screening-Level Risk Characterization

The SLERA risk characterization integrates the exposure assessment and the effects assessment data. Specifically, the ratio of maximum concentrations and chemical-specific conservative ESVs are used to derive HQs. HQs that do not exceed the threshold value of 1 are considered to show that residual constituent concentrations do not pose an unacceptable risk. The SLERA risk calculations are presented for surface water (Table 5-6), sediment (Table 5-7), and surface soil (Table 5-8).

5.1.5 SLERA Uncertainties Evaluation

A SLERA is designed to provide conservative estimates of the potential risks that may exist for receptors and, therefore, incorporates uncertainty in a precautionary manner. Uncertainty in an SLERA is "*the imperfect knowledge concerning the present or future state of the system under consideration; a component of risk resulting from imperfect knowledge of the degree of hazard or of its spatial and temporal distribution*" (USEPA 1997b). Uncertainties that may lead to either an overestimation or an underestimation of risk are associated with each stage of risk assessment. A summary of uncertainties that are associated with an SLERA is provided on Table 5-9.

The most significant uncertainties in this SLERA are the use of maximum detected concentrations and the use of generic screening benchmarks. Using the maximum detected concentrations is an extremely conservative method that overestimates potential exposures (and therefore risk). With respect to the use of generic ESVs, the main sources of uncertainty are the variability of generic benchmarks and a consideration of the bioavailability of the constituents.

- Variability of generic sediment benchmarks – Benchmarks from multiple valid sources may vary over an order of magnitude. These represent benchmarks generated using valid, scientifically sound methods. The variability within the benchmarks is generally caused by their extremely generic nature as well as the uncertainties within the methods used to derive the benchmarks. Furthermore, the generic benchmarks used are likely based on studies of organisms that are not present in the site and, therefore the resultant HQs (i.e., estimates of risk) are biased high.
- Consideration of bioavailability - Several site-specific factors, including bioavailability, can affect the relationship between constituent exposures and effects on wildlife receptors. A definitive evaluation of risks for the site requires understanding the role of organic carbon in regulating bioavailability, particularly of the large, hydrophobic polychlorinated constituents. Lack of consideration of bioavailability results in a bias towards higher risk, as the SLERA assumes these constituents are fully bioavailable.

5.1.6 SLERA Scientific Management Decision Point

The SLERA SMDP represents a critical step in the ecological risk assessment process where decision making occurs. Based on the conservative comparison of maximum concentrations to protective ESVs, there is adequate information to conclude that ecological risks to biologically significant populations of wildlife receptors are negligible for many of the constituents detected in surface water and sediment. However, the information is not adequate to make a decision, or the information indicates a potential for adverse ecological effects that must be analyzed further because HQs exceeded the threshold value of 1. Therefore, the following COPECs summarized on Table 5-10 will be retained for further evaluation in Step 3a of the BERA:

- Surface water: aluminum, barium, boron, copper, iron, manganese; phosphorus (total)
- Sediment: acetone, carbon disulfide, bis(2-ethylhexyl)phthalate, PCBs (total), chromium (total), chromium III, copper, iron, manganese, nickel, silver; and
- Surface Soil: benzaldehyde, benzo(a)anthracene, benzo(a)pyrene, bis(2-ethylhexyl)phthalate, butylbenzylphthalate, di-n-butylphthalate, 4,6-dinitro-2-methylphenol, methylphenol (total), phenol, PCBs (total), aluminum, arsenic, barium, boron, chromium III, cobalt, copper, iron, lead, manganese, nickel, vanadium, zinc, hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX), and octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX).

In addition, the following constituents are retained for Step 3a of the BERA because they were detected and there are no screening values from the identified sources.

- Surface water: 1,1,2-trichloro-1,2,2-trifluoroethane, perchlorate,
- Sediment: barium, boron, perchlorate, strontium, vanadium; and
- Soil: 1,1,2-trichloro-1,2,2-trifluoroethane, caprolactam, carbazole, di(2-ethylhexyl) adipate, nitrate, perchlorate.

5.2 Baseline Ecological Risk Assessment

This section provides the initial step of the BERA (Step 3a), the BERA problem formulation. COPECs identified in the SLERA are evaluated further in the Step 3a BERA problem

formulation using refined estimates of exposure and effects. The refinements provide a more realistic understanding of exposures and potential ecological risks to help inform further assessment or management decisions.

This section is organized as follows:

- Section 5.2.1 identifies the Assessment Endpoints;
- Section 5.2.2 identifies the Measurement Endpoints;
- Section 5.2.3 identifies the Refinement of COPECs for Direct Contact Pathways;
- Section 5.2.4 identifies the Refinement of COPECs for Food Web Pathways; and,
- Section 5.2.5 provides the BERA (Step 3a) Uncertainties Evaluation.

5.2.1 Assessment Endpoints

Assessment endpoints are the explicit expression of ecological entities (e.g., mammal populations) and attributes (e.g., reproductive ability) to be protected (USEPA 1992b, USEPA 1997b, USEPA 2003, USEPA 2003). The selection of assessment endpoints depends on knowledge about the receiving environment, chemicals released (including ecotoxicological properties and concentrations that cause adverse impacts), and the values that will drive risk management decision making (Suter et al. 1995). Assessment endpoints selected for evaluation in the BERA are:

- aquatic and sediment dwelling invertebrate community structure, survival and growth;
- survival and reproduction of bird populations; and
- survival and reproduction of mammal populations.

As described by Barnthouse et al. (2008), “regulations, policies, directives, and guidance documents frequently discuss the need for ecological risk assessments to consider risks to populations, not simply to individual organisms or organism-level attributes. The reason for this [need] is that, from a management perspective, the population-level attributes such as abundance, persistence, age composition, and genetic diversity are usually more relevant than are the health or persistence of individual organisms.”

The assessment endpoints listed above consider attributes that are tied to the population-level attributes of abundance and persistence, in that they consider both survival and reproduction. Decreased survival will result in smaller numbers of individuals, decreasing the population of that receptor. Similarly, decreased reproduction can result in smaller numbers of individuals over time, also decreasing the population of that receptor. Decreased growth of individuals, on the other hand, is not directly related to population-level effects. Consequently, ecotoxicological studies on growth endpoints cannot be tied to population-level impacts.

5.2.2 Measurement Endpoints

Measurement endpoints are measurable ecological characteristics that are related to the valued characteristics chosen as the assessment endpoints and are measures of biological effects. The measurement endpoints become lines of evidence that indicate the potential for risk to the

receptors of interest. The selected measurement endpoints associated with each assessment endpoint are listed below.

Aquatic and sediment dwelling invertebrate communities are evaluated based on one measurement endpoints:

- Measured concentrations of COPECs in surface water and sediment in relation to appropriate benchmarks and concentrations reported in the literature to be protective of invertebrates ("chemistry").

Bird populations are evaluated based on two measurement endpoints:

- Comparison of modeled dietary intake of COPECs by two representative avian species (great blue heron, red-tailed hawk) to doses reported in the literature as toxicity reference value (TRV) thresholds for adverse effects on survival or reproduction ("bird hazard quotients").

Mammal populations are evaluated based on one measurement endpoint:

- Comparison of modeled dietary intake of COPECs by one representative mammalian species (mink) to doses reported in the literature as TRV thresholds for adverse effects on survival or reproduction ("mammal dose-based hazard quotients").

5.2.3 Receptors and Exposure Pathways

Identification of receptors initially relies on the identification of functional groups or feeding "guilds" that are representative of, or essential to, habitat function. Based on the environmental setting, the feeding guilds potentially exposed to Site-related constituents via complete exposure pathways and their dominant exposure routes are:

- aquatic and sediment dwelling invertebrates (direct contact with surface water or sediment);
- carnivorous and omnivorous birds and mammals (diet, incidental ingestion); and
- piscivorous (i.e., fish eating) birds and mammals (diet).

Although populations of herpetofauna (reptiles and amphibians) are valued ecological entities, the current state of the art techniques for risk assessment are insufficient to adequately incorporate herpetofauna in risk analysis with acceptable levels of uncertainty (Sparling et al. ESTCP 2009). Generalizations from fish (and benthic invertebrates) are somewhat applicable to the herpetofauna receptor group, so that the risks to herpetofauna are qualitatively assessed estimated by using other receptors as surrogates, as recommended by USEPA Region 3 (USEPA 2012).

5.2.4 BERA Wildlife Receptors

Most healthy ecosystems support a large number of individual species representing a variety of feeding guilds. However, it is not feasible to complete risk calculations for all potentially exposed species. Moreover, such an effort would be duplicative because of the similarity of

exposure patterns among closely related species and among those with similar feeding guilds. For these reasons, receptors of interest (ROIs) are selected i to represent the different feeding guilds.

ROIs are selected based on six characteristics:

- economic and/or other value to humans;
- ecological relevance;
- potential for high exposure;
- toxicological sensitivity;
- expected presence at the study area; and
- availability of life history information and toxicological data.

Based on the ecological CSM (Figure 5-5) and the above considerations, ROIs pertinent to the study area are:

- benthic/epibenthic invertebrate community;
- mink (*Mustela vison*), representing carnivorous mammals;
- great blue heron (*Ardea herodias*) representing piscivorous birds; and
- red-tailed hawk (*Buteo jamaicensis*), representing carnivorous birds.

These ROIs are among the most highly exposed and ecotoxicologically sensitive (i.e., susceptible) of the species likely to inhabit or forage within the study area, so extrapolation of conclusions regarding these ROIs will be protective of other, less susceptible species. The benthic and epibenthic community represents the base of the aquatic food chain and also reptiles and amphibians like frogs, toads, newts, salamanders, snakes and turtles. Mink serve as conservative surrogates for a variety of mammals that may be in the study area such as other mice, shrews, and foxes, but also chipmunks, rabbits, squirrels, weasels, raccoons, moles, skunks, opossums, voles, deer, and woodchucks. Red-tailed hawks serve as conservative surrogates for other carnivorous raptors such as shrikes, hawks, and kestrels that might hunt on site. Great blue heron serves as a conservative surrogate for fishing and wading birds. The mink, great blue heron, and red-tailed hawk are higher level predators, and represent organisms that may be particularly sensitive to PCBs.

5.2.5 Assessment for Direct Contact Pathways

Direct contact pathways identified in Figure 5-5 assess the risk to organisms that are in contact with environmental media, such as aquatic invertebrates living at the site that may contact surface water and sediment. This section discusses the exposure assessment, effects assessment, and risk characterization for the refinement of direct contact COPECs.

5.2.5.1 Exposure Assessment for Direct Contact Pathways

The refinement of COPECs provided herein is consistent with USEPA guidance (USEPA 1989, USEPA 1997b, USEPA 1998, USEPA 2001a), including consideration of background

concentrations, consideration of measures of central tendency, and location-specific exposure concentrations.

5.2.5.1.1 Consideration for Background Concentrations

USEPA (2001a) identifies the refinement of COPECs based on consideration of background concentrations. Site-specific background data collection efforts for soil are described in Geosyntec's May 2011 *Summary of the Evaluation of the Background Metals Dataset*. A comparison of site surface water, sediment, and surface soil concentrations to background concentrations is provided on Tables 5-11, 5-12a, and 5-13, respectively. Constituents with a 95% UCL on the mean concentration less than or approximately equal to the maximum background value were not retained as COPECs. This metric compares a conservative estimate of mean concentration with the background, in order to focus the risk assessment on those constituents that are clearly different than background.

While there are background data sets for surface water and soil, there is not a specific sediment background data set. Infall 001 and Infall 002 are sample locations on the margin of the Site where a drainage feature enters the site and as such ostensibly represent background sediment concentrations. However, given the shallow nature of most of the drainage features on-site, and the ephemeral nature of some of these drainage features, the sediment in the drainages is likely derived from the nearby soil. Table 5-12b compares the sediment data from the two infalls to the soil background data set. The range of concentrations is much larger in the soil background data set, which is to be expected because the soil background data set is larger than the sediment dataset, but the central tendencies of both datasets are similar. Therefore the soil background dataset is used as a background data set for sediment.

The following constituents were not retained as COPECs because they are present at concentrations similar to the background concentrations (the UCL is less than or equal to twice the maximum background):

- Surface water: aluminum, barium, boron, copper, iron, manganese;
- Sediment: barium, boron, copper, iron, manganese, nickel, strontium, vanadium; and
- Surface Soil: aluminum, arsenic, barium, boron, cobalt, copper, iron, lead, manganese, nickel, vanadium, zinc.

5.2.5.1.2 Consideration for Central Tendency Concentrations

Tables 5-11, 5-12a, and 5-13 present hazard quotients for the upper confidence limit concentrations. The 95% UCL on the mean is a conservative estimate of the average concentration for the site. While a few samples may exist with greater concentrations, this still is a conservative way to screen out constituents that are unlikely to cause significant risk at the site. The 95% UCL on the mean as well as the average concentration (the average of detections where half the detection limit is used where a constituent is not detected) and the median concentration (median of detections where half the detection limit is used where a constituent is not detected) are presented in these tables.

5.2.5.1.3 Frequency of Detects

Constituents that are rarely detected (less than 10%) are considered in the refinement of COPECs (USEPA 2001a). Populations of ecological receptors will have relatively low exposures to these constituents. The following chemicals were not retained as COPECs for further evaluation in the BERA based on the frequency of detection screening in soil. Note that none of these constituents were detected in even 1% of the samples, and in these cases, hundreds of samples were analyzed for these constituents.

Constituent	# of soil samples	# of detections in soil	% detections in soil
1,1,2-trichloro-1,2,2-trifluoroethane	257	2	0.8%
Butylbenzylphthalate	902	4	0.4%
Caprolactam	474	1	0.2%
Carbazole	880	7	0.8%
di-n-butylphthalate	716	2	0.3%
4,6-dinitro-2-methylphenol	716	1	0.1%

No COPECs were excluded from further evaluation in the BERA based on the frequency of detection for surface water or sediment.

5.2.5.1.4 Essential Nutrients and Electrolytes

Phosphorus in surface water is an essential nutrient for plant growth (Correll 1999). When it is not present in sufficient quantities in surface water, the lack of phosphorus can strongly limit the presence of plants as well as the higher organisms that depend on them. In excess, however, phosphorus causes overgrowth of plants and eutrophication. At sufficiently high levels, phosphorus can be toxic. While the levels on site are higher than recommended by VA DEQ, they are more likely to contribute to eutrophication than actual toxicity. Therefore, phosphorus in water is an essential nutrient that is not retained as a COPEC for further evaluation in the BERA.

Soil nitrate is a nutrient essential for plant growth (USEPA 2001 June. When it is present at a concentration that allows it to function as a nutrient, it typically poses little ecological risk. Although nitrate can be toxic at sufficiently high concentrations, the primary concern for this constituent is that it will lead to eutrophication of aquatic systems (Russo 1985). The Virginia Cooperative Extension indicate that soil nitrate concentrations of less than 10-20 mg/kg may result in suboptimal corn grain yield, but that values as high as 60-80 mg/kg show no deleterious effects on yield (Virginia Cooperative Extension 1998). The maximum soil concentration of nitrate is 8.7 mg/kg, which is well below these levels, indicates that the nitrate present is in low enough concentrations to function as a nutrient. Therefore, nitrate in soil is an essential nutrient that is not retained as a COPEC for further evaluation in the BERA.

5.2.5.2 Effects Assessment for Direct Contact Pathways

An expanded range of ESVs are considered in the Step 3A BERA problem formulation to provide insight into more realistic estimates of potential risks. ESVs that account for

bioavailability are particularly important to understand the potential risks at this particular site (as opposed to generic criteria).

5.2.5.2.1 Surface Water

No screening level criteria were identified from the primary sources for 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113) and perchlorate, indicating an expanded search for criteria was needed. The USEPA Region 6 (in coordination with the Texas Natural Resources Conservation Commission) published a criterion for 1,1,2-trichloro-1,2,2-trifluoroethane in surface water of 0.461 mg/L (Texas Natural Resource Conservation Commission 2001). This value is used as an expanded screening criterion in the BERA. As required by USEPA, a full set of aquatic toxicity and bioconcentration tests were performed on perchlorate for the development of a water-quality criterion for aquatic life (Dean 2004). This study calculated the criterion maximum concentration (CMC)[16] as 20 mg/L and the criterion continuous concentration (CCC)as 9.3 mg/L (Dean et al. 2004). The CCC of 9.3 mg/L is used as an expanded screening criterion in the BERA.

Similarly, no screening criteria were identified from the primary sources for boron and manganese. ORNL 1996 used toxicity test data to create water quality criteria for various constituents. The values used were the EC20 values for daphnids, a value estimated to cause a 20% population reduction in a sensitive species.

5.2.5.2.2 Sediment

Equilibrium Partitioning for Acetone, Carbon Disulfide, bis(2-Ethylhexyl)phthalate, and PCBs (total)

Table 5-6 presented the conservative screening level ESVs that were used in the SLERA. This BERA presents refined benchmarks that account for the bioavailability of the constituents at the site. Several site-specific factors can affect the relationship between pesticide exposures and effects on benthic invertebrates, particularly total organic carbon (TOC). USEPA guidance indicates that expressing benchmarks in terms of equilibrium partitioning ("EqP") for organic constituents on a carbon-normalized basis (i.e., ug constituent per gram organic carbon) allows them to correlate measured effects on benthic invertebrates with the carbon-normalized concentrations (USEPA 2003 August, USEPA 2003 November, USEPA 2008 March, DiToro 1991).

USEPA's 2008 guidance on *Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms* details how to calculate site-specific benchmarks for many constituents, and includes specific calculations for several pesticides present at the site. According to the USEPA (2008), "sediment benchmarks generated using the EqP approach are suitable for use in providing technical information to regulatory agencies because they are:

[16] The criterion maximum concentration (CMC) is an estimation of the concentration that an aquatic community can be briefly exposed to without unacceptable adverse effects. The criterion continuous concentration (CCC) is the highest concentration to which an aquatic community can be indefinitely exposed without unacceptable adverse effects. These values are designed to protect 95% of species, and are considered conservative.

1. Numeric values;
2. Chemical specific;
3. Applicable to most sediments;
4. Predictive of biological effects; and
5. Protective of benthic organisms" (USEPA 2008).

USEPA also states that "EqP theory holds that a nonionic chemical in sediment partitions between sediment organic carbon, interstitial (pore) water and benthic organisms. At equilibrium, if the concentration in any one phase is known, then the concentrations in the others can be predicted. The ratio of the concentration in water to the concentration in organic carbon is termed the organic carbon-water partition coefficient (K_{oc}), which is a constant for each chemical" (USEPA 2003, USEPA 2003, USEPA 2008). The sediment criteria calculated are in units of micrograms of pesticide per gram of organic carbon in the sediment (µg/Goc).

$$\text{Sediment Criterion } \mu g / G_{oc} = K_{oc} \text{ x } \text{ WQC } \mu g / L \text{ x } 0.001$$

These values in µg/Goc must be multiplied by the concentration of organic carbon in the sediment to arrive at a criterion in µg/kg sediment.

$$\text{Sediment Criterion } \mu g / \text{KG sediment} = \text{Criterion } \mu g / G_{oc} \times \text{G Organic Carbon} / \text{KG Sediment}$$

Table 5-15 shows the calculations for the EqP benchmarks. The surface water criteria for acetone and carbon disulfide are appropriate benchmarks for assessing population level effects (Suter and Tsao 1996). The surface water benchmark for PCBs is based on a literature review that specifically concentrated on the effects of PCBs on invertebrates (Fuschman et al. 2006). Invertebrates do not have an aryl hydrocarbon receptor, which means they have limited susceptibility to PCBs (total), particularly compared to vertebrates (i.e., they lack the very cells within the body where toxicity PCB occurs; USEPA 2008). The K_{oc} values are from standard sources, though the K_{oc} value for PCBs is the geomean of the K_{oc} values presented in Fuschman 2006. The values presented on Table 5-15 are used as expanded screening criteria in the BERA for these constituents in sediment.

Chromium (total) and Chromium III

The BERA screening value for chromium is the NOAA effects range low (ER-L, NOAA 1999). The ERL is the 10th percentile on an ordered list of concentrations in sediment found in the literature that co-occur with any biological effect. The ER-L is still quite conservative (O'Connor 2004), but is more realistic than the SLERA screening value. The ER-L value of 81 mg/kg is used as an expanded screening criterion in the BERA for chromium in sediment.

Perchlorate

There are no widely-accepted sediment criteria for perchlorate. In general, this is due to the fact that perchlorate is highly soluble, and is likely to be found associated with the porewater rather than the sediment.

> "*Exposures to contaminated sediments also are not included explicitly because they are believed to be equivalent to surface water exposures. Perchlorate salts are highly water soluble and the anion is unlikely to adsorb to anionic particles, such as soils or humic substances, to a significant extent. Therefore, sediment exposures are expected to be dominated by exposure to pore water, which is assumed to be equal to surface water*." (USEPA 2002, page 8-8).

For this reason, perchlorate is not retained as COPEC in the sediment.

5.2.5.2.3 Soil

There were no soil criteria identified for di(2-ethylhexyl) adipate (synonymous with adipic acid, bis(2-ethylhexyl) ester and hexanedioic acid, 1,6-bis(2-ethylhexyl) ester and hexanedioic acid, bis(2-ethylhexyl) ester). However, a recent Environment Canada Screening Assessment (EC 2011) reported a 14 day LC 50 for earthworms as 865 mg/kg. They proposed a critical toxicity value for sediment (based on equilibrium partitioning) as 55.7 mg/kg (EC 2011). While there is some uncertainty in using a sediment criterion as a soil criterion, this is less uncertain than having no criterion. The sediment guideline of 55.7 mg/kg is used as an expanded screening criterion in the BERA for di(2-ethylhexyl) adipate in soil.

In soil, the direct contact pathway focuses on invertebrates and plants as potential wildlife receptors. ORNL (1997) indicates that "*toxic effects information on... PCBs is not available*" for invertebrates. ORNL (1997) reviewed three studies dated 1979, 1980, and 1982 on the effects of PCBs on plants and did derive a benchmark, though it is considered to be a "low confidence" benchmark because it is based on so few studies and because plants are not thought to be sensitive to PCBs. The research onto the effects of PCBs on plants has not advanced much since that time, as plants are generally insensitive to PCBs. One of the more recent studies (as reported in USEPA 2008) showed that part per million concentrations had no measurable effects on aquatic plants. The measure of effects for plants in soil for the BERA is 40 mg/kg, from the ORNL analysis (1997).

5.2.5.3 Risk Characterization for Direct Contact Pathways

Risk characterization begins with the mathematical comparison of exposure and effects estimates for each measurement endpoint, reflected as the unitless HQ as follows:

The sediment dwelling invertebrate community HQ is calculated as follows:

$$\text{Hazard Quotient} = \frac{\text{Concentration}}{\text{Benchmark}}$$

HQs less than or equal to the threshold value of 1 (to one significant figure, USEPA 1997b) indicate that the constituents do not pose an unacceptable risk. HQs that exceed the threshold value of 1 indicate a potentially unacceptable risk, although closer consideration may be needed to understand whether or not this is the case (e.g., the magnitude of the HQ and the spatial distribution of elevated HQs must be considered). Risk characterization results are provided for surface water, sediment, and surface soil.

5.2.5.3.1 Surface Water

The BERA risk characterization for surface water is presented on Table 5-11. This risk characterization compares the refined exposure estimates (i.e., 95% UCLs on the mean) with the refined measures of effect (as described above). As indicated on Table 5-11, refined exposure concentrations for 1,1,2-Trichloro-1,2,2-trifluoroethane, boron, manganese, and perchlorate w result in HQs that are not greater than 1. Even the HQs, based on the maximum concentration, were less than one for these constituents indicating that they are unlikely to cause unacceptable risks at this Site. The rest of the constituents detected in surface water were not retained as COPECs because they are nutrients (phosphorus) or because their UCL concentrations were less than the maximum background concentration. This indicates that there are no unacceptable risks for direct contact of aquatic organisms with surface water.

5.2.5.3.2 Sediment

The BERA risk characterization for sediment is presented on Table 5-12. This risk characterization compares the refined exposure estimates (i.e., 95% UCLs on the mean) with the refined measures of effect (as described above). As indicated on Table 5-12, refined exposure concentrations for acetone, carbon disulfide, bis(2-ethylhexyl)phthalate, PCBs (total) and chromium result in HQs that are not greater than 1.

Silver is present at a concentration greater than the BERA screening criterion. Table 5-16 shows the detections of silver in the sediment data set used for the ERA. Of the 18 locations where silver was present in the sediment, only two locations have HQs greater than one. Location PONSED 1 had an HQ of 40 and location PONSED 3 had an HQ of 10. While these might represent some very limited local impairment of the invertebrate community, this does not represent a population-level risk to aquatic invertebrates. In order to understand potential risks to wildlife, silver was retained for further assessment in the food web model.

The remainder of the constituents detected in sediment were not retained as COPECs because their primary exposure is not via sediment (perchlorate) or because their UCL concentrations were less than the maximum background concentration. This indicates that there are no unacceptable risks for direct contact of aquatic organisms with sediment.

5.2.5.3.3 Soil

The BERA risk characterization for soil is presented on Table 5-13. This risk characterization compares the refined exposure estimates (i.e., 95% UCLs on the mean) with the refined measures of effect (as described above). As indicated on Table 5-13, the refined exposure concentrations for benzaldehyde, benzo(a)anthracene, benzo(a)pyrene, bis(2-ethylhexyl)phthalate, di(2-ethylhexyl) adipate, , hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX),

methylphenol (total), octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX), phenol, and total PCBs result in HQ based not greater than 1.

2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQs), chromium, and perchlorate either had no screening levels in soil or exceeded their screening levels in soil and were retained as COPECs for further assessment in the food web model to investigate their potential risks to wildlife receptors.

The remainder of the constituents detected in soil were not retained as COPECs because they are a nutrient (nitrate), they occur only rarely on site, or because their 95% UCLs on the mean were less than the maximum background concentration. This indicates that there are no unacceptable risks for direct contact of organisms with soil.

5.2.6 Evaluation of Food Web Pathways

Food web pathways assess the potential risks related to constituents that may bioaccumulate. The measurement endpoint is a ratio of concentrations in the organisms' diets (the exposure point concentrations) with TRVs designed to protect birds and mammals (the measures of effect).

USEPA Region 3 provides a list of bioaccumulative constituents (USEPA 2012) that includes the following constituents that were detected at least once on site:

cis-1,2-dichloroethene	chrysene	PCBs (total)
acenaphthene	dibenz(a,h)anthracene	arsenic
acenaphthylene	fluoranthene	copper
anthracene	fluorene	lead
benzo(a)anthracene	indeno(1,2,3-cd)pyrene	nickel
benzo(a)pyrene	phenanthrene	silver
benzo(g,h,i)perylene	phenol	zinc
benzo(k)fluoranthene	pyrene	

Additionally, in order to understand the potential impacts of chromium, perchlorate, and silver (based on their presence and risk characterization for soil and sediment), these constituents were added to the food web model.

5.2.6.1 Exposure Assessment for Food Web Pathways

Like the direct contact pathways, the exposure assessment refines the COPECs by consideration of background concentrations, and so the same list of constituent is excluded. Also, for the same reasons listed for direct-contact pathways, only dissolved concentrations of PCBs in surface water are used.

The EPCs are derived to reflect two exposure scenarios and the data for these scenarios are summarized on Table 5-17:

- Worst Case: This scenario reflects maximum media concentrations that reflect the most conservative estimates of exposures for the site because wildlife do not remain fixed around a single point in space; and,

- Refined Case: This scenario uses average media concentrations that more realistically estimate the types of exposures that are likely to occur as animals move around the site.

The exposure assessment yields estimates of total daily intake (TDI) of COPECs for the wildlife ROIs via diet and incidental ingestion of sediment while foraging or preening/grooming.

TDIs are calculated, based on the methodology described by USEPA (1993). TDI are estimated as a function of an EPC, food ingestion rate, composition of diet, body weight, and area use factor (AUF). Dietary intakes are calculated for each upper trophic level receptor species using the following equation (USEPA 1993, ORNL 1994):

$$\text{Exposure} = \text{AUF} \times \left[\frac{IR_{sw} \times C_{sw} + IR_{ss} \times C_{ss} + IR_{sd} \times C_{sd} + IR_{f} \times C_{f}}{BW} \right]$$

Where:

$$C_f = \sum \left(F_{AP} \times C_{AP} + F_{AI} \times C_{AI} + F_F \times C_F + F_{TP} \times C_{TP} + F_{TI} \times C_{TI} + F_{PM} \times C_{PM} \right)$$

And where:

Exposure	= Oral intake of constituent in diet (mg/kg-d)
AUF	= Area Use Factor (unitless percentage) (literature)
IR_{sw}	= Ingestion rate of surface water (L of surface water/individual/day) (literature)
C_{sw}	= Concentration of constituent in surface water (mg COPEC/L surface water) (measured)
IR_{ss}	= Ingestion rate (kg fresh weight of surface soil/individual/day) (literature)
C_{ss}	= Concentration of constituent in surface soil (mg COPEC/kg surface soil) (measured)
IR_{sd}	= Ingestion rate (kg fresh weight of sediment/individual/day) (literature)
C_{sd}	= Concentration of constituent in sediment (mg COPEC/kg sediment) (measured)
IR_f	= Ingestion rate (kg fresh weight of food/individual/day) (literature)
C_f	= Concentration of constituent in food (mg COPEC/kg fresh weight food) (calculated)
BW	= Body weight (kg) (literature)
F_{ap}	= Fraction of the diet composed of aquatic plants (unitless) (literature)
C_{ap}	= Concentration of constituent in aquatic plants (mg COPEC/kg fresh weight) calculated from uptake models)
F_{ai}	= Fraction of the diet composed of aquatic invertebrates (unitless) (literature)
C_{ai}	= Concentration of constituent in aquatic invertebrates (mg COPEC/kg fresh weight) calculated from uptake models)
F_f	= Fraction of the diet composed of fish (unitless) (literature)
C_f	= Concentration of constituent in fish (mg COPEC/kg fresh weight) calculated

	from uptake models)
F_{tp}	= Fraction of the diet composed of terrestrial plants (unitless) (literature)
C_{tp}	= Concentration of constituent in terrestrial plants (mg COPEC/kg fresh weight) calculated from uptake models)
F_{ti}	= Fraction of the diet composed of terrestrial invertebrates (unitless) (literature)
C_{ti}	= Concentration of constituent in terrestrial invertebrates (mg COPEC/kg fresh weight) calculated from uptake models)
F_{pm}	= Fraction of the diet composed of prey mammals (unitless) (literature)
C_{pm}	= Concentration of constituent in prey mammals (mg COPEC/kg fresh weight) calculated from uptake models)

This equation includes ingestion of soil, sediment, and surface water. Dietary dose for these media is estimated by multiplying the amount of each medium that is ingested by the constituent concentration in these media. Dietary dose for food is obtained by summing the proportion of each dietary component multiplied by the concentration in each dietary component and multiplying that by the food ingestion rate. The concentration of constituents in food and prey items (plants, invertebrates, small mammals, fish) are estimated using COPEC concentrations in Site media and literature-derived bioaccumulation factors (BAFs) and biota-sediment accumulation factors (BSAFs). If a receptor does not consume a given prey item, the fraction of the diet for that item is 0. Likewise, if a receptor does not consume a given medium, the amount of that medium consumed is 0. The receptor parameters (such as dietary composition, body weight, food, water, sediment, and soil intake rate) are consistent with EPA guidance (ORNL 1994 which is based on USEPA 1993) and are presented on Table 5-18.

Absorption factors and area use factors (AUFs) are also a component of the TDI. A conservative default value of 1.0 is used as the absorption factor (i.e., the fraction of chemical ingested that is absorbed into the system). This assumption likely overestimates the TDIs, as laboratory toxicity tests often use highly available forms of the test chemical, whereas actual bioavailability under natural conditions is considerably lower. AUFs are the estimation of dose to account for the possibility that some wildlife ROIs may obtain some food from outside of the study area. An AUF is the ratio of the animals' home range divided by the area of the Site (or wetlands, as appropriate given the scenarios considered). Receptor-specific AUFs are given on Table 23.

Calculated uptake into aquatic plants, aquatic invertebrates, fish, terrestrial plants, terrestrial invertebrates, and prey mammals are presented on Tables 5-19 through 5-22 and are summarized on Table 5-23. Aquatic invertebrates and fish are assumed to accumulate constituents from water and sediment. Uptake into terrestrial organisms is assumed to come from only soil.

The receptor dietary intakes are calculated on Table 5-24 for the worst case (maximum concentrations) and reasonable case (average concentrations) scenarios.

5.2.6.2 Effects Assessment for the Food Web Pathways

The effects assessment for wildlife is based on TRVs that relate ingested daily dose to ecotoxicological endpoints. TRVs are literature-derived concentrations or doses which give an understanding of potential toxicity via dietary intake (e.g., Sample et al. 1996). No observed adverse effect level (NOAEL) TRVs are indicative of doses of constituents that have had no deleterious effects on a wildlife receptor. Lowest observed adverse effect levels (LOAEL) TRVs are the minimum doses of constituents where deleterious effects are apparent. They are used as follows:

- Worst Case: The NOAEL TRVs are used; and,
- Refined Case: The LOAEL TRVs are used.

The TRVs are taken from a variety of standard sources (USEPA 2007 June Eco SSL documents and Sample et al. 1996 Toxicological Benchmarks for Wildlife) as detailed on Table 5-25. The derivation of the TRVs PCBs, 2,3,7,8-TCDD (TEQ), and perchlorate are explained below.

PCBs

Multiple studies were considered for the mammalian TRV, both from the literature at large as well as Ecotoxicological Benchmarks for Wildlife (Sample et al. 1996) and other studies as shown on Table 5-25. Where NOAELS were not reported, they were assumed to be 1/10th of the LOAEL. Where LOAELs were not reported, they were assumed to be 10x the NOAEL. The average NOAEL (0.44 mg/kg bw-d) and LOAEL (1.49 mg/kg bw-d) were calculated as benchmarks for mammals.

Multiple studies were considered for the avian TRV. Studies for birds were taken from Ecotoxicological Benchmarks for Wildlife (Sample et al. 1996) and other studies. Unreported NOAELs and LOAELs were estimated as they were for mammals. The average NOAEL (7.43 mg/kg bw-d) and LOAEL (74.3 mg/kg bw-d) were calculated as benchmarks for mammals.

TEQs

Blankenship et al. (2008) reviewed 34 studies to create a TRV for mink for PCBs based on TEQs. This review's depth and breadth of study makes it a good starting point for determining a TRV for mammals. Their meta-analysis suggested that appropriate TRVs are 56.6 ng TEQ/kg (ww feed) for the NOAEL and 242 ng TEQ/kg (ww feed) for the LOAEL. In order to make this value appropriate for raccoons, it must be converted into units of mg/kg-bw/day:

$$\text{TRV}\ \frac{\text{mg TEQ}}{\text{kg BW - Day}} = \frac{\text{ng TEQ}}{\text{kg WW food}} \text{ x } \frac{1\text{ug}}{1000\text{ ng}} \text{ x } \frac{1\text{mg}}{1000\text{ ug}} \text{ x } \frac{0.137\text{ kg WW food}}{\text{day}} \text{ x } \frac{1}{1\text{ KG BW}}$$

Where:

TRV = Toxicity Reference Value (unitless)

IRf = Ingestion rate of food, 0.137 kg/day (ORNL 1994).

BW = Body weight of mink, 1 kg (ORNL 1994).

- Mink NOAEL TRV = 7.75 x 10-6 mg TEQ/kg BW – day
- Mink LOAEL TRV = 3.31 x 10-5 mg TEQ/kg BW – day

Hoffman et al. (1996) fed nestling American kestrels PCB-126 at doses of 50, 250, and 1,000 ng/g-day (equivalent to 5,000, 25,000, and 100,000 ng TEQ/kg-day TEQ) for 10 days. From days 4 to 10, there was a significant correlation between PCB dose and decreased body weight. Humerus, radius-ulna, and tibiotarsus bones were all significantly shorter in the 25,000 and 100,000 ng/kg-day test groups than in the controls. Thus, 5,000 ng TEQ/kg-day corresponds to the NOAEL and 25,000 ng TEQ/kg-day is the LOAEL.

Perchlorate

The perchlorate TRVs for mammals and birds are from a US Army Center for Health Promotion and Preventive Medicine (CHPPM, though the unit is now called the US Army Public Health Command) document "*Wildlife Toxicity Assessment for Perchlorate*". This document reports a literature review process similar to that of the Eco-SSL documents (USEPA 2007) and recommends NOAEL and LOAEL values for mammals and birds for perchlorate.

5.2.6.3 Risk Characterization for the Food Web Pathways

Like the direct-contact pathway, risk characterization for the food web pathways involves the integration of the exposure assessment and effects assessment to evaluate the likelihood, severity, and spatial distribution of predicted or observed effects. For the food web pathways, this is a hazard quotient that compares the TDI and TRV.

$$\text{Hazard Quotient} = \frac{\text{TDI}}{\text{TRV}}$$

Risk characterization for measurement endpoints involves mathematical comparison of exposure and effects estimates for each measurement endpoint (an HQ). Exposure estimates that are below the relevant effects metric (the TRV) indicate that adverse effects to a given receptor are unlikely. Therefore, HQs less than or equal to the threshold value of 1 (to one significant figure, USEPA 1997b) indicate that the constituents do not pose an unacceptable risk. Exposure estimates that exceed the relevant effects metric indicate that further investigation is warranted to define the potential for adverse effects at the population level, as well as the spatial extent and severity of any such adverse effects (Barnthouse et al. 2008).

The risk characterization for food web pathways relies on comparisons of COPEC concentrations to toxicity benchmarks in two scenarios, as described previously.

	Scenario	
	Worst Case	**Refined Case**
Exposure Point Concentration	Maximum constituent concentrations	Average constituent concentrations
Effects Measure (toxicity benchmark)	NOAEL (no effects benchmark)	LOAEL (low effects benchmark)

The risk characterization is calculated on Table 5-27 and summarized on Table 5-28. Even in the worst case scenario, there are no food web model HQs greater than 1. This indicates that the combination of constituents in surface water, sediment, and soil are unlikely to cause unacceptable risks to great blue herons, red-tailed hawks, and minks. These organisms were chosen as receptors because they are good surrogates for other organisms at the site. Therefore, this indicates that unacceptable risks to populations of other organisms at the site are unlikely.

5.2.7 BERA (Step 3a) Uncertainties Evaluation

Evaluation of key uncertainties is an important element of the risk characterization (USEPA 1997b). In many cases, unavoidable uncertainty in a Step 3A BERA problem formulation is balanced by purposefully conservative assumptions.

Areas of uncertainty in the Step 3a BERA problem formulation include:

- Benchmarks estimated using laboratory model organisms in controlled laboratory conditions and not the receptors in conditions equivalent to the site (unknown effects on risk estimation);
- Use of high-end worst case exposure estimates that are unlikely to be reflective of population or community level effects (overestimation of risk);
- Use of standardized receptor parameters that may not be reflective of the actual body weights, intakes, or dietary preferences of organisms at the site (unknown effects on risk estimation);
- Area use factors that may not reflect actual organism use of the site, particularly given human disturbances in the area (overestimation of risk);
- Assumption of links between effects on individual organisms and populations or, communities of those organisms, are unknown (unknown effects on risk estimation).

5.3 Summary and Step 3a BERA Scientific Management Decision Point

The SMDP is a critical step in the ERA process where risk management decision-making occurs. Generally, the following types of decisions are considered at the SPMD:

- The constituents do not pose an unacceptable risk and no further action is warranted;
- Further investigation or ERA is needed; or,
- The risk assessment is sufficient to support risk management decisions.

The SLERA and BERA were conducted in a manner consistent with standard USEPA guidance. As such, the SLERA compared maximum detected concentrations in these media to conservative screening criteria in order to focus subsequent risk analyses on only those constituents and media that required further evaluation. The SLERA determined that there is adequate information to conclude that ecological risks to biologically significant populations of wildlife receptors are negligible for many of the constituents detected in surface water, sediment, and surface soil. However, the information developed in the SLERA was not adequate to make a decision for some constituents in surface water, surface soil, and sediment. Therefore the ERA continued into the initial step of a BERA. The initial step of a refines the constituents of potential ecological concern identified in the SLERA by using more realistic estimates of exposure and measures of effect that reflect site-specific conditions.

This BERA evaluated risks for the following assessment endpoints:

- aquatic and sediment-dwelling invertebrate community structure, survival, and growth;
- survival and reproduction of bird populations; and
- survival and reproduction of mammal populations.

The BERA evaluation provided comparisons of exposure and effects, with the ratio reflected as HQs. The risk characterization for the aquatic and sediment-dwelling invertebrate community involved the calculation of site-specific sediment criteria using USEPA-based approaches for equilibrium partitioning (USEPA 2003, USEPA 2008, USEPA 2008, Fuchsman et al. 2006). These criteria incorporate an understanding of the bioavailability of the constituents using site-specific measures of organic carbon in the sediment. The BERA evaluated HQs for VOCs, PAHs, PCBs (total), metals, and perchlorate in surface water, sediment and surface soil. With limited exceptions, the site-wide 95% UCL on the mean HQs were not greater than one, indicating that constituents are present at concentrations that do not pose unacceptable risks to aquatic and sediment-dwelling invertebrate communities.

The food web model-based BERA for great blue herons, red-tailed hawks, and mink resulted in HQs that are not greater than one. This indicates that the constituents on Site are unlikely to have negative effects on the survival and reproduction of bird and mammal populations.

Based on the information developed in the ERA (including the SLERA and the BERA), it is concluded that conditions at the site do not pose unacceptable risks to ecological receptors; therefore no further action is warranted at the site based on ecological receptors.

6. Summary and Conclusions

This report documents the methodology and results of a baseline human health and ecological risk assessment performed as part of the SRFI for the ARC facility located in Gainesville, Virginia. The baseline risk assessment evaluates potential human health and ecological risks from releases of hazardous waste and constituents at the areas investigated during the SRFI (Geosyntec 2009) that have not been remediated as interim measures or previous corrective measures. The potential risks are evaluated under current and reasonably anticipated future land and groundwater uses at and surrounding the Site in the absence of additional remediation or institutional controls.

The purpose of the baseline risk assessment is to determine whether any reasonable maximum exposure, under current and reasonably anticipated future land use and groundwater use at and around the Site, is sufficiently high to warrant further corrective measures (including institutional controls), and if so, to establish remedial action objectives for such corrective measures.

6.1 Human Health Risk Assessment

The baseline human health risk assessment evaluated the following potentially exposed populations at and around the Site under current and reasonably expected future land use:

On-site:

- Routine workers
- Maintenance workers
- Construction workers
- Trespassers
- Recreators
- Residents

Off-site:

- Residents
- Routine workers
- Maintenance workers

The potential exposures evaluated for these receptors are summarized in the CSM presented on Table 4-1. These exposures were evaluated using site characterization data representative of current and future site conditions, and accounted for the removal of contaminated soil during the interim measures performed in accordance with the *Soil IM Work Plan* (Geosyntec 2012). Results of the human health risk assessment are summarized below for each receptor population. For all on-site areas, this risk assessment assumed that an institutional control, in the form of an environmental covenant (deed restriction) prohibiting future potable and nonpotable groundwater use at the Site, will be established as part of corrective measures.

Overall, there are no current unacceptable risks to human health at the Site when considering current receptors and exposure pathways. With the exception of potential future off-site nonpotable groundwater exposures (see below) there are no unacceptable risks to current or future off-site receptors.

As presented on Figure 4-1d, there are no areas of the Site with soil concentrations which would result in cumulative cancer risks or noncancer HIs above USEPA's risk management limits of 10^{-4} and 1, respectively, when considering potential future routine worker, maintenance worker, construction worker, trespasser, or recreator exposure to soil. As presented on Figure 4-1e there are areas of the Site with soil concentrations which could result in cumulative cancer risks or noncancer HIs above USEPA's risk management limits of 10^{-4} and 1, respectively, when considering potential future resident exposure to soil. These areas of the Site would warrant further evaluation for corrective measures if they are to be developed for future residential use. In addition, as discussed in Section 4.3.3.3, the significance of potential future exposures to constituents that could migrate from soil to shallow groundwater is not a significant exposure pathway which would warrant further evaluation for corrective action

As presented on Figure 4-2, there are no areas of the Site with groundwater concentrations which would result in cumulative cancer risks or noncancer HIs above USEPA's risk management limits of 10^{-4} and 1, respectively, when considering future routine worker, trespasser, or recreator exposures to groundwater. As presented on Figure 4-2, there are areas of the Site with groundwater concentrations which could result in cumulative cancer risks or noncancer HIs above USEPA's risk management limits of 10^{-4} and 1, respectively, when considering future maintenance worker, construction worker, or resident exposures to groundwater. These areas would warrant further evaluation for corrective measures if development of the areas will involve excavations that extend into groundwater or future residential use.

As presented on Figures 4-3 and 4-4, there are no locations of the Site with sediment or surface water concentrations which would result in cumulative cancer risks or noncancer HIs above USEPA's risk management limits of 10^{-4} and 1, respectively, when considering future resident, maintenance worker, construction worker, trespasser, or recreator exposure to sediment or surface water.

In summary, the baseline human health risk assessment determined that all current and future potential exposures for on- and off-site receptors to soil, groundwater, surface water, and sediment were at or below USEPA's cumulative cancer risk and noncancer HI limits of 10^{-4} and 1, respectively, with the exception of the following areas which would warrant further evaluation for corrective measures for the reasons summarized below:

Wells BW 78-10D, BW 78-11S, BW 78-12S, SW 78-03D

- Future on-site maintenance worker exposure to shallow groundwater during subsurface activities which encounter the water table.
- Future on-site construction worker exposure to shallow groundwater during redevelopment/construction subsurface activities which encounter the water table

These unacceptable potential exposures are due to perchlorate concentrations in shallow groundwater. The potentially significant pathway of exposure would be incidental ingestion of groundwater.

Wells SW 105-03D, BW 78-02D, BW 78-12D, GP 78-01, BW 16-04D, SW 74-04

- Future on-site construction worker exposure to shallow groundwater during redevelopment/construction subsurface activities that encounter the water table.

This unacceptable potential exposure is due to perchlorate concentrations in shallow groundwater. The potentially significant pathway of exposure would be incidental ingestion of groundwater.

Well SW 5-04

- Future on-site maintenance worker exposure to shallow groundwater during subsurface activities which encounter the water table.
- Future on-site construction worker exposure to shallow groundwater during redevelopment/construction subsurface activities which encounter the water table.

These unacceptable potential exposures are due to PCBs (total) concentrations in shallow groundwater. The potentially significant pathways of exposure would be incidental ingestion of and dermal contact with groundwater.

Well SW 40-07A

- Future on-site maintenance worker exposure to shallow groundwater during subsurface activities which encounter the water table.
- Future on-site residential exposure to shallow groundwater via vapor intrusion.

These unacceptable exposures are due to TCE and PCE concentrations in shallow groundwater. The potentially significant pathways of exposure would be inhalation of vapors.

Well SW 47-03

- Future on-site residential exposure to shallow groundwater via vapor intrusion.

These unacceptable exposures are due to TCE concentrations in shallow groundwater. The potentially significant pathways of exposure would be inhalation of vapors

Exposure Area IM-3

- Future on-site residential exposure to soil during outdoor activities.

This unacceptable potential exposure is due to benzo(a)pyrene, dibenz(a,h)anthracene, benzo(a)anthracene, and benzo(b)fluoranthrene concentrations in soil. The potentially significant pathway of exposure would be incidental ingestion of and dermal contact with soil.

Exposure Areas SRA 3, SRA 6 (South), and 42 GP-28/42 GP-19

- Future on-site residential exposure to soil during outdoor activities.

This unacceptable potential exposure is due to PCBs (total) concentrations in soil. The potentially significant pathway of exposure would be incidental ingestion of and dermal contact with soil.

Soil Sampling Location 5850-2600

- Future on-site residential exposure to soil during outdoor activities.

This unacceptable potential exposure is due to perchlorate concentrations in soil. The potentially significant pathway of exposure would be incidental ingestion of soil.

Soil Sampling Location 3150-2000

- Future on-site residential exposure to soil via vapor intrusion.

This unacceptable potential exposure is due to 1,2,4-trichlorobenzene concentrations in soil. The potentially significant pathway of exposure would be inhalation of vapors.

Soil Sampling Location 230-BM

- Future on-site residential exposure to soil via vapor intrusion.

This unacceptable potential exposure is due to mercury concentrations in soil. The potentially significant pathway of exposure would be inhalation of vapors.

Various Areas of the Site

In addition to the specific areas listed above, there are areas of the Site with soil concentrations of perchlorate (predominantly) and PAHs (in 1 location) that could potentially pose an unacceptable risk to residents via the ingestion of homegrown produce. These areas of the Site are presented on Figure 4-1E.

As indicated above, each of these unacceptable risks is for a potential future exposure assuming a change to residential land use. In each case, current exposures are not unacceptable due to the following reasons:

1. The Site is currently vacant and the only current exposures would include those of trespassers.
2. The Site currently maintains a Health and Safety protocol (Geosyntec 2007) which requires workers to take proper precautions and use appropriate PPE to prevent any unacceptable exposures to any on-site environmental media.

Lastly, on-site routine worker and resident exposure to groundwater via nonpotable (or potable) uses is not expected because such exposure does not currently exist and is not reasonably expected to exist in the future. In particular, it is understood that the property owner intends to supplement the County ordinance on groundwater use restrictions by establishing additional institutional controls to prohibit all groundwater uses (including nonpotable) at the property, as part of the correction action for the Site. Off-site use of groundwater for potable purposes is also not expected in the future. Off-site nonpotable used of groundwater may occur in the future given the lack of any restriction of such use off-site. In order to assess: (1) the potential future

risk to off-site receptors should groundwater contamination migrate off-site and be used as a nonpotable water source; and (2) to provide a basis for determining the appropriate extent of on-site groundwater institutional controls, this risk assessment also includes a comparison of all groundwater data to drinking water criteria. Figures 4-6a and 4-6b present the areas of the Site with shallow and deep groundwater concentrations, respectively, above drinking water criteria.

6.2 Ecological Risk Assessment

The baseline ecological health risk assessment evaluated the following potentially exposed representative receptors at the Site under current land use[17]:

- Sediment-dwelling invertebrates;
- Aquatic invertebrates;
- Great Blue Heron;
- Red-Tailed Hawk; and
- Mink.

The potential exposures evaluated for these receptors are summarized in the CSM presented in Figure 5-5. These exposures were evaluated using site characterization data representative of current conditions, and accounted for the removal of contaminated soil during the interim measures. Results of the ecological risk assessment are summarized below for each receptor.

Surface water: Table 5-11 presents the BERA risk characterization for surface water. The hazard quotients indicate no unacceptable risk for direct contact of aquatic organisms with surface water.

Sediment: Table 5-12 presents the BERA risk characterization for sediment. In two of the 18 locations where silver was detected in the sediment, the HQs for silver are greater than one. While these might represent some very limited local impairment of the invertebrate community, this does not represent a population-level risk to aquatic invertebrates. In order to understand potential risks to wildlife, silver was retained for investigation in the food web model.

Soil: Table 5-13 presents the BERA risk characterization for soil. Although some constituents either had no screening levels in soil, or exceeded their screening levels (dioxins, chromium, and perchlorate), these constituents were assessed through the food web. The remaining constituents pose no unacceptable risks to soil organisms. In addition, as discussed in Section 5, the significance of potential future exposures to constituents that could migrate from soil to shallow groundwater and then to surface water is not a significant exposure pathway which would warrant further evaluation for corrective action since the estimated hazard quotients indicate no unacceptable risk for direct contact of aquatic organisms with surface water.

Food Web: The food web model tested two scenarios: a worst case scenario (maximum media concentrations and most conservative toxicity values) and a realistic scenario (average media

[17] Should redevelopment occur in the future, much of the exposure area and habitat will be altered or eliminated.

concentrations and a more realistic toxicity value). Table 5-28 summarizes the BERA risk characterization for the wood web. Even in the worst case scenario there are no food web model HQs greater than 1. This indicates that the combination of constituents in surface water, sediment, and soil are unlikely to cause unacceptable risks to great blue herons, red-tailed hawks, and minks. These organisms were chosen as receptors because they are good surrogates for other organisms at the site. Therefore, this indicates that unacceptable risks to populations of other organisms at the site are unlikely.

In summary, the baseline ecological risk assessment determined that current exposures for soil, surface water, and sediment were unlikely to cause significant ecological risks to populations of wildlife receptors. Under potential future site conditions, which includes redevelopment for commercial/industrial, residential and mixed land use, the potential for ecological exposures is expected to be substantially reduced due to the change in landscape and drainageways/ponds.

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Tables

Table 2-1: Metal Concentrations in Background Soil and Calculation of Site-Specific Background Exposure Concentrations
ARC Gainesville, Gainesville, Virginia

	Depth (ft)		Aluminum		Antimony		Arsenic		Barium		Beryllium		Bismuth		Boron		Cadmium		Chromium III		Chromium VI		Cobalt		Copper		Iron		Lead		Manganese		Mercury		Nickel		Selenium		Silver		Strontium		Thallium		Vanadium		Zinc	
Sample ID	Top	Bottom	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ
3000-2000-20080412-00-01-N	0	1	17800		1.93	J	8.99		201		0.925						3.81		26	calc	2.8	calc	59.6		38		95200		25.5		3710		0.0262	J	4.93		0.496	U	0.737				4.55		270		58.5	
3150-2000-20080412-00-01-N	0	1	21600		1.39	J	4.02		87.4		0.293	J					1.99		5	calc	2.6	calc	33.8		69		62200		18.9		1460		0.0313	J	8.76		0.49	U	0.649				3.53		283		89.2	
3600-4250-20080617-00-01-N	0	1	22400		0.4855	U	8.47		56.2		0.547				1.63	U	0.068	U	106	calc	3.3	calc	19.3		17		60800		21.5		897		0.0215	J	12.4		0.4755	U	0.0825	U	5.99		1.73	J	209		37.9	
4050-3200-20080606-00-01-N	0	1	53400		0.4975	U	2.24		119		0.366	J			0.975	U	0.0695	U	89	calc	3.2	calc	19		38.6		36000		5.36		536				41.5		0.4875	U	0.0845	U	37.9		0.63	U	97.3		28.4	
4350-3050-20080414-00-01-N	0	1	31200		1.12	J	4.02		95.5		0.555						2.34		50	calc	2.9	calc	41		40		54500		19.1		1380		0.0268	J	19.2		0.51	U	0.187	J			1.63	J	158		49.3	
4350-3500-20080617-00-01-N	0	0.6	45400		0.495	U	4.39		102		0.52				1.94	U	0.0695	U	164	calc	3.7	calc	46.5		51.1		58700		16		1680		0.018	J	58.8		0.485	U	0.084	U	29.9		2.06	J	134		91.6	
4500-3050-20080414-00-01-N	0	1	36200		1.1	J	3.05		84.1		0.473	J					2.09		63	calc	3.0	calc	28.8		55.4		49300		14.8		1010		0.113		23.2		0.505	U	0.377	J			1.81	J	162		53.7	
4650-4250-20080617-00-01-N	0	1	44500		0.495	U	4.23		128		0.683				1.92	U	0.0695	U	139	calc	3.5	calc	55.7		65.6		57800		12.5		1480		0.0114	J	55.4		0.485	U	0.084	U	28.6		1.86	J	178		67.6	
BKG-A-20060712-00-01-N	0	0.7	21700						115				3.2	U					35	calc	2.8	calc			36.6				40.7										0.107	U	7.77									
BKG-A-20060712-01-01-N	0.7	1.3	23300						68.7				3.1	U					28	calc	2.8	calc			60.2				12.1										0.102	U	10.7									
BKG-A-20060712-01-02-N	1.3	2	40200						224				3.2	U					35	calc	2.8	calc			101				14.9										0.1075	U	9.35									
BKG-B-20060712-00-01-N	0	0.7	22400						120				3.3	U					36	calc	2.8	calc			33.4				36.7										0.1075	U	7.31									
BKG-B-20060712-01-01-N	0.7	1.3	21400						72.2				3.1	U					26	calc	2.8	calc			27.5				13.3										0.102	U	7.84									
BKG-B-20060712-01-02-N	1.3	2	26900						63.9				3.2	U					26	calc	2.8	calc			42.8				10.7										0.104	U	7.39									
BKG-E-20060712-00-01-N	0	0.7	19900						91.1				3.1	U					35	calc	2.8	calc			32.8				26.3										0.426	J	6.17									
BKG-E-20060712-01-01-N	0.7	1.3	25200						62.6				3.15	U					25	calc	2.8	calc			39.6				10.2										0.1045	U	6.72									
BKG-E-20060712-01-02-N	1.3	2	44600						75.8				3.15	U					63	calc	3.0	calc			57.8				7.48										0.1115	U	8.4									
BKG-G-20060712-00-01-N	0	0.7	23100						89.5				3.4	U					42	calc	2.9	calc			36.8				33.7										0.438	J	5.93									
BKG-G-20060712-01-01-N	0.7	1.3	20000						62				3.2	U					23	calc	2.8	calc			33.8				12.7										0.1095	U	7.5									
BKG-G-20060712-01-02-N	1.3	2	36200						79.1				3.35	U					39	calc	2.9	calc			114				10.5										0.1105	U	8.67									
GP 221-06-20020820-00-01-N	0	1			1.25	U	2				1.25	U					1.25	U	102	calc	3.3	calc			9.8				30				0.05	U	8.6		1.25	U	1.25	U			1.25	U			12.5	U
GP 52-04-20050407-04-05-N	4	5	50200						59						1.51	J	0.0362	U	86	calc	3.2	calc							3.1										0.285	J	30.9									
GP 97-01-20051021-00-01-N	0	1																	137	calc	3.5	calc																										
GP 97-02-20051021-00-01-N	0	1																	172	calc	3.8	calc																										
GP 97-02-20051021-05-06-N	5	6																	51	calc	2.9	calc																										
GP 97-04-20051021-00-01-N	0	1																	119	calc	3.4	calc																										
SB PBN-01-20021014-00-02-N	0	2																					7.8																									
SC-1-20080411-00-01-N	0	1	32700		1.12	J	3.05		87.9		0.634						1.95		84	calc	3.2	calc	36.7		37.7		53700		18.2		1790		0.0158	J	28.4		0.505	U	0.511	J			2.01	J	155		55	
SC-100-20080609-00-01-N*	0	1	36600		1.4575		6.995		126		0.493				4.885	U	2.25		112	calc	3.4	calc	52		52.8		72300		16.6		2060		0.02405	J	33.3		0.505	U	1.525		21.3		0.6525	U	240		67.95	
SC-101-20080609-00-01-N	0	1	33200		1.17	J-	4.43		103		0.534				3.52	U	0.362	UJ	87	calc	3.2	calc	42.9		49.2		56400		17.3	J-	1690		0.0277	J	22.3		0.505	U	1.47		24.8		0.655	U	207		57.2	
SC-103-20080611-00-01-N	0	1	37000		2.52	U	6.76		223		0.928				2.075	U	0.353	U	95	calc	3.2	calc	52.9		43.3		70900		19		3160		0.0362	J	30.8		3.52		0.0855	U	24.6		6.87		234		76.7	
SC-105-20080611-00-01-N	0	1	33700		2.57	U	2.46		108		0.521				1.275	U	0.36	U	119	calc	3.4	calc	44		39		45900		13.6		1730		0.0418	J	34.9		1.7	J	0.0875	U	25.3		4.13		172		52.1	
SC-106-20080611-00-01-N	0	1	28700		0.51	U	6.99		128		0.73				1.06	U	0.3555	U	160	calc	3.7	calc	79.2		21.3		67800		21.5		3340		0.0289	J	28		3.55		0.0865	U	12.6		5.7		255		52.6	
SC-107-20080611-00-01-N	0	1	33800		0.51	U	5.19		138		0.666				1.125	U	0.356	U	107	calc	3.3	calc	41.3		43.4		57000		15.8		2050		0.0303	J	31.4		2.37		0.0865	U	29		4.02		204		49.4	
SC-110-20080613-00-01-N*	0	1	23350		1.56	U	6.425		95.15		0.7575				0.6225	U	0.361	U	188	calc	3.9	calc	68.1		21.25		72000		26.65		3105		0.041	J	21.65		3.475		0.08775	U	7.715		6.225		264		48	
SC-113-20080613-00-01-N	0	1	27200		0.505	U	8.4		68.1		1.12				1.24	U	0.3545	U	55	calc	3.0	calc	20.3		52.1		48900		35.5		830		0.0321	J	18.1		1.98	J	0.086	U	6.39		3.48		109		47.1	
SC-114-20080617-00-01-N	0	1	22200		0.495	U	4.79		69.5		0.723				1.78	U	0.0695	U	55	calc	3.0	calc	20.6		29.7		37400		22		813		0.0348	J	19.7		0.485	U	0.511		13.5		0.63	U	102		58.6	
SC-115-20080617-00-01-N	0	1	21300		0.5	U	6.42		83.4		0.692				2.54	J	0.07	U	85	calc	3.2	calc	41.5		16.8		44000		27.5		2110		0.0337	J	15.9		0.49	U	0.085	U	11.1		0.635	U	145		40.6	
SC-16-20080421-00-01-N	0	1	22000		0.957	J	7.04		129	J	0.818						1.82		56	calc	3.0	calc	28		5.78		49000		27.1		1790		0.0374	J	10.2		0.5	U	0.564				1.3	J	110		34.4	
SC-17-20080421-00-01-N	0	1	22800		0.4655	U	5.04		80.2		0.732						0.197	J	59	calc	3.0	calc	21.5		8.13		30700		22.5		1270		0.0313	J	12		0.505	U	0.406	J			0.4895	U	98.3		38.1	
SC-18-20080421-00-01-N	0	1	22100		0.462	U	8.16		91.3		0.715						0.546		89	calc	3.2	calc	58.6		8.88		50200		32.5		2090		0.0386	J	14		0.5	U	0.506	J			0.486	U	151		42.6	
SC-19-20080421-00-01-N	0	1	22300		0.4615	U	5.73		103		0.986						0.289	J	45	calc	2.9	calc	14.9		7.39		39800		20.3		1270		0.0364	J	15.3		0.5	U	0.087	U			0.4855	U	95.2		45.3	
SC-20-20080421-00-01-N	0	1	19500		0.472	U	2.79		90.6		0.663						0.106	J	35	calc	2.8	calc	11		9.14		28400		18.7		612		0.0304	J	10.3		0.51	U	0.531				0.4965	U	73.9		29.2	
SC-21-20080422-00-01-N	0	1	23100		0.995	J	3.99		115		0.62						0.411	J	49	calc	2.9	calc	24.2		13.9		41400		25.8		2410		0.0357	J	14.2		0.505	U	0.713				0.4895	U	117		62.2	
SC-23-20080422-00-01-N	0	1	18500		0.4555	U	2.61		66.4		0.58						0.309	J	34	calc	2.8	calc	8		5.98		35000		13.9		367		0.0291	J	10.1		0.494	U	0.449	J			1.75	J	74		25.4	
SC-25-20080425-00-01-N	0	1	24300		0.462	U	5.73		99.2		1.04						0.166	U	46	calc	2.9	calc	17.3		9.28		42100		19.6		740		0.0564	J	16.9		0.5	U	0.087	U			0.486	U	96.9		38.5	
SC-26-20080425-00-01-N	0	1	26500		0.453	U	5.92		107		1.18						0.163	U	47	calc	2.9	calc	26.1		11		49700		22.8		959		0.0611	J	17.5		0.491	U	0.0855	U			0.4765	U	103		38.1	
SC-27-20080425-00-01-N	0	1	25000		0.4655	U	3.28		78.3		0.895						0.1675	U	40	calc	2.9	calc	14.4		11.9		35200		15		675		0.0463	J	16.8		0.505	U	0.0875	U			0.4895	U	78.1		34	
SC-29-20080425-00-01-N	0	1	29600		0.4915	U	5.35		99.8		0.811						0.177	U	136	calc	3.5	calc	76.1		28.2		70600		27.6		2340		0.0493	J	25.1		0.535	U	0.0925	U			0.515	U	259		45.6	
SC-30-20080425-00-01-N	0	1	26600		0.505	U	3.39		114		0.983						0.1815	U	53	calc	2.9	calc	27.2		69		39900		18.6		1940		0.0575	J	26.2		0.545	U	1.12				0.53	U	98.2		39.7	
SC-31-20080428-00-01-N	0	1	20300		0.484	U	3.21		130		0.794						0.174	U	47	calc	2.9	calc	19.3		31.8		42500		21.3		2050		0.0563	J	15.7		0.525	U	0.091	U			0.51	U	108		39.2	
SC-32-20080428-00-01-N	0	1	26600		0.4575	U	3.44		88.5		0.875						0.1645	U	63	calc	3.0	calc	22.8		24.2		46300		20.5		813		0.0545	J	21.9		0.496	U	0.086	U			0.481	U	104		41.6	
SC-34-20080428-00-01-N	0	1	34700		0.471	UJ	5.05		114		0.766						0.1695	U	160	calc	3.7	calc	58.6	J+	37.1		70000		21.5	J+	2060		0.0195	U	35.6		0.51	U	0.0885	U			0.4955	U	243		56	
SC-35-20080428-00-01-N	0	1	22500		0.4585	U	3.87		90.2		0.765						0.033	U	66	calc	3.0	calc	41.5		40.7		48000		23.5		1490		0.02675	U	16.4		0.497	U	0.0865	U			0.4825	U	157		37.1	
SC-36-20080428-00-01-N	0	1	23600		0.456	U	5.85		95.1		1.05						0.137	J	56	calc	3.0	calc	40.2		48.6		50200		22.9		1790		0.0243	U	16.7		0.494	U	0.086	U			0.4795	U	137		39.9	
SC-37-20080428-00-01-N	0	1	31400		0.454	U	5.26		116		0.96						0.343	J	47	calc	2.9	calc	42.5		58.3		57700		24.8		1990		0.027	U	26.6		0.4925	U	0.0855	U			0.478	U	196		52.7	
SC-38-20080428-00-01-N	0	1	29000		0.463	U	7.1		97.1		0.99						0.361	J	100	calc	3.3	calc	53.5		24.7		59400		27.5		2280		0.02305	U	21.3		0.5	U	0.087	U			0.4875	U	165		43.9	
SC-39-20080428-00-01-N	0	1	28300		0.4705	U	4.97		175		0.696						0.404	J	116	calc	3.4	calc	43.5		27.9		63300		24.4		2580		0.03215	U	24.5		0.51	U	0.0885	U			0.495	U	211		58.4	
SC-40-20080428-00-01-N	0	1	27500		0.4665	U	4.17		97.6		0.677						0.285	J	142	calc	3.6	calc	52.2		26.1		58700		19.5		2140		0.0216	U	27.3		0.505	U	0.088	U			0.491	U	188		53.4	
SC-41-20080428-00-01-N	0	1	36800		0.4685	U	3.22		94		0.628						0.492	J	187	calc	3.9	calc	59.2		31.6		68300		22.8		2190		0.0348	U	34.7		0.51	U	0.088	U			0.493	U	226		57.1	
SC-43-20080430-00-01-N	0	1	32400		0.464	U	5.01		109		0.632						0.448	J	155	calc	3.7	calc	62.9		29.6		60900		24.8		2110		0.03275	U	33.3		0.505	U	0.0875	U			0.488	U	193		58.2	
SC-44-20080430-00-01-N	0	1	35000		0.469	U	4.46		105		0.635						0.413	J	165	calc	3.7	calc	63		35.1		57800		19.6		2260		0.02235	U	38.6		0.51	U	0.0885	U			0.4935	U	173		51.3	
SC-45-20080430-00-01-N	0	1	26700		0.461	U	7.82		84.3		0.648						0.372	J	141	calc	3.6	calc	47		18.6		69400		30.8		2510		0.0282	U	17.8		0.4995	U	0.087	U			2.13		241		42.3	
SC-47-20080501-00-01-N	0	1	40000		0.4805	U	5.16		171		0.867						0.708		261	calc	4.4	calc			33.4		76500		24.7		4270		0.0265	U	53.2		0.52	U	0.257	J			0.505	U	257		55.3	
SC-48-20080501-00-01-N	0	1	35700		0.4785	U	5.56		100		0.738						0.492	J	236	calc	4.2	calc	86		30.9		67100		27.8		2730		0.0269	U	39.2		0.52	U	0.09	U			0.505	U	237		47.7	
SC-50-20080502-00-01-N*	0	1	29300		1.331	U	3.16		92		0.5695						0.836		231	calc	4.2	calc	67.15		23.4		51350		19		2100		0.0298	J	41.85		0.48225	U	0.08375	U			1.13275		188		46.85	
SC-51-20080502-00-01-N	0	1	38700		0.447	U	3.06		103		0.533						0.888		212	calc	4.0	calc	62.6		32		51000		15.9		1860		0.0348	J	51.7		0.4845	U	0.084	U			1.53	J	179		45.9	
SC-52-20080502-00-01-N	0	1	28900		0.447	U	3.97		107		0.578						0.72		147	calc	3.6	calc	53.4		20.8		45500		18		2000		0.033	J	33.7		0.4845	U	0.084	U			2.16		163		47.7	
SC-53-20080502-00-01-N	0	1	29800		2.235	U	6.24		145		0.752						0.967		143	calc	3.6	calc	62.9		18.8		59300		23.3		2930		0.0299	J	31		0.4845	U	0.084	U			1.36	J	211		48.8	
SC-55-20080516-00-01-N	0	1	33300		0.515	U	3.35		139		0.179	J					0.329	J	153	calc	3.6	calc	45		35.7		45100		10.7		1520		0.0169	J	42.5		0.505	U	2.23				1.46	J	145		51.2	
SC-56-20080516-00-01-N	0	1	37700		0.525	U	3.77		125		0.204	J					3.68		228	calc	4.2	calc	79		40.6		71500		13.3		2390		0.0276	J	50.9		2.575	U	2.94				0.665	U	269		65.8	
SC-61-20080519-00-01-N	0	1	25300		0.515	U	5.62		127		0.438	J					0.277	J	126	calc	3.4	calc	70.6		27.7		56000		24.9		2840		0.0313	J	25.1		0.505	U	2.62				0.655	U	195		67.7	
SC-63-20080519-00-01-N	0	1	30900		0.52	UJ	6.45		166	J-	0.465	J					0.342	J	115	calc	3.4	calc	62.3	J-	34.3	J+	51400		19	J+	2890	J	0.0322	J	31.7		0.51	U	3				1.35	J	171	J+	58.4	
SC-65-20080530-00-01-N	0	1	24300		1.45	J	7.9		77.7		0.35	J			17		2.28		22		1.1	U	30.5		109		68400		24.6		1370		0.045	J	10.7		0.505	U	2.36		10.8		0.655	U	275		48.9	
SC-67-20080530-00-01-N	0	1	22000		1.26	J	4.36		85.2		0.733				9.29		0.61		36		0.3	U	20.4		131		39400		15.1		1240		0.0253	J	17.4		0.4945	U	1.69		5.85		0.64	U	84.4		31.4	
SC-68-20080530-00-01-N	0	1	25000		1.23	J	4.94		84.6		0.749				10.6		1.1		43	J	0.7	J	23.1		40		41700		18.5		978		0.0343	J	20.9		0.49	U	1.62		6.97		0.635	U	101		43.4	
SC-75-20080602-00-01-N	0	1	27300		1.65	J	7.69		112		0.532				16.5		2.46		208	J	3.7	J	85.5		23.7		67600		24.5		3140		0.0428	J	29.1		0.4915	U	2.03		9.91		0.635	U	245		47.8	
SC-77-20080603-00-01-N	0	1	31100		1.73	J-	1.49	J	98.8		0.577				0.3355	U	0.0725	UJ	114		1.1	U	34.1	J+	40.3		47900		12.2		1480		0.0315	J+	30.7		0.505	U	0.18	J	24.8		0.655	U	152		61.3	
SC-78-20080603-00-01-N	0	1	23200		1.13	J	3.07		98.1		0.446	J			0.328	U	0.0705	U	100		1.1	U	53		23.8		36800		15		2200		0.0377	J	27		0.4945	U	0.086	U	14.4		0.64	U	128		52	
SC-80-20080604-00-01-N	0	1	28500		1.77	J	10.1		93.4		0.536				0.332	U	0.298	J	183	J	2.5	J	44.9		29.2		52100		16.7		1790		0.0517	J	36.1		0.5	U	0.087	U	18.7		0.65	U	186		103	
SC-81-20080604-00-01-N	0	1	31300		2.03	J	7.37		124		0.606				0.3405	U	0.514	J	227		1.1	U	81.6		27.6		60000		27.2		2840		0.0566	J	37.5		1.61	J	0.089	U	13.5		0.665	U	221		78.5	
SC-82-20080604-00-01-N*	0	1	25150		1.64	J	6.755		164.5	J	0.625				0.33925	U	0.20975		110	J	2.1	J	49.25	J	26.85		53300		20.7		2350		0.05685	J	24.2		0.51	U	0.08875	U	19.75		1.02		198.5		53.4	
SC-88-20080605-00-01-N	0	1	21800		1.15	J	7.36		97.3		0.653				0.324	U	0.358	J	22		1.1	U	36.4		40.2		54900		23.2		1630		0.0535	J	10.2		1.4	J	0.0845	U	11.1		1.36	J	209		66.9	
SC-89-20080605-00-01-N*	0	1																	28		0.3	U							21.6																			
SC-90-20080606-00-01-N	0	1	26100		1.55	J	5.26		126		0.644				3.395	U	1.17		49	calc	2.9	calc	44.2		42.8		61600		28.2		2030		0.0322	J	15.6		0.515	U	1.36		16.1		0.67	U	164		72.4	
SC-92-20080606-00-01-N	0	1	26000		1.4	J	6.22		126		0.478	J			3.65	U	1.71		100	calc	3.3	calc	31.2		28.1		65400		25.7		1620		0.0423	J	16.8		1.75	J	1.64		15.5		0.645	U	283		62.4	
SC-93-20080606-00-01-N	0	1	31400		1.19	J	5.52		194		0.659				3.71	U	1.61		91	calc	3.2	calc	54.4		27.5		65400		23		2560		0.0415	J	19.2		0.51	U	2.1		12.1		0.665	U	245		53.4	
SC-94-20080609-00-01-N	0	1	31400		1.43	J	9.15		200		0.856				4.755	U	1.88		52	calc	2.9	calc	44.9		39.5		72500		25.5		2670		0.0277	J	18.7		0.505	U	1.55		22.1		0.655	U	237		64.5	

Table 2-1: Metal Concentrations in Background Soil and Calculation of Site-Specific Background Exposure Concentrations
ARC Gainesville, Gainesville, Virginia

	Depth (ft)		Aluminum		Antimony		Arsenic		Barium		Beryllium		Bismuth		Boron		Cadmium		Chromium III		Chromium VI		Cobalt		Copper		Iron		Lead		Manganese		Mercury		Nickel		Selenium		Silver		Strontium		Thallium		Vanadium		Zinc	
Sample ID	**Top**	**Bottom**	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ	mg/kg	VQ
SC-96-20080610-00-01-N	0	1	27600		1.42	J	6.93		113		0.477	J			4.5	U	1.75		38	calc	2.9	calc	37.1		79.8		71000		22		2100		0.0445	J	9.68		1.14	J	1.87		11.4		0.66	U	227		65.3	
SC-98-20080610-00-01-N	0	1	29200		1.27	J	7.24		119		0.9				3.485	U	1.43		79	calc	3.1	calc	85.8		27.9		59300		28.9		2520		0.0366	J	16.7		0.498	U	1.59		11.1		0.645	U	209		48.3	
TP 221-02-20020820-00-04-N	0	4			1.25	U	1.6				1.25	U					1.25	U	131	calc	3.5	calc			39				24				0.05	U	73		1.25	U	1.25	U			1.25	U			171	
TP 223-01-20020819-00-02-N	0	2			1.25	U	1.8				1.25	U					1.25	U	193	calc	3.9	calc			21				28				0.05	U	28		1.25	U	1.25	U			1.25	U			45	
TP NPB-02-20020820-00-04-N	0	4			1.25	U	0.25	U			1.25	U					1.25	U	13	calc	2.7	calc			5.3				4.9				0.05	U	5.9		1.25	U	1.25	U			1.25	U			12.5	U
Count			**83**		**74**		**74**		**83**		**74**		**12**		**31**		**75**		**92**		**92**		**70**		**86**		**70**		**88**		**70**		**73**		**74**		**74**		**87**		**43**		**74**		**70**		**74**	
Detected			**83**		**25**		**73**		**83**		**70**		**0**		**6**		**46**		**92**		**85**		**70**		**86**		**70**		**88**		**70**		**56**		**74**		**10**		**34**		**43**		**25**		**70**		**72**	
Minimum			17,800		0.45		0.3		56.2		0.2		3.1		0.3		0.03		4.94		0.26		7.8		5.3		28,400		3.1		367		0.01		4.9		0.5		0.1		5.9		0.5		73.9		12.5	
1st quartile			23,100		0.47		3.4		87.7		0.5		3.1		1.0		0.2		44.4		2.8		27.4		23.7		46,000		15.9		1,465		0.03		16.5		0.5		0.1		7.7		0.5		129.5		42.4	
Median			27,300		0.52		5.0		100.0		0.7		3.2		1.9		0.4		85.6		3.0		43.8		33.1		55,450		21.4		2,015		0.03		22.8		0.5		0.1		11.1		0.7		178.5		50.3	
3rd quartile			32,950		1.27		6.7		124.5		0.8		3.2		3.7		1.2		138.0		3.5		58.6		40.7		64,875		25.1		2,380		0.04		32.9		0.5		0.7		20.5		1.4		226.8		58.5	
Maximum			53,400		2.57		10.1		224.0		1.3		3.4		17.0		3.8		260.6		4.4		86.0		131.0		95,200		40.7		4,270		0.11		73.0		3.6		3.0		37.9		6.9		283.0		171.0	
IQR			9,850		0.80		3.3		36.9		0.3		0.1		2.7		1.0		93.6		0.7		31.2		17.0		18,875		9.2		915		0.02		16.4		0.03		0.6		12.8		0.9		97.3		16.1	
Arithmetic mean			28,860		0.9		5.1		109.0		0.7		3.2		3.5		0.8		94.5		3.0		44.1		36.4		55,105		20.7		1,937		0.04		25.5		0.8		0.6		14.6		1.3		177.9		52.9	
Standard deviation			7,303		0.6		2.1		35.7		0.2		0.1		4.3		0.8		61.8		0.8		20.4		23.2		12,697		7.1		786		0.01		13.4		0.7		0.8		8.5		1.4		59.7		20.9	
95% Upper Confidence Limit (UCL)			30,176		1.2		5.5		115.3		0.7				4.5		0.9		115.7		3.2		48.2		47.3		57,635		20.7[4]		2,094		0.04		28.1		1.4		0.7		20.2		1.8		189.8		57.5	
Regional Background (Mean)[3]			57,000		1.0		5.1		436.0		0.6				24.0								9.4		33.0		25,000		35.0		640		0.11		16.0		0.4				122.0				77.0		233.0	
99% Upper Prediction Limit (UPL)			53,400		1.7		9.9		224		1.2				13.4		2.7		260.6		5.0		86.0		131.0		95,200				4,270		0.071		73		2.5		2.3		38		4.5		283		102	

Notes:
1. Concentrations for Sample IDs with * represent average of duplicate samples.
2. Concentrations for nondetects (U-qualified data) are 0.5 times the quantitation limits.
3. Regional background mean concentrations are based upon the data presented in *Dragun and Chekiri (2005) Elements in North American Soils, 2nd Edition*.
4. This value represents the arithmetic mean concentration, not an upper confidence limit (UCL) on the mean.
5. Chromium III and VI concentrations with calc qualifer were calculated from chromium (total) based on the regression model discussed in Section 3.2 of the text.

Table 4-1: Preliminary Conceptual Site Model - Potential Human Exposures
ARC Gainesville, Gainesville, VA

Receptor Population	Exposure Medium	Exposure Route	Possible Currently?	Possible in Future?	Type of Analysis	Comments
On-Site						
Routine Workers	surface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	Yes	Quantitative	The Site is currently inactive. Potential exposures in the future may occur in unpaved areas, areas where slab or pavement is removed, and indoors if vapors migrate through foundations of future commercial/industrial buildings.
	subsurface soil	ingestion and dermal contact	No	No	Not Applicable	
		inhalation of vapors in outdoor air	No	Yes	Quantitative	
		inhalation of vapors that migrate through building foundations	No	Yes		
	groundwater	ingestion, dermal contact, and inhalation of vapors during potable use	No	No	Not Applicable	The Site is currently connected to a public water supply and groundwater is not currently used for potable or nonpotable purposes at the Site. A Prince William County ordinance exists which prohibits the use of groundwater for drinking water supply in any new developments within the County; therefore, groundwater will not be used for drinking water supply in the future. There are no current development plans for the Site which include the use of groundwater for nonpotable purposes. However, because there are no restrictions on the use of groundwater for nonpotable purposes, an institutional control (i.e., deed restriction) will be established on-site in order to prevent any potential future exposure to groundwater via nonpotable use.
		incidental ingestion, dermal contact, and inhalation of vapors during nonpotable use	No	No	Quantitative	
		inhalation of vapors in outdoor air	No	Yes		
		inhalation of vapors that migrate through building foundations	No	Yes		
Hypothetical Industrial Workers	surface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	Yes	Quantitative	The Site is currently inactive. Potential exposures in the future may occur in unpaved areas, areas where slab or pavement is removed, and indoors if vapors migrate through foundations of future commercial/industrial buildings.
	subsurface soil	ingestion and dermal contact	No	No	Not Applicable	
		inhalation of vapors in outdoor air	No	Yes	Quantitative	
		inhalation of vapors that migrate through building foundations	No	Yes		
Maintenance Workers	surface and subsurface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	Yes	Quantitative	The Site is inactive, but active utilities exist at the Site and may require occasional maintenance. No significant exposure during such activities is expected, however, because the site's current *Health and Safety Plan* requires workers to take proper precautions and use appropriate PPE to prevent exposures. Potential exposure would be possible during maintenance activities under future use of the site should similar institutional controls not be maintained.
	groundwater	ingestion, dermal contact, and inhalation of vapors	No	Yes		
	surface water	ingestion, dermal contact, and inhalation of vapors	No	Yes		
	sediment	ingestion and dermal contact	No	Yes		

Table 4-1: Preliminary Conceptual Site Model - Potential Human Exposures
ARC Gainesville, Gainesville, VA

Receptor Population	Exposure Medium	Exposure Route	Possible Currently?	Possible in Future?	Type of Analysis	Comments
On-Site (cont.)						
Construction Workers	surface and subsurface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	Yes	Quantitative	If the Site is redeveloped for commercial/industrial or residential reuse, construction workers could be exposed during site redevelopment activities.
	groundwater	ingestion, dermal contact, and inhalation of vapors	No	Yes	Quantitative	
	surface water	ingestion, dermal contact, and inhalation of vapors	No	Yes	Inferred from Maintenance Workers	
	sediment	ingestion and dermal contact	No	Yes		
Trespassers	surface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	Yes	Yes	Inferred from Routine Workers	Currently, the Site is fenced and a security officer is present 24 hours/day, 7 days a week so trespasser exposure is expected to be limited. In the future, potential trespasser exposure would be possible and potentially more frequent if security measures are not maintained. Trespasser exposure to soil-derived and groundwater-derived vapors in ambient air would be possible.
	subsurface soil	inhalation of vapors in outdoor air	Yes	Yes		
	groundwater	inhalation of vapors in outdoor air	Yes	Yes		
	surface water	ingestion, dermal contact, and inhalation of vapors	Yes	Yes	Inferred from Recreators	While detailed surveys have not been conducted within the on-site aquatic habitats, fish have been observed in the Ponds.
	sediment	ingestion and dermal contact	Yes	Yes		
	fish	ingestion	Yes	Yes		
Recreators	surface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	Yes	Quantitative	The Site is currently inactive and no recreational use is allowed on-site. Recreational activities (e.g., fishing) may occur in the future.
	subsurface soil	ingestion and dermal contact	No	No	Not Applicable	
		inhalation of vapors in outdoor air	No	Yes	Quantitative	
	groundwater	inhalation of vapors in outdoor air	No	Yes	Inferred from Residents	
	surface water	ingestion, dermal contact, and inhalation of vapors	No	Yes	Quantitative	
	sediment	ingestion and dermal contact	No	Yes		
	fish	ingestion	No	Yes		The Site is currently inactive and no recreational use is allowed on-site. While detailed surveys have not been conducted within the on-site aquatic habitats, fish have been observed in the Ponds.

Table 4-1: Preliminary Conceptual Site Model - Potential Human Exposures
ARC Gainesville, Gainesville, VA

Receptor Population	Exposure Medium	Exposure Route	Possible Currently?	Possible in Future?	Type of Analysis	Comments
On-Site (cont.)						
Residents	surface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	Yes	Quantitative	The Site is currently inactive. If the Site is redeveloped for residential use, potential exposures in the future may occur in unpaved areas, areas where slab or pavement is removed, and indoors if vapors migrate through foundations of future residential buildings. In the future, residents could also be exposed to soil currently in the subsurface (e.g., up to 10 ft bgs) should such soil be excavated (e.g., during basement construction) and placed at the surface during redevelopment activities.
	subsurface soil	ingestion and dermal contact	No	No	Quantitative	
		inhalation of vapors that migrate to outdoor air	No	Yes	Quantitative	
		inhalation of vapors that migrate through building foundations	No	Yes		
	home-grown produce	ingestion	No	Yes	Quantitative	The Site is currently inactive. If portions of the Site are redeveloped for residential use, potential exposures in the future may include ingestion of home grown vegetables.
	groundwater	ingestion, dermal contact, and inhalation of vapors during potable use	No	No	Not Applicable	The Site is currently connected to a public water supply and groundwater is not currently used for drinking water at the Site. A Prince William County ordinance exists which prohibits the use of groundwater for drinking water supply in any new developments within the County; therefore, groundwater will not be used for drinking water supply in the future. There are no current development plans for the Site which include the use of groundwater for nonpotable purposes. However, because there are no restrictions on the use of groundwater for nonpotable purposes, an institutional control (i.e., deed restriction) will be established on-site in order to prevent any potential future exposure to groundwater via nonpotable use.
		incidental ingestion, dermal contact, and inhalation of vapors during nonpotable use	No	No	Quantitative	
		inhalation of vapors in outdoor air	No	Yes	Quantitative	
		inhalation of vapors that migrate through building foundations	No	Yes		
	sediment	ingestion and dermal contact	No	Yes	Inferred from Recreators	Potential exposure in the future may occur via incidental contact only.
	surface water	ingestion, dermal contact, and inhalation of vapors	No	Yes		
	fish	ingestion	No	Yes		The Site is currently inactive and no recreational use is allowed on-site. While detailed surveys have not been conducted within the on-site aquatic habitats, fish have been observed in the Ponds. A chronic exposure evaluation via ingestion of fish will be conducted assuming that fish are identified in the Ponds at the Site at an adequate size and at a sufficient quantity to warrant such an evaluation.

Table 4-1: Preliminary Conceptual Site Model - Potential Human Exposures
ARC Gainesville, Gainesville, VA

Receptor Population	Exposure Medium	Exposure Route	Possible Currently?	Possible in Future?	Type of Analysis	Comments
Off-Site						
Routine Workers	airborne particulates and vapors from on-site soil	inhalation	Yes	Yes	Inferred from Off-Site Residents	Potential airborne exposure to particulates and vapors from unpaved on-site areas is possible.
	off-site groundwater	ingestion, dermal contact, and inhalation of vapors during potable use	No	No	Not Applicable	No site-related groundwater contamination currently extends off-site. Exposure would be possible in the future off-site should contamination migrate to off-site areas. Only three properties within a two-mile radius of the Site are known to have an existing groundwater production well (formerly used for potable water and/or irrigation). Of these, the wells are either upgradient of the Site or are no longer in use. A Prince William County ordinance exists which prohibits the use of groundwater for drinking water supply in any new developments within the County; therefore, off-site groundwater will not be used for drinking water supply in the future. However, because there are no restrictions on the use of groundwater for nonpotable purposes, this pathway was evaluated.
		incidental ingestion, dermal contact, and inhalation of vapors during nonpotable use	No	Yes	Quantitative	
		inhalation of vapors in outdoor air	No	Yes	Inferred from On-Site Routine Workers	
		inhalation of vapors that migrate through building foundations	No	Yes		
Maintenance Workers	airborne particulates and vapors from on-site soil	inhalation	Yes	Yes	Inferred from Off-Site Residents	Potential airborne exposure to particulates and vapors from unpaved on-site areas is possible.
	off-site surface and subsurface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	No	Not Applicable	The Site has not affected off-site soil, but may affect off-site surface water, sediment, and groundwater in the future should contamination in these media on-site migrate to off-site areas.
	off-site surface water	ingestion, dermal contact, and inhalation of vapors	No	Yes	Inferred from On-Site Maintenance Workers	
	off-site sediment	ingestion and dermal contact	No	Yes		
	off-site groundwater	ingestion, dermal contact, and inhalation of vapors	No	Yes		
Residents	airborne particulates and vapors from on-site soil	inhalation	Yes	Yes	Quantitative	Potential airborne exposure to particulates and vapors from unpaved on-site areas is possible.
	off-site surface and subsurface soil	ingestion, dermal contact, and inhalation of airborne particulates and vapors	No	No	Not Applicable	The area surrounding the Site is not currently used or currently zoned for residential purposes. The closed residential area is about 0.6 miles southeast of the Site.
	off-site groundwater	ingestion, dermal contact, and inhalation of vapors during potable use	No	No	Not Applicable	No site-related groundwater contamination currently extends off-site. Exposure would be possible in the future off-site should contamination migrate to off-site areas. Only three properties within a two-mile radius of the Site are known to have an existing groundwater production well (formerly used for potable water and/or irrigation). Of these, the wells are either upgradient of the Site or are no longer in use. A Prince William County ordinance exists which prohibits the use of groundwater for drinking water supply in any new developments within the County; therefore, groundwater will not be used for drinking water supply in the future. However, because there are no restrictions on the use of groundwater for nonpotable purposes, this pathway was evaluated.
		incidental ingestion, dermal contact, and inhalation of vapors during nonpotable use	No	Yes	Quantitative	
		inhalation of vapors in outdoor air	No	Yes	Inferred from On-Site Residents	
		inhalation of vapors that migrate through building foundations	No	Yes		

Table 4-2a: Cumulative Cancer Risks and Noncancer HIs for Soil Background
ARC Gainesville, Gainesville, Virginia

					Routine Worker		Maintenance Worker		Construction Worker		Recreator		On-Site Resident			
			Carc	Background	Outdoor Activities		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Plant Uptake	
Chem Group	**Chemical**	**CASRN**	**Class**	**Conc** (mg/kg)	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ	Risk	HQ
INORG	Aluminum	7429-90-5	ID	3.02E+04		1.5E-02		3.1E-02		1.3E-01		1.1E-02		1.1E-01		
INORG	Antimony	7440-36-0	ID	1.20E+00		1.5E-03		9.4E-04		5.9E-03		1.1E-03		1.1E-02		1.6E-02
INORG	Arsenic	7440-38-2	A	5.50E+00	2.0E-06	1.3E-02	4.5E-07	8.2E-03	2.6E-07	6.6E-03	5.7E-07	8.9E-03	1.4E-05	7.3E-02	3.7E-06	1.9E-02
INORG	Barium	7440-39-3	NC	1.15E+02		2.8E-04		1.8E-04		1.1E-03		2.1E-04		2.1E-03		3.1E-03
INORG	Beryllium	7440-41-7	B1	7.00E-01	7.8E-13	1.7E-04	8.8E-10	2.4E-04	2.7E-10	1.1E-03	1.6E-14	1.3E-04	3.9E-12	1.3E-03		1.5E-04
INORG	Boron	7440-42-8	ID	4.50E+00		1.1E-05		7.9E-06		4.7E-05		8.1E-06		8.2E-05		
INORG	Cadmium	7440-43-9	B1	9.00E-01	7.5E-13	6.7E-04	8.5E-10	6.8E-04	2.6E-10	2.0E-03	1.6E-14	4.7E-04	3.8E-12	3.7E-03		1.9E-02
INORG	Chromium III	16065-83-1	D	1.16E+02		3.8E-05		1.1E-04		4.2E-04		2.8E-05		2.8E-04		
INORG	Chromium VI	18540-29-9	A	3.20E+00	2.8E-07	5.2E-04	9.2E-08	4.5E-04	5.1E-08	1.3E-03	8.3E-08	3.9E-04	2.5E-06	3.9E-03	5.6E-07	8.7E-04
INORG	Cobalt	7440-48-4	LC	4.82E+01	2.0E-10	7.9E-02	2.3E-07	8.0E-02	7.1E-08	5.9E-02	4.2E-12	5.8E-02	1.0E-09	5.9E-01		
INORG	Copper	7440-50-8	D	4.73E+01		5.8E-04		3.7E-04		2.3E-03		4.3E-04		4.3E-03		
INORG	Iron	7439-89-6	D	5.76E+04		4.0E-02		2.6E-02		1.6E-01		3.0E-02		3.0E-01		
INORG	Manganese	7439-96-5	D	2.09E+03		7.4E-03		1.6E-01		5.1E-01		5.4E-03		5.5E-02		
INORG	Mercury	7439-97-6	D	4.00E-02		1.3E-04		7.5E-05		3.5E-04		5.4E-05		7.3E-04		
INORG	Nickel	7440-02-0	A	2.81E+01	3.1E-12	6.9E-04	3.5E-09	1.6E-03	1.1E-09	4.4E-03	6.5E-14	5.1E-04	1.6E-11	5.1E-03		2.2E-03
INORG	Selenium	7782-49-2	D	2.20E+01		2.2E-03		1.4E-03		8.6E-03		1.6E-03		1.6E-02		1.4E-02
INORG	Silver	7440-22-4	D	7.00E-01		6.9E-05		3.0E-04		1.1E-03		5.1E-05		5.1E-04		3.2E-03
INORG	Strontium	7440-24-6		2.02E+01		1.6E-05		1.1E-05		2.0E-05		1.2E-05		1.2E-04		
INORG	Thallium	7440-28-0	ID	1.83E+00												
INORG	Vanadium	7440-62-2	ID	1.90E+02		1.9E-02		1.9E-02		5.9E-02		1.4E-02		1.4E-01		
INORG	Zinc	7440-66-6	ID	5.75E+01		9.4E-05		6.0E-05		3.8E-04		6.9E-05		7.0E-04		3.1E-03
				Sum	2E-06	2E-01	8E-07	3E-01	4E-07	9E-01	7E-07	1E-01	2E-05	1E+00	4E-06	8E-02

Note:

The background concentrations are the surface soil background metals concentrations shown on Table 2.1. Concentrations represent the 95% upper confidence limit on the mean of the background dataset.

Lead is evaluated using EPA criterion based on blood-lead modeling, and therefore has no cancer or HQ calculation.

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	100AB1	1E-06	3E-02	6E-10	6E-04	4E-07	4E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	2E-07	1E-01	3E-09	6E-04
Landbay A	100AB2	2E-06	3E-02	6E-10	6E-04	4E-07	5E-02	2E-07	2E-01	5E-07	2E-02	1E-05	2E-01	2E-07	1E-01	3E-09	6E-04
Landbay A	100AG3	7E-09	1E-04	1E-08	1E-04	1E-09	6E-05	1E-09	2E-04	4E-10	5E-05	3E-08	5E-04	4E-06	3E-02	3E-08	2E-04
Landbay A	100AG4	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC
Landbay A	105B148	NC	2E-06	NC	NC	NC	1E-06	NC	9E-06	NC	2E-06	NC	2E-05	NC	NC	NC	NC
Landbay A	105B149	NC	4E-06	NC	NC	NC	2E-06	NC	1E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC
Landbay A	105B150	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	NC
Landbay A	105G41	NC	4E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC
Landbay A	105G42	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	NC
Landbay A	105G43	7E-07	1E-01	3E-10	1E-04	4E-07	2E-01	2E-07	7E-01	2E-07	1E-01	6E-06	1E+00	9E-08	2E-02	2E-09	3E-04
Landbay A	105G44	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC
Landbay A	105G45	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G46	7E-07	1E-01	3E-10	1E-04	4E-07	2E-01	2E-07	7E-01	2E-07	1E-01	6E-06	1E+00	9E-08	2E-02	2E-09	3E-04
Landbay A	105G47	NC	2E-05	NC	NC	NC	1E-05	NC	6E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay A	105G48	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay A	105G49	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	NC
Landbay A	105G50	7E-07	1E-01	3E-10	1E-04	4E-07	2E-01	2E-07	7E-01	2E-07	1E-01	6E-06	1E+00	9E-08	2E-02	2E-09	3E-04
Landbay A	105G51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G52	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	106B1	2E-06	4E-02	2E-09	2E-04	4E-07	6E-02	2E-07	2E-01	5E-07	3E-02	1E-05	3E-01	5E-07	3E-02	1E-08	2E-04
Landbay A	106B2	2E-06	3E-02	3E-09	1E-03	4E-07	6E-02	2E-07	2E-01	5E-07	3E-02	1E-05	2E-01	6E-07	2E-01	1E-09	2E-04
Landbay A	106B3	2E-06	4E-02	8E-10	2E-04	4E-07	6E-02	2E-07	2E-01	5E-07	3E-02	1E-05	2E-01	2E-07	3E-02	5E-09	2E-04
Landbay A	106B6	NC	9E-06	NC	NC	NC	4E-06	NC	8E-06	NC	6E-06	NC	4E-05	NC	NC	NC	NC
Landbay A	106G4	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC
Landbay A	106G5	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	3E-04	NC	4E-03	NC	NC	NC	NC
Landbay A	106TP1-7	2E-06	3E-02	NC	2E-04	4E-07	5E-02	2E-07	2E-01	5E-07	2E-02	1E-05	2E-01	NC	3E-02	7E-11	2E-04
Landbay A	106TP3-7	1E-06	4E-02	2E-09	6E-05	3E-07	5E-02	2E-07	2E-01	4E-07	3E-02	8E-06	2E-01	5E-07	1E-02	9E-09	5E-05
Landbay A	107B1	2E-06	3E-02	2E-07	1E-02	5E-07	5E-02	3E-07	2E-01	6E-07	3E-02	1E-05	2E-01	**2E-04**	**2E+00**	2E-08	3E-04
Landbay A	107B2	3E-06	4E-02	4E-08	3E-02	6E-07	4E-02	3E-07	1E-01	8E-07	2E-02	2E-05	2E-01	3E-05	**5E+00**	8E-09	6E-04
Landbay A	107B3	2E-06	3E-02	3E-08	3E-03	5E-07	4E-02	3E-07	1E-01	6E-07	2E-02	2E-05	2E-01	2E-05	5E-01	7E-09	8E-05
Landbay A	107G4	2E-06	4E-02	3E-10	NC	5E-07	6E-02	3E-07	2E-01	6E-07	3E-02	2E-05	3E-01	8E-08	NC	2E-09	5E-05
Landbay A	107G5	3E-06	4E-02	NC	NC	6E-07	5E-02	3E-07	2E-01	7E-07	3E-02	2E-05	2E-01	NC	NC	1E-10	4E-05
Landbay A	107G6	2E-06	4E-02	NC	NC	4E-07	5E-02	2E-07	2E-01	5E-07	3E-02	1E-05	3E-01	NC	NC	7E-11	4E-05
Landbay A	107G7	2E-06	3E-02	NC	NC	6E-07	5E-02	3E-07	2E-01	7E-07	2E-02	2E-05	2E-01	NC	NC	1E-10	4E-05
Landbay A	107G8	2E-06	3E-02	NC	NC	4E-07	4E-02	3E-07	1E-01	6E-07	2E-02	1E-05	2E-01	NC	NC	6E-11	4E-05
Landbay A	107TP1-20	8E-07	9E-02	NC	2E-04	3E-07	1E-01	1E-07	4E-01	2E-07	7E-02	6E-06	7E-01	NC	5E-02	4E-10	3E-04
Landbay A	107TP1-30	6E-07	9E-02	NC	NC	2E-07	1E-01	1E-07	3E-01	2E-07	6E-02	4E-06	6E-01	NC	NC	4E-10	7E-05
Landbay A	107TP13-15	6E-07	7E-02	NC	1E-08	2E-07	7E-02	9E-08	3E-01	2E-07	5E-02	4E-06	5E-01	NC	3E-06	3E-10	4E-05
Landbay A	107TP14-15	1E-06	1E-01	NC	NC	4E-07	2E-01	2E-07	5E-01	3E-07	1E-01	8E-06	1E+00	NC	NC	7E-10	1E-04
Landbay A	107TP18-(-10)	7E-07	2E-01	3E-10	NC	4E-07	2E-01	2E-07	7E-01	2E-07	1E-01	5E-06	1E+00	1E-07	NC	3E-09	2E-04
Landbay A	107TP2-10	5E-07	1E-01	NC	NC	2E-07	1E-01	9E-08	4E-01	1E-07	7E-02	4E-06	7E-01	NC	NC	4E-10	8E-05
Landbay A	18B1	NC	1E-04	NC	NC	NC	9E-05	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC
Landbay A	2700-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	2700-3200	3E-06	2E-01	NC	NC	9E-07	2E-01	5E-07	8E-01	9E-07	1E-01	2E-05	1E+00	NC	NC	8E-10	2E-04
Landbay A	2850-3050	4E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	4E-02	1E-09	6E-04
Landbay A	2850-3200	4E-06	2E-01	NC	NC	1E-06	4E-01	5E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	NC	1E-09	4E-04
Landbay A	2850-3350	3E-06	2E-01	NC	NC	9E-07	4E-01	5E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay A	2850-3500	2E-06	1E-01	NC	2E-04	5E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	8E-10	4E-04
Landbay A	3000-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	3000-3050	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	6E-02	9E-10	6E-04
Landbay A	3000-3200	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	6E-02	9E-10	6E-04
Landbay A	3000-3350	2E-06	1E-01	NC	2E-04	5E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	8E-10	4E-04
Landbay A	3000-3500	2E-06	1E-01	NC	2E-04	5E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	8E-10	4E-04
Landbay A	3150-3050	3E-06	2E-01	NC	NC	9E-07	3E-01	5E-07	9E-01	9E-07	1E-01	2E-05	1E+00	NC	NC	9E-10	2E-04
Landbay A	3150-3200	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	6E-02	9E-10	6E-04
Landbay A	3150-3350	3E-06	2E-01	NC	3E-04	9E-07	4E-01	5E-07	1E+00	9E-07	1E-01	2E-05	1E+00	NC	6E-02	1E-09	8E-04
Landbay A	3150-3500	2E-06	1E-01	NC	2E-04	5E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	8E-10	4E-04
Landbay A	3300-2900	3E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	4E-02	1E-09	5E-04
Landbay A	3300-3050	5E-06	4E-01	NC	2E-08	2E-06	7E-01	9E-07	**2E+00**	1E-06	3E-01	4E-05	**3E+00**	NC	5E-06	3E-09	7E-04
Landbay A	3300-3200	3E-06	2E-01	NC	NC	1E-06	3E-01	5E-07	1E+00	1E-06	2E-01	2E-05	**2E+00**	NC	NC	1E-09	3E-04
Landbay A	3300-3350	3E-06	2E-01	NC	3E-04	9E-07	4E-01	5E-07	1E+00	9E-07	1E-01	2E-05	1E+00	NC	6E-02	1E-09	8E-04
Landbay A	3300-3500	3E-06	2E-01	NC	3E-04	9E-07	4E-01	5E-07	1E+00	9E-07	1E-01	2E-05	1E+00	NC	6E-02	1E-09	8E-04
Landbay A	3450-2900	3E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	4E-02	1E-09	5E-04
Landbay A	3450-3050	2E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	4E-04
Landbay A	3450-3200	3E-06	2E-01	NC	NC	9E-07	4E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	NC	1E-09	3E-04
Landbay A	3450-3350	3E-06	2E-01	NC	3E-04	9E-07	4E-01	5E-07	1E+00	9E-07	1E-01	2E-05	1E+00	NC	6E-02	1E-09	8E-04
Landbay A	3450-3500	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-02	1E-09	7E-04
Landbay A	3450-3650	3E-06	1E-01	NC	NC	9E-07	4E-01	5E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	NC	6E-10	5E-04
Landbay A	3450-3800	2E-06	1E-01	NC	NC	6E-07	2E-01	3E-07	6E-01	6E-07	7E-02	2E-05	7E-01	NC	NC	6E-10	2E-04
Landbay A	3450-3950	3E-06	2E-01	NC	NC	9E-07	3E-01	5E-07	9E-01	8E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay A	34B1	3E-06	4E-02	NC	NC	6E-07	6E-02	4E-07	2E-01	8E-07	3E-02	2E-05	3E-01	NC	NC	2E-10	5E-05
Landbay A	34B2	3E-06	4E-02	NC	NC	6E-07	6E-02	4E-07	2E-01	8E-07	3E-02	2E-05	3E-01	NC	NC	2E-10	5E-05
Landbay A	34G3	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	NC
Landbay A	34G4	NC	2E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	NC
Landbay A	34G5	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	NC
Landbay A	3600-2900	2E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	4E-04
Landbay A	3600-3050	2E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	4E-04
Landbay A	3600-31	5E-06	3E-01	NC	2E-04	1E-06	5E-01	7E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	5E-02	2E-09	7E-04
Landbay A	3600-3200	2E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	4E-04
Landbay A	3600-3350	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-02	1E-09	7E-04
Landbay A	3600-3500	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-02	1E-09	7E-04
Landbay A	3600-3650	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-02	1E-09	7E-04
Landbay A	3600-3800	5E-06	5E-01	NC	NC	2E-06	9E-01	9E-07	**2E+00**	1E-06	3E-01	3E-05	**3E+00**	NC	NC	4E-09	9E-04
Landbay A	3600-3950	3E-06	2E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay A	3600-4100	3E-06	2E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay A	3600-4250	3E-06	1E-01	NC	1E-04	9E-07	2E-01	5E-07	6E-01	1E-06	9E-02	2E-05	9E-01	NC	3E-02	6E-10	3E-04
Landbay A	3700-32	5E-06	2E-01	NC	6E-04	2E-06	5E-01	8E-07	1E+00	2E-06	2E-01	4E-05	**2E+00**	NC	1E-01	1E-09	1E-03
Landbay A	3750-3050	2E-06	1E-01	3E-10	4E-04	6E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	9E-08	7E-02	3E-09	7E-04
Landbay A	3750-3200	2E-06	1E-01	3E-10	4E-04	6E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	9E-08	7E-02	3E-09	7E-04
Landbay A	3750-3350	1E-06	2E-01	NC	3E-04	5E-07	3E-01	2E-07	8E-01	3E-07	1E-01	9E-06	1E+00	NC	5E-02	1E-09	5E-04
Landbay A	3750-3500	1E-06	2E-01	NC	3E-04	5E-07	3E-01	2E-07	8E-01	3E-07	1E-01	9E-06	1E+00	NC	5E-02	1E-09	5E-04
Landbay A	3750-3650	2E-06	2E-01	2E-10	2E-04	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	7E-08	5E-02	3E-09	5E-04
Landbay A	3750-3800	2E-06	2E-01	2E-10	2E-04	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	7E-08	5E-02	3E-09	5E-04
Landbay A	3750-3950	3E-06	2E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay A	3750-4100	3E-06	2E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay A	3750-4250	2E-06	2E-01	NC	NC	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	2E-04
Landbay A	3750-4400	2E-06	2E-01	2E-10	3E-04	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	6E-08	6E-02	2E-09	6E-04
Landbay A	3750-4550	2E-06	2E-01	2E-10	3E-04	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	6E-08	6E-02	2E-09	6E-04
Landbay A	37B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay A	3800-19	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC
Landbay A	3800-41	5E-06	3E-01	3E-10	2E-04	2E-06	7E-01	8E-07	**2E+00**	1E-06	3E-01	4E-05	**3E+00**	1E-07	4E-02	5E-09	9E-04
Landbay A	3900-3050	3E-06	2E-01	NC	2E-04	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	7E-04
Landbay A	3900-3200	3E-06	2E-01	NC	2E-04	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	7E-04
Landbay A	3900-3350	1E-06	2E-01	NC	3E-04	5E-07	3E-01	2E-07	8E-01	3E-07	1E-01	9E-06	1E+00	NC	5E-02	1E-09	5E-04
Landbay A	3900-34	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	3900-3500	1E-06	2E-01	NC	3E-04	5E-07	3E-01	2E-07	8E-01	3E-07	1E-01	9E-06	1E+00	NC	5E-02	1E-09	5E-04
Landbay A	3900-3650	2E-06	2E-01	2E-10	2E-04	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	7E-08	5E-02	3E-09	5E-04
Landbay A	3900-3800	2E-06	2E-01	2E-10	2E-04	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	7E-08	5E-02	3E-09	5E-04
Landbay A	3900-3950	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	NC	1E-09	4E-04
Landbay A	3900-4100	3E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay A	3900-4250	2E-06	2E-01	NC	NC	7E-07	4E-01	3E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay A	3900-4400	2E-06	2E-01	2E-10	3E-04	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	6E-08	6E-02	2E-09	6E-04
Landbay A	3900-4550	2E-06	2E-01	2E-10	3E-04	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	6E-08	6E-02	2E-09	6E-04
Landbay A	39B1	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	NC
Landbay A	4000-36	1E-06	1E-01	NC	8E-05	4E-07	2E-01	2E-07	5E-01	3E-07	7E-02	7E-06	7E-01	NC	2E-02	6E-10	2E-04
Landbay A	4000-37-1	4E-06	2E-01	NC	1E-04	1E-06	3E-01	6E-07	9E-01	1E-06	1E-01	3E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay A	4000-37-2	2E-06	2E-01	NC	3E-04	1E-06	5E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	4000-43	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4050-3200	1E-06	1E-01	NC	NC	4E-07	2E-01	2E-07	5E-01	3E-07	7E-02	8E-06	7E-01	NC	NC	5E-10	1E-04
Landbay A	4050-3350	2E-06	2E-01	NC	NC	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	2E-09	4E-04
Landbay A	4050-3500	2E-06	1E-01	NC	NC	6E-07	2E-01	3E-07	6E-01	6E-07	1E-01	1E-05	1E+00	NC	NC	9E-10	2E-04
Landbay A	4050-4250	1E-06	1E-01	NC	1E-04	5E-07	3E-01	2E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	2E-02	9E-10	4E-04
Landbay A	4050-4400	1E-06	1E-01	NC	1E-04	5E-07	3E-01	2E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	2E-02	9E-10	4E-04
Landbay A	4050-4550	6E-06	3E-01	NC	4E-04	2E-06	8E-01	9E-07	**2E+00**	2E-06	2E-01	4E-05	**2E+00**	NC	7E-02	2E-09	1E-03
Landbay A	4050-4550SE	2E-06	3E-02	NC	2E-04	5E-07	5E-02	3E-07	2E-01	6E-07	2E-02	1E-05	2E-01	NC	4E-02	2E-10	2E-04
Landbay A	4050-4550SW	2E-06	3E-02	NC	3E-04	4E-07	6E-02	2E-07	2E-01	5E-07	2E-02	1E-05	2E-01	NC	5E-02	8E-11	3E-04
Landbay A	4100-38	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay A	4100-39	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-40	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-44	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-45	4E-06	3E-02	NC	1E-04	9E-07	4E-02	5E-07	1E-01	1E-06	2E-02	3E-05	2E-01	NC	3E-02	2E-10	2E-04
Landbay A	4200-3500	2E-06	2E-01	NC	NC	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay A	4200-4250	1E-06	1E-01	NC	1E-04	5E-07	3E-01	2E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	2E-02	9E-10	4E-04
Landbay A	4200-4400	1E-06	1E-01	NC	1E-04	5E-07	3E-01	2E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	2E-02	9E-10	4E-04
Landbay A	4350-2900	2E-06	1E-01	3E-10	2E-04	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	8E-08	3E-02	2E-09	3E-04
Landbay A	4350-3050	2E-06	2E-01	NC	2E-04	6E-07	3E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay A	4350-3500	2E-06	2E-01	NC	1E-04	7E-07	3E-01	3E-07	9E-01	6E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay A	4350-4250	3E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-02	2E-09	6E-04
Landbay A	4350-4400	3E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-02	2E-09	6E-04
Landbay A	4400-52	5E-06	2E-01	2E-10	2E-04	1E-06	3E-01	7E-07	7E-01	1E-06	1E-01	3E-05	1E+00	7E-08	3E-02	2E-09	4E-04
Landbay A	4500-2900	2E-06	1E-01	3E-10	2E-04	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	8E-08	3E-02	2E-09	3E-04
Landbay A	4500-3050	1E-06	1E-01	NC	8E-04	5E-07	2E-01	2E-07	6E-01	4E-07	1E-01	1E-05	1E+00	NC	1E-01	7E-10	9E-04
Landbay A	4500-3200	1E-06	1E-01	NC	2E-04	4E-07	2E-01	2E-07	6E-01	4E-07	1E-01	9E-06	1E+00	NC	4E-02	7E-10	3E-04
Landbay A	4500-4250	3E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-02	2E-09	6E-04
Landbay A	4500-4400	3E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-02	2E-09	6E-04
Landbay A	4500-53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4650-3050	2E-06	1E-01	3E-10	2E-04	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	8E-08	3E-02	2E-09	3E-04
Landbay A	4650-3200	2E-06	2E-01	NC	2E-04	6E-07	2E-01	3E-07	6E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	3E-04
Landbay A	4650-4250	2E-06	2E-01	NC	8E-05	7E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	1E-02	1E-09	3E-04
Landbay A	5100-3050	3E-06	2E-01	NC	4E-04	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	8E-02	2E-09	8E-04
Landbay A	5100-3200	3E-06	2E-01	1E-09	4E-04	9E-07	5E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	3E-07	8E-02	8E-09	8E-04
Landbay A	5200-70	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	5200-71	5E-06	2E-01	4E-10	3E-04	1E-06	2E-01	7E-07	8E-01	1E-06	1E-01	3E-05	1E+00	1E-07	5E-02	3E-09	4E-04
Landbay A	5300-74	2E-06	1E-01	1E-09	NC	7E-07	2E-01	3E-07	5E-01	7E-07	8E-02	2E-05	8E-01	3E-07	NC	7E-09	1E-04
Landbay A	5400-3500	1E-06	1E-01	NC	2E-04	4E-07	2E-01	2E-07	5E-01	4E-07	8E-02	1E-05	8E-01	NC	4E-02	5E-10	3E-04
Landbay A	5400-75	5E-06	2E-01	2E-13	3E-04	1E-06	4E-01	7E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	2E-10	5E-02	1E-09	7E-04
Landbay A	5500-76	4E-06	2E-01	3E-09	4E-04	1E-06	3E-01	5E-07	8E-01	1E-06	1E-01	4E-05	1E+00	1E-06	9E-02	6E-08	6E-04
Landbay A	5550-3950	3E-06	2E-01	NC	3E-04	9E-07	3E-01	5E-07	9E-01	8E-07	2E-01	2E-05	**2E+00**	NC	6E-02	1E-09	6E-04
Landbay A	5700-3950	3E-06	2E-01	NC	3E-04	9E-07	3E-01	5E-07	9E-01	8E-07	2E-01	2E-05	**2E+00**	NC	6E-02	1E-09	6E-04
Landbay A	5700-88	4E-06	2E-01	NC	3E-04	1E-06	4E-01	7E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	5E-02	2E-09	6E-04
Landbay A	5TP1-7	6E-13	2E-02	NC	NC	7E-10	4E-02	2E-10	2E-01	1E-14	1E-02	3E-12	1E-01	NC	NC	3E-12	4E-05
Landbay A	5TP2-7	NC	2E-02	NC	NC	NC	4E-02	NC	2E-01	NC	1E-02	NC	1E-01	NC	NC	NC	4E-05
Landbay A	8TP1-7	NC	2E-02	NC	NC	NC	4E-02	NC	2E-01	NC	1E-02	NC	1E-01	NC	NC	NC	4E-05
Landbay A	8TP2-7	8E-14	2E-02	NC	NC	9E-11	5E-02	3E-11	2E-01	2E-15	2E-02	4E-13	2E-01	NC	NC	4E-13	5E-05
Landbay A	9TP1-7	2E-06	3E-02	3E-10	9E-05	5E-07	5E-02	3E-07	2E-01	6E-07	2E-02	1E-05	2E-01	9E-08	2E-02	2E-09	1E-04
Landbay A	9TP2-8	3E-06	3E-02	NC	2E-04	6E-07	5E-02	4E-07	2E-01	8E-07	2E-02	2E-05	2E-01	NC	4E-02	2E-10	2E-04
Landbay A	9TP3-6	4E-06	4E-02	3E-10	2E-04	9E-07	4E-02	5E-07	1E-01	1E-06	3E-02	3E-05	2E-01	1E-07	4E-02	2E-09	2E-04
Landbay A	9TP4-5	3E-06	4E-02	1E-09	5E-04	7E-07	5E-02	4E-07	2E-01	1E-06	3E-02	2E-05	3E-01	3E-07	9E-02	2E-08	5E-04
Landbay A	A1G244	2E-06	6E-02	5E-09	1E-04	6E-07	6E-02	3E-07	2E-01	7E-07	5E-02	2E-05	4E-01	1E-06	3E-02	3E-08	2E-04
Landbay A	A1G247	2E-06	4E-02	1E-09	NC	5E-07	6E-02	3E-07	2E-01	6E-07	3E-02	1E-05	3E-01	3E-07	NC	6E-09	5E-05
Landbay A	A1G253	2E-06	3E-02	NC	2E-04	5E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	NC	4E-02	8E-11	2E-04
Landbay A	A1G259	1E-06	4E-02	3E-09	7E-04	3E-07	5E-02	2E-07	2E-01	4E-07	3E-02	1E-05	3E-01	9E-07	1E-01	2E-08	7E-04
Landbay A	A1G262	2E-06	3E-02	NC	2E-04	5E-07	5E-02	3E-07	2E-01	6E-07	2E-02	1E-05	2E-01	NC	4E-02	8E-11	3E-04
Landbay A	A1G265	1E-06	3E-02	5E-10	9E-04	3E-07	5E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	1E-07	2E-01	3E-09	8E-04
Landbay A	A1S130	2E-06	2E-01	2E-09	1E-04	7E-07	2E-01	4E-07	7E-01	6E-07	1E-01	2E-05	1E+00	7E-07	2E-02	1E-08	3E-04
Landbay A	A1S131	2E-06	1E-01	1E-10	2E-03	7E-07	2E-01	4E-07	7E-01	7E-07	1E-01	2E-05	1E+00	4E-08	4E-01	2E-09	2E-03
Landbay A	A1S132	2E-06	2E-01	5E-09	3E-04	7E-07	2E-01	3E-07	7E-01	6E-07	1E-01	2E-05	1E+00	1E-06	6E-02	3E-08	5E-04
Landbay A	A1S133	2E-06	2E-01	2E-09	1E-04	7E-07	2E-01	4E-07	7E-01	6E-07	1E-01	2E-05	1E+00	7E-07	2E-02	1E-08	3E-04
Landbay A	A2G171	3E-06	4E-02	3E-10	2E-04	7E-07	6E-02	4E-07	2E-01	8E-07	3E-02	2E-05	3E-01	1E-07	3E-02	2E-09	2E-04
Landbay A	A2G173	4E-06	6E-02	1E-09	1E-04	9E-07	7E-02	5E-07	2E-01	1E-06	4E-02	3E-05	4E-01	3E-07	2E-02	6E-09	2E-04
Landbay A	A2G177	5E-06	1E-01	1E-08	4E-04	1E-06	1E-01	6E-07	3E-01	1E-06	8E-02	3E-05	6E-01	3E-06	7E-02	5E-08	4E-04
Landbay A	A2G180	4E-06	6E-02	2E-09	2E-04	9E-07	7E-02	5E-07	2E-01	1E-06	4E-02	3E-05	4E-01	5E-07	4E-02	9E-09	2E-04
Landbay A	A2G181	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	3E-09	NC
Landbay A	A2G184	4E-06	6E-02	1E-09	2E-04	9E-07	7E-02	5E-07	2E-01	1E-06	4E-02	3E-05	3E-01	4E-07	4E-02	7E-09	2E-04
Landbay A	A2G187	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC
Landbay A	A2G192	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	3E-09	NC
Landbay A	A2G195	8E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	6E-08	NC
Landbay A	A2G198	7E-07	5E-02	8E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	5E-08	NC
Landbay A	A2G201	4E-07	3E-02	5E-09	NC	7E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	1E-01	1E-06	NC	3E-08	NC
Landbay A	A2G202	3E-06	4E-02	3E-10	NC	6E-07	6E-02	3E-07	2E-01	7E-07	3E-02	2E-05	3E-01	9E-08	NC	2E-09	5E-05
Landbay A	A2S134	4E-06	3E-01	5E-10	1E-04	1E-06	4E-01	6E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	1E-07	2E-02	4E-09	5E-04
Landbay A	A2S135	3E-06	3E-01	5E-10	1E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	2E-07	3E-02	5E-09	5E-04
Landbay A	A2S136	4E-06	3E-01	NC	2E-04	1E-06	4E-01	6E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay A	A2S137	3E-06	3E-01	3E-10	1E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	1E-07	3E-02	4E-09	5E-04
Landbay A	A2S138	4E-06	3E-01	8E-09	2E-04	1E-06	4E-01	5E-07	1E+00	1E-06	2E-01	2E-05	**2E+00**	2E-06	5E-02	4E-08	6E-04
Landbay A	A2S139	4E-06	3E-01	2E-08	2E-04	1E-06	4E-01	6E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	5E-06	5E-02	9E-08	6E-04
Landbay A	A2S164	3E-06	2E-01	6E-10	2E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	2E-07	5E-02	5E-09	6E-04
Landbay A	A2S167	4E-06	3E-01	8E-09	2E-04	1E-06	4E-01	5E-07	1E+00	1E-06	2E-01	2E-05	**2E+00**	2E-06	5E-02	5E-08	6E-04
Landbay A	A3B198	1E-06	4E-02	NC	2E-04	3E-07	6E-02	2E-07	2E-01	4E-07	3E-02	1E-05	3E-01	NC	4E-02	1E-10	3E-04
Landbay A	A3B202	4E-06	5E-02	NC	1E-04	9E-07	6E-02	5E-07	2E-01	1E-06	3E-02	3E-05	3E-01	NC	3E-02	2E-10	2E-04
Landbay A	A3B205	2E-06	4E-02	NC	1E-04	5E-07	6E-02	3E-07	2E-01	6E-07	3E-02	1E-05	2E-01	NC	2E-02	6E-11	2E-04
Landbay A	A3B208	1E-06	3E-02	2E-10	NC	3E-07	5E-02	1E-07	2E-01	3E-07	2E-02	8E-06	2E-01	7E-08	NC	1E-09	4E-05
Landbay A	A3B211	5E-07	2E-02	4E-10	NC	1E-07	4E-02	6E-08	2E-01	1E-07	2E-02	3E-06	2E-01	1E-07	NC	2E-09	4E-05
Landbay A	A3B222	2E-06	3E-02	2E-10	3E-04	4E-07	5E-02	2E-07	2E-01	5E-07	2E-02	1E-05	2E-01	7E-08	6E-02	1E-09	3E-04
Landbay A	A3G214	2E-06	6E-02	3E-09	NC	4E-07	7E-02	2E-07	3E-01	1E-06	4E-02	2E-05	4E-01	9E-07	NC	6E-08	5E-05
Landbay A	A3G217	1E-06	3E-02	3E-10	2E-04	3E-07	5E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	9E-08	3E-02	2E-09	2E-04
Landbay A	A3G220	2E-06	9E-02	3E-10	3E-04	6E-07	9E-02	3E-07	4E-01	7E-07	6E-02	2E-05	6E-01	8E-08	5E-02	2E-09	3E-04
Landbay A	A3G223	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	A3G226	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	NC
Landbay A	A3G229	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	6E-03	6E-07	4E-02	5E-07	NC	9E-09	NC
Landbay A	A3G232	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay A	A3G235	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	NC
Landbay A	A3G238	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	NC
Landbay A	A3G241	NC	4E-07	NC	NC	NC	3E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	NC
Landbay A	A3S144	2E-06	2E-01	3E-09	1E-04	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	1E-06	3E-02	2E-08	3E-04
Landbay A	A3S145	2E-06	1E-01	2E-09	1E-04	6E-07	2E-01	3E-07	6E-01	5E-07	1E-01	1E-05	1E+00	6E-07	3E-02	1E-08	3E-04
Landbay A	A3S146	2E-06	1E-01	2E-09	1E-04	6E-07	2E-01	3E-07	6E-01	5E-07	1E-01	1E-05	1E+00	6E-07	3E-02	1E-08	3E-04
Landbay A	A3S147	2E-06	1E-01	2E-09	1E-04	6E-07	2E-01	3E-07	6E-01	5E-07	1E-01	1E-05	1E+00	6E-07	3E-02	1E-08	3E-04
Landbay A	A4S140	2E-06	1E-01	NC	1E-04	5E-07	2E-01	3E-07	5E-01	5E-07	8E-02	1E-05	8E-01	NC	2E-02	6E-10	3E-04
Landbay A	A4S141	2E-06	1E-01	NC	1E-04	5E-07	2E-01	3E-07	5E-01	5E-07	8E-02	1E-05	8E-01	NC	2E-02	6E-10	3E-04
Landbay A	A4S142	2E-06	1E-01	NC	1E-04	5E-07	2E-01	3E-07	5E-01	5E-07	8E-02	1E-05	8E-01	NC	2E-02	6E-10	3E-04
Landbay A	A4S143	2E-06	1E-01	NC	1E-04	5E-07	2E-01	3E-07	5E-01	5E-07	8E-02	1E-05	8E-01	NC	2E-02	6E-10	3E-04
Landbay A	A5-1	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	NC
Landbay A	A5-4	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay A	A5B268	NC	7E-07	NC	1E-05	NC	5E-07	NC	3E-06	NC	5E-07	NC	5E-06	NC	1E-03	NC	4E-07
Landbay A	A5S148	2E-06	1E-01	NC	6E-04	6E-07	2E-01	3E-07	6E-01	6E-07	9E-02	1E-05	9E-01	NC	1E-01	8E-10	7E-04
Landbay A	A5S149	2E-06	1E-01	NC	6E-04	6E-07	2E-01	3E-07	6E-01	6E-07	9E-02	1E-05	9E-01	NC	1E-01	8E-10	7E-04
Landbay A	A5S150	2E-06	1E-01	9E-10	6E-04	6E-07	2E-01	3E-07	6E-01	6E-07	9E-02	2E-05	9E-01	3E-07	1E-01	6E-09	7E-04
Landbay A	A5S151	2E-06	1E-01	9E-10	6E-04	6E-07	2E-01	3E-07	6E-01	6E-07	9E-02	2E-05	9E-01	3E-07	1E-01	6E-09	7E-04
Landbay A	AB-01	2E-07	1E-02	1E-11	2E-08	5E-08	2E-02	3E-08	9E-02	5E-08	9E-03	1E-06	9E-02	3E-09	6E-06	1E-09	3E-05
Landbay A	AB-02	4E-11	5E-02	NC	NC	4E-08	6E-02	1E-08	2E-01	8E-13	3E-02	2E-10	3E-01	NC	NC	2E-10	6E-05
Landbay A	AB-04	2E-12	1E-02	NC	NC	2E-09	3E-02	6E-10	1E-01	4E-14	9E-03	9E-12	9E-02	NC	NC	9E-12	3E-05
Landbay A	AB-05	2E-07	1E-02	NC	NC	6E-08	3E-02	3E-08	1E-01	5E-08	1E-02	2E-06	1E-01	NC	NC	7E-11	3E-05

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	AB-07	5E-09	2E-02	3E-12	6E-09	3E-09	4E-02	1E-09	1E-01	1E-09	1E-02	4E-08	1E-01	9E-10	2E-06	3E-10	4E-05
Landbay A	AB-08	2E-12	2E-02	NC	NC	2E-09	4E-02	6E-10	2E-01	4E-14	1E-02	9E-12	1E-01	NC	NC	9E-12	4E-05
Landbay A	AB-09	3E-08	2E-02	2E-11	3E-08	8E-09	3E-02	4E-09	1E-01	7E-09	1E-02	2E-07	1E-01	5E-09	8E-06	1E-09	4E-05
Landbay A	AB-10	6E-07	2E-02	NC	NC	2E-07	4E-02	1E-07	1E-01	2E-07	1E-02	5E-06	1E-01	NC	NC	2E-10	4E-05
Landbay A	AB-11	1E-07	2E-02	NC	NC	4E-08	3E-02	2E-08	1E-01	3E-08	1E-02	1E-06	1E-01	NC	NC	4E-11	3E-05
Landbay A	AB-12	2E-07	1E-02	8E-12	2E-08	5E-08	3E-02	3E-08	1E-01	5E-08	1E-02	1E-06	1E-01	3E-09	5E-06	8E-10	3E-05
Landbay A	AJA PP-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	AJA-111	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	Bldg 34-35-36	NC	4E-07	NC	6E-05	NC	2E-07	NC	2E-06	NC	7E-08	NC	2E-06	NC	1E-02	NC	1E-06
Landbay A	CARD GAP B1	NC	7E-05	NC	NC	NC	3E-05	NC	2E-05	NC	5E-05	NC	3E-04	NC	NC	NC	NC
Landbay A	DP-23	4E-06	2E-02	NC	2E-04	8E-07	2E-02	5E-07	2E-02	1E-06	2E-02	3E-05	1E-01	NC	4E-02	2E-10	2E-04
Landbay A	DP-29	3E-06	2E-02	1E-09	2E-04	7E-07	2E-02	4E-07	3E-02	8E-07	2E-02	2E-05	1E-01	3E-07	3E-02	6E-09	2E-04
Landbay A	GP 100-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 100-05	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay A	GP 103-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay A	GP 104-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 105-01	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay A	GP 105-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 105-06	NC	2E-03	NC	NC	NC	1E-03	NC	8E-03	NC	2E-03	NC	2E-02	NC	NC	NC	NC
Landbay A	GP 105-07	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	2E-04	NC	2E-03	NC	NC	NC	NC
Landbay A	GP 105-08	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	NC
Landbay A	GP 105-09	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	NC
Landbay A	GP 105-10	NC	9E-05	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	NC
Landbay A	GP 105-11	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	5E-03	NC	5E-02	NC	NC	NC	NC
Landbay A	GP 105-12	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	NC
Landbay A	GP 105-13	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay A	GP 105-14	NC	2E-03	NC	NC	NC	1E-03	NC	9E-03	NC	2E-03	NC	2E-02	NC	NC	NC	NC
Landbay A	GP 105-15	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	NC
Landbay A	GP 107-01	1E-06	6E-03	NC	NC	3E-07	4E-03	1E-07	7E-03	3E-07	4E-03	8E-06	4E-02	NC	NC	1E-10	2E-06
Landbay A	GP 107-02	1E-06	6E-03	NC	NC	3E-07	4E-03	1E-07	7E-03	3E-07	4E-03	8E-06	4E-02	NC	NC	1E-10	2E-06
Landbay A	GP 108-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-06	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	NC
Landbay A	GP 18-01	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	NC
Landbay A	GP 33-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 33-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 34-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 34-02	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay A	GP CM-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-03	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	NC
Landbay A	GP CM-04	2E-07	7E-04	NC	NC	8E-08	8E-04	4E-08	2E-03	7E-08	5E-04	2E-06	5E-03	NC	NC	8E-11	5E-07
Landbay A	GP CM-06	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	NC
Landbay A	GP CM-07	1E-06	7E-03	NC	NC	3E-07	5E-03	2E-07	6E-03	4E-07	5E-03	1E-05	4E-02	NC	NC	1E-10	2E-06
Landbay A	GP CM-08	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay A	GP CM-09	7E-07	4E-03	NC	NC	2E-07	3E-03	1E-07	5E-03	2E-07	3E-03	5E-06	2E-02	NC	NC	1E-10	1E-06
Landbay A	GP CM-10	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	NC
Landbay A	GP CM-12	3E-06	2E-02	NC	NC	6E-07	1E-02	4E-07	2E-02	8E-07	1E-02	2E-05	1E-01	NC	NC	2E-10	4E-06
Landbay A	GP CM-13	3E-07	1E-03	NC	NC	9E-08	1E-03	5E-08	4E-03	8E-08	7E-04	2E-06	7E-03	NC	NC	9E-11	7E-07
Landbay A	GP CM-14	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	NC
Landbay A	GP CM-15	NC	1E-03	NC	NC	NC	9E-04	NC	5E-03	NC	1E-03	NC	1E-02	NC	NC	NC	NC
Landbay A	GP CM-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-17	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-19	NC	1E-03	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	NC
Landbay A	GP CM-20	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP EXT TTU-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP EXT TTU-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-11	6E-08	1E-03	NC	NC	2E-08	7E-04	1E-08	4E-03	2E-08	7E-04	5E-07	7E-03	NC	NC	2E-11	7E-08
Landbay A	GP TTF-12	3E-07	1E-03	NC	NC	8E-08	2E-03	5E-08	7E-03	7E-08	1E-03	2E-06	1E-02	NC	NC	8E-11	1E-06
Landbay A	GP TTF-13	3E-07	1E-03	NC	NC	8E-08	2E-03	5E-08	6E-03	8E-08	9E-04	2E-06	9E-03	NC	NC	8E-11	1E-06
Landbay A	GP TTU-37	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	9E-03	1E-07	NC	2E-09	NC
Landbay A	GP TTU-41	1E-07	8E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	8E-09	NC
Landbay A	GP TTU-43	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-44	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	6E-03	6E-07	3E-02	5E-07	NC	9E-09	NC
Landbay A	GP TTU-45	3E-06	2E-01	3E-08	NC	4E-07	8E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	9E-06	NC	2E-07	NC
Landbay A	GP TTU-46	1E-07	1E-02	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	7E-03	6E-07	4E-02	5E-07	NC	1E-08	NC
Landbay A	GP TTU-47	9E-07	6E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	3E-07	4E-02	4E-06	2E-01	3E-06	NC	6E-08	NC
Landbay A	GP TTU-48	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-49	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-50	7E-08	5E-03	8E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	5E-09	NC
Landbay A	GP TTU-51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-52	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	IM10-1	5E-06	3E-01	2E-08	4E-04	1E-06	5E-01	7E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	5E-06	8E-02	9E-08	8E-04
Landbay A	IM10-2	3E-06	2E-01	6E-10	3E-04	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	2E-07	6E-02	4E-09	5E-04
Landbay A	IM10-3	2E-06	1E-01	NC	3E-04	6E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	6E-02	8E-10	6E-04
Landbay A	IM10-4	2E-06	2E-01	NC	2E-04	6E-07	3E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay A	IM10-5	2E-06	2E-01	4E-10	2E-04	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	1E-07	3E-02	3E-09	4E-04
Landbay A	IM9-1	7E-06	2E-01	2E-10	5E-03	2E-06	5E-01	8E-07	1E+00	5E-06	2E-01	1E-04	**2E+00**	2E-07	1E+00	3E-07	5E-03
Landbay A	IM9-2	8E-06	2E-01	3E-10	1E-03	2E-06	3E-01	8E-07	9E-01	6E-06	1E-01	1E-04	1E+00	3E-07	2E-01	4E-07	1E-03
Landbay A	IM9-3	2E-07	2E-01	NC	2E-04	3E-07	3E-01	1E-07	9E-01	7E-08	1E-01	2E-06	1E+00	NC	3E-02	1E-09	4E-04
Landbay A	IM9-4	2E-06	2E-01	NC	9E-05	7E-07	4E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	2E-02	2E-09	5E-04
Landbay A	IM9-5	2E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	7E-02	1E-09	7E-04
Landbay A	JTOO-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	MCD-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	POND 01 INF	2E-06	2E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	6E-07	1E-01	1E-05	6E-01	8E-06	NC	1E-07	NC
Landbay A	SB CM-08	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	NC
Landbay A	SB CM-10	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC
Landbay A	SB CM-11	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	NC
Landbay A	SEDA 13	3E-06	2E-02	NC	NC	7E-07	1E-02	4E-07	2E-02	9E-07	1E-02	2E-05	1E-01	NC	NC	2E-10	5E-06
Landbay A	SEDP 01 INF	1E-06	6E-03	NC	NC	3E-07	5E-03	1E-07	9E-03	3E-07	5E-03	8E-06	4E-02	NC	NC	1E-10	2E-06
Landbay A	S-IMSED-1	2E-06	1E-01	2E-08	NC	3E-07	5E-02	1E-07	1E-01	5E-07	8E-02	8E-06	5E-01	7E-06	NC	1E-07	NC
Landbay A	S-IMSED-3	6E-07	4E-02	8E-09	NC	1E-07	2E-02	5E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	4E-08	NC
Landbay A	SR-100B	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SS-103A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SS-105C	NC	2E-06	NC	NC	NC	1E-06	NC	9E-06	NC	2E-06	NC	2E-05	NC	NC	NC	NC
Landbay A	SS-CGA	NC	3E-03	NC	NC	NC	1E-03	NC	6E-04	NC	2E-03	NC	1E-02	NC	NC	NC	NC
Landbay A	SW 105-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 105-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 105-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 106-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-02	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	NC
Landbay A	SW CM-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-07	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay A	SW CM-08	NC	1E-03	NC	NC	NC	7E-04	NC	5E-03	NC	8E-04	NC	8E-03	NC	NC	NC	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	SW CM-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW TTU-01	3E-07	2E-02	NC	NC	9E-08	5E-02	5E-08	2E-01	8E-08	2E-02	2E-06	2E-01	NC	NC	9E-11	5E-05
Landbay A	SW TTU-02	3E-07	2E-02	NC	NC	9E-08	5E-02	5E-08	2E-01	8E-08	2E-02	2E-06	2E-01	NC	NC	9E-11	5E-05
Landbay A	SW TTU-03	2E-07	2E-02	NC	NC	8E-08	3E-02	4E-08	1E-01	7E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	4E-05
Landbay A	SW TTU-04	3E-07	2E-02	NC	NC	1E-07	4E-02	5E-08	2E-01	9E-08	2E-02	3E-06	2E-01	NC	NC	1E-10	5E-05
Landbay A	SW TTU-05	3E-07	2E-02	NC	NC	9E-08	3E-02	5E-08	1E-01	9E-08	1E-02	3E-06	1E-01	NC	NC	9E-11	3E-05
Landbay A	TP 107-01	2E-06	2E-02	NC	2E-03	6E-07	1E-02	3E-07	2E-02	7E-07	1E-02	2E-05	1E-01	NC	4E-01	2E-10	2E-03
Landbay A	TP 107-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-07	2E-06	1E-02	NC	4E-04	5E-07	1E-02	3E-07	2E-02	6E-07	1E-02	2E-05	9E-02	NC	8E-02	1E-10	4E-04
Landbay A	TRL100B1	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay A	TTU GP-01	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	4E-09	NC
Landbay A	TTU GP-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-15	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	4E-03	6E-08	NC	1E-09	NC
Landbay A	TTU GP-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-23	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	7E-04	7E-08	4E-03	6E-08	NC	1E-09	NC
Landbay A	TTU GP-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-31	9E-08	6E-03	1E-09	NC	2E-08	3E-03	8E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	6E-09	NC
Landbay A	TTU GP-33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-54	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-55	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU SED-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU SED-02	1E-07	7E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	7E-09	NC
Landbay A	TTU SED-03	3E-06	2E-01	4E-10	6E-05	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	1E-07	1E-02	4E-09	4E-04
Landbay A	TTU1P3-1	NC	7E-02	NC	NC	NC	4E-02	NC	3E-01	NC	5E-02	NC	5E-01	NC	NC	NC	NC
Landbay A	TTU1P3-2	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	NC
Landbay A	TTU1P3-3	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	3E-04	NC	3E-03	NC	NC	NC	NC
Landbay A	TTU1P3-4	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay A	TTU2P2-10	2E-07	2E-02	NC	NC	5E-08	5E-02	3E-08	2E-01	5E-08	2E-02	2E-06	2E-01	NC	NC	5E-11	5E-05
Landbay A	TTU2P2-9	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay A	TTU2P3-5	NC	4E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC
Landbay A	TTU2P3-6	NC	5E-03	NC	NC	NC	3E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	NC
Landbay A	TTU3P3-7	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay A	TTU3P3-8	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay A	TTU3P3-9	NC	2E-07	NC	NC	NC	1E-07	NC	9E-07	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay A	TTUP2-DS-1	6E-10	2E-02	NC	NC	1E-10	4E-02	6E-11	2E-01	2E-10	2E-02	3E-09	2E-01	NC	NC	NC	4E-05
Landbay A	TTUP2-DS-2	NC	2E-02	NC	NC	NC	3E-02	NC	1E-01	NC	1E-02	NC	1E-01	NC	NC	NC	3E-05
Landbay A	TTUP2-DS-3	2E-07	2E-02	NC	NC	5E-08	5E-02	3E-08	2E-01	5E-08	2E-02	1E-06	2E-01	NC	NC	5E-11	5E-05
Landbay A	TTUP2-DS-4	2E-07	3E-02	NC	NC	7E-08	5E-02	4E-08	2E-01	7E-08	2E-02	2E-06	2E-01	NC	NC	7E-11	6E-05
Landbay B	116AEC-1	7E-08	9E-04	NC	NC	1E-08	5E-04	6E-09	1E-03	2E-08	6E-04	3E-07	5E-03	NC	NC	NC	NC
Landbay B	116ANEC	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	8E-05	NC	7E-04	NC	NC	NC	NC
Landbay B	116B145	3E-06	3E-01	NC	2E-04	1E-06	6E-01	5E-07	**2E+00**	8E-07	2E-01	2E-05	**2E+00**	NC	4E-02	3E-09	8E-04
Landbay B	116B146	2E-06	2E-01	NC	1E-04	7E-07	3E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay B	116B147	1E-06	1E-01	NC	NC	4E-07	1E-01	2E-07	5E-01	3E-07	7E-02	8E-06	7E-01	NC	NC	6E-10	1E-04
Landbay B	116G17	1E-06	2E-01	NC	NC	5E-07	3E-01	3E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	2E-04
Landbay B	116G18	2E-06	4E-01	NC	3E-04	1E-06	7E-01	5E-07	**2E+00**	6E-07	3E-01	1E-05	**3E+00**	NC	5E-02	3E-09	9E-04
Landbay B	116G19	2E-06	3E-01	2E-10	1E-04	8E-07	5E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	6E-08	2E-02	3E-09	6E-04
Landbay B	116G20	8E-07	2E-01	NC	1E-04	5E-07	3E-01	2E-07	1E+00	2E-07	1E-01	7E-06	1E+00	NC	2E-02	1E-09	4E-04
Landbay B	116G21	1E-06	2E-01	NC	NC	5E-07	3E-01	2E-07	8E-01	3E-07	1E-01	9E-06	1E+00	NC	NC	1E-09	3E-04
Landbay B	116G22	1E-06	1E-01	2E-10	NC	4E-07	2E-01	2E-07	7E-01	3E-07	1E-01	8E-06	1E+00	6E-08	NC	2E-09	2E-04
Landbay B	116G23	1E-06	3E-01	2E-10	2E-04	8E-07	4E-01	3E-07	1E+00	4E-07	2E-01	1E-05	**2E+00**	6E-08	3E-02	3E-09	5E-04
Landbay B	116G24	1E-06	2E-01	NC	1E-04	5E-07	2E-01	2E-07	8E-01	3E-07	1E-01	9E-06	1E+00	NC	2E-02	9E-10	3E-04
Landbay B	116G25	2E-06	2E-01	NC	9E-05	9E-07	3E-01	4E-07	9E-01	7E-07	2E-01	2E-05	**2E+00**	NC	2E-02	2E-09	3E-04
Landbay B	116G26	2E-06	2E-01	2E-10	NC	6E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	6E-08	NC	2E-09	3E-04
Landbay B	116G27	3E-06	3E-01	NC	2E-04	1E-06	6E-01	5E-07	**2E+00**	7E-07	2E-01	2E-05	**2E+00**	NC	3E-02	2E-09	8E-04
Landbay B	116G28	2E-06	2E-01	NC	1E-04	8E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay B	117AEC-1	NC	3E-02	NC	NC	NC	2E-02	NC	1E-01	NC	2E-02	NC	2E-01	NC	NC	NC	NC
Landbay B	117ANEC	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	NC
Landbay B	117B1	3E-06	4E-02	NC	3E-04	8E-07	5E-02	5E-07	2E-01	1E-06	3E-02	3E-05	3E-01	NC	5E-02	2E-10	3E-04
Landbay B	117B2	3E-06	4E-02	NC	3E-04	8E-07	5E-02	5E-07	1E-01	1E-06	3E-02	3E-05	2E-01	NC	5E-02	2E-10	3E-04
Landbay B	117B3	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	2E-06	NC	2E-05	NC	NC	NC	NC
Landbay B	117G4	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	NC
Landbay B	119AEC-2	NC	5E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC
Landbay B	119ANEC	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	NC
Landbay B	119B137	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119B138	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G31	2E-06	2E-01	2E-10	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	7E-08	3E-02	3E-09	5E-04
Landbay B	119G32	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G34	2E-06	2E-01	2E-10	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	7E-08	3E-02	3E-09	5E-04
Landbay B	119G35	2E-06	2E-01	2E-10	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	7E-08	3E-02	3E-09	5E-04
Landbay B	119G37	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	NC
Landbay B	119G38	2E-06	2E-01	2E-10	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	7E-08	3E-02	3E-09	5E-04
Landbay B	119G39	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay B	119G40	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC
Landbay B	15TP1-7	1E-06	3E-02	NC	NC	3E-07	5E-02	1E-07	2E-01	3E-07	2E-02	8E-06	2E-01	NC	NC	3E-11	4E-05
Landbay B	16TP1-7	1E-13	2E-02	NC	1E-08	1E-10	4E-02	4E-11	2E-01	2E-15	1E-02	5E-13	1E-01	NC	3E-06	5E-13	4E-05
Landbay B	16TP2-7	3E-06	3E-02	NC	1E-04	7E-07	4E-02	4E-07	1E-01	9E-07	2E-02	2E-05	2E-01	NC	2E-02	1E-10	1E-04
Landbay B	16TP3-7	1E-06	3E-02	7E-08	2E-02	2E-07	4E-02	1E-07	2E-01	3E-07	2E-02	7E-06	2E-01	1E-05	**3E+00**	2E-09	5E-04
Landbay B	16TP4-7	3E-06	3E-02	3E-08	9E-03	6E-07	4E-02	3E-07	1E-01	8E-07	2E-02	2E-05	2E-01	7E-06	**2E+00**	1E-09	4E-04
Landbay B	16TP5-7	1E-11	2E-02	1E-09	5E-04	2E-09	4E-02	5E-10	1E-01	5E-13	1E-02	5E-11	1E-01	3E-07	9E-02	5E-11	2E-04
Landbay B	16TP6-7	9E-08	2E-02	NC	1E-04	3E-08	4E-02	2E-08	2E-01	3E-08	1E-02	8E-07	1E-01	NC	3E-02	4E-11	2E-04
Landbay B	42B136	2E-07	1E-02	2E-09	NC	3E-08	6E-03	1E-08	1E-02	5E-08	9E-03	8E-07	5E-02	7E-07	NC	1E-08	NC
Landbay B	42G110	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	42G115	5E-06	1E-01	2E-09	1E-04	1E-06	2E-01	6E-07	7E-01	4E-06	1E-01	9E-05	1E+00	6E-07	2E-02	3E-07	3E-04
Landbay B	42G116	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	42G117	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	4E-08	NC
Landbay B	42TP3-25	4E-06	3E-01	4E-08	NC	8E-07	3E-01	4E-07	7E-01	1E-06	2E-01	2E-05	**2E+00**	1E-05	NC	2E-07	2E-04
Landbay B	42TP3-37	9E-07	9E-02	5E-10	NC	3E-07	1E-01	1E-07	4E-01	3E-07	7E-02	6E-06	7E-01	1E-07	NC	3E-09	1E-04
Landbay B	42TP3-43	4E-07	7E-02	2E-10	NC	2E-07	1E-01	8E-08	3E-01	1E-07	5E-02	3E-06	5E-01	5E-08	NC	1E-09	9E-05
Landbay B	42TP4-125	2E-06	2E-01	NC	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay B	42TP4-127	3E-06	2E-01	2E-08	1E-04	8E-07	3E-01	4E-07	8E-01	8E-07	2E-01	2E-05	1E+00	6E-06	2E-02	1E-07	3E-04
Landbay B	42TP4-136	3E-06	2E-01	3E-09	2E-03	8E-07	4E-01	4E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	8E-07	4E-01	4E-08	2E-03
Landbay B	42TP4-165	3E-06	2E-01	1E-08	4E-04	8E-07	3E-01	4E-07	9E-01	7E-07	2E-01	2E-05	**2E+00**	4E-06	7E-02	8E-08	6E-04
Landbay B	42TP4-180	2E-06	1E-01	1E-09	1E-04	6E-07	2E-01	3E-07	6E-01	6E-07	1E-01	1E-05	1E+00	3E-07	2E-02	6E-09	3E-04
Landbay B	42TP4-195	2E-06	1E-01	4E-09	2E-04	5E-07	2E-01	3E-07	6E-01	5E-07	1E-01	1E-05	1E+00	1E-06	4E-02	3E-08	3E-04
Landbay B	42TP4-75	8E-11	7E-02	NC	NC	9E-08	1E-01	3E-08	4E-01	2E-12	5E-02	4E-10	5E-01	NC	NC	4E-10	1E-04
Landbay B	42TP5-260	2E-06	3E-01	5E-10	2E-04	9E-07	7E-01	4E-07	**2E+00**	4E-07	3E-01	1E-05	**3E+00**	1E-07	4E-02	5E-09	9E-04
Landbay B	42TP5-275	2E-06	2E-01	NC	2E-04	8E-07	5E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	5E-02	2E-09	7E-04
Landbay B	42TP6-40	1E-06	2E-01	NC	2E-04	6E-07	3E-01	3E-07	9E-01	4E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay B	42TP6-5	1E-06	1E-01	NC	8E-05	5E-07	2E-01	2E-07	7E-01	4E-07	1E-01	9E-06	1E+00	NC	1E-02	9E-10	3E-04
Landbay B	5100-2750	3E-06	2E-01	2E-11	6E-04	1E-06	4E-01	5E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	1E-08	1E-01	2E-08	9E-04
Landbay B	5100-2750N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2750SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	5100-2750SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2900	3E-06	2E-01	NC	6E-04	9E-07	4E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	1E-01	1E-09	9E-04
Landbay B	5250-2600	3E-06	2E-01	NC	6E-04	9E-07	4E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	1E-01	1E-09	9E-04
Landbay B	5250-2750	3E-06	2E-01	NC	6E-04	9E-07	4E-01	4E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	1E-01	1E-09	9E-04
Landbay B	5400-77	4E-06	2E-01	2E-09	3E-04	1E-06	3E-01	6E-07	9E-01	1E-06	1E-01	3E-05	1E+00	5E-07	7E-02	1E-08	6E-04
Landbay B	5550-3350	1E-06	1E-01	NC	2E-04	4E-07	2E-01	2E-07	5E-01	4E-07	8E-02	1E-05	8E-01	NC	4E-02	5E-10	3E-04
Landbay B	5700-2600	2E-06	2E-01	NC	2E-04	8E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	5E-04
Landbay B	5850-2300	3E-06	2E-01	NC	1E-04	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	3E-02	2E-09	6E-04
Landbay B	5850-2600	2E-06	5E-01	NC	2E-04	8E-07	6E-01	4E-07	**2E+00**	6E-07	4E-01	2E-05	**4E+00**	NC	4E-02	2E-09	5E-04
Landbay B	5850-2600N	NC	2E-02	NC	NC	NC	1E-02	NC	7E-02	NC	1E-02	NC	1E-01	NC	NC	NC	NC
Landbay B	5850-2600SE	NC	7E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	NC
Landbay B	5850-2600SW	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	NC
Landbay B	5850-3350	3E-06	1E-01	NC	NC	8E-07	2E-01	4E-07	7E-01	8E-07	1E-01	2E-05	1E+00	NC	NC	7E-10	2E-04
Landbay B	5850-3650	2E-06	1E-01	NC	NC	6E-07	1E-01	3E-07	5E-01	7E-07	9E-02	2E-05	9E-01	NC	NC	5E-10	1E-04
Landbay B	5850-3800	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	8E-01	8E-07	1E-01	2E-05	1E+00	NC	6E-02	7E-10	5E-04
Landbay B	5850-3950	3E-06	2E-01	NC	3E-04	9E-07	3E-01	5E-07	9E-01	8E-07	2E-01	2E-05	**2E+00**	NC	6E-02	1E-09	6E-04
Landbay B	6000-2000	2E-06	2E-01	NC	8E-05	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay B	6000-2150	3E-06	2E-01	NC	1E-04	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	3E-02	2E-09	6E-04
Landbay B	6000-2300	3E-06	2E-01	NC	1E-04	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	3E-02	2E-09	6E-04
Landbay B	6000-2600	2E-06	2E-01	NC	2E-04	8E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	5E-04
Landbay B	6000-2750	2E-06	2E-01	NC	2E-04	8E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	5E-04
Landbay B	6000-2900	2E-06	1E-01	NC	1E-04	6E-07	2E-01	3E-07	6E-01	6E-07	1E-01	1E-05	1E+00	NC	3E-02	7E-10	3E-04
Landbay B	6000-3350	2E-06	1E-01	NC	2E-04	5E-07	2E-01	2E-07	6E-01	5E-07	7E-02	1E-05	7E-01	NC	3E-02	5E-10	3E-04
Landbay B	6000-3500	2E-06	1E-01	NC	2E-04	5E-07	2E-01	2E-07	6E-01	5E-07	7E-02	1E-05	7E-01	NC	3E-02	5E-10	3E-04
Landbay B	6000-3650	2E-06	2E-01	NC	3E-04	6E-07	3E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	6E-02	1E-09	6E-04
Landbay B	6000-3800	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	8E-01	8E-07	1E-01	2E-05	1E+00	NC	6E-02	7E-10	5E-04
Landbay B	6000-94	4E-06	7E-02	6E-09	4E-04	1E-06	6E-02	5E-07	1E-01	1E-06	5E-02	3E-05	4E-01	2E-06	7E-02	3E-08	4E-04
Landbay B	6150-2150	2E-06	2E-01	NC	8E-05	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay B	6150-3050	2E-06	1E-01	NC	1E-04	6E-07	2E-01	3E-07	6E-01	6E-07	1E-01	1E-05	1E+00	NC	3E-02	7E-10	3E-04
Landbay B	6150-3350	2E-06	1E-01	NC	2E-04	5E-07	2E-01	2E-07	6E-01	5E-07	7E-02	1E-05	7E-01	NC	3E-02	5E-10	3E-04
Landbay B	6150-3500	2E-06	2E-01	NC	3E-04	6E-07	3E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	6E-02	1E-09	6E-04
Landbay B	6150-3650	2E-06	2E-01	NC	3E-04	6E-07	3E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	6E-02	1E-09	6E-04
Landbay B	6150-3800	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	8E-01	8E-07	1E-01	2E-05	1E+00	NC	6E-02	7E-10	5E-04
Landbay B	6200-96	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	1E-06	NC	NC	NC	NC
Landbay B	6300-107	3E-06	4E-02	1E-09	2E-04	6E-07	5E-02	4E-07	2E-01	8E-07	3E-02	2E-05	3E-01	3E-07	3E-02	6E-09	2E-04
Landbay B	6300-2150	1E-06	2E-01	NC	3E-07	7E-07	3E-01	3E-07	1E+00	4E-07	1E-01	1E-05	**2E+00**	NC	7E-05	1E-09	3E-04
Landbay B	6300-2300	2E-06	2E-01	NC	8E-05	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay B	6300-2450	2E-06	2E-01	NC	8E-05	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay B	6300-3350	2E-06	1E-01	NC	2E-04	5E-07	2E-01	2E-07	6E-01	5E-07	7E-02	1E-05	7E-01	NC	3E-02	5E-10	3E-04
Landbay B	6300-3500	2E-06	2E-01	NC	3E-04	6E-07	3E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	6E-02	1E-09	6E-04
Landbay B	6400-108	2E-06	1E-01	6E-08	2E-03	8E-07	3E-01	4E-07	7E-01	7E-07	1E-01	2E-05	1E+00	2E-05	5E-01	3E-08	1E-03
Landbay B	6450-2600	3E-06	2E-01	NC	1E-04	8E-07	3E-01	4E-07	9E-01	8E-07	1E-01	2E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay B	6450-2750	3E-06	2E-01	NC	1E-04	8E-07	3E-01	4E-07	9E-01	8E-07	1E-01	2E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay B	6450-2900	3E-06	2E-01	NC	1E-04	8E-07	3E-01	4E-07	9E-01	8E-07	1E-01	2E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay B	6450-3200	2E-06	1E-01	NC	2E-04	5E-07	2E-01	3E-07	5E-01	5E-07	8E-02	1E-05	8E-01	NC	4E-02	6E-10	4E-04
Landbay B	6450-3350	2E-06	1E-01	NC	2E-04	5E-07	2E-01	3E-07	5E-01	5E-07	8E-02	1E-05	8E-01	NC	4E-02	6E-10	4E-04
Landbay B	6450-3500	2E-06	2E-01	NC	NC	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay B	6450-3650	2E-06	2E-01	NC	NC	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay B	6600-3350	2E-06	2E-01	NC	NC	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay B	6600-3500	2E-06	2E-01	NC	NC	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay B	6750-2750	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	NC	1E-09	3E-04
Landbay B	6750-2900	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	NC	1E-09	3E-04
Landbay B	6750-3050	2E-06	2E-01	NC	4E-07	8E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	9E-05	1E-09	3E-04
Landbay B	6750-3350	2E-06	1E-01	NC	NC	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay B	6750-3500	2E-06	1E-01	NC	NC	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay B	6800-117	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC
Landbay B	6800-118	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	6900-3200	2E-06	1E-01	NC	NC	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay B	6900-3350	2E-06	1E-01	NC	NC	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay B	7050-3200	2E-06	1E-01	NC	NC	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	2E-04
Landbay B	7050-3350	2E-06	1E-01	NC	NC	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	2E-04
Landbay B	70AEC-3	9E-11	4E-03	8E-09	8E-04	2E-11	3E-03	2E-11	2E-02	5E-12	3E-03	5E-10	3E-02	2E-06	2E-01	4E-10	2E-05
Landbay B	70ANEC	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	3E-02	NC	NC	NC	NC
Landbay B	70B1	2E-06	4E-02	5E-10	4E-04	6E-07	5E-02	3E-07	2E-01	7E-07	3E-02	2E-05	2E-01	2E-07	7E-02	3E-09	4E-04
Landbay B	70B2	2E-06	3E-02	NC	4E-04	6E-07	4E-02	3E-07	2E-01	7E-07	2E-02	2E-05	2E-01	NC	7E-02	1E-10	4E-04
Landbay B	70B3	2E-06	3E-02	NC	7E-05	5E-07	4E-02	3E-07	1E-01	5E-07	2E-02	1E-05	2E-01	NC	1E-02	1E-10	1E-04
Landbay B	70G4	1E-10	3E-04	NC	NC	2E-11	2E-04	1E-11	1E-03	3E-11	2E-04	5E-10	2E-03	NC	NC	NC	NC
Landbay B	73B105	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	NC
Landbay B	73B106	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73B107	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73B108	NC	3E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	NC
Landbay B	73B151	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G76	2E-06	2E-01	4E-10	2E-04	7E-07	3E-01	4E-07	8E-01	6E-07	1E-01	2E-05	1E+00	1E-07	3E-02	3E-09	4E-04
Landbay B	73G77	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G78	NC	2E-06	NC	NC	NC	1E-06	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay B	73G79	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	NC
Landbay B	73G80	2E-06	2E-01	4E-10	2E-04	7E-07	3E-01	4E-07	8E-01	6E-07	1E-01	2E-05	1E+00	1E-07	3E-02	3E-09	4E-04
Landbay B	73G81	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G82	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC
Landbay B	73G83	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC
Landbay B	73G84	2E-06	2E-01	4E-10	2E-04	7E-07	3E-01	4E-07	8E-01	6E-07	1E-01	2E-05	1E+00	1E-07	3E-02	3E-09	4E-04
Landbay B	73G85	NC	2E-04	NC	NC	NC	1E-04	NC	9E-04	NC	2E-04	NC	2E-03	NC	NC	NC	NC
Landbay B	73G86	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G87	2E-06	2E-01	4E-10	2E-04	7E-07	3E-01	4E-07	8E-01	6E-07	1E-01	2E-05	1E+00	1E-07	3E-02	3E-09	4E-04
Landbay B	74AEC-2	8E-08	8E-02	NC	NC	1E-08	5E-02	7E-09	3E-01	2E-08	6E-02	4E-07	6E-01	NC	NC	NC	NC
Landbay B	74ANEC	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	NC
Landbay B	74B100	2E-08	2E-04	NC	NC	3E-09	1E-04	2E-09	3E-04	4E-09	1E-04	8E-08	1E-03	NC	NC	NC	NC
Landbay B	74B101	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay B	74B102	NC	9E-05	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	NC
Landbay B	74B103	NC	2E-04	NC	NC	NC	1E-04	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC
Landbay B	74B104	NC	9E-07	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	NC
Landbay B	74B99	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC
Landbay B	74G88	NC	2E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay B	74G89	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	5E-04	NC	NC	NC	NC
Landbay B	74G91	1E-08	1E-04	NC	NC	2E-09	6E-05	1E-09	7E-05	3E-09	9E-05	6E-08	6E-04	NC	NC	NC	NC
Landbay B	74G92	2E-06	2E-01	2E-10	2E-04	7E-07	3E-01	3E-07	8E-01	6E-07	1E-01	1E-05	1E+00	7E-08	3E-02	2E-09	4E-04
Landbay B	74G93	NC	1E-03	NC	NC	NC	8E-04	NC	5E-03	NC	9E-04	NC	9E-03	NC	NC	NC	NC
Landbay B	74G94	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74G95	2E-06	2E-01	2E-10	2E-04	7E-07	3E-01	3E-07	8E-01	6E-07	1E-01	1E-05	1E+00	7E-08	3E-02	2E-09	4E-04
Landbay B	74G96	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74G97	NC	1E-02	NC	NC	NC	7E-03	NC	4E-02	NC	8E-03	NC	8E-02	NC	NC	NC	NC
Landbay B	74G98	2E-06	2E-01	2E-10	2E-04	7E-07	3E-01	3E-07	8E-01	6E-07	1E-01	1E-05	1E+00	7E-08	3E-02	2E-09	4E-04
Landbay B	76AEC-1	4E-08	5E-03	NC	NC	7E-09	3E-03	4E-09	2E-02	1E-08	3E-03	2E-07	3E-02	NC	NC	NC	NC
Landbay B	76ANEC	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	NC
Landbay B	76B12	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	NC
Landbay B	76B13	NC	2E-05	NC	NC	NC	7E-06	NC	3E-06	NC	1E-05	NC	6E-05	NC	NC	NC	NC
Landbay B	76B14	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay B	76B15	NC	4E-06	NC	NC	NC	2E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC
Landbay B	76G1	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	2E-05	NC	NC	NC	NC
Landbay B	76G10	NC	1E-06	NC	NC	NC	9E-07	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay B	76G11	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay B	76G16	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	NC
Landbay B	76G2	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76G3	2E-06	1E-01	3E-10	1E-04	6E-07	1E-01	3E-07	4E-01	7E-07	8E-02	2E-05	8E-01	8E-08	2E-02	2E-09	2E-04
Landbay B	76G4	NC	9E-07	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	NC
Landbay B	76G5	2E-06	1E-01	3E-10	1E-04	6E-07	1E-01	3E-07	4E-01	7E-07	8E-02	2E-05	8E-01	8E-08	2E-02	2E-09	2E-04

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	76G6	2E-06	1E-01	3E-10	1E-04	6E-07	1E-01	3E-07	4E-01	7E-07	8E-02	2E-05	8E-01	8E-08	2E-02	2E-09	2E-04
Landbay B	76G7	NC	6E-07	NC	NC	NC	4E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	NC
Landbay B	76G8	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76G9	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC
Landbay B	78B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	81B1	3E-07	2E-02	NC	2E-04	9E-08	4E-02	5E-08	2E-01	8E-08	1E-02	2E-06	1E-01	NC	5E-02	9E-11	3E-04
Landbay B	81B2	3E-07	2E-02	NC	2E-04	9E-08	4E-02	5E-08	2E-01	8E-08	1E-02	2E-06	1E-01	NC	5E-02	9E-11	3E-04
Landbay B	81G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	81G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85AEC-1	NC	1E-04	NC	3E-04	NC	7E-05	NC	4E-04	NC	9E-05	NC	8E-04	NC	4E-02	NC	4E-06
Landbay B	85ANEC	NC	1E-04	NC	NC	NC	9E-05	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC
Landbay B	85B140	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	NC
Landbay B	85B141	NC	3E-03	NC	NC	NC	1E-03	NC	7E-04	NC	2E-03	NC	1E-02	NC	NC	NC	NC
Landbay B	85B142	NC	2E-05	NC	NC	NC	1E-05	NC	5E-06	NC	2E-05	NC	1E-04	NC	NC	NC	NC
Landbay B	85B143	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay B	85B144	NC	2E-05	NC	NC	NC	7E-06	NC	4E-06	NC	1E-05	NC	7E-05	NC	NC	NC	NC
Landbay B	85G53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G54	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC
Landbay B	85G55	NC	2E-06	NC	NC	NC	1E-06	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay B	85G56	NC	1E-06	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	NC
Landbay B	85G57	NC	4E-06	NC	NC	NC	2E-06	NC	1E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC
Landbay B	85G58	2E-06	1E-01	2E-10	3E-04	8E-07	3E-01	4E-07	9E-01	7E-07	1E-01	2E-05	1E+00	7E-08	6E-02	2E-09	6E-04
Landbay B	85G59	2E-06	1E-01	2E-10	3E-04	8E-07	3E-01	4E-07	9E-01	7E-07	1E-01	2E-05	1E+00	7E-08	6E-02	2E-09	6E-04
Landbay B	85G60	NC	2E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	NC
Landbay B	85G61	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G62	2E-06	1E-01	2E-10	3E-04	8E-07	3E-01	4E-07	9E-01	7E-07	1E-01	2E-05	1E+00	7E-08	6E-02	2E-09	6E-04
Landbay B	85G63	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC
Landbay B	85G64	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	NC
Landbay B	86B1	3E-06	3E-02	4E-10	1E-03	6E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	1E-07	3E-01	3E-09	1E-03
Landbay B	86B2	3E-06	3E-02	4E-10	1E-03	6E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	1E-07	3E-01	3E-09	1E-03
Landbay B	86G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	86G4	3E-06	3E-02	4E-10	1E-03	6E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	1E-07	3E-01	3E-09	1E-03
Landbay B	87B1	3E-07	2E-02	NC	2E-04	1E-07	3E-02	5E-08	1E-01	8E-08	1E-02	3E-06	1E-01	NC	3E-02	1E-10	2E-04
Landbay B	87B2	3E-07	2E-02	NC	2E-04	1E-07	3E-02	5E-08	1E-01	8E-08	1E-02	3E-06	1E-01	NC	3E-02	1E-10	2E-04
Landbay B	87G4	3E-07	2E-02	NC	2E-04	1E-07	3E-02	5E-08	1E-01	8E-08	1E-02	3E-06	1E-01	NC	3E-02	1E-10	2E-04
Landbay B	97B1	3E-07	2E-02	NC	2E-04	1E-07	4E-02	5E-08	1E-01	8E-08	1E-02	3E-06	1E-01	NC	5E-02	1E-10	3E-04
Landbay B	98B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	A6G183	2E-06	7E-02	7E-09	2E-03	4E-07	6E-02	2E-07	2E-01	5E-07	5E-02	1E-05	3E-01	2E-06	3E-01	4E-08	2E-03
Landbay B	A6G184	4E-06	5E-02	1E-09	1E-04	9E-07	6E-02	5E-07	2E-01	1E-06	4E-02	3E-05	3E-01	3E-07	2E-02	6E-09	2E-04
Landbay B	A6G185	3E-06	4E-02	1E-09	8E-04	6E-07	6E-02	3E-07	2E-01	7E-07	3E-02	2E-05	3E-01	3E-07	1E-01	7E-09	7E-04
Landbay B	A6G186	2E-06	4E-02	NC	3E-04	5E-07	7E-02	3E-07	2E-01	6E-07	3E-02	2E-05	3E-01	NC	6E-02	1E-10	4E-04
Landbay B	A6G187	7E-07	3E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	2E-02	5E-06	2E-01	NC	NC	5E-11	5E-05
Landbay B	A6S158	2E-06	2E-01	9E-09	4E-03	7E-07	2E-01	3E-07	7E-01	7E-07	1E-01	2E-05	1E+00	3E-06	7E-01	5E-08	4E-03
Landbay B	A7G188	3E-06	4E-02	NC	3E-04	6E-07	5E-02	4E-07	2E-01	8E-07	3E-02	2E-05	2E-01	NC	5E-02	1E-10	3E-04
Landbay B	A7G189	3E-06	4E-02	NC	2E-04	6E-07	5E-02	4E-07	1E-01	8E-07	3E-02	2E-05	2E-01	NC	3E-02	9E-11	2E-04
Landbay B	A7G190	4E-06	4E-02	NC	9E-05	9E-07	5E-02	5E-07	1E-01	1E-06	3E-02	3E-05	3E-01	NC	2E-02	2E-10	1E-04
Landbay B	A7S162	3E-06	3E-01	2E-10	2E-04	1E-06	6E-01	5E-07	**2E+00**	8E-07	2E-01	2E-05	**2E+00**	7E-08	4E-02	3E-09	9E-04
Landbay B	A7S163	1E-06	3E-01	2E-10	2E-04	7E-07	6E-01	3E-07	**2E+00**	4E-07	2E-01	9E-06	**2E+00**	7E-08	4E-02	3E-09	9E-04
Landbay B	A8G193	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	NC
Landbay B	A8G194	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	NC
Landbay B	A8G195	2E-06	6E-02	4E-09	2E-03	4E-07	7E-02	2E-07	2E-01	5E-07	4E-02	1E-05	3E-01	1E-06	3E-01	2E-08	2E-03
Landbay B	A8S154	1E-05	8E-01	1E-07	1E-04	2E-06	5E-01	1E-06	1E+00	3E-06	5E-01	5E-05	**3E+00**	4E-05	2E-02	7E-07	3E-04
Landbay B	A8S155	1E-05	8E-01	1E-07	1E-04	2E-06	5E-01	1E-06	1E+00	3E-06	5E-01	5E-05	**3E+00**	4E-05	2E-02	7E-07	3E-04
Landbay B	A8S156	2E-06	2E-01	4E-09	4E-04	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	1E-06	7E-02	2E-08	6E-04
Landbay B	A8S159	1E-06	1E-01	2E-10	1E-04	5E-07	2E-01	2E-07	6E-01	4E-07	1E-01	9E-06	1E+00	7E-08	2E-02	2E-09	3E-04
Landbay B	A8S169	4E-06	2E-01	4E-08	NC	8E-07	1E-01	4E-07	4E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	2E-07	5E-05
Landbay B	A8S170	6E-08	4E-03	8E-10	NC	1E-08	2E-03	5E-09	4E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	4E-09	NC
Landbay B	AB-03	3E-09	1E-02	2E-12	4E-09	2E-09	3E-02	9E-10	1E-01	9E-10	1E-02	2E-08	1E-01	6E-10	1E-06	2E-10	3E-05
Landbay B	AB-06	5E-07	2E-02	1E-11	2E-08	2E-07	4E-02	1E-07	2E-01	2E-07	2E-02	5E-06	1E-01	3E-09	6E-06	1E-09	4E-05
Landbay B	AB-13	1E-06	2E-02	NC	NC	3E-07	4E-02	2E-07	1E-01	3E-07	1E-02	9E-06	1E-01	NC	NC	3E-10	4E-05
Landbay B	AB-14	3E-07	2E-02	2E-12	4E-09	1E-07	5E-02	6E-08	2E-01	9E-08	2E-02	3E-06	2E-01	6E-10	1E-06	3E-10	5E-05
Landbay B	AB-15	2E-07	2E-02	NC	NC	7E-08	4E-02	4E-08	2E-01	6E-08	2E-02	2E-06	2E-01	NC	NC	7E-11	4E-05
Landbay B	AB-16	2E-07	2E-02	NC	NC	6E-08	4E-02	3E-08	2E-01	5E-08	1E-02	1E-06	1E-01	NC	NC	6E-11	4E-05
Landbay B	AB-17	2E-08	2E-02	1E-11	3E-08	7E-09	4E-02	4E-09	1E-01	7E-09	1E-02	2E-07	1E-01	4E-09	8E-06	1E-09	4E-05
Landbay B	AB-18	4E-09	2E-02	3E-12	5E-09	3E-09	3E-02	1E-09	1E-01	1E-09	1E-02	3E-08	1E-01	8E-10	1E-06	2E-10	3E-05
Landbay B	AB-19	5E-09	1E-02	3E-12	6E-09	2E-09	2E-02	1E-09	9E-02	1E-09	9E-03	3E-08	8E-02	9E-10	2E-06	3E-10	2E-05
Landbay B	AB-20	1E-12	1E-02	NC	NC	2E-09	2E-02	5E-10	9E-02	3E-14	8E-03	7E-12	8E-02	NC	NC	7E-12	2E-05
Landbay B	AB-21	1E-12	1E-02	NC	NC	2E-09	2E-02	5E-10	1E-01	3E-14	9E-03	7E-12	9E-02	NC	NC	7E-12	3E-05
Landbay B	AB-22	3E-08	1E-02	2E-11	3E-08	8E-09	3E-02	4E-09	1E-01	8E-09	1E-02	2E-07	1E-01	5E-09	8E-06	1E-09	3E-05
Landbay B	AJA EE-2	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	AJAY-301	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	B97AEC-1S	NC	2E-04	NC	NC	NC	1E-04	NC	9E-04	NC	2E-04	NC	2E-03	NC	NC	NC	NC
Landbay B	BKG-A	2E-07	2E-02	NC	NC	8E-08	4E-02	5E-08	2E-01	7E-08	2E-02	2E-06	2E-01	NC	NC	8E-11	4E-05
Landbay B	BKG-B	2E-07	1E-02	NC	NC	8E-08	3E-02	5E-08	1E-01	7E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	3E-05
Landbay B	BKG-C	2E-07	1E-02	NC	NC	8E-08	3E-02	4E-08	1E-01	7E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	3E-05
Landbay B	BKG-D	3E-07	2E-02	NC	NC	8E-08	4E-02	5E-08	2E-01	8E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	4E-05
Landbay B	BKG-E	3E-07	2E-02	NC	NC	9E-08	5E-02	5E-08	2E-01	8E-08	2E-02	2E-06	2E-01	NC	NC	8E-11	5E-05
Landbay B	BKG-F	3E-07	2E-02	NC	NC	8E-08	5E-02	5E-08	2E-01	7E-08	2E-02	2E-06	2E-01	NC	NC	8E-11	5E-05
Landbay B	BKG-G	3E-07	2E-02	NC	NC	8E-08	4E-02	5E-08	2E-01	7E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	4E-05
Landbay B	BKG-H	3E-07	2E-02	NC	NC	8E-08	4E-02	5E-08	2E-01	7E-08	2E-02	2E-06	2E-01	NC	NC	8E-11	4E-05
Landbay B	BKG-I	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-J	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-K	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-L	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-10	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay B	BW 78-11	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	NC
Landbay B	BW 78-12	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	NC
Landbay B	DP-119	3E-06	6E-02	NC	1E-03	9E-07	6E-02	5E-07	2E-01	1E-06	4E-02	2E-05	4E-01	NC	2E-01	4E-10	9E-04
Landbay B	DP-30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 108-02	NC	1E-02	NC	NC	NC	3E-02	NC	1E-01	NC	1E-02	NC	1E-01	NC	NC	NC	3E-05
Landbay B	GP 116-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay B	GP 119-02	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay B	GP 42-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-04	NC	6E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	NC
Landbay B	GP 70-05	NC	4E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC
Landbay B	GP 70-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-03	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay B	GP 73-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	GP 74-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-03	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay B	GP 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-06	NC	8E-04	NC	NC	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	NC	NC	NC
Landbay B	GP 74-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-05	NC	2E-02	NC	**3E+00**	NC	9E-03	NC	8E-02	NC	2E-03	NC	7E-02	NC	**5E+02**	NC	6E-02
Landbay B	GP 77-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-02	NC	2E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	NC
Landbay B	GP 77-05	NC	2E-03	NC	NC	NC	1E-03	NC	7E-03	NC	1E-03	NC	1E-02	NC	NC	NC	NC
Landbay B	GP 77-06	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	2E-03	NC	NC	NC	NC
Landbay B	GP 77-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-12	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay B	GP 77-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 78-01	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	NC
Landbay B	GP 78-03	NC	4E-02	NC	NC	NC	3E-02	NC	2E-01	NC	3E-02	NC	3E-01	NC	NC	NC	NC
Landbay B	GP 79-01	1E-06	8E-03	NC	2E-02	3E-07	6E-03	2E-07	7E-03	4E-07	5E-03	1E-05	5E-02	NC	**4E+00**	1E-10	1E-03
Landbay B	GP 79-02	2E-06	1E-02	NC	7E-03	4E-07	7E-03	2E-07	8E-03	5E-07	7E-03	1E-05	6E-02	NC	**2E+00**	1E-10	4E-04
Landbay B	GP 81-01	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay B	GP 81-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 81-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 82-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 82-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 84-01	NC	2E-05	NC	NC	NC	7E-06	NC	3E-06	NC	1E-05	NC	6E-05	NC	NC	NC	NC
Landbay B	GP 85-01	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	NC
Landbay B	GP 86-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP BG-03	3E-06	2E-01	NC	4E-04	1E-06	4E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	7E-02	2E-09	8E-04
Landbay B	GP PP-01	7E-07	4E-03	NC	NC	2E-07	3E-03	1E-07	8E-03	2E-07	3E-03	5E-06	3E-02	NC	NC	9E-11	1E-06
Landbay B	GP PP-02	NC	1E-06	NC	NC	NC	9E-07	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay B	GP PP-03	NC	4E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC
Landbay B	GP PP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-1	5E-06	3E-01	NC	2E-04	2E-06	4E-01	8E-07	1E+00	1E-06	2E-01	4E-05	**2E+00**	NC	3E-02	2E-09	6E-04
Landbay B	IM11-10	3E-10	1E-01	NC	NC	3E-07	6E-01	1E-07	**2E+00**	6E-12	1E-01	2E-09	1E+00	NC	NC	2E-09	7E-04
Landbay B	IM11-2	1E-06	3E-01	NC	1E-04	7E-07	1E+00	3E-07	**4E+00**	4E-07	2E-01	1E-05	**2E+00**	NC	2E-02	2E-09	2E-03
Landbay B	IM11-3	2E-06	2E-01	NC	2E-04	7E-07	5E-01	4E-07	**2E+00**	7E-07	1E-01	2E-05	1E+00	NC	3E-02	1E-09	8E-04
Landbay B	IM11-4	2E-06	2E-01	NC	1E-04	8E-07	7E-01	4E-07	**2E+00**	7E-07	1E-01	2E-05	1E+00	NC	3E-02	1E-09	1E-03
Landbay B	IM11-5	3E-06	2E-01	NC	1E-04	1E-06	7E-01	5E-07	**2E+00**	8E-07	2E-01	2E-05	**2E+00**	NC	2E-02	2E-09	1E-03
Landbay B	IM11-6	7E-11	3E-02	NC	NC	8E-08	8E-02	3E-08	2E-01	2E-12	2E-02	4E-10	2E-01	NC	NC	4E-10	9E-05
Landbay B	IM11-7	2E-10	7E-02	NC	NC	2E-07	2E-01	6E-08	5E-01	3E-12	5E-02	8E-10	5E-01	NC	NC	8E-10	3E-04
Landbay B	IM11-8	2E-10	9E-02	NC	NC	3E-07	1E-01	8E-08	1E-01	5E-12	7E-02	1E-09	7E-01	NC	NC	1E-09	7E-05
Landbay B	IM11-9	2E-10	1E-01	NC	NC	3E-07	4E-01	8E-08	1E+00	5E-12	8E-02	1E-09	8E-01	NC	NC	1E-09	5E-04
Landbay B	JT O-01A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	MC D-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 117-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 70-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 70-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 71-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 77-02	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	NC
Landbay B	SB 77-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 77-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-04	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay B	SB 78-05	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	NC
Landbay B	SB 78-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-08	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay B	SB 78-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-11	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-17	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-18	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC
Landbay B	SB 78-19	NC	1E-03	NC	NC	NC	7E-04	NC	4E-03	NC	8E-04	NC	8E-03	NC	NC	NC	NC
Landbay B	SB 78-20	NC	2E-02	NC	NC	NC	1E-02	NC	9E-02	NC	2E-02	NC	2E-01	NC	NC	NC	NC
Landbay B	SB 78-21	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay B	SB 78-22	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay B	SB 78-23	NC	8E-04	NC	NC	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	NC	NC	NC
Landbay B	SB 78-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-25	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-26	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-28	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-30	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay B	SB 78-31	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-32	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-34	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-35	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-36	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-37	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay B	SB 78-38	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-39	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay B	SB 78-40	NC	2E-04	NC	NC	NC	1E-04	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC
Landbay B	SB 78-41	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-42	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	NC
Landbay B	SB 78-43	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay B	SED 40-26	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SED 40-27	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay B	SED 40-28	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	S-IMSED-4	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	4E-09	NC
Landbay B	S-IMSED-6	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	7E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-09	NC
Landbay B	SR-116	7E-07	9E-03	NC	NC	1E-07	4E-03	7E-08	4E-03	2E-07	6E-03	4E-06	4E-02	NC	NC	NC	NC
Landbay B	SR-76B	1E-06	9E-03	NC	1E-03	3E-07	7E-03	2E-07	1E-02	4E-07	6E-03	9E-06	6E-02	NC	2E-01	1E-10	9E-04
Landbay B	SR-76S	2E-06	1E-02	NC	5E-04	4E-07	9E-03	2E-07	2E-02	4E-07	8E-03	1E-05	7E-02	NC	9E-02	1E-10	4E-04
Landbay B	SR-85S	6E-06	6E-02	NC	NC	1E-06	3E-02	6E-07	8E-03	2E-06	4E-02	3E-05	2E-01	NC	NC	NC	NC
Landbay B	SS-108A	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	NC
Landbay B	SS-116B	NC	5E-05	NC	NC	NC	2E-05	NC	1E-05	NC	3E-05	NC	2E-04	NC	NC	NC	NC
Landbay B	SS-116C	5E-06	5E-02	NC	NC	9E-07	2E-02	4E-07	7E-03	1E-06	3E-02	2E-05	2E-01	NC	NC	NC	NC
Landbay B	SS-116D	3E-08	3E-04	NC	NC	5E-09	1E-04	3E-09	4E-05	8E-09	2E-04	1E-07	1E-03	NC	NC	NC	NC
Landbay B	SS-74A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-74E	8E-07	1E-02	NC	NC	1E-07	6E-03	7E-08	2E-03	2E-07	8E-03	4E-06	5E-02	NC	NC	NC	NC
Landbay B	SS-74G	2E-05	2E-01	NC	NC	3E-06	7E-02	2E-06	2E-02	5E-06	1E-01	9E-05	6E-01	NC	NC	NC	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	SS-85A	NC	2E-02	NC	NC	NC	7E-03	NC	4E-03	NC	1E-02	NC	7E-02	NC	NC	NC	NC
Landbay B	SS-86A	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	8E-05	NC	NC	NC	NC
Landbay B	SS-98A	NC	2E-06	NC	NC	NC	1E-06	NC	7E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay B	SW 115-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 70-01	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay B	SW 70-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 74-02	NC	7E-04	NC	NC	NC	5E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	NC
Landbay B	SW 74-03	NC	1E-05	NC	NC	NC	9E-06	NC	6E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay B	SW 74-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-02	NC	7E-03	NC	NC	NC	4E-03	NC	3E-02	NC	5E-03	NC	5E-02	NC	NC	NC	NC
Landbay B	TRL200B1	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	NC
Landbay C	194B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	23TP2-10	4E-06	4E-02	4E-10	3E-04	9E-07	5E-02	5E-07	1E-01	1E-06	3E-02	3E-05	3E-01	1E-07	5E-02	2E-09	3E-04
Landbay C	23TP3-7	3E-06	5E-02	NC	4E-04	6E-07	7E-02	4E-07	2E-01	8E-07	3E-02	2E-05	3E-01	NC	7E-02	9E-11	3E-04
Landbay C	23TP4-7	2E-06	3E-02	NC	NC	4E-07	6E-02	2E-07	2E-01	5E-07	2E-02	1E-05	2E-01	NC	NC	7E-11	5E-05
Landbay C	23TP5-12	3E-06	4E-02	7E-10	9E-05	6E-07	6E-02	3E-07	2E-01	1E-06	3E-02	4E-05	3E-01	3E-07	2E-02	9E-08	1E-04
Landbay C	25TP1-25	9E-13	1E-02	NC	9E-05	1E-09	3E-02	3E-10	1E-01	2E-14	1E-02	5E-12	1E-01	NC	2E-02	5E-12	1E-04
Landbay C	25TP2-30	3E-06	3E-02	NC	1E-04	6E-07	5E-02	3E-07	2E-01	7E-07	2E-02	2E-05	2E-01	NC	2E-02	8E-11	1E-04
Landbay C	25TP3-10	2E-06	3E-02	NC	2E-04	5E-07	4E-02	3E-07	1E-01	6E-07	2E-02	1E-05	2E-01	NC	3E-02	8E-11	2E-04
Landbay C	25TP4-25	2E-06	2E-02	2E-08	2E-04	4E-07	3E-02	2E-07	1E-01	5E-07	2E-02	1E-05	2E-01	6E-06	5E-02	4E-08	3E-04
Landbay C	26TP1-5	2E-06	3E-02	NC	2E-04	5E-07	4E-02	3E-07	1E-01	6E-07	2E-02	2E-05	2E-01	NC	5E-02	1E-10	3E-04
Landbay C	26TP2-7	3E-06	3E-02	NC	2E-04	7E-07	4E-02	4E-07	1E-01	8E-07	2E-02	2E-05	2E-01	NC	4E-02	1E-10	2E-04
Landbay C	27TP1-7	3E-06	3E-02	NC	1E-04	6E-07	3E-02	3E-07	1E-01	8E-07	2E-02	2E-05	2E-01	NC	3E-02	8E-11	2E-04
Landbay C	27TP2-7	3E-06	3E-02	NC	1E-08	6E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	NC	3E-06	8E-11	3E-05
Landbay C	6150-1850	2E-06	2E-01	NC	NC	9E-07	5E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	2E-09	5E-04
Landbay C	6300-1850	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	1E-05	1E+00	NC	NC	2E-09	4E-04
Landbay C	6450-1700	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	1E-05	1E+00	NC	NC	2E-09	4E-04
Landbay C	6450-1850	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	1E-05	1E+00	NC	NC	2E-09	4E-04
Landbay C	6450-2000	4E-05	2E-01	2E-07	5E-03	7E-06	3E-01	4E-06	1E+00	3E-05	2E-01	**8E-04**	**2E+00**	5E-05	1E+00	2E-06	2E-03
Landbay C	6450-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6450-2000SE	2E-05	3E-03	4E-08	1E-03	4E-06	1E-03	2E-06	1E-03	2E-05	2E-03	**5E-04**	1E-02	1E-05	3E-01	1E-06	4E-04
Landbay C	6450-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6450-2150	1E-06	2E-01	NC	NC	7E-07	3E-01	3E-07	1E+00	4E-07	1E-01	1E-05	**2E+00**	NC	NC	1E-09	3E-04
Landbay C	6500-111	3E-06	2E-01	NC	2E-04	1E-06	3E-01	5E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay C	6600-1850	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	1E-05	1E+00	NC	NC	2E-09	4E-04
Landbay C	6600-2000	1E-06	2E-01	NC	NC	7E-07	3E-01	3E-07	1E+00	4E-07	1E-01	1E-05	**2E+00**	NC	NC	1E-09	3E-04
Landbay C	6600-2300	2E-06	2E-01	NC	9E-06	7E-07	4E-01	3E-07	1E+00	4E-07	1E-01	1E-05	1E+00	NC	2E-03	1E-09	4E-04
Landbay C	6750-1850	3E-06	2E-01	NC	4E-08	1E-06	4E-01	5E-07	1E+00	9E-07	1E-01	2E-05	1E+00	NC	1E-05	1E-09	4E-04
Landbay C	6750-2000	2E-06	2E-01	NC	6E-03	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	1E+00	2E-09	6E-04
Landbay C	6750-2300	2E-06	2E-01	NC	NC	7E-07	4E-01	3E-07	1E+00	4E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	4E-04
Landbay C	6900-119	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6900-1850	3E-06	2E-01	NC	NC	1E-06	4E-01	5E-07	1E+00	9E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay C	6900-2000	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	NC	2E-09	3E-04
Landbay C	6900-2150	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	NC	2E-09	3E-04
Landbay C	6900-2300	2E-06	2E-01	NC	NC	7E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	3E-04
Landbay C	6900-2450	2E-06	2E-01	NC	1E-05	7E-07	4E-01	3E-07	1E+00	4E-07	1E-01	1E-05	1E+00	NC	2E-03	1E-09	4E-04
Landbay C	7000-120	4E-06	2E-01	NC	3E-04	1E-06	5E-01	7E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	5E-02	2E-09	7E-04
Landbay C	7000-121	4E-06	2E-01	NC	4E-04	1E-06	4E-01	6E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	8E-02	1E-09	8E-04
Landbay C	7000-122	NC	2E-07	NC	NC	NC	1E-07	NC	7E-07	NC	1E-07	NC	1E-06	NC	NC	NC	NC
Landbay C	7050-1700	3E-06	2E-01	NC	NC	1E-06	4E-01	5E-07	1E+00	9E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay C	7050-1850	3E-06	2E-01	NC	NC	1E-06	4E-01	5E-07	1E+00	9E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay C	7050-2150	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	NC	2E-09	3E-04
Landbay C	7050-2300	2E-06	2E-01	NC	NC	7E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	3E-04
Landbay C	7050-2900	2E-06	2E-01	NC	NC	8E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	NC	1E-09	3E-04
Landbay C	7100-135	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7100-137	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7200-138	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	1E-06	NC	NC	NC	NC
Landbay C	7200-2000	2E-06	2E-01	NC	NC	7E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay C	7200-2150	2E-06	2E-01	NC	NC	7E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay C	7200-2300	2E-06	2E-01	NC	NC	7E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	3E-04
Landbay C	7200-2450	2E-06	2E-01	NC	3E-04	9E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay C	7200-2600	2E-06	2E-01	7E-10	5E-04	9E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	2E-07	9E-02	5E-09	8E-04
Landbay C	7200-2750	2E-06	2E-01	7E-10	5E-04	9E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	2E-07	9E-02	5E-09	8E-04
Landbay C	7200-3050	2E-06	1E-01	NC	NC	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	2E-04
Landbay C	7200-3200	2E-06	1E-01	NC	NC	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	2E-04
Landbay C	7350-1850	2E-06	2E-01	NC	NC	7E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay C	7350-2000	2E-06	2E-01	NC	NC	7E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	4E-04
Landbay C	7350-2300	2E-06	2E-01	NC	3E-04	9E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay C	7350-2450	2E-06	2E-01	NC	3E-04	9E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay C	7350-2750	2E-06	2E-01	7E-10	5E-04	9E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	2E-07	9E-02	5E-09	8E-04
Landbay C	7350-2900	2E-06	2E-01	7E-10	5E-04	9E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	2E-07	9E-02	5E-09	8E-04
Landbay C	7350-3050	2E-06	1E-01	NC	1E-04	5E-07	1E-01	3E-07	3E-01	5E-07	7E-02	1E-05	7E-01	NC	3E-02	5E-10	2E-04
Landbay C	7350-3200	1E-06	1E-01	NC	3E-04	5E-07	1E-01	2E-07	3E-01	4E-07	8E-02	1E-05	8E-01	NC	5E-02	7E-10	3E-04
Landbay C	7500-141	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7500-144	NC	2E-07	NC	NC	NC	1E-07	NC	7E-07	NC	1E-07	NC	1E-06	NC	NC	NC	NC
Landbay C	7500-145	1E-06	4E-02	NC	2E-04	4E-07	1E-01	2E-07	4E-01	4E-07	3E-02	1E-05	3E-01	NC	3E-02	1E-10	3E-04
Landbay C	7500-146	2E-06	4E-02	3E-09	8E-04	4E-07	3E-02	2E-07	1E-01	5E-07	3E-02	1E-05	2E-01	9E-07	2E-01	2E-08	8E-04
Landbay C	7500-1700	2E-06	1E-01	NC	2E-04	5E-07	3E-01	3E-07	9E-01	5E-07	8E-02	1E-05	8E-01	NC	5E-02	6E-10	5E-04
Landbay C	7500-1850	2E-06	1E-01	NC	2E-04	5E-07	3E-01	3E-07	9E-01	5E-07	8E-02	1E-05	8E-01	NC	5E-02	6E-10	5E-04
Landbay C	7500-2000	2E-06	1E-01	NC	4E-04	5E-07	2E-01	2E-07	5E-01	4E-07	8E-02	1E-05	8E-01	NC	7E-02	6E-10	5E-04
Landbay C	7500-2300	3E-06	2E-01	2E-10	4E-04	8E-07	3E-01	4E-07	9E-01	8E-07	1E-01	2E-05	1E+00	5E-08	8E-02	2E-09	7E-04
Landbay C	7500-2450	2E-06	2E-01	NC	3E-04	9E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay C	7500-2900	2E-06	2E-01	NC	5E-04	8E-07	5E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	1E-01	2E-09	1E-03
Landbay C	7500-3050	9E-07	7E-02	NC	2E-04	3E-07	7E-02	1E-07	2E-01	2E-07	5E-02	7E-06	5E-01	NC	4E-02	3E-10	2E-04
Landbay C	7600-147	NC	4E-07	NC	NC	NC	3E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	NC
Landbay C	7650-1700	1E-06	8E-02	NC	2E-04	4E-07	2E-01	2E-07	5E-01	3E-07	6E-02	8E-06	6E-01	NC	4E-02	5E-10	3E-04
Landbay C	7650-2150	2E-06	1E-01	NC	1E-03	5E-07	2E-01	2E-07	5E-01	4E-07	8E-02	1E-05	8E-01	NC	2E-01	6E-10	5E-04
Landbay C	7650-2300	3E-06	2E-01	2E-10	4E-04	8E-07	3E-01	4E-07	9E-01	8E-07	1E-01	2E-05	1E+00	5E-08	8E-02	2E-09	7E-04
Landbay C	7650-2450	3E-06	2E-01	2E-10	4E-04	8E-07	3E-01	4E-07	9E-01	8E-07	1E-01	2E-05	1E+00	5E-08	8E-02	2E-09	7E-04
Landbay C	7650-2600	1E-06	1E-01	NC	4E-04	5E-07	3E-01	2E-07	8E-01	4E-07	8E-02	1E-05	8E-01	NC	7E-02	7E-10	6E-04
Landbay C	7650-2750	1E-06	1E-01	NC	4E-04	5E-07	3E-01	2E-07	8E-01	4E-07	8E-02	1E-05	8E-01	NC	7E-02	7E-10	6E-04
Landbay C	7650-2900	1E-06	1E-01	NC	4E-04	4E-07	2E-01	2E-07	8E-01	4E-07	7E-02	1E-05	7E-01	NC	7E-02	5E-10	6E-04
Landbay C	7650-3050	2E-06	2E-01	3E-10	4E-04	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	9E-08	8E-02	3E-09	6E-04
Landbay C	7800-1700	2E-06	1E-01	NC	2E-04	6E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay C	7800-1850	2E-06	1E-01	NC	2E-04	6E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay C	7800-2000	2E-06	1E-01	NC	4E-04	7E-07	2E-01	4E-07	6E-01	7E-07	9E-02	2E-05	9E-01	NC	8E-02	7E-10	5E-04
Landbay C	7800-2150	2E-06	1E-01	NC	4E-04	5E-07	2E-01	2E-07	5E-01	4E-07	8E-02	1E-05	8E-01	NC	7E-02	6E-10	5E-04
Landbay C	7800-2300	3E-06	2E-01	2E-10	4E-04	8E-07	3E-01	4E-07	9E-01	8E-07	1E-01	2E-05	1E+00	5E-08	8E-02	2E-09	7E-04
Landbay C	7800-2450	1E-06	1E-01	NC	4E-04	5E-07	3E-01	2E-07	8E-01	4E-07	8E-02	1E-05	8E-01	NC	7E-02	7E-10	6E-04
Landbay C	7800-2600	1E-06	1E-01	NC	4E-04	5E-07	3E-01	2E-07	8E-01	4E-07	8E-02	1E-05	8E-01	NC	7E-02	7E-10	6E-04
Landbay C	7800-2750	1E-06	1E-01	NC	4E-04	4E-07	2E-01	2E-07	8E-01	4E-07	7E-02	1E-05	7E-01	NC	7E-02	5E-10	6E-04
Landbay C	7950-1700	2E-06	1E-01	NC	2E-04	6E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay C	7950-1850	2E-06	1E-01	NC	2E-04	6E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay C	7950-2000	2E-06	1E-01	NC	4E-04	7E-07	2E-01	4E-07	6E-01	7E-07	9E-02	2E-05	9E-01	NC	8E-02	7E-10	5E-04
Landbay C	7950-2150	2E-06	1E-01	NC	4E-04	7E-07	2E-01	4E-07	6E-01	7E-07	9E-02	2E-05	9E-01	NC	8E-02	7E-10	5E-04
Landbay C	7950-2300	1E-06	8E-02	NC	3E-04	4E-07	1E-01	2E-07	4E-01	4E-07	6E-02	1E-05	6E-01	NC	6E-02	4E-10	4E-04
Landbay C	7950-2450	1E-06	8E-02	NC	3E-04	4E-07	1E-01	2E-07	4E-01	4E-07	6E-02	1E-05	6E-01	NC	6E-02	4E-10	4E-04
Landbay C	7950-2600	1E-06	1E-01	NC	4E-04	4E-07	2E-01	2E-07	8E-01	4E-07	7E-02	1E-05	7E-01	NC	7E-02	5E-10	6E-04
Landbay C	8100-1700	2E-06	1E-01	NC	4E-04	6E-07	1E-01	3E-07	5E-01	7E-07	7E-02	2E-05	7E-01	NC	7E-02	5E-10	5E-04
Landbay C	8100-1850	2E-06	1E-01	NC	4E-04	6E-07	1E-01	3E-07	5E-01	7E-07	7E-02	2E-05	7E-01	NC	7E-02	5E-10	5E-04
Landbay C	8100-2000	2E-06	1E-01	NC	4E-04	7E-07	2E-01	4E-07	6E-01	7E-07	9E-02	2E-05	9E-01	NC	8E-02	7E-10	5E-04
Landbay C	8100-2150	1E-06	8E-02	NC	3E-04	4E-07	1E-01	2E-07	4E-01	4E-07	6E-02	1E-05	6E-01	NC	6E-02	4E-10	4E-04
Landbay C	8100-2300	1E-06	8E-02	NC	3E-04	4E-07	1E-01	2E-07	4E-01	4E-07	6E-02	1E-05	6E-01	NC	6E-02	4E-10	4E-04
Landbay C	8100-2450	1E-06	1E-01	NC	4E-04	4E-07	2E-01	2E-07	8E-01	4E-07	7E-02	1E-05	7E-01	NC	7E-02	5E-10	6E-04

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay C	8200-158	2E-06	3E-02	NC	3E-04	6E-07	3E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	NC	6E-02	1E-10	3E-04
Landbay C	8250-1550	2E-06	1E-01	NC	3E-04	7E-07	2E-01	3E-07	5E-01	7E-07	8E-02	2E-05	7E-01	NC	6E-02	6E-10	5E-04
Landbay C	8250-1700	2E-06	1E-01	NC	4E-04	6E-07	1E-01	3E-07	5E-01	7E-07	7E-02	2E-05	7E-01	NC	7E-02	5E-10	5E-04
Landbay C	8250-1850	2E-06	1E-01	NC	4E-04	6E-07	1E-01	3E-07	5E-01	7E-07	7E-02	2E-05	7E-01	NC	7E-02	5E-10	5E-04
Landbay C	8250-2000	3E-06	1E-01	NC	2E-04	9E-07	2E-01	5E-07	5E-01	1E-06	8E-02	2E-05	8E-01	NC	4E-02	6E-10	3E-04
Landbay C	8250-2150	2E-06	1E-01	NC	2E-04	6E-07	2E-01	3E-07	5E-01	6E-07	7E-02	1E-05	7E-01	NC	5E-02	6E-10	4E-04
Landbay C	8250-2300	2E-06	1E-01	NC	2E-04	6E-07	2E-01	3E-07	5E-01	6E-07	7E-02	1E-05	7E-01	NC	5E-02	6E-10	4E-04
Landbay C	8400-1700	3E-06	1E-01	NC	2E-04	9E-07	2E-01	5E-07	5E-01	1E-06	8E-02	2E-05	8E-01	NC	4E-02	6E-10	3E-04
Landbay C	8400-1850	3E-06	1E-01	NC	2E-04	9E-07	2E-01	5E-07	5E-01	1E-06	8E-02	2E-05	8E-01	NC	4E-02	6E-10	3E-04
Landbay C	8400-2000	2E-06	1E-01	NC	2E-04	6E-07	2E-01	3E-07	5E-01	6E-07	7E-02	1E-05	7E-01	NC	5E-02	6E-10	4E-04
Landbay C	8400-2150	2E-06	1E-01	NC	2E-04	6E-07	2E-01	3E-07	5E-01	6E-07	7E-02	1E-05	7E-01	NC	5E-02	6E-10	4E-04
Landbay C	87G3	3E-07	2E-02	NC	2E-04	1E-07	3E-02	5E-08	1E-01	8E-08	1E-02	3E-06	1E-01	NC	3E-02	1E-10	2E-04
Landbay C	88B1	3E-07	2E-02	3E-10	6E-04	1E-07	4E-02	5E-08	2E-01	9E-08	2E-02	3E-06	2E-01	8E-08	1E-01	2E-09	6E-04
Landbay C	88B2	3E-07	2E-02	3E-10	6E-04	1E-07	4E-02	5E-08	2E-01	9E-08	2E-02	3E-06	2E-01	8E-08	1E-01	2E-09	6E-04
Landbay C	88G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	88G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	90B1	3E-07	2E-02	NC	7E-04	9E-08	4E-02	5E-08	1E-01	8E-08	1E-02	2E-06	1E-01	NC	1E-01	1E-10	7E-04
Landbay C	90B2	3E-07	2E-02	NC	7E-04	9E-08	4E-02	5E-08	1E-01	8E-08	1E-02	2E-06	1E-01	NC	1E-01	1E-10	7E-04
Landbay C	90G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	90G4	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay C	93B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay C	94B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	95AB1	NC	2E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay C	96B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay C	97B2	3E-07	2E-02	NC	2E-04	1E-07	4E-02	5E-08	1E-01	8E-08	1E-02	3E-06	1E-01	NC	5E-02	1E-10	3E-04
Landbay C	97G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	99B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay C	AJA W-201	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	AJAY-1 MCD-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	AJAY-101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 190-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 221-05	3E-07	2E-03	NC	NC	1E-07	4E-03	5E-08	1E-02	8E-08	2E-03	2E-06	2E-02	NC	NC	1E-10	4E-06
Landbay C	GP 221-06	1E-06	5E-03	NC	NC	3E-07	4E-03	1E-07	6E-03	3E-07	4E-03	8E-06	3E-02	NC	NC	1E-10	2E-06
Landbay C	GP 221-07	1E-07	5E-04	NC	NC	3E-08	7E-04	2E-08	3E-03	3E-08	4E-04	9E-07	4E-03	NC	NC	4E-11	5E-07
Landbay C	GP 221-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 221-12	3E-07	9E-04	NC	NC	1E-07	1E-03	6E-08	4E-03	1E-07	7E-04	3E-06	7E-03	NC	NC	1E-10	7E-07
Landbay C	GP 221-15	3E-07	6E-04	NC	NC	9E-08	6E-04	5E-08	2E-03	9E-08	4E-04	3E-06	4E-03	NC	NC	9E-11	3E-07
Landbay C	GP 221-16	4E-07	7E-04	NC	NC	1E-07	8E-04	6E-08	2E-03	1E-07	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay C	GP 88-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 88-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 91-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 92-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 94-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-03	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay C	GP 97-01	3E-07	6E-04	NC	NC	1E-07	6E-04	6E-08	2E-03	9E-08	5E-04	3E-06	5E-03	NC	NC	1E-10	3E-07
Landbay C	GP 97-02	3E-07	5E-04	NC	NC	8E-08	6E-04	5E-08	2E-03	8E-08	4E-04	2E-06	4E-03	NC	NC	8E-11	4E-07
Landbay C	GP 97-03	3E-07	6E-04	1E-09	6E-04	9E-08	5E-04	5E-08	2E-03	8E-08	4E-04	2E-06	4E-03	1E-06	2E-01	3E-10	4E-05
Landbay C	GP 97-04	3E-07	6E-04	NC	NC	1E-07	6E-04	5E-08	2E-03	9E-08	4E-04	3E-06	4E-03	NC	NC	1E-10	3E-07
Landbay C	GP BG-01	1E-06	7E-02	NC	2E-04	4E-07	1E-01	2E-07	4E-01	4E-07	5E-02	1E-05	5E-01	NC	4E-02	3E-10	3E-04
Landbay C	GP NPB-01	2E-07	5E-04	NC	NC	8E-08	4E-04	5E-08	1E-03	7E-08	3E-04	2E-06	4E-03	NC	NC	8E-11	2E-07
Landbay C	GP NPB-02	NC	3E-05	NC	NC	NC	1E-04	NC	4E-04	NC	3E-05	NC	3E-04	NC	NC	NC	1E-07
Landbay C	GP NPB-03	4E-07	7E-04	NC	NC	1E-07	8E-04	7E-08	2E-03	1E-07	5E-04	3E-06	6E-03	NC	NC	1E-10	5E-07
Landbay C	HA BG-01	4E-06	1E-01	NC	2E-04	9E-07	2E-01	5E-07	5E-01	1E-06	8E-02	3E-05	8E-01	NC	5E-02	7E-10	4E-04
Landbay C	IM13-1	1E-06	2E-01	NC	3E-05	5E-07	3E-01	2E-07	8E-01	4E-07	1E-01	9E-06	1E+00	NC	7E-03	1E-09	3E-04
Landbay C	IM13-2	2E-06	2E-01	1E-11	6E-05	6E-07	3E-01	3E-07	8E-01	6E-07	1E-01	2E-05	1E+00	1E-08	1E-02	2E-08	3E-04
Landbay C	IM13-3	4E-07	1E-01	NC	NC	2E-07	2E-01	1E-07	6E-01	1E-07	9E-02	3E-06	9E-01	NC	NC	7E-10	2E-04
Landbay C	IM13-4	1E-06	2E-01	NC	4E-05	5E-07	3E-01	2E-07	9E-01	4E-07	1E-01	9E-06	1E+00	NC	8E-03	1E-09	3E-04
Landbay C	IM13-5	8E-07	1E-01	NC	NC	3E-07	2E-01	1E-07	7E-01	2E-07	1E-01	6E-06	1E+00	NC	NC	7E-10	2E-04
Landbay C	JSEE-0101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	JT GG-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	JTGG-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	MCD-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	MOB	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SB PBN-01	3E-11	1E-02	NC	NC	4E-08	1E-02	1E-08	1E-02	7E-13	9E-03	2E-10	9E-02	NC	NC	2E-10	7E-06
Landbay C	SB PBN-02	4E-11	2E-02	NC	NC	4E-08	2E-02	1E-08	1E-02	8E-13	1E-02	2E-10	1E-01	NC	NC	2E-10	8E-06
Landbay C	SR-90	NC	2E-05	NC	NC	NC	7E-06	NC	4E-06	NC	1E-05	NC	7E-05	NC	NC	NC	NC
Landbay C	SS-96A	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay C	SW 94-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	TP 221-02	9E-07	7E-03	NC	NC	2E-07	8E-03	1E-07	2E-02	3E-07	5E-03	7E-06	4E-02	NC	NC	2E-10	5E-06
Landbay C	TP 97-01	6E-07	4E-03	NC	NC	2E-07	4E-03	9E-08	9E-03	2E-07	3E-03	5E-06	2E-02	NC	NC	1E-10	2E-06
Landbay C	TP 97-02	5E-07	3E-03	NC	NC	1E-07	4E-03	7E-08	9E-03	1E-07	2E-03	4E-06	2E-02	NC	NC	1E-10	3E-06
Landbay C	TP NPB-02	2E-07	7E-04	NC	NC	8E-08	8E-04	4E-08	2E-03	7E-08	5E-04	2E-06	5E-03	NC	NC	8E-11	5E-07
Landbay C	TP NPB-03	1E-06	7E-03	NC	NC	3E-07	5E-03	2E-07	9E-03	3E-07	5E-03	8E-06	4E-02	NC	NC	1E-10	2E-06
Landbay D	10TP1-7	6E-07	3E-02	NC	1E-08	1E-07	6E-02	8E-08	2E-01	2E-07	2E-02	4E-06	2E-01	NC	3E-06	2E-11	6E-05
Landbay D	10TP2-7	NC	2E-02	NC	NC	NC	5E-02	NC	2E-01	NC	2E-02	NC	2E-01	NC	NC	NC	5E-05
Landbay D	11 GP-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	11 GP-02	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	5E-03	6E-08	NC	1E-09	NC
Landbay D	11 GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	11B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	13B1	2E-06	4E-02	NC	1E-04	5E-07	6E-02	3E-07	2E-01	6E-07	3E-02	2E-05	2E-01	NC	3E-02	8E-11	2E-04
Landbay D	15 GP-01	9E-08	6E-03	1E-09	NC	1E-08	3E-03	7E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	6E-09	NC
Landbay D	15 GP-02	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	1E-07	3E-02	3E-06	1E-01	2E-06	NC	4E-08	NC
Landbay D	15 GP-03	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	7E-08	NC
Landbay D	15 GP-04	1E-05	9E-01	2E-07	NC	2E-06	4E-01	1E-06	7E-01	3E-06	6E-01	6E-05	**3E+00**	5E-05	NC	9E-07	NC
Landbay D	15 GP-05	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	1E-07	NC
Landbay D	15 GP-06	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	1E-07	NC
Landbay D	15 GP-07	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	4E-08	NC
Landbay D	15 GP-08	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	9E-03	1E-07	NC	2E-09	NC
Landbay D	15 GP-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-11	8E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	6E-08	NC
Landbay D	15 GP-12	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	4E-09	NC
Landbay D	15 GP-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-14	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	2E-09	NC
Landbay D	15 GP-16	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	4E-09	NC
Landbay D	15 GP-17	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	8E-04	7E-08	4E-03	6E-08	NC	1E-09	NC
Landbay D	15 GP-18	5E-06	3E-01	6E-08	NC	9E-07	1E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	3E-07	NC
Landbay D	15 GP-19	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	2E-08	NC
Landbay D	15 GP-20	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	6E-03	3E-08	5E-03	4E-07	3E-02	4E-07	NC	7E-09	NC
Landbay D	15 GP-21	3E-06	2E-01	3E-08	NC	4E-07	7E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	9E-06	NC	2E-07	NC
Landbay D	15 GP-22	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	1E-02	5E-08	8E-03	8E-07	4E-02	6E-07	NC	1E-08	NC
Landbay D	15 GP-23	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	1E-09	NC
Landbay D	15 GP-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-25	3E-07	2E-02	4E-09	NC	5E-08	9E-03	2E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	2E-08	NC
Landbay D	15 GP-26	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-09	NC
Landbay D	15 GP-27	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	4E-09	NC
Landbay D	15 GP-29	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	2E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	2E-09	NC
Landbay D	15 GP-30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-32	3E-07	2E-02	4E-09	NC	6E-08	1E-02	3E-08	2E-02	9E-08	2E-02	2E-06	9E-02	1E-06	NC	2E-08	NC
Landbay D	15 GP-33	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-09	NC
Landbay D	151B1	3E-06	6E-02	NC	6E-03	8E-07	9E-02	4E-07	3E-01	1E-06	4E-02	2E-05	4E-01	NC	1E+00	1E-10	5E-03
Landbay D	152B1	3E-06	4E-02	NC	1E-03	6E-07	6E-02	3E-07	2E-01	8E-07	3E-02	2E-05	3E-01	NC	2E-01	1E-10	1E-03
Landbay D	15ANEC	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	NC
Landbay D	17AB1	NC	1E-04	NC	NC	NC	7E-05	NC	4E-04	NC	8E-05	NC	8E-04	NC	NC	NC	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	17B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-01	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	2E-09	NC
Landbay D	2 GP-02	8E-06	6E-01	1E-07	NC	1E-06	2E-01	7E-07	5E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	6E-07	NC
Landbay D	2 GP-03	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	5E-07	NC
Landbay D	2 GP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-05	3E-06	2E-01	4E-08	NC	5E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	2E-07	NC
Landbay D	2 GP-06	4E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	9E-01	1E-05	NC	2E-07	NC
Landbay D	2 GP-07	4E-07	3E-02	5E-09	NC	7E-08	1E-02	4E-08	2E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	3E-08	NC
Landbay D	2 GP-08	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	9E-08	NC
Landbay D	2 GP-09	2E-05	**2E+00**	3E-07	NC	4E-06	7E-01	2E-06	1E+00	6E-06	1E+00	1E-04	**6E+00**	9E-05	NC	2E-06	NC
Landbay D	2 GP-10	5E-07	3E-02	6E-09	NC	8E-08	1E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	3E-08	NC
Landbay D	2 GP-11	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	5E-07	NC
Landbay D	2 GP-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-13	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	5E-07	NC	9E-09	NC
Landbay D	2 GP-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-15	7E-08	5E-03	9E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	3E-07	NC	5E-09	NC
Landbay D	2 GP-16	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	8E-07	5E-02	7E-07	NC	1E-08	NC
Landbay D	2 GP-17	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	2E-07	NC
Landbay D	2 GP-18	5E-08	4E-03	6E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-09	NC
Landbay D	2 GP-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-20	5E-07	4E-02	6E-09	NC	9E-08	2E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	4E-08	NC
Landbay D	2 GP-21	4E-07	3E-02	5E-09	NC	7E-08	1E-02	4E-08	2E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	3E-08	NC
Landbay D	2 GP-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-23	4E-08	2E-03	4E-10	NC	6E-09	1E-03	3E-09	2E-03	9E-09	2E-03	2E-07	9E-03	1E-07	NC	2E-09	NC
Landbay D	2 GP-24	2E-07	1E-02	2E-09	NC	3E-08	5E-03	2E-08	1E-02	5E-08	8E-03	8E-07	5E-02	7E-07	NC	1E-08	NC
Landbay D	2 GP-25	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-26	2E-06	1E-01	2E-08	NC	3E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	1E-07	NC
Landbay D	2 SED-01	3E-06	2E-01	4E-10	4E-04	8E-07	3E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	1E-07	8E-02	3E-09	7E-04
Landbay D	22B1	2E-06	3E-02	NC	7E-04	6E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	NC	1E-01	2E-10	3E-04
Landbay D	22B2	2E-06	3E-02	NC	5E-04	6E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	NC	1E-01	2E-10	3E-04
Landbay D	22B3	2E-06	3E-02	NC	3E-04	6E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	NC	5E-02	2E-10	3E-04
Landbay D	22B4	2E-06	3E-02	2E-09	7E-03	6E-07	4E-02	3E-07	1E-01	7E-07	2E-02	2E-05	2E-01	4E-07	1E+00	2E-09	5E-04
Landbay D	22B7	9E-12	1E-05	1E-09	4E-04	2E-12	6E-06	2E-12	4E-05	5E-13	6E-06	5E-11	6E-05	3E-07	6E-02	4E-11	9E-06
Landbay D	22G5	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	NC
Landbay D	22G6	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	NC
Landbay D	24B1	1E-06	4E-02	NC	3E-04	3E-07	6E-02	2E-07	2E-01	3E-07	3E-02	9E-06	3E-01	NC	5E-02	8E-11	3E-04
Landbay D	2550-2300	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	6E-02	8E-10	5E-04
Landbay D	2550-2450	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	6E-02	8E-10	5E-04
Landbay D	2550-2600	3E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	6E-02	8E-10	5E-04
Landbay D	2550-2750	2E-06	2E-01	NC	3E-04	8E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	6E-04
Landbay D	2700-2150	2E-06	2E-01	NC	2E-04	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay D	2700-2300	2E-06	2E-01	NC	2E-04	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay D	2700-2750	2E-06	2E-01	NC	3E-04	8E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	6E-04
Landbay D	2700-2900	2E-06	2E-01	NC	3E-04	8E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	6E-04
Landbay D	2700-3050	4E-06	2E-01	NC	NC	1E-06	4E-01	6E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	NC	1E-09	4E-04
Landbay D	28 SED-01	3E-06	2E-01	NC	1E-07	9E-07	4E-01	4E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	3E-05	1E-09	4E-04
Landbay D	2800-23	3E-06	2E-01	NC	2E-04	9E-07	3E-01	5E-07	9E-01	9E-07	1E-01	2E-05	1E+00	NC	3E-02	1E-09	5E-04
Landbay D	2850-2000	2E-06	2E-01	NC	2E-04	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay D	2850-2150	2E-06	2E-01	NC	2E-04	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay D	28B1	3E-07	3E-02	NC	5E-04	1E-07	5E-02	6E-08	2E-01	9E-08	2E-02	3E-06	2E-01	NC	1E-01	1E-10	5E-04
Landbay D	28B2	9E-07	6E-02	8E-09	5E-04	2E-07	6E-02	1E-07	2E-01	3E-07	4E-02	6E-06	3E-01	2E-06	1E-01	4E-08	5E-04
Landbay D	28B5	NC	4E-07	NC	NC	NC	2E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	NC
Landbay D	29B1	1E-06	3E-02	NC	8E-05	3E-07	5E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	NC	2E-02	6E-11	1E-04
Landbay D	29B2	5E-08	2E-02	NC	1E-04	2E-08	4E-02	9E-09	2E-01	1E-08	1E-02	5E-07	2E-01	NC	3E-02	2E-11	2E-04
Landbay D	29B3	7E-07	2E-02	NC	NC	2E-07	4E-02	9E-08	2E-01	2E-07	2E-02	5E-06	2E-01	NC	NC	2E-11	4E-05
Landbay D	2B1	1E-06	3E-02	NC	4E-04	3E-07	5E-02	2E-07	2E-01	3E-07	2E-02	8E-06	2E-01	NC	7E-02	1E-10	4E-04
Landbay D	3000-2000	4E-06	2E-01	NC	2E-04	1E-06	5E-01	6E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	3E-02	1E-09	7E-04
Landbay D	3000-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2000SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2150	2E-06	2E-01	NC	2E-04	6E-07	3E-01	3E-07	9E-01	4E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	4E-04
Landbay D	3000-2300	6E-06	3E-01	NC	4E-04	2E-06	3E-01	9E-07	1E+00	2E-06	2E-01	5E-05	**2E+00**	NC	7E-02	1E-09	6E-04
Landbay D	3000-2300N	2E-06	4E-02	NC	2E-04	4E-07	6E-02	2E-07	2E-01	5E-07	3E-02	1E-05	3E-01	NC	5E-02	1E-10	3E-04
Landbay D	3000-2300SE	2E-06	3E-02	NC	3E-04	4E-07	5E-02	2E-07	2E-01	5E-07	2E-02	1E-05	2E-01	NC	6E-02	9E-11	3E-04
Landbay D	3000-2300SW	2E-06	4E-02	NC	5E-04	5E-07	5E-02	3E-07	2E-01	6E-07	3E-02	1E-05	2E-01	NC	9E-02	7E-11	5E-04
Landbay D	3000-2450	1E-06	1E-01	NC	NC	5E-07	2E-01	2E-07	6E-01	4E-07	9E-02	1E-05	9E-01	NC	NC	6E-10	1E-04
Landbay D	3000-26	3E-06	1E-01	NC	1E-04	9E-07	2E-01	5E-07	7E-01	9E-07	1E-01	2E-05	1E+00	NC	2E-02	8E-10	3E-04
Landbay D	3000-2900	4E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	4E-02	1E-09	6E-04
Landbay D	3150-1850	3E-06	2E-01	NC	NC	8E-07	2E-01	4E-07	7E-01	8E-07	1E-01	2E-05	1E+00	NC	NC	7E-10	2E-04
Landbay D	3150-2000	5E-06	2E-01	2E-07	7E-02	1E-06	3E-01	6E-07	8E-01	2E-06	1E-01	3E-05	1E+00	5E-05	**2E+01**	1E-07	1E-02
Landbay D	3150-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2000SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2150	3E-06	2E-01	NC	2E-04	8E-07	3E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	5E-04
Landbay D	3300-17	1E-06	8E-02	NC	2E-04	3E-07	1E-01	2E-07	4E-01	3E-07	6E-02	8E-06	6E-01	NC	4E-02	5E-10	3E-04
Landbay D	3300-1700	7E-06	3E-01	NC	NC	2E-06	6E-01	9E-07	**2E+00**	2E-06	2E-01	5E-05	**2E+00**	NC	NC	1E-09	7E-04
Landbay D	3300-1850	4E-06	2E-01	NC	NC	1E-06	2E-01	6E-07	7E-01	1E-06	1E-01	3E-05	1E+00	NC	NC	9E-10	2E-04
Landbay D	3300-2000	3E-06	2E-01	NC	4E-04	8E-07	3E-01	4E-07	8E-01	8E-07	1E-01	2E-05	1E+00	NC	7E-02	9E-10	6E-04
Landbay D	3300-2150	3E-06	2E-01	NC	4E-04	8E-07	3E-01	4E-07	8E-01	8E-07	1E-01	2E-05	1E+00	NC	7E-02	9E-10	6E-04
Landbay D	3300-2750	4E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	4E-02	1E-09	6E-04
Landbay D	3450-1850	3E-06	2E-01	NC	1E-08	9E-07	3E-01	5E-07	9E-01	9E-07	1E-01	2E-05	1E+00	NC	3E-06	9E-10	3E-04
Landbay D	3450-2000	3E-06	2E-01	NC	4E-04	8E-07	3E-01	4E-07	8E-01	8E-07	1E-01	2E-05	1E+00	NC	7E-02	9E-10	6E-04
Landbay D	3450-2750	3E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	4E-02	1E-09	5E-04
Landbay D	35B1	2E-06	4E-02	2E-09	9E-04	6E-07	5E-02	3E-07	2E-01	7E-07	3E-02	2E-05	2E-01	7E-07	2E-01	1E-08	9E-04
Landbay D	35B2	2E-06	4E-02	1E-09	9E-04	5E-07	4E-02	3E-07	1E-01	7E-07	3E-02	2E-05	2E-01	4E-07	2E-01	7E-09	9E-04
Landbay D	35G3	4E-08	3E-03	5E-10	NC	7E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-09	NC
Landbay D	3600-18	3E-06	4E-02	5E-10	5E-04	8E-07	5E-02	5E-07	2E-01	1E-06	3E-02	2E-05	3E-01	2E-07	9E-02	3E-09	5E-04
Landbay D	3600-2750	3E-06	2E-01	NC	2E-04	1E-06	4E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	4E-02	1E-09	5E-04
Landbay D	3750-2150	2E-06	2E-01	NC	6E-04	7E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	NC	1E-01	1E-09	1E-03
Landbay D	3750-2300	2E-06	2E-01	NC	6E-04	7E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	NC	1E-01	1E-09	1E-03
Landbay D	3750-2450	2E-06	2E-01	NC	6E-04	7E-07	4E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	NC	1E-01	1E-09	1E-03
Landbay D	3750-2750	2E-06	1E-01	3E-10	4E-04	6E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	9E-08	7E-02	3E-09	7E-04
Landbay D	3750-2900	2E-06	1E-01	3E-10	4E-04	6E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	9E-08	7E-02	3E-09	7E-04
Landbay D	3900-2750	3E-06	2E-01	NC	2E-04	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	7E-04
Landbay D	3900-2900	3E-06	2E-01	NC	2E-04	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	7E-04
Landbay D	3TP1-7	3E-12	1E-02	NC	2E-08	4E-09	2E-02	1E-09	8E-02	7E-14	1E-02	2E-11	9E-02	NC	6E-06	2E-11	2E-05
Landbay D	3TP2-7	3E-12	1E-02	NC	4E-08	4E-09	2E-02	1E-09	7E-02	7E-14	8E-03	2E-11	8E-02	NC	9E-06	2E-11	2E-05
Landbay D	3TP3-7	2E-13	1E-02	NC	8E-05	2E-10	2E-02	6E-11	1E-01	4E-15	9E-03	9E-13	9E-02	NC	2E-02	9E-13	1E-04
Landbay D	3TP4-7	NC	1E-02	NC	3E-08	NC	2E-02	NC	1E-01	NC	9E-03	NC	9E-02	NC	9E-06	NC	2E-05
Landbay D	4000-20	4E-06	2E-01	5E-10	5E-04	1E-06	3E-01	6E-07	9E-01	1E-06	1E-01	3E-05	1E+00	1E-07	1E-01	3E-09	8E-04
Landbay D	4050-2450	2E-06	2E-01	NC	2E-04	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay D	4050-2600	2E-06	2E-01	NC	2E-04	7E-07	3E-01	4E-07	9E-01	6E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay D	41B1	9E-07	3E-02	2E-10	4E-04	2E-07	5E-02	1E-07	2E-01	3E-07	2E-02	7E-06	2E-01	6E-08	8E-02	1E-09	4E-04
Landbay D	41B2	9E-07	3E-02	2E-10	4E-04	2E-07	5E-02	1E-07	2E-01	3E-07	2E-02	7E-06	2E-01	8E-08	9E-02	1E-09	4E-04
Landbay D	41B3	9E-07	3E-02	2E-10	4E-04	2E-07	5E-02	1E-07	2E-01	3E-07	2E-02	7E-06	2E-01	9E-08	9E-02	1E-09	4E-04
Landbay D	41B6	3E-09	5E-05	8E-09	6E-05	7E-10	3E-05	7E-10	8E-05	1E-10	2E-05	2E-08	2E-04	2E-06	2E-02	2E-08	1E-04
Landbay D	41G4	5E-10	8E-05	NC	NC	1E-10	4E-05	5E-11	2E-05	1E-10	6E-05	3E-09	4E-04	NC	NC	NC	NC
Landbay D	41G5	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	NC
Landbay D	42 GP-01	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	9E-07	NC	2E-08	NC
Landbay D	42 GP-02	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	8E-02	4E-07	6E-02	6E-06	4E-01	5E-06	NC	9E-08	NC
Landbay D	42 GP-03	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-08	NC
Landbay D	42 GP-04	1E-07	1E-02	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	7E-03	6E-07	4E-02	5E-07	NC	1E-08	NC
Landbay D	42 GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-06	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	4E-03	6E-08	NC	1E-09	NC
Landbay D	42 GP-07	5E-08	3E-03	6E-10	NC	9E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-09	NC
Landbay D	42 GP-08	1E-05	7E-01	1E-07	NC	2E-06	3E-01	9E-07	6E-01	3E-06	5E-01	5E-05	**3E+00**	4E-05	NC	7E-07	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	42 GP-09	3E-06	2E-01	4E-08	NC	5E-07	9E-02	2E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	2E-07	NC
Landbay D	42 GP-16	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	2E-07	NC
Landbay D	42 GP-17	2E-07	1E-02	3E-09	NC	4E-08	6E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	1E-08	NC
Landbay D	42 GP-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-19	2E-05	1E+00	2E-07	NC	3E-06	5E-01	2E-06	1E+00	5E-06	8E-01	8E-05	**5E+00**	7E-05	NC	1E-06	NC
Landbay D	42 GP-20	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-23	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-24	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	1E-09	NC
Landbay D	42 GP-25	9E-06	6E-01	1E-07	NC	1E-06	3E-01	7E-07	5E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	6E-07	NC
Landbay D	42 GP-26	1E-07	8E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	4E-07	NC	8E-09	NC
Landbay D	42 GP-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-28	2E-05	**2E+00**	3E-07	NC	4E-06	7E-01	2E-06	1E+00	6E-06	1E+00	1E-04	**6E+00**	8E-05	NC	2E-06	NC
Landbay D	42 GP-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-32	1E-06	8E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	7E-08	NC
Landbay D	42 GP-33	3E-06	2E-01	3E-08	NC	5E-07	8E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	1E-05	NC	2E-07	NC
Landbay D	42 GP-34	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	2E-09	NC
Landbay D	42 GP-35	7E-06	5E-01	9E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	NC	5E-07	NC
Landbay D	42 GP-36	1E-06	8E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	8E-08	NC
Landbay D	42 GP-37	2E-06	1E-01	2E-08	NC	3E-07	5E-02	1E-07	9E-02	4E-07	7E-02	7E-06	4E-01	6E-06	NC	1E-07	NC
Landbay D	42 GP-38	5E-06	4E-01	7E-08	NC	9E-07	2E-01	5E-07	3E-01	1E-06	3E-01	2E-05	1E+00	2E-05	NC	4E-07	NC
Landbay D	42 GP-39	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	NC	5E-07	NC
Landbay D	4200-1100	3E-06	2E-01	NC	4E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	7E-02	2E-09	8E-04
Landbay D	4200-1250	2E-06	1E-01	3E-10	5E-04	6E-07	3E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	7E-08	9E-02	2E-09	7E-04
Landbay D	4200-1550	2E-06	2E-01	NC	4E-04	7E-07	3E-01	3E-07	7E-01	6E-07	1E-01	1E-05	1E+00	NC	8E-02	1E-09	6E-04
Landbay D	4200-47	4E-06	2E-01	NC	3E-04	1E-06	4E-01	6E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	6E-02	1E-09	6E-04
Landbay D	4200-48	2E-06	3E-02	4E-10	5E-04	5E-07	4E-02	3E-07	1E-01	6E-07	2E-02	2E-05	2E-01	1E-07	1E-01	4E-09	5E-04
Landbay D	42B133	7E-08	5E-03	9E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	3E-07	NC	5E-09	NC
Landbay D	42B134	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	2E-09	NC
Landbay D	42B135	1E-06	1E-01	2E-08	NC	2E-07	4E-02	1E-07	8E-02	4E-07	7E-02	6E-06	4E-01	5E-06	NC	1E-07	NC
Landbay D	42G109	7E-10	1E-04	NC	NC	1E-10	6E-05	7E-11	4E-04	2E-10	7E-05	4E-09	7E-04	NC	NC	NC	NC
Landbay D	42G111	2E-06	1E-01	2E-13	1E-04	6E-07	2E-01	3E-07	6E-01	8E-07	1E-01	2E-05	1E+00	1E-11	2E-02	2E-08	3E-04
Landbay D	42G112	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42G114	1E-05	4E-01	5E-08	1E-04	2E-06	3E-01	1E-06	9E-01	5E-06	3E-01	1E-04	**2E+00**	1E-05	2E-02	6E-07	3E-04
Landbay D	42G118	2E-06	1E-01	2E-09	1E-04	6E-07	2E-01	3E-07	7E-01	9E-07	1E-01	2E-05	1E+00	5E-07	2E-02	3E-08	3E-04
Landbay D	42G119	4E-06	3E-01	5E-08	NC	6E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	3E-07	NC
Landbay D	42G120	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	2E-07	NC
Landbay D	42TP3-125	9E-11	9E-02	NC	NC	1E-07	1E-01	3E-08	4E-01	2E-12	6E-02	5E-10	6E-01	NC	NC	5E-10	1E-04
Landbay D	42TP3-175	8E-07	1E-01	NC	5E-07	4E-07	2E-01	2E-07	6E-01	2E-07	9E-02	6E-06	9E-01	NC	1E-04	8E-10	2E-04
Landbay D	42TP3-227	9E-11	8E-02	NC	NC	1E-07	1E-01	3E-08	4E-01	2E-12	6E-02	4E-10	6E-01	NC	NC	4E-10	1E-04
Landbay D	42TP3-75	7E-07	1E-01	NC	NC	3E-07	2E-01	1E-07	5E-01	2E-07	8E-02	5E-06	8E-01	NC	NC	7E-10	1E-04
Landbay D	42TP4-(-5)	7E-11	7E-02	NC	NC	8E-08	1E-01	2E-08	3E-01	1E-12	5E-02	4E-10	5E-01	NC	NC	4E-10	9E-05
Landbay D	42TP5-138	3E-06	2E-01	2E-11	1E-04	1E-06	4E-01	5E-07	1E+00	1E-06	2E-01	3E-05	1E+00	2E-08	2E-02	3E-08	4E-04
Landbay D	42TP5-150	2E-06	2E-01	NC	2E-04	7E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	4E-02	9E-10	4E-04
Landbay D	42TP5-200	2E-06	2E-01	NC	1E-02	9E-07	3E-01	4E-07	1E+00	7E-07	1E-01	2E-05	1E+00	NC	**3E+00**	1E-09	1E-03
Landbay D	42TP5-25	9E-07	9E-02	3E-09	3E-08	3E-07	1E-01	1E-07	3E-01	3E-07	6E-02	6E-06	6E-01	8E-07	8E-06	2E-08	9E-05
Landbay D	42TP5-75	2E-06	2E-01	NC	5E-08	8E-07	4E-01	3E-07	1E+00	4E-07	2E-01	1E-05	**2E+00**	NC	1E-05	2E-09	4E-04
Landbay D	42TP6-125	4E-06	3E-01	2E-08	2E-04	1E-06	4E-01	5E-07	1E+00	1E-06	2E-01	2E-05	1E+00	6E-06	3E-02	1E-07	5E-04
Landbay D	42TP6-175	9E-07	2E-01	NC	1E-04	4E-07	3E-01	2E-07	8E-01	3E-07	1E-01	7E-06	1E+00	NC	3E-02	1E-09	4E-04
Landbay D	42TP6-185	3E-06	4E-01	NC	3E-04	1E-06	8E-01	6E-07	**2E+00**	8E-07	3E-01	2E-05	**3E+00**	NC	5E-02	3E-09	1E-03
Landbay D	42TP6-200	8E-11	8E-02	NC	NC	9E-08	1E-01	3E-08	4E-01	2E-12	6E-02	4E-10	6E-01	NC	NC	4E-10	1E-04
Landbay D	42TP6-215	6E-11	6E-02	NC	NC	7E-08	9E-02	2E-08	3E-01	1E-12	5E-02	3E-10	5E-01	NC	NC	3E-10	7E-05
Landbay D	42TP6-75	2E-06	2E-01	NC	2E-04	6E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay D	4350-0950	3E-06	2E-01	NC	4E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	7E-02	2E-09	8E-04
Landbay D	4350-1100	2E-06	1E-01	3E-10	5E-04	6E-07	3E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	7E-08	9E-02	2E-09	7E-04
Landbay D	4350-1250	2E-06	1E-01	3E-10	5E-04	6E-07	3E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	7E-08	9E-02	2E-09	7E-04
Landbay D	4350-1400	2E-06	2E-01	NC	4E-04	7E-07	3E-01	3E-07	7E-01	6E-07	1E-01	1E-05	1E+00	NC	8E-02	1E-09	6E-04
Landbay D	43B132	4E-07	3E-02	5E-09	NC	6E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	1E-01	1E-06	NC	3E-08	NC
Landbay D	43G113	6E-07	4E-02	8E-09	NC	1E-07	2E-02	5E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	4E-08	NC
Landbay D	43G121	5E-08	4E-03	7E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-09	NC
Landbay D	43G122	1E-05	7E-01	1E-07	NC	2E-06	4E-01	9E-07	9E-01	3E-06	5E-01	5E-05	**3E+00**	3E-05	NC	6E-07	1E-04
Landbay D	43G123	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-09	NC
Landbay D	43G124	3E-06	2E-01	2E-08	NC	7E-07	2E-01	3E-07	6E-01	8E-07	2E-01	2E-05	1E+00	7E-06	NC	1E-07	1E-04
Landbay D	43G125	4E-06	3E-01	4E-08	NC	1E-06	3E-01	5E-07	7E-01	1E-06	2E-01	2E-05	**2E+00**	1E-05	NC	2E-07	1E-04
Landbay D	43G126	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	7E-04	7E-08	4E-03	6E-08	NC	1E-09	NC
Landbay D	43G127	4E-06	3E-01	5E-08	NC	7E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	3E-07	NC
Landbay D	43G128	1E-06	1E-01	4E-09	NC	4E-07	2E-01	2E-07	5E-01	4E-07	9E-02	9E-06	8E-01	1E-06	NC	2E-08	1E-04
Landbay D	43G129	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-09	NC
Landbay D	43G130	4E-06	3E-01	5E-08	NC	7E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	3E-07	NC
Landbay D	4500-0800	3E-06	2E-01	NC	4E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	7E-02	2E-09	8E-04
Landbay D	4500-0950	3E-06	2E-01	NC	4E-04	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	7E-02	2E-09	8E-04
Landbay D	4500-1100	2E-06	1E-01	3E-10	5E-04	6E-07	3E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	7E-08	9E-02	2E-09	7E-04
Landbay D	4500-1250	2E-06	2E-01	NC	4E-04	7E-07	3E-01	3E-07	7E-01	6E-07	1E-01	1E-05	1E+00	NC	8E-02	1E-09	6E-04
Landbay D	4500-1400	2E-06	2E-01	3E-10	7E-04	7E-07	3E-01	3E-07	9E-01	6E-07	1E-01	1E-05	1E+00	9E-08	1E-01	3E-09	9E-04
Landbay D	4500-2750	2E-06	1E-01	3E-10	2E-04	6E-07	2E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	8E-08	3E-02	2E-09	3E-04
Landbay D	4500-57	NC	2E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay D	4600-58	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4650-1100	3E-06	2E-01	NC	4E-04	9E-07	4E-01	5E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	8E-02	1E-09	8E-04
Landbay D	4650-1250	2E-06	2E-01	3E-10	7E-04	7E-07	3E-01	3E-07	9E-01	6E-07	1E-01	1E-05	1E+00	9E-08	1E-01	3E-09	9E-04
Landbay D	4650-1400	2E-06	2E-01	3E-10	7E-04	7E-07	3E-01	3E-07	9E-01	6E-07	1E-01	1E-05	1E+00	9E-08	1E-01	3E-09	9E-04
Landbay D	4650-1550	2E-06	2E-01	3E-10	7E-04	7E-07	3E-01	3E-07	9E-01	6E-07	1E-01	1E-05	1E+00	9E-08	1E-01	3E-09	9E-04
Landbay D	4700-62	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4800-1250	3E-06	2E-01	3E-10	4E-04	9E-07	3E-01	5E-07	9E-01	8E-07	1E-01	2E-05	1E+00	9E-08	7E-02	3E-09	6E-04
Landbay D	4800-51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	49-01	1E-06	9E-03	NC	9E-05	4E-07	6E-03	2E-07	9E-03	4E-07	6E-03	1E-05	5E-02	NC	2E-02	1E-10	8E-05
Landbay D	49-02	1E-06	7E-03	NC	NC	3E-07	5E-03	2E-07	7E-03	3E-07	5E-03	9E-06	4E-02	NC	NC	1E-10	2E-06
Landbay D	4950-1550	3E-06	3E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay D	4950-1700	3E-06	3E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay D	4B1	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC
Landbay D	50B1	2E-06	4E-02	NC	2E-04	5E-07	5E-02	3E-07	2E-01	7E-07	3E-02	2E-05	2E-01	NC	3E-02	7E-11	2E-04
Landbay D	5100-1700	3E-06	3E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay D	5100-1850	1E-06	1E-01	2E-10	2E-04	5E-07	2E-01	3E-07	6E-01	4E-07	9E-02	1E-05	9E-01	6E-08	4E-02	2E-09	4E-04
Landbay D	5100-2000	1E-06	1E-01	2E-10	2E-04	5E-07	2E-01	3E-07	6E-01	4E-07	9E-02	1E-05	9E-01	6E-08	4E-02	2E-09	4E-04
Landbay D	51B1	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	2E-06	NC	NC	NC	NC
Landbay D	53B1	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC
Landbay D	54-02	2E-06	1E-02	NC	NC	6E-07	1E-02	3E-07	1E-02	7E-07	1E-02	2E-05	9E-02	NC	NC	1E-10	3E-06
Landbay D	59B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	5B1	4E-06	3E-01	5E-08	2E-03	8E-07	2E-01	4E-07	4E-01	1E-06	2E-01	2E-05	1E+00	1E-05	3E-01	3E-07	1E-03
Landbay D	5B2	3E-07	3E-02	1E-11	2E-03	1E-07	5E-02	6E-08	2E-01	9E-08	2E-02	3E-06	2E-01	8E-09	3E-01	1E-10	1E-03
Landbay D	5B3	3E-07	3E-02	NC	2E-03	1E-07	5E-02	6E-08	2E-01	9E-08	2E-02	3E-06	2E-01	NC	3E-01	1E-10	1E-03
Landbay D	5B4	3E-07	3E-02	NC	2E-03	1E-07	5E-02	6E-08	2E-01	9E-08	2E-02	3E-06	2E-01	NC	3E-01	1E-10	1E-03
Landbay D	5B6	7E-07	8E-02	NC	2E-05	3E-07	1E-01	1E-07	4E-01	2E-07	6E-02	5E-06	6E-01	NC	4E-03	5E-10	1E-04
Landbay D	5G5	5E-08	5E-04	NC	NC	9E-09	2E-04	5E-09	2E-04	1E-08	3E-04	3E-07	2E-03	NC	NC	NC	NC
Landbay D	62B1	2E-06	4E-02	NC	2E-04	5E-07	5E-02	3E-07	2E-01	6E-07	3E-02	2E-05	2E-01	NC	3E-02	6E-11	2E-04
Landbay D	64B1	NC	2E-07	NC	NC	NC	1E-07	NC	9E-07	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay D	67B1	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	NC
Landbay D	68G65	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G66	NC	3E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	NC
Landbay D	68G67	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G68	2E-06	2E-01	7E-10	1E-04	7E-07	2E-01	3E-07	7E-01	6E-07	1E-01	1E-05	1E+00	2E-07	2E-02	5E-09	3E-04
Landbay D	68G69	2E-06	2E-01	7E-10	1E-04	7E-07	2E-01	3E-07	7E-01	6E-07	1E-01	1E-05	1E+00	2E-07	2E-02	5E-09	3E-04
Landbay D	68G70	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G71	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G72	2E-06	2E-01	7E-10	1E-04	7E-07	2E-01	3E-07	7E-01	6E-07	1E-01	1E-05	1E+00	2E-07	2E-02	5E-09	3E-04
Landbay D	68G73	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	68G74	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G75	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	6B1	NC	2E-07	NC	NC	NC	1E-07	NC	6E-07	NC	1E-07	NC	1E-06	NC	NC	NC	NC
Landbay D	9 GP-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	A6G197	1E-06	3E-02	1E-09	NC	3E-07	5E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	3E-07	NC	6E-09	4E-05
Landbay D	A6S152	4E-06	2E-01	NC	2E-04	1E-06	2E-01	5E-07	7E-01	1E-06	1E-01	3E-05	1E+00	NC	4E-02	8E-10	4E-04
Landbay D	A6S153	1E-06	2E-01	3E-09	NC	5E-07	2E-01	2E-07	7E-01	4E-07	1E-01	1E-05	1E+00	1E-06	NC	2E-08	2E-04
Landbay D	A6S157	9E-07	1E-01	3E-10	NC	4E-07	2E-01	2E-07	7E-01	3E-07	1E-01	7E-06	1E+00	9E-08	NC	2E-09	2E-04
Landbay D	B11AEC-1S	NC	2E-03	NC	NC	NC	1E-03	NC	9E-03	NC	2E-03	NC	2E-02	NC	NC	NC	NC
Landbay D	B31AEC-1S	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	NC
Landbay D	B32AEC-1S	NC	2E-03	NC	NC	NC	1E-03	NC	7E-03	NC	1E-03	NC	1E-02	NC	NC	NC	NC
Landbay D	B41AEC-1S	NC	2E-01	NC	NC	NC	1E-01	NC	6E-01	NC	1E-01	NC	1E+00	NC	NC	NC	NC
Landbay D	B6AEC-1S	NC	2E-01	NC	NC	NC	1E-01	NC	6E-01	NC	1E-01	NC	1E+00	NC	NC	NC	NC
Landbay D	BW 10-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 14-02	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	NC
Landbay D	BW 16-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 17-02	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	3E-03	NC	NC	NC	NC
Landbay D	BW 21-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 21-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 21-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 32-01	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	BW 32-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 5-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 5-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 6-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 9-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	CDP1	1E-06	1E-01	NC	NC	5E-07	2E-01	2E-07	6E-01	4E-07	1E-01	9E-06	1E+00	NC	NC	8E-10	2E-04
Landbay D	CDP2	8E-07	1E-01	NC	4E-04	4E-07	2E-01	2E-07	6E-01	2E-07	1E-01	6E-06	1E+00	NC	7E-02	8E-10	5E-04
Landbay D	CDP3	5E-07	8E-02	NC	NC	2E-07	1E-01	1E-07	4E-01	1E-07	6E-02	4E-06	6E-01	NC	NC	4E-10	1E-04
Landbay D	CDP4	4E-07	8E-02	NC	NC	2E-07	1E-01	9E-08	4E-01	1E-07	6E-02	3E-06	6E-01	NC	NC	4E-10	1E-04
Landbay D	CDP5	5E-07	8E-02	NC	NC	2E-07	1E-01	1E-07	4E-01	2E-07	6E-02	4E-06	6E-01	NC	NC	4E-10	1E-04
Landbay D	CDP6	1E-06	9E-02	3E-09	2E-03	3E-07	1E-01	2E-07	4E-01	3E-07	7E-02	7E-06	7E-01	6E-07	4E-01	6E-10	2E-04
Landbay D	CDP7	1E-06	1E-01	NC	9E-05	4E-07	2E-01	2E-07	5E-01	4E-07	9E-02	1E-05	9E-01	NC	2E-02	7E-10	2E-04
Landbay D	CDP8	1E-06	2E-01	3E-11	5E-05	5E-07	2E-01	2E-07	7E-01	7E-07	1E-01	2E-05	1E+00	2E-08	1E-02	4E-08	2E-04
Landbay D	DP-42	1E-06	1E-01	NC	NC	3E-07	1E-01	2E-07	5E-01	4E-07	7E-02	1E-05	7E-01	NC	NC	2E-10	6E-05
Landbay D	DW-17	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	NC
Landbay D	DW-18	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	NC
Landbay D	GP 10-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 13-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 150-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 15-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 151A-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 16-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 16-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	GP 17-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-07	7E-07	5E-03	NC	NC	2E-07	5E-03	1E-07	1E-02	2E-07	4E-03	6E-06	3E-02	NC	NC	1E-10	3E-06
Landbay D	GP 17-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-09	2E-07	2E-03	NC	NC	8E-08	2E-03	5E-08	7E-03	7E-08	1E-03	2E-06	1E-02	NC	NC	9E-11	2E-06
Landbay D	GP 17-10	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	NC
Landbay D	GP 17-11	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	NC
Landbay D	GP 22-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 22-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 22-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 25-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 3-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	GP 31-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 32-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 32-03	2E-09	8E-06	5E-08	2E-04	4E-10	4E-06	4E-10	4E-05	2E-10	2E-06	1E-08	4E-05	2E-05	5E-02	7E-09	2E-05
Landbay D	GP 35-01	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay D	GP 4-01	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay D	GP 4-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 41-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 41-02	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	GP 41-05	NC	7E-05	NC	NC	NC	5E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	NC
Landbay D	GP 42-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 42-03	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	GP 43-01	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	NC
Landbay D	GP 49-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 50-01	6E-07	3E-03	NC	NC	2E-07	2E-03	9E-08	4E-03	2E-07	2E-03	4E-06	2E-02	NC	NC	9E-11	1E-06
Landbay D	GP 50-01A	7E-07	4E-03	NC	NC	2E-07	4E-03	1E-07	9E-03	2E-07	3E-03	5E-06	3E-02	NC	NC	1E-10	2E-06
Landbay D	GP 50-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 51-01	2E-07	1E-02	NC	NC	8E-08	3E-02	4E-08	1E-01	7E-08	9E-03	2E-06	9E-02	NC	NC	7E-11	3E-05
Landbay D	GP 51-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 52-01	3E-07	1E-02	NC	NC	8E-08	3E-02	5E-08	1E-01	8E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	3E-05
Landbay D	GP 52-02	2E-07	2E-02	NC	NC	8E-08	3E-02	4E-08	1E-01	7E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	3E-05
Landbay D	GP 52-04	3E-07	3E-02	NC	NC	9E-08	5E-02	5E-08	2E-01	8E-08	2E-02	2E-06	2E-01	NC	NC	9E-11	6E-05
Landbay D	GP 54-01	2E-06	2E-02	NC	NC	6E-07	1E-02	3E-07	1E-02	7E-07	1E-02	2E-05	9E-02	NC	NC	1E-10	3E-06
Landbay D	GP 56-01	2E-07	8E-03	NC	NC	7E-08	2E-02	4E-08	7E-02	7E-08	6E-03	2E-06	6E-02	NC	NC	7E-11	2E-05
Landbay D	GP 58-01	2E-07	2E-02	NC	NC	8E-08	3E-02	4E-08	1E-01	7E-08	1E-02	2E-06	1E-01	NC	NC	7E-11	4E-05
Landbay D	GP 59-01	2E-07	2E-02	NC	NC	8E-08	5E-02	4E-08	2E-01	7E-08	2E-02	2E-06	2E-01	NC	NC	8E-11	5E-05
Landbay D	GP 59-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay D	GP 6-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 62-03	7E-08	1E-02	NC	NC	2E-08	2E-02	1E-08	1E-01	2E-08	9E-03	6E-07	9E-02	NC	NC	2E-11	3E-05
Landbay D	GP 64-01	3E-07	1E-02	NC	NC	8E-08	3E-02	5E-08	1E-01	8E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	3E-05
Landbay D	GP 64-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 65-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 66-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 67-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 67-02	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC
Landbay D	GP 68-01	3E-08	7E-03	NC	NC	1E-08	1E-02	6E-09	6E-02	1E-08	5E-03	3E-07	5E-02	NC	NC	1E-11	2E-05
Landbay D	GP 8-01	2E-06	2E-02	NC	NC	4E-07	2E-02	2E-07	6E-02	5E-07	2E-02	1E-05	1E-01	NC	NC	3E-10	1E-05
Landbay D	GP 8-02	8E-07	6E-03	NC	NC	2E-07	7E-03	1E-07	2E-02	2E-07	4E-03	6E-06	4E-02	NC	NC	1E-10	5E-06

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	GP 8-03	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	GP 9-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP BG-07	4E-06	3E-01	NC	2E-04	1E-06	7E-01	7E-07	**2E+00**	1E-06	2E-01	3E-05	**2E+00**	NC	4E-02	3E-09	9E-04
Landbay D	GP GS-01	2E-06	1E-02	NC	3E-04	4E-07	9E-03	2E-07	2E-02	5E-07	8E-03	1E-05	7E-02	NC	5E-02	1E-10	2E-04
Landbay D	GP GS-02	3E-07	2E-02	NC	NC	9E-08	4E-02	5E-08	2E-01	8E-08	1E-02	2E-06	1E-01	NC	NC	9E-11	4E-05
Landbay D	GP GS-03	2E-06	1E-02	NC	2E-04	5E-07	1E-02	3E-07	2E-02	6E-07	1E-02	2E-05	8E-02	NC	3E-02	2E-10	1E-04
Landbay D	GP GS-04	2E-07	2E-02	NC	NC	8E-08	4E-02	4E-08	2E-01	7E-08	1E-02	2E-06	1E-01	NC	NC	8E-11	4E-05
Landbay D	GP PBS-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP PBS-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	HA 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	HA 62-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	IM8-1	4E-06	3E-01	5E-08	NC	7E-07	1E-01	4E-07	2E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	3E-07	NC
Landbay D	IM8-2	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	2E-09	NC
Landbay D	IM8-3	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-09	NC
Landbay D	IM8-4	4E-07	2E-02	4E-09	NC	7E-08	1E-02	3E-08	2E-02	1E-07	1E-02	2E-06	8E-02	1E-06	NC	2E-08	NC
Landbay D	JT O-01B	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 2-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 43-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SR-4S	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-1	4E-07	3E-02	5E-09	NC	6E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	9E-02	1E-06	NC	2E-08	NC
Landbay D	SRA4-10	6E-06	4E-01	7E-08	NC	1E-06	2E-01	5E-07	3E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	4E-07	NC
Landbay D	SRA4-11	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-16	1E-06	7E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	3E-07	4E-02	4E-06	3E-01	4E-06	NC	7E-08	NC
Landbay D	SRA4-17	1E-07	8E-03	1E-09	NC	2E-08	3E-03	1E-08	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	8E-09	NC
Landbay D	SRA4-18	9E-07	6E-02	1E-08	NC	2E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	6E-08	NC
Landbay D	SRA4-19	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	5E-07	NC
Landbay D	SRA4-2	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	2E-09	NC
Landbay D	SRA4-20	4E-06	3E-01	5E-08	NC	8E-07	1E-01	4E-07	2E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	3E-07	NC
Landbay D	SRA4-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-23	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	2E-09	NC
Landbay D	SRA4-24	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	6E-03	3E-08	5E-03	4E-07	3E-02	4E-07	NC	7E-09	NC
Landbay D	SRA4-25	2E-07	1E-02	3E-09	NC	4E-08	6E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	1E-08	NC
Landbay D	SRA4-26	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	5E-08	NC
Landbay D	SRA4-27	1E-06	8E-02	1E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	5E-06	3E-01	4E-06	NC	8E-08	NC
Landbay D	SRA4-29	3E-06	2E-01	4E-08	NC	6E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	2E-07	NC
Landbay D	SRA4-3	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	5E-03	3E-08	4E-03	4E-07	3E-02	4E-07	NC	7E-09	NC
Landbay D	SRA4-30	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	7E-08	NC
Landbay D	SRA4-31	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	5E-08	NC
Landbay D	SRA4-32	5E-06	4E-01	7E-08	NC	1E-06	2E-01	5E-07	3E-01	1E-06	3E-01	2E-05	1E+00	2E-05	NC	4E-07	NC
Landbay D	SRA4-33	1E-06	8E-02	1E-08	NC	2E-07	3E-02	1E-07	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	8E-08	NC
Landbay D	SRA4-34	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	7E-08	NC
Landbay D	SRA4-35	2E-06	1E-01	2E-08	NC	3E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	1E-07	NC
Landbay D	SRA4-36	1E-07	7E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	7E-09	NC
Landbay D	SRA4-38	8E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	4E-02	3E-06	2E-01	3E-06	NC	5E-08	NC
Landbay D	SRA4-4	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	9E-07	5E-02	7E-07	NC	1E-08	NC
Landbay D	SRA4-5	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	2E-08	NC
Landbay D	SRA4-6	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	2E-07	NC
Landbay D	SRA4-8	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	2E-09	NC
Landbay D	SRA4-9	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	5E-08	NC
Landbay D	SRA5-1	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	2E-07	NC
Landbay D	SRA5-10	8E-07	6E-02	1E-08	NC	1E-07	2E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	6E-08	NC
Landbay D	SRA5-11	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	2E-08	NC
Landbay D	SRA5-13	7E-06	5E-01	9E-08	2E-04	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	5E-02	5E-07	8E-05
Landbay D	SRA5-14	3E-08	2E-03	4E-10	NC	6E-09	1E-03	3E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	2E-09	NC
Landbay D	SRA5-16	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	1E-07	3E-02	3E-06	1E-01	2E-06	NC	4E-08	NC
Landbay D	SRA5-17	2E-08	1E-03	3E-10	NC	4E-09	6E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	1E-09	NC
Landbay D	SRA5-18	9E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	6E-08	NC
Landbay D	SRA5-19	3E-06	2E-01	4E-08	NC	5E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	2E-07	NC
Landbay D	SRA5-2	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	5E-07	NC	9E-09	NC
Landbay D	SRA5-20	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	4E-08	NC
Landbay D	SRA5-21	3E-06	2E-01	3E-08	NC	5E-07	8E-02	2E-07	2E-01	7E-07	1E-01	1E-05	7E-01	1E-05	NC	2E-07	NC
Landbay D	SRA5-22	5E-06	4E-01	6E-08	NC	9E-07	2E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	4E-07	NC
Landbay D	SRA5-23	5E-06	3E-01	6E-08	NC	9E-07	2E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	3E-07	NC
Landbay D	SRA5-24	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-08	NC
Landbay D	SRA5-25	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	7E-03	1E-07	NC	2E-09	NC
Landbay D	SRA5-26	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	3E-09	NC
Landbay D	SRA5-27	9E-07	6E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	6E-08	NC
Landbay D	SRA5-28	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	5E-07	NC
Landbay D	SRA5-3	1E-06	8E-02	1E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	5E-06	3E-01	4E-06	NC	8E-08	NC
Landbay D	SRA5-30	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	5E-08	NC
Landbay D	SRA5-31	4E-08	3E-03	5E-10	NC	8E-09	1E-03	4E-09	2E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-09	NC
Landbay D	SRA5-32	8E-08	6E-03	1E-09	NC	1E-08	2E-03	7E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	6E-09	NC
Landbay D	SRA5-34	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	5E-07	NC
Landbay D	SRA5-35	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	1E-02	5E-08	8E-03	8E-07	5E-02	6E-07	NC	1E-08	NC
Landbay D	SRA5-36	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	9E-08	NC
Landbay D	SRA5-5	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-09	NC
Landbay D	SRA5-6	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	9E-08	NC
Landbay D	SRA5-7	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA5-8	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	2E-08	NC
Landbay D	SRA5-9	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA6-1	5E-08	4E-03	7E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-09	NC
Landbay D	SRA6-10	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	1E-05	9E-01	1E-05	NC	2E-07	NC
Landbay D	SRA6-11	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	9E-03	4E-08	7E-03	7E-07	4E-02	6E-07	NC	1E-08	NC
Landbay D	SRA6-12	1E-06	1E-01	2E-08	NC	3E-07	4E-02	1E-07	8E-02	4E-07	7E-02	7E-06	4E-01	5E-06	NC	1E-07	NC
Landbay D	SRA6-2	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-08	NC
Landbay D	SRA6-3	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	9E-03	4E-08	8E-03	8E-07	4E-02	6E-07	NC	1E-08	NC
Landbay D	SRA6-4	1E-06	1E-01	2E-08	NC	3E-07	4E-02	1E-07	8E-02	4E-07	7E-02	7E-06	4E-01	5E-06	NC	1E-07	NC
Landbay D	SRA6-5	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	6E-07	1E-01	9E-06	5E-01	8E-06	NC	1E-07	NC
Landbay D	SRA6-6	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	9E-07	5E-02	7E-07	NC	1E-08	NC
Landbay D	SRA6-7	4E-07	3E-02	6E-09	NC	8E-08	1E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	3E-08	NC
Landbay D	SRA6-8	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	3E-09	NC
Landbay D	SRA6-9	4E-07	2E-02	4E-09	NC	6E-08	1E-02	3E-08	2E-02	9E-08	2E-02	2E-06	9E-02	1E-06	NC	2E-08	NC
Landbay D	SS-08A	1E-06	9E-03	NC	9E-05	3E-07	8E-03	2E-07	2E-02	4E-07	6E-03	1E-05	5E-02	NC	2E-02	2E-10	9E-05
Landbay D	SS-09A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SS-15A	1E-06	9E-03	NC	4E-04	3E-07	7E-03	2E-07	2E-02	3E-07	7E-03	9E-06	6E-02	NC	8E-02	1E-10	4E-04
Landbay D	SS-22A	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	NC
Landbay D	SS-35A	2E-06	1E-02	NC	2E-04	5E-07	1E-02	3E-07	2E-02	6E-07	1E-02	2E-05	9E-02	NC	4E-02	2E-10	2E-04
Landbay D	SS-43A	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC
Landbay D	SS-60A	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	SS-67A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SS-68A	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	SW 14-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 16-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 17-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 21-01	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay D	SW 27-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 35-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 41-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 43-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 43-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 45-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 5-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	SW 5-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 7-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 9-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	119B139	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC
Landbay E	119G36	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	120AB1	NC	6E-07	NC	NC	NC	4E-07	NC	3E-06	NC	5E-07	NC	5E-06	NC	NC	NC	NC
Landbay E	121B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	3E-07	NC	3E-06	NC	NC	NC	NC
Landbay E	200B1	3E-07	3E-02	NC	7E-03	1E-07	5E-02	5E-08	2E-01	8E-08	2E-02	3E-06	2E-01	NC	1E+00	1E-10	6E-03
Landbay E	200B2	3E-07	3E-02	NC	7E-03	1E-07	5E-02	5E-08	2E-01	8E-08	2E-02	3E-06	2E-01	NC	1E+00	1E-10	6E-03
Landbay E	200B3	3E-07	3E-02	NC	7E-03	1E-07	5E-02	5E-08	2E-01	8E-08	2E-02	3E-06	2E-01	NC	1E+00	1E-10	6E-03
Landbay E	207B1	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	NC
Landbay E	208B1	3E-06	2E-01	NC	5E-05	9E-07	4E-01	5E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	1E-02	1E-09	4E-04
Landbay E	209B1	2E-06	2E-01	NC	7E-05	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	1E-02	1E-09	3E-04
Landbay E	20TP1-7	1E-12	3E-02	NC	1E-08	1E-09	6E-02	3E-10	2E-01	2E-14	2E-02	5E-12	2E-01	NC	3E-06	5E-12	6E-05
Landbay E	212B1	9E-07	3E-02	NC	NC	2E-07	6E-02	1E-07	2E-01	2E-07	2E-02	7E-06	2E-01	NC	NC	1E-10	6E-05
Landbay E	214B1	3E-07	2E-02	NC	1E-04	9E-08	3E-02	5E-08	1E-01	7E-08	1E-02	2E-06	1E-01	NC	3E-02	9E-11	2E-04
Landbay E	214B2	3E-07	2E-02	NC	1E-04	9E-08	3E-02	5E-08	1E-01	7E-08	1E-02	2E-06	1E-01	NC	3E-02	9E-11	2E-04
Landbay E	214G3	3E-07	2E-02	NC	1E-04	9E-08	3E-02	5E-08	1E-01	7E-08	1E-02	2E-06	1E-01	NC	3E-02	9E-11	2E-04
Landbay E	214G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	217B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	3E-06	NC	NC	NC	NC
Landbay E	219B1	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC
Landbay E	21TP1-5	1E-07	2E-02	NC	8E-05	4E-08	5E-02	2E-08	2E-01	3E-08	2E-02	1E-06	2E-01	NC	2E-02	4E-11	1E-04
Landbay E	21TP2-7	9E-07	2E-02	NC	NC	2E-07	4E-02	1E-07	2E-01	3E-07	2E-02	7E-06	2E-01	NC	NC	4E-11	4E-05
Landbay E	230AEC-2	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	NC
Landbay E	230ANEC	NC	2E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	NC
Landbay E	230B1	1E-06	3E-02	NC	1E-03	3E-07	6E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	NC	3E-01	9E-11	1E-03
Landbay E	230-BM	5E-06	5E-02	NC	2E-02	1E-06	5E-02	6E-07	1E-01	1E-06	4E-02	3E-05	3E-01	NC	**3E+00**	4E-10	2E-02
Landbay E	235B1	6E-07	3E-02	NC	1E-04	2E-07	5E-02	9E-08	2E-01	2E-07	2E-02	5E-06	2E-01	NC	2E-02	6E-11	1E-04
Landbay E	235B2	2E-06	4E-02	NC	3E-04	5E-07	7E-02	3E-07	2E-01	6E-07	3E-02	2E-05	3E-01	NC	5E-02	1E-10	3E-04
Landbay E	236B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	237B1	NC	1E-02	NC	NC	NC	9E-03	NC	6E-02	NC	1E-02	NC	1E-01	NC	NC	NC	NC
Landbay E	23TP1-7	2E-06	4E-02	NC	2E-04	4E-07	7E-02	2E-07	2E-01	5E-07	3E-02	1E-05	3E-01	NC	4E-02	6E-11	3E-04
Landbay E	253B1	2E-06	3E-02	NC	NC	4E-07	5E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	NC	NC	1E-10	5E-05
Landbay E	253B2	3E-06	4E-02	NC	1E-04	6E-07	6E-02	4E-07	2E-01	8E-07	3E-02	2E-05	3E-01	NC	3E-02	1E-10	2E-04
Landbay E	253B3	4E-06	4E-02	NC	2E-04	8E-07	6E-02	5E-07	2E-01	1E-06	3E-02	3E-05	3E-01	NC	3E-02	1E-10	2E-04
Landbay E	253B5	4E-06	5E-02	NC	9E-05	9E-07	7E-02	5E-07	2E-01	1E-06	4E-02	3E-05	4E-01	NC	2E-02	2E-10	1E-04
Landbay E	253G4	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay E	253G5	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	3E-07	NC	3E-06	NC	NC	NC	NC
Landbay E	255B1	NC	4E-04	NC	NC	NC	2E-04	NC	1E-03	NC	3E-04	NC	3E-03	NC	NC	NC	NC
Landbay E	28B3	3E-07	3E-02	3E-10	5E-04	1E-07	4E-02	6E-08	2E-01	1E-07	2E-02	3E-06	2E-01	8E-08	1E-01	2E-09	5E-04
Landbay E	28B6	2E-06	3E-02	1E-09	7E-04	5E-07	5E-02	3E-07	2E-01	5E-07	2E-02	1E-05	2E-01	3E-07	1E-01	2E-10	3E-04
Landbay E	28G4	3E-07	2E-02	NC	5E-04	1E-07	4E-02	6E-08	2E-01	9E-08	2E-02	3E-06	2E-01	NC	1E-01	1E-10	5E-04
Landbay E	40AEC-2	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	5E-05	NC	5E-04	NC	NC	NC	NC
Landbay E	40ANEC	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay E	40B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-10	3E-07	2E-02	4E-09	NC	5E-08	9E-03	2E-08	2E-02	8E-08	1E-02	1E-06	7E-02	1E-06	NC	2E-08	NC
Landbay E	42 GP-11	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	3E-09	NC
Landbay E	42 GP-12	1E-07	1E-02	2E-09	NC	3E-08	4E-03	1E-08	8E-03	4E-08	7E-03	7E-07	4E-02	5E-07	NC	1E-08	NC
Landbay E	42 GP-13	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	1E-09	NC
Landbay E	42 GP-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-30	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	3E-09	NC
Landbay E	42 GP-31	4E-08	3E-03	5E-10	NC	7E-09	1E-03	4E-09	2E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-09	NC
Landbay E	45B1	2E-06	4E-02	NC	1E-04	6E-07	5E-02	3E-07	2E-01	7E-07	3E-02	2E-05	2E-01	NC	3E-02	2E-10	2E-04
Landbay E	45B2	2E-06	4E-02	NC	1E-04	6E-07	5E-02	3E-07	2E-01	7E-07	3E-02	2E-05	2E-01	NC	3E-02	2E-10	2E-04
Landbay E	45B4	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	NC
Landbay E	45B5	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	NC
Landbay E	45B6	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	NC
Landbay E	45G3	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay E	4650-0800	4E-06	2E-01	NC	3E-04	1E-06	3E-01	6E-07	8E-01	1E-06	1E-01	3E-05	1E+00	NC	7E-02	1E-09	6E-04
Landbay E	4650-0950	3E-06	2E-01	NC	4E-04	9E-07	4E-01	5E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	8E-02	1E-09	8E-04
Landbay E	46B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	47B1	3E-06	4E-02	NC	3E-04	6E-07	6E-02	3E-07	2E-01	7E-07	3E-02	2E-05	3E-01	NC	5E-02	2E-10	3E-04
Landbay E	4800-0650	4E-06	2E-01	NC	3E-04	1E-06	3E-01	6E-07	8E-01	1E-06	1E-01	3E-05	1E+00	NC	7E-02	1E-09	6E-04
Landbay E	4800-0800	3E-06	2E-01	NC	4E-04	9E-07	4E-01	5E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	8E-02	1E-09	8E-04
Landbay E	4800-0950	3E-06	2E-01	NC	4E-04	9E-07	4E-01	5E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	8E-02	1E-09	8E-04
Landbay E	4800-1100	3E-06	2E-01	3E-10	4E-04	9E-07	3E-01	5E-07	9E-01	8E-07	1E-01	2E-05	1E+00	9E-08	7E-02	3E-09	6E-04
Landbay E	4800-60	2E-06	2E-01	NC	1E-04	7E-07	3E-01	3E-07	7E-01	5E-07	1E-01	1E-05	1E+00	NC	3E-02	1E-09	4E-04
Landbay E	4950-0500	4E-06	2E-01	NC	3E-04	1E-06	3E-01	6E-07	8E-01	1E-06	1E-01	3E-05	1E+00	NC	7E-02	1E-09	6E-04
Landbay E	4950-0650	1E-06	1E-01	2E-10	4E-04	5E-07	2E-01	2E-07	7E-01	4E-07	9E-02	1E-05	9E-01	7E-08	7E-02	2E-09	6E-04
Landbay E	4950-0800	1E-06	1E-01	2E-10	4E-04	5E-07	2E-01	2E-07	7E-01	4E-07	9E-02	1E-05	9E-01	7E-08	7E-02	2E-09	6E-04
Landbay E	4950-0950	3E-06	2E-01	3E-10	4E-04	9E-07	3E-01	5E-07	9E-01	8E-07	1E-01	2E-05	1E+00	9E-08	7E-02	3E-09	6E-04
Landbay E	4950-1100	3E-06	2E-01	3E-10	4E-04	9E-07	3E-01	5E-07	9E-01	8E-07	1E-01	2E-05	1E+00	9E-08	7E-02	3E-09	6E-04
Landbay E	5100-0350	4E-06	2E-01	NC	3E-04	1E-06	3E-01	6E-07	8E-01	1E-06	1E-01	3E-05	1E+00	NC	7E-02	1E-09	6E-04
Landbay E	5100-0500	1E-06	1E-01	2E-10	4E-04	5E-07	2E-01	2E-07	7E-01	4E-07	9E-02	1E-05	9E-01	7E-08	7E-02	2E-09	6E-04
Landbay E	5100-0650	1E-06	2E-01	NC	3E-04	5E-07	3E-01	2E-07	9E-01	3E-07	1E-01	8E-06	1E+00	NC	5E-02	1E-09	6E-04
Landbay E	5100-0800	1E-06	2E-01	NC	3E-04	5E-07	3E-01	2E-07	9E-01	3E-07	1E-01	8E-06	1E+00	NC	5E-02	1E-09	6E-04
Landbay E	5100-1250	2E-06	2E-01	3E-10	NC	9E-07	7E-01	4E-07	**2E+00**	6E-07	2E-01	2E-05	**2E+00**	1E-07	NC	4E-09	8E-04
Landbay E	5100-1400	2E-06	2E-01	4E-10	NC	9E-07	7E-01	4E-07	**2E+00**	7E-07	2E-01	2E-05	**2E+00**	1E-07	NC	5E-09	8E-04
Landbay E	5100-1550	3E-06	3E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	9E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	7E-04
Landbay E	5200-67	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	5250-0350	1E-06	1E-01	2E-10	4E-04	5E-07	2E-01	2E-07	7E-01	4E-07	9E-02	1E-05	9E-01	7E-08	7E-02	2E-09	6E-04
Landbay E	5250-0500	5E-07	1E-01	NC	2E-04	3E-07	2E-01	1E-07	7E-01	2E-07	1E-01	4E-06	1E+00	NC	4E-02	8E-10	4E-04
Landbay E	5250-0650	5E-07	1E-01	NC	2E-04	3E-07	2E-01	1E-07	7E-01	2E-07	1E-01	4E-06	1E+00	NC	4E-02	8E-10	4E-04
Landbay E	5400-0200	5E-07	1E-01	NC	2E-04	3E-07	2E-01	1E-07	7E-01	2E-07	1E-01	4E-06	1E+00	NC	4E-02	8E-10	4E-04
Landbay E	5400-0350	2E-06	2E-01	NC	2E-04	8E-07	4E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5400-0500	2E-06	2E-01	NC	2E-04	8E-07	4E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5400-0650	2E-06	2E-01	NC	2E-04	8E-07	4E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5400-0800	5E-07	1E-01	NC	2E-04	3E-07	2E-01	1E-07	7E-01	2E-07	1E-01	4E-06	1E+00	NC	4E-02	8E-10	4E-04
Landbay E	5400-0950	1E-06	2E-01	3E-10	2E-04	6E-07	3E-01	3E-07	1E+00	4E-07	1E-01	1E-05	1E+00	9E-08	4E-02	3E-09	5E-04
Landbay E	5400-1100	1E-06	2E-01	3E-10	2E-04	6E-07	3E-01	3E-07	1E+00	4E-07	1E-01	1E-05	1E+00	9E-08	4E-02	3E-09	5E-04
Landbay E	5400-1250	2E-06	2E-01	4E-10	2E-08	9E-07	7E-01	4E-07	**2E+00**	7E-07	2E-01	2E-05	**2E+00**	1E-07	5E-06	5E-09	8E-04
Landbay E	5400-79	5E-06	3E-01	7E-10	2E-04	1E-06	5E-01	7E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	2E-07	4E-02	6E-09	7E-04
Landbay E	5400-86	NC	7E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	NC
Landbay E	5500-84-1	4E-06	2E-01	2E-10	1E-04	1E-06	3E-01	6E-07	9E-01	1E-06	1E-01	3E-05	1E+00	6E-08	3E-02	2E-09	4E-04
Landbay E	5500-84-2	3E-06	2E-01	NC	2E-04	9E-07	3E-01	5E-07	9E-01	9E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	4E-04
Landbay E	5500-84-3	6E-06	3E-01	NC	2E-04	2E-06	6E-01	9E-07	**2E+00**	2E-06	2E-01	4E-05	**2E+00**	NC	3E-02	2E-09	8E-04
Landbay E	5550-0200	2E-06	2E-01	NC	1E-04	6E-07	3E-01	3E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay E	5550-0500	2E-06	2E-01	NC	1E-04	6E-07	3E-01	3E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay E	5550-0650	2E-06	2E-01	NC	1E-04	6E-07	3E-01	3E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay E	5550-0800	1E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	9E-01	4E-07	1E-01	1E-05	1E+00	NC	5E-02	2E-09	5E-04
Landbay E	5550-0950	1E-06	2E-01	3E-10	2E-04	6E-07	3E-01	3E-07	1E+00	4E-07	1E-01	1E-05	1E+00	9E-08	4E-02	3E-09	5E-04
Landbay E	5550-1100	1E-06	2E-01	3E-10	2E-04	6E-07	3E-01	3E-07	1E+00	4E-07	1E-01	1E-05	1E+00	9E-08	4E-02	3E-09	5E-04
Landbay E	5550-1250	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	6E-04
Landbay E	5550-1400	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	6E-04
Landbay E	5550-1550	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	6E-04
Landbay E	5550-1700	2E-06	2E-01	1E-09	2E-04	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	2E-05	1E+00	3E-07	5E-02	7E-09	6E-04
Landbay E	5550-1850	2E-06	2E-01	NC	2E-04	8E-07	4E-01	4E-07	1E+00	6E-07	1E-01	1E-05	1E+00	NC	5E-02	1E-09	6E-04
Landbay E	5600-82	2E-06	9E-02	6E-10	4E-04	5E-07	1E-01	3E-07	4E-01	5E-07	7E-02	1E-05	7E-01	2E-07	9E-02	4E-09	5E-04
Landbay E	5600-83	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC
Landbay E	5700-0650	2E-06	2E-01	NC	1E-04	6E-07	3E-01	3E-07	8E-01	4E-07	1E-01	1E-05	1E+00	NC	2E-02	1E-09	4E-04
Landbay E	5700-0800	1E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	9E-01	4E-07	1E-01	1E-05	1E+00	NC	5E-02	2E-09	5E-04
Landbay E	5700-0950	1E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	9E-01	4E-07	1E-01	1E-05	1E+00	NC	5E-02	2E-09	5E-04
Landbay E	5700-1100	2E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay E	5700-1250	2E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	5E-04

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	5700-1400	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5700-1550	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5700-1700	2E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5700-1850	2E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5850-0950	1E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	9E-01	4E-07	1E-01	1E-05	1E+00	NC	5E-02	2E-09	5E-04
Landbay E	5850-1100	2E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay E	5850-1250	2E-06	2E-01	NC	2E-04	7E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay E	5850-1400	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5850-1550	3E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	5850-1700	1E-06	1E-01	NC	NC	4E-07	2E-01	2E-07	6E-01	3E-07	1E-01	7E-06	1E+00	NC	NC	1E-09	2E-04
Landbay E	5850-1850	2E-06	2E-01	NC	2E-04	9E-07	4E-01	4E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	6000-0950	2E-06	3E-01	NC	NC	9E-07	6E-01	4E-07	**2E+00**	6E-07	2E-01	1E-05	**2E+00**	NC	NC	2E-09	6E-04
Landbay E	6000-1100	2E-06	2E-01	NC	2E-04	8E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	6000-1250	2E-06	2E-01	NC	2E-04	8E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	6000-1400	2E-06	3E-01	7E-10	2E-04	9E-07	5E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	2E-07	3E-02	6E-09	7E-04
Landbay E	6000-1550	2E-06	3E-01	7E-10	2E-04	9E-07	5E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	2E-07	3E-02	6E-09	7E-04
Landbay E	6000-1700	2E-06	2E-01	NC	NC	8E-07	3E-01	4E-07	9E-01	6E-07	1E-01	1E-05	1E+00	NC	NC	1E-09	3E-04
Landbay E	6000-91	3E-06	3E-02	NC	2E-04	7E-07	3E-02	4E-07	1E-01	9E-07	2E-02	2E-05	2E-01	NC	5E-02	2E-10	3E-04
Landbay E	6100-101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6150-0050	8E-07	2E-01	3E-10	3E-04	5E-07	3E-01	2E-07	9E-01	2E-07	1E-01	6E-06	1E+00	8E-08	5E-02	3E-09	5E-04
Landbay E	6150-0950	1E-06	1E-01	NC	NC	4E-07	2E-01	2E-07	5E-01	3E-07	7E-02	7E-06	7E-01	NC	NC	6E-10	1E-04
Landbay E	6150-1100	2E-06	2E-01	NC	2E-04	8E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	6150-1250	2E-06	2E-01	NC	2E-04	8E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	6150-1400	2E-06	3E-01	7E-10	2E-04	9E-07	5E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	2E-07	3E-02	6E-09	7E-04
Landbay E	6150-1550	2E-06	3E-01	7E-10	2E-04	9E-07	5E-01	4E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	2E-07	3E-02	6E-09	7E-04
Landbay E	6150-1700	2E-06	2E-01	NC	NC	7E-07	4E-01	3E-07	1E+00	5E-07	2E-01	1E-05	**2E+00**	NC	NC	2E-09	5E-04
Landbay E	6150-9750	8E-07	2E-01	3E-10	3E-04	5E-07	3E-01	2E-07	9E-01	2E-07	1E-01	6E-06	1E+00	8E-08	5E-02	3E-09	5E-04
Landbay E	6150-9900	8E-07	2E-01	3E-10	3E-04	5E-07	3E-01	2E-07	9E-01	2E-07	1E-01	6E-06	1E+00	8E-08	5E-02	3E-09	5E-04
Landbay E	6300-0800	3E-06	3E-01	NC	NC	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	NC	2E-09	5E-04
Landbay E	6300-0950	3E-06	3E-01	NC	NC	1E-06	5E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	NC	2E-09	5E-04
Landbay E	6300-1100	2E-06	3E-01	NC	NC	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	2E-09	4E-04
Landbay E	6300-1250	2E-06	3E-01	NC	NC	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	2E-09	4E-04
Landbay E	6300-1400	2E-06	3E-01	NC	NC	1E-06	6E-01	5E-07	**2E+00**	6E-07	2E-01	2E-05	**2E+00**	NC	NC	3E-09	6E-04
Landbay E	6300-1550	2E-06	3E-01	NC	NC	1E-06	6E-01	5E-07	**2E+00**	6E-07	2E-01	2E-05	**2E+00**	NC	NC	3E-09	6E-04
Landbay E	6300-1700	1E-06	1E-01	NC	2E-04	6E-07	3E-01	3E-07	7E-01	4E-07	1E-01	1E-05	1E+00	NC	4E-02	1E-09	4E-04
Landbay E	6300-9900	8E-07	2E-01	3E-10	3E-04	5E-07	3E-01	2E-07	9E-01	2E-07	1E-01	6E-06	1E+00	8E-08	5E-02	3E-09	5E-04
Landbay E	6400-103	5E-06	2E-01	NC	2E-04	1E-06	3E-01	7E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	4E-02	1E-09	5E-04
Landbay E	6450-0050	3E-06	3E-01	2E-10	3E-04	1E-06	7E-01	5E-07	**2E+00**	8E-07	3E-01	2E-05	**3E+00**	7E-08	6E-02	4E-09	1E-03
Landbay E	6450-1100	2E-06	3E-01	NC	NC	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	2E-09	4E-04
Landbay E	6450-1250	2E-06	3E-01	NC	NC	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	2E-09	4E-04
Landbay E	6450-1400	2E-06	3E-01	NC	NC	1E-06	6E-01	5E-07	**2E+00**	6E-07	2E-01	2E-05	**2E+00**	NC	NC	3E-09	6E-04
Landbay E	6450-1550	2E-06	3E-01	NC	NC	1E-06	6E-01	5E-07	**2E+00**	6E-07	2E-01	2E-05	**2E+00**	NC	NC	3E-09	6E-04
Landbay E	6600-0050	3E-06	3E-01	2E-10	3E-04	1E-06	7E-01	5E-07	**2E+00**	8E-07	3E-01	2E-05	**3E+00**	7E-08	6E-02	4E-09	1E-03
Landbay E	6600-0200	3E-06	3E-01	2E-10	3E-04	1E-06	7E-01	5E-07	**2E+00**	8E-07	3E-01	2E-05	**3E+00**	7E-08	6E-02	4E-09	1E-03
Landbay E	6600-0350	3E-06	3E-01	2E-10	3E-04	1E-06	7E-01	5E-07	**2E+00**	8E-07	3E-01	2E-05	**3E+00**	7E-08	6E-02	4E-09	1E-03
Landbay E	6600-1100	2E-06	2E-01	NC	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	3E-02	2E-09	5E-04
Landbay E	6600-112	5E-06	4E-01	NC	2E-04	2E-06	8E-01	9E-07	**2E+00**	1E-06	3E-01	3E-05	**3E+00**	NC	3E-02	3E-09	1E-03
Landbay E	6600-113	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6600-1250	2E-06	2E-01	NC	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	3E-02	2E-09	5E-04
Landbay E	6600-1400	3E-06	2E-01	NC	NC	9E-07	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	NC	1E-09	4E-04
Landbay E	6750-0050	3E-06	2E-01	3E-10	3E-04	1E-06	5E-01	5E-07	**2E+00**	8E-07	2E-01	2E-05	**2E+00**	7E-08	5E-02	3E-09	8E-04
Landbay E	6750-0200	3E-06	2E-01	3E-10	3E-04	1E-06	5E-01	5E-07	**2E+00**	8E-07	2E-01	2E-05	**2E+00**	7E-08	5E-02	3E-09	8E-04
Landbay E	6750-0350	4E-06	3E-01	3E-10	NC	2E-06	6E-01	7E-07	**2E+00**	1E-06	2E-01	3E-05	**2E+00**	8E-08	NC	4E-09	6E-04
Landbay E	6750-0500	2E-06	2E-01	3E-10	NC	6E-07	3E-01	3E-07	9E-01	5E-07	1E-01	1E-05	1E+00	8E-08	NC	3E-09	3E-04
Landbay E	6750-0650	2E-06	3E-01	2E-10	2E-04	8E-07	5E-01	3E-07	1E+00	4E-07	2E-01	1E-05	**2E+00**	7E-08	4E-02	3E-09	7E-04
Landbay E	6750-0800	2E-06	3E-01	2E-10	2E-04	8E-07	5E-01	3E-07	1E+00	4E-07	2E-01	1E-05	**2E+00**	7E-08	4E-02	3E-09	7E-04
Landbay E	6750-1100	2E-06	2E-01	NC	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	3E-02	2E-09	5E-04
Landbay E	6750-1250	2E-06	2E-01	NC	2E-04	7E-07	4E-01	3E-07	1E+00	5E-07	1E-01	1E-05	1E+00	NC	3E-02	2E-09	5E-04
Landbay E	6750-1400	7E-07	5E-02	NC	NC	3E-07	8E-02	1E-07	2E-01	2E-07	4E-02	5E-06	4E-01	NC	NC	4E-10	7E-05
Landbay E	6900-0050	3E-06	2E-01	3E-10	3E-04	1E-06	5E-01	5E-07	**2E+00**	8E-07	2E-01	2E-05	**2E+00**	7E-08	5E-02	3E-09	8E-04
Landbay E	6900-0200	3E-06	4E-01	3E-10	NC	1E-06	7E-01	6E-07	**2E+00**	9E-07	3E-01	2E-05	**3E+00**	8E-08	NC	5E-09	6E-04
Landbay E	6900-0350	2E-06	2E-01	3E-10	NC	9E-07	4E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	8E-08	NC	3E-09	4E-04
Landbay E	6900-0500	2E-06	3E-01	2E-10	2E-04	8E-07	5E-01	3E-07	1E+00	4E-07	2E-01	1E-05	**2E+00**	7E-08	4E-02	3E-09	7E-04
Landbay E	6900-0650	2E-06	3E-01	2E-10	2E-04	8E-07	5E-01	3E-07	1E+00	4E-07	2E-01	1E-05	**2E+00**	7E-08	4E-02	3E-09	7E-04
Landbay E	6900-9900	3E-06	2E-01	3E-10	3E-04	1E-06	5E-01	5E-07	**2E+00**	8E-07	2E-01	2E-05	**2E+00**	7E-08	5E-02	3E-09	8E-04
Landbay E	7000-126	6E-06	3E-01	NC	2E-04	2E-06	5E-01	1E-06	1E+00	2E-06	2E-01	4E-05	**2E+00**	NC	4E-02	2E-09	6E-04
Landbay E	7000-127	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7050-0050	3E-06	1E-01	NC	2E-04	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay E	7050-0200	2E-06	2E-01	2E-10	2E-04	9E-07	5E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	7E-08	3E-02	3E-09	7E-04
Landbay E	7050-0350	2E-06	2E-01	2E-10	2E-04	9E-07	5E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	7E-08	3E-02	3E-09	7E-04
Landbay E	7050-0500	2E-06	2E-01	2E-10	2E-04	9E-07	5E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	7E-08	3E-02	3E-09	7E-04
Landbay E	7050-0650	2E-06	2E-01	2E-10	2E-04	9E-07	5E-01	4E-07	1E+00	6E-07	2E-01	2E-05	**2E+00**	7E-08	3E-02	3E-09	7E-04
Landbay E	7050-0800	2E-06	9E-02	NC	2E-04	6E-07	2E-01	3E-07	6E-01	6E-07	7E-02	2E-05	7E-01	NC	4E-02	6E-10	4E-04
Landbay E	7050-0950	3E-06	2E-01	NC	3E-04	1E-06	3E-01	5E-07	9E-01	9E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	6E-04
Landbay E	7050-1100	3E-06	2E-01	NC	3E-04	1E-06	3E-01	5E-07	9E-01	9E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	6E-04
Landbay E	7200-0200	3E-06	1E-01	NC	2E-04	8E-07	3E-01	4E-07	8E-01	7E-07	1E-01	2E-05	1E+00	NC	4E-02	1E-09	5E-04
Landbay E	7200-0350	3E-06	1E-01	NC	2E-04	8E-07	3E-01	4E-07	8E-01	8E-07	9E-02	2E-05	9E-01	NC	5E-02	8E-10	5E-04
Landbay E	7200-0500	3E-06	1E-01	NC	2E-04	8E-07	3E-01	4E-07	8E-01	8E-07	9E-02	2E-05	9E-01	NC	5E-02	8E-10	5E-04
Landbay E	7200-0650	2E-06	9E-02	NC	2E-04	6E-07	2E-01	3E-07	6E-01	6E-07	7E-02	2E-05	7E-01	NC	4E-02	6E-10	4E-04
Landbay E	7200-0800	2E-06	9E-02	NC	2E-04	6E-07	2E-01	3E-07	6E-01	6E-07	7E-02	2E-05	7E-01	NC	4E-02	6E-10	4E-04
Landbay E	7200-0950	3E-06	2E-01	NC	3E-04	1E-06	3E-01	5E-07	9E-01	9E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	6E-04
Landbay E	7200-1100	3E-06	2E-01	NC	3E-04	1E-06	3E-01	5E-07	9E-01	9E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	6E-04
Landbay E	7200-130	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-132	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-133	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-1400	3E-06	2E-01	NC	NC	9E-07	3E-01	5E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay E	7350-0500	3E-06	1E-01	NC	2E-04	8E-07	3E-01	4E-07	8E-01	8E-07	9E-02	2E-05	9E-01	NC	5E-02	8E-10	5E-04
Landbay E	7350-0650	3E-06	1E-01	NC	2E-04	8E-07	3E-01	4E-07	8E-01	8E-07	9E-02	2E-05	9E-01	NC	5E-02	8E-10	5E-04
Landbay E	7350-0800	2E-06	9E-02	NC	2E-04	6E-07	2E-01	3E-07	6E-01	6E-07	7E-02	2E-05	7E-01	NC	4E-02	6E-10	4E-04
Landbay E	7350-1400	3E-06	2E-01	NC	NC	9E-07	3E-01	5E-07	1E+00	8E-07	1E-01	2E-05	1E+00	NC	NC	1E-09	3E-04
Landbay E	7500-0650	2E-06	9E-02	NC	2E-04	6E-07	2E-01	3E-07	6E-01	7E-07	7E-02	2E-05	7E-01	NC	5E-02	5E-10	4E-04
Landbay E	7500-0800	2E-06	9E-02	NC	2E-04	6E-07	2E-01	3E-07	6E-01	7E-07	7E-02	2E-05	7E-01	NC	5E-02	5E-10	4E-04
Landbay E	7500-0950	2E-06	9E-02	NC	2E-04	6E-07	2E-01	3E-07	6E-01	7E-07	7E-02	2E-05	7E-01	NC	5E-02	5E-10	4E-04
Landbay E	7500-1100	2E-06	9E-02	NC	2E-04	6E-07	2E-01	3E-07	6E-01	7E-07	7E-02	2E-05	7E-01	NC	5E-02	5E-10	4E-04
Landbay E	7500-1400	2E-06	1E-01	NC	2E-04	5E-07	3E-01	3E-07	9E-01	5E-07	8E-02	1E-05	8E-01	NC	5E-02	6E-10	5E-04
Landbay E	7500-1550	2E-06	1E-01	NC	2E-04	5E-07	3E-01	3E-07	9E-01	5E-07	8E-02	1E-05	8E-01	NC	5E-02	6E-10	5E-04
Landbay E	7650-0800	1E-06	6E-02	NC	2E-04	4E-07	1E-01	2E-07	4E-01	4E-07	5E-02	9E-06	5E-01	NC	4E-02	4E-10	3E-04
Landbay E	7650-0950	1E-06	6E-02	NC	2E-04	4E-07	1E-01	2E-07	4E-01	4E-07	5E-02	9E-06	5E-01	NC	4E-02	4E-10	3E-04
Landbay E	7650-1100	1E-06	6E-02	NC	2E-04	4E-07	1E-01	2E-07	4E-01	4E-07	5E-02	9E-06	5E-01	NC	4E-02	4E-10	3E-04
Landbay E	7650-1250	1E-06	6E-02	NC	2E-04	4E-07	1E-01	2E-07	4E-01	4E-07	5E-02	9E-06	5E-01	NC	4E-02	4E-10	3E-04
Landbay E	7650-1550	1E-06	8E-02	NC	2E-04	4E-07	2E-01	2E-07	5E-01	3E-07	6E-02	8E-06	6E-01	NC	4E-02	5E-10	3E-04
Landbay E	7700-150	4E-06	1E-01	NC	2E-04	1E-06	1E-01	5E-07	5E-01	1E-06	8E-02	3E-05	7E-01	NC	4E-02	4E-10	3E-04
Landbay E	7700-151	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7800-1100	1E-06	6E-02	NC	2E-04	3E-07	9E-02	2E-07	3E-01	3E-07	5E-02	9E-06	5E-01	NC	4E-02	3E-10	3E-04
Landbay E	7800-1250	1E-06	6E-02	NC	1E-03	3E-07	9E-02	2E-07	3E-01	3E-07	5E-02	9E-06	5E-01	NC	2E-01	3E-10	3E-04
Landbay E	7800-1400	1E-06	8E-02	NC	2E-04	4E-07	2E-01	2E-07	5E-01	3E-07	6E-02	8E-06	6E-01	NC	4E-02	5E-10	3E-04
Landbay E	7800-1550	1E-06	8E-02	NC	2E-04	4E-07	2E-01	2E-07	5E-01	3E-07	6E-02	8E-06	6E-01	NC	4E-02	5E-10	3E-04
Landbay E	7950-1250	1E-06	6E-02	NC	2E-04	3E-07	9E-02	2E-07	3E-01	3E-07	5E-02	9E-06	5E-01	NC	4E-02	3E-10	3E-04
Landbay E	7950-1400	1E-06	6E-02	NC	2E-04	3E-07	9E-02	2E-07	3E-01	3E-07	5E-02	9E-06	5E-01	NC	4E-02	3E-10	3E-04
Landbay E	7950-1550	2E-06	1E-01	NC	3E-04	7E-07	2E-01	3E-07	5E-01	7E-07	8E-02	2E-05	7E-01	NC	6E-02	6E-10	5E-04
Landbay E	8100-1400	2E-06	1E-01	NC	3E-04	7E-07	2E-01	3E-07	5E-01	7E-07	8E-02	2E-05	7E-01	NC	6E-02	6E-10	5E-04
Landbay E	8100-1550	2E-06	1E-01	NC	3E-04	7E-07	2E-01	3E-07	5E-01	7E-07	8E-02	2E-05	7E-01	NC	6E-02	6E-10	5E-04
Landbay E	A7G191	3E-06	4E-02	NC	3E-04	6E-07	5E-02	4E-07	2E-01	8E-07	3E-02	2E-05	3E-01	NC	6E-02	9E-11	3E-04
Landbay E	A7G192	2E-06	3E-02	NC	1E-04	5E-07	5E-02	3E-07	2E-01	6E-07	2E-02	1E-05	2E-01	NC	3E-02	1E-10	2E-04
Landbay E	A7S160	3E-06	3E-01	2E-10	2E-04	1E-06	6E-01	5E-07	**2E+00**	9E-07	2E-01	2E-05	**2E+00**	7E-08	3E-02	3E-09	9E-04
Landbay E	A7S161	2E-06	3E-01	2E-10	2E-04	8E-07	6E-01	4E-07	**2E+00**	5E-07	2E-01	1E-05	**2E+00**	7E-08	4E-02	3E-09	9E-04

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	AAMARKB1-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	AAN-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	B227AEC-1S	NC	1E-03	NC	NC	NC	8E-04	NC	5E-03	NC	1E-03	NC	1E-02	NC	NC	NC	NC
Landbay E	DP-223	1E-12	2E-04	NC	NC	1E-09	3E-04	4E-10	1E-03	2E-14	2E-04	5E-12	2E-03	NC	NC	5E-12	3E-07
Landbay E	DP-223A	2E-12	3E-04	NC	NC	2E-09	5E-04	5E-10	2E-03	3E-14	2E-04	8E-12	2E-03	NC	NC	8E-12	4E-07
Landbay E	DP-223B	5E-13	1E-04	NC	NC	5E-10	1E-04	2E-10	7E-04	1E-14	8E-05	2E-12	8E-04	NC	NC	2E-12	1E-07
Landbay E	F-234	NC	3E-06	NC	1E-08	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	3E-06	NC	8E-09
Landbay E	F-6	9E-07	3E-02	NC	NC	2E-07	6E-02	1E-07	2E-01	3E-07	2E-02	7E-06	2E-01	NC	NC	1E-10	6E-05
Landbay E	GP 200-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 200-04	7E-13	1E-04	NC	NC	8E-10	2E-04	2E-10	9E-04	1E-14	1E-04	3E-12	1E-03	NC	NC	3E-12	2E-07
Landbay E	GP 201-03	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	NC
Landbay E	GP 201-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 202-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 202-04	1E-13	2E-05	NC	NC	1E-10	3E-05	3E-11	1E-04	2E-15	2E-05	5E-13	2E-04	NC	NC	5E-13	2E-08
Landbay E	GP 203-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 203-04	4E-13	9E-05	NC	NC	5E-10	1E-04	2E-10	6E-04	9E-15	7E-05	2E-12	7E-04	NC	NC	2E-12	1E-07
Landbay E	GP 204-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 204-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 205-03	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	NC
Landbay E	GP 208-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-15	1E-12	3E-04	NC	NC	2E-09	4E-04	5E-10	2E-03	3E-14	2E-04	7E-12	2E-03	NC	NC	7E-12	3E-07
Landbay E	GP 211-16	3E-13	6E-05	NC	NC	3E-10	8E-05	9E-11	4E-04	5E-15	4E-05	1E-12	4E-04	NC	NC	1E-12	6E-08
Landbay E	GP 212-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 212-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 213-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 213-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 214-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 215-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 220-07	9E-13	2E-04	NC	NC	1E-09	3E-04	3E-10	1E-03	2E-14	1E-04	5E-12	1E-03	NC	NC	5E-12	2E-07
Landbay E	GP 221-10	3E-07	8E-04	NC	NC	1E-07	9E-04	5E-08	3E-03	9E-08	6E-04	3E-06	6E-03	NC	NC	1E-10	6E-07
Landbay E	GP 221-11	3E-07	8E-04	NC	NC	1E-07	9E-04	6E-08	3E-03	1E-07	6E-04	3E-06	6E-03	NC	NC	1E-10	6E-07
Landbay E	GP 221-13	3E-07	7E-04	NC	NC	1E-07	7E-04	6E-08	2E-03	1E-07	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay E	GP 221-14	4E-07	9E-04	NC	NC	1E-07	1E-03	8E-08	3E-03	1E-07	7E-04	4E-06	7E-03	NC	NC	1E-10	6E-07
Landbay E	GP 223-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 223-06	3E-07	7E-04	NC	NC	1E-07	7E-04	6E-08	2E-03	1E-07	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay E	GP 223-07	3E-07	6E-04	NC	NC	1E-07	6E-04	6E-08	2E-03	9E-08	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay E	GP 223-08	3E-07	7E-04	NC	NC	1E-07	7E-04	6E-08	2E-03	1E-07	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay E	GP 223-09	3E-07	6E-04	NC	NC	1E-07	6E-04	5E-08	2E-03	9E-08	4E-04	3E-06	4E-03	NC	NC	1E-10	3E-07
Landbay E	GP 223-10	3E-07	6E-04	NC	NC	1E-07	6E-04	6E-08	2E-03	9E-08	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay E	GP 223-11	2E-07	4E-04	NC	NC	7E-08	5E-04	4E-08	1E-03	6E-08	3E-04	2E-06	3E-03	NC	NC	7E-11	3E-07
Landbay E	GP 223-12	3E-07	7E-04	NC	NC	1E-07	7E-04	6E-08	2E-03	1E-07	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay E	GP 223-13	3E-07	7E-04	NC	NC	1E-07	7E-04	6E-08	2E-03	1E-07	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay E	GP 223-14	3E-07	7E-04	NC	NC	1E-07	7E-04	6E-08	2E-03	1E-07	5E-04	3E-06	5E-03	NC	NC	1E-10	4E-07
Landbay E	GP 225-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 225-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 226-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 227-01	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	NC
Landbay E	GP 227-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 228-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 234-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 234-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 235-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 235-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 236-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 236-02	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC
Landbay E	GP 237-01	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay E	GP 237-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 240-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 244-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 250-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 252-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 252-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 253-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 253-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-11	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC
Landbay E	GP 45-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 46-01	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC
Landbay E	GP 47-03	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	NC
Landbay E	GP 47-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-07	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay E	GP 47-09	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	NC
Landbay E	GP 47-12	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	5E-05	NC	5E-04	NC	NC	NC	NC
Landbay E	GP 47-14	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	NC
Landbay E	GP 47-15	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	8E-04	NC	NC	NC	NC
Landbay E	GP 47-17	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	NC
Landbay E	GP 47-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP BG-04	2E-06	7E-02	NC	2E-04	6E-07	1E-01	3E-07	4E-01	7E-07	5E-02	2E-05	5E-01	NC	3E-02	3E-10	3E-04
Landbay E	GP BG-05	4E-06	2E-01	NC	3E-04	1E-06	3E-01	6E-07	7E-01	1E-06	1E-01	3E-05	1E+00	NC	6E-02	1E-09	5E-04
Landbay E	GP BG-06	3E-06	3E-01	NC	3E-04	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	6E-02	2E-09	8E-04
Landbay E	GP PBS-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP PBS-04	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	NC
Landbay E	GP PBS-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP PBS-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	HA 211-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	HA 211-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	IM12-1	2E-05	2E-01	9E-12	3E-04	5E-06	3E-01	3E-06	6E-01	6E-06	2E-01	1E-04	**2E+00**	7E-09	5E-02	3E-09	4E-04
Landbay E	IM12-2	3E-06	1E-01	NC	8E-05	7E-07	1E-01	4E-07	5E-01	7E-07	8E-02	2E-05	8E-01	NC	2E-02	5E-10	2E-04
Landbay E	IM12-3	6E-06	1E-01	NC	2E-04	1E-06	2E-01	8E-07	5E-01	2E-06	9E-02	4E-05	9E-01	NC	3E-02	6E-10	3E-04
Landbay E	IM12-4	2E-06	1E-01	NC	NC	5E-07	1E-01	3E-07	4E-01	5E-07	8E-02	1E-05	8E-01	NC	NC	5E-10	9E-05
Landbay E	IM12-5	4E-06	1E-01	NC	1E-04	1E-06	1E-01	5E-07	5E-01	1E-06	7E-02	3E-05	7E-01	NC	2E-02	4E-10	2E-04
Landbay E	IM14-1	NC	8E-07	NC	6E-05	NC	5E-07	NC	2E-06	NC	4E-07	NC	5E-06	NC	1E-02	NC	1E-06
Landbay E	IM14-2	3E-10	9E-05	4E-08	1E-02	6E-11	5E-05	6E-11	2E-04	2E-11	1E-05	2E-09	4E-04	9E-06	**2E+00**	1E-09	3E-04
Landbay E	IM14-3	9E-10	1E-05	1E-07	1E-03	2E-10	6E-06	2E-10	4E-05	1E-10	4E-06	4E-08	6E-05	8E-05	2E-01	7E-09	3E-05
Landbay E	IM14-4	1E-09	2E-05	2E-07	3E-03	3E-10	1E-05	3E-10	7E-05	2E-10	6E-06	6E-08	1E-04	1E-04	4E-01	1E-08	6E-05
Landbay E	IM14-5	4E-09	1E-03	5E-07	1E-01	8E-10	6E-04	8E-10	2E-03	4E-10	2E-04	5E-08	5E-03	**2E-04**	**2E+01**	2E-08	4E-03
Landbay E	IM14-6	NC	2E-06	NC	4E-04	NC	9E-07	NC	9E-06	NC	2E-07	NC	7E-06	NC	6E-02	NC	6E-06
Landbay E	IM14-7	7E-10	2E-04	9E-08	3E-02	1E-10	1E-04	1E-10	7E-04	4E-11	2E-05	4E-09	8E-04	2E-05	**5E+00**	3E-09	7E-04
Landbay E	JT I-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JT O-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JT O-01C	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JTF-0101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	MARKH-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	MCD-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	S-234	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	NC

Table 4-2b: Upper-Bound Total Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident				Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Outdoor Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	SB 211-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SR-200S	5E-10	4E-04	7E-08	2E-02	1E-09	5E-04	5E-10	2E-03	3E-11	2E-04	2E-09	3E-03	1E-05	**3E+00**	2E-09	5E-04
Landbay E	SR-235	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-219A	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	NC
Landbay E	SS-227A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-227B	NC	1E-03	NC	NC	NC	7E-04	NC	3E-04	NC	1E-03	NC	6E-03	NC	NC	NC	NC
Landbay E	SS-236A	NC	6E-06	NC	NC	NC	4E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	NC
Landbay E	SS-244A	NC	2E-02	NC	NC	NC	3E-02	NC	1E-01	NC	1E-02	NC	1E-01	NC	NC	NC	3E-05
Landbay E	SS-250A	2E-06	1E-02	NC	4E-03	4E-07	1E-02	2E-07	2E-02	5E-07	8E-03	1E-05	8E-02	NC	8E-01	2E-10	4E-03
Landbay E	SS-255A	NC	2E-05	NC	NC	NC	1E-05	NC	9E-05	NC	2E-05	NC	2E-04	NC	NC	NC	NC
Landbay E	SS-40A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 205-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 221-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 252-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 45-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 47-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 47-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 221-01	5E-07	6E-03	NC	NC	2E-07	7E-03	9E-08	2E-02	2E-07	4E-03	4E-06	4E-02	NC	NC	1E-10	5E-06
Landbay E	TP 221-03	7E-07	5E-03	NC	NC	2E-07	6E-03	1E-07	2E-02	2E-07	4E-03	5E-06	4E-02	NC	NC	1E-10	5E-06
Landbay E	TP 223-01	1E-06	6E-03	NC	NC	3E-07	5E-03	1E-07	1E-02	3E-07	4E-03	8E-06	4E-02	NC	NC	1E-10	3E-06
Landbay E	TP 223-03	3E-07	1E-03	NC	NC	9E-08	2E-03	5E-08	5E-03	8E-08	8E-04	2E-06	8E-03	NC	NC	9E-11	1E-06
Landbay E	TP 223-04	5E-07	3E-03	NC	NC	1E-07	4E-03	8E-08	1E-02	1E-07	2E-03	4E-06	2E-02	NC	NC	1E-10	3E-06
	Background	2E-06	2E-01	NC	3E-04	8E-07	3E-01	4E-07	9E-01	7E-07	1E-01	2E-05	1E+00	NC	5E-02	1E-09	6E-04

Notes:

1. Landbay Use Designation:
   - Landbay A - industrial/commercial use
   - Landbay B - mixed use
   - Landbay C - industrial/commercial use
   - Landbay D - residential use
   - Landbay E - residential use
2. Cumulative cancer risk and HI estimates in excess of 1E-4 and 1, respectively, are shaded gray and in bold font.
3. Cumulative cancer risk and HI estimates are based on the highest concentration for each chemical at each location.
4. Cumulative cancer risk and HI estimates are based on the total of both site-related and background soil concentrations.
5. Cumulative cancer risk and HI estimates due to the ingestion of homegrown produce are based on concentrations from shallow soil samples (less than or equal to 3 ft bgs). For soil sampling locations without samples less than or equal to 3 ft bgs, the concentrations used were assumed to equal those in the shallowest most sample.
6. NC - risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected at this location.

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	100AB1	5E-08	7E-03	6E-10	4E-04	1E-08	7E-03	5E-09	2E-02	1E-08	5E-03	2E-07	4E-02	2E-07	7E-02	6E-08	**5E+00**	6E-08	1E-01	3E-09	3E-04
Landbay A	100AB2	2E-07	8E-03	6E-10	4E-04	4E-08	7E-03	2E-08	2E-02	6E-08	6E-03	1E-06	4E-02	2E-07	7E-02	1E-06	4E-01	1E-06	4E-02	3E-09	3E-04
Landbay A	100AG3	7E-09	1E-04	1E-08	1E-04	1E-09	6E-05	1E-09	2E-04	4E-10	5E-05	3E-08	5E-04	4E-06	3E-02	7E-09	**6E+00**	7E-09	1E-01	3E-08	2E-04
Landbay A	100AG4	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105B148	NC	2E-06	NC	NC	NC	1E-06	NC	9E-06	NC	2E-06	NC	2E-05	NC	NC	NC	9E-01	NC	2E-02	NC	NC
Landbay A	105B149	NC	4E-06	NC	NC	NC	2E-06	NC	1E-05	NC	3E-06	NC	3E-05	NC	NC	NC	1E+00	NC	3E-02	NC	NC
Landbay A	105B150	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G41	NC	4E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**2E+03**	NC	**3E+01**	NC	NC
Landbay A	105G42	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	NC
Landbay A	105G43	3E-08	1E-02	3E-10	NC	9E-09	2E-02	4E-09	8E-02	7E-09	8E-03	1E-07	7E-02	9E-08	NC	3E-08	**4E+00**	3E-08	7E-02	2E-09	2E-05
Landbay A	105G44	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G45	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G46	3E-08	1E-02	3E-10	NC	9E-09	2E-02	4E-09	8E-02	7E-09	8E-03	1E-07	8E-02	9E-08	NC	3E-08	**8E+01**	3E-08	**2E+00**	2E-09	2E-05
Landbay A	105G47	NC	2E-05	NC	NC	NC	1E-05	NC	6E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**7E+00**	NC	1E-01	NC	NC
Landbay A	105G48	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**7E+00**	NC	1E-01	NC	NC
Landbay A	105G49	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay A	105G50	3E-08	1E-02	3E-10	NC	9E-09	2E-02	4E-09	8E-02	7E-09	8E-03	1E-07	8E-02	9E-08	NC	3E-08	1E+00	3E-08	3E-02	2E-09	2E-05
Landbay A	105G51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G52	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	106B1	2E-07	2E-02	2E-09	2E-08	3E-08	2E-02	1E-08	7E-02	4E-08	1E-02	7E-07	9E-02	5E-07	5E-06	1E-07	2E-01	1E-07	2E-02	1E-08	2E-05
Landbay A	106B2	2E-08	9E-03	3E-09	8E-04	3E-09	2E-02	2E-09	7E-02	5E-09	6E-03	8E-08	6E-02	6E-07	1E-01	2E-08	4E-01	2E-08	2E-02	1E-09	4E-05
Landbay A	106B3	7E-08	1E-02	8E-10	6E-08	1E-08	2E-02	6E-09	7E-02	2E-08	9E-03	3E-07	7E-02	2E-07	2E-05	7E-08	2E-01	7E-08	2E-02	4E-09	2E-05
Landbay A	106B6	NC	9E-06	NC	NC	NC	4E-06	NC	8E-06	NC	6E-06	NC	4E-05	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay A	106G4	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	5E-01	NC	9E-03	NC	NC
Landbay A	106G5	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	3E-04	NC	4E-03	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay A	106TP1-7	NC	4E-03	NC	3E-05	NC	9E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	5E-03	NC	5E-03	NC	5E-03	NC	1E-05
Landbay A	106TP3-7	2E-07	2E-02	2E-09	6E-05	4E-08	2E-02	2E-08	6E-02	7E-08	1E-02	1E-06	9E-02	5E-07	1E-02	1E-06	2E-02	1E-06	2E-02	9E-09	1E-05
Landbay A	107B1	2E-08	7E-03	2E-07	1E-02	5E-09	1E-02	3E-09	4E-02	6E-09	5E-03	2E-07	4E-02	**2E-04**	**2E+00**	1E-05	9E-01	1E-05	2E-02	2E-08	3E-04
Landbay A	107B2	7E-07	1E-02	4E-08	3E-02	2E-07	6E-03	9E-08	1E-02	2E-07	8E-03	5E-06	6E-02	3E-05	**5E+00**	3E-06	**3E+00**	3E-06	6E-02	8E-09	6E-04
Landbay A	107B3	2E-07	7E-03	3E-08	3E-03	3E-08	3E-03	2E-08	9E-03	5E-08	5E-03	1E-06	3E-02	2E-05	5E-01	3E-07	1E+00	3E-07	3E-02	7E-09	5E-05
Landbay A	107G4	2E-07	1E-02	3E-10	NC	4E-08	2E-02	2E-08	7E-02	6E-08	1E-02	1E-06	1E-01	8E-08	NC	3E-07	4E-01	3E-07	1E-02	2E-09	9E-06
Landbay A	107G5	4E-07	7E-03	NC	NC	1E-07	1E-02	5E-08	3E-02	1E-07	5E-03	3E-06	5E-02	NC	NC	8E-07	9E-01	8E-07	3E-02	1E-11	8E-06
Landbay A	107G6	2E-12	9E-03	NC	NC	2E-09	1E-02	6E-10	6E-02	4E-14	7E-03	9E-12	7E-02	NC	NC	NC	2E-01	NC	7E-03	9E-12	9E-06
Landbay A	107G7	4E-07	5E-03	NC	NC	8E-08	6E-03	5E-08	2E-02	1E-07	4E-03	2E-06	3E-02	NC	NC	7E-07	2E-01	7E-07	1E-02	2E-11	4E-06
Landbay A	107G8	8E-13	1E-03	NC	NC	9E-10	1E-03	3E-10	6E-03	2E-14	9E-04	4E-12	9E-03	NC	NC	NC	9E-02	NC	5E-03	4E-12	5E-07
Landbay A	107TP1-20	5E-13	1E-03	NC	NC	6E-10	2E-03	2E-10	8E-03	1E-14	9E-04	2E-12	8E-03	NC	NC	NC	9E-02	NC	1E-02	2E-12	2E-06
Landbay A	107TP1-30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	107TP13-15	1E-13	2E-03	NC	1E-08	2E-10	1E-03	5E-11	6E-03	3E-15	1E-03	7E-13	1E-02	NC	3E-06	NC	**3E+00**	NC	6E-02	7E-13	1E-07
Landbay A	107TP14-15	8E-13	1E-02	NC	NC	9E-10	2E-02	3E-10	8E-02	2E-14	8E-03	4E-12	8E-02	NC	NC	NC	**2E+00**	NC	4E-02	4E-12	2E-05
Landbay A	107TP18-(-10)	3E-08	4E-02	3E-10	NC	3E-08	6E-02	1E-08	2E-01	7E-09	3E-02	1E-07	3E-01	1E-07	NC	3E-08	**2E+00**	3E-08	5E-02	2E-09	6E-05
Landbay A	107TP2-10	1E-09	4E-03	NC	NC	8E-10	9E-03	3E-10	4E-02	3E-10	3E-03	5E-09	3E-02	NC	NC	7E-09	1E-02	7E-09	1E-02	3E-12	9E-06
Landbay A	18B1	NC	1E-04	NC	NC	NC	9E-05	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay A	2700-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	2700-3200	9E-07	3E-02	NC	NC	2E-07	3E-02	1E-07	1E-01	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	3E-11	2E-05
Landbay A	2850-3050	1E-06	3E-02	NC	NC	3E-07	6E-02	2E-07	2E-01	4E-07	2E-02	9E-06	2E-01	NC	NC	2E-06	4E-02	2E-06	4E-02	4E-11	7E-05
Landbay A	2850-3200	1E-06	2E-02	NC	NC	3E-07	7E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	NC	NC	3E-06	1E-02	3E-06	1E-02	4E-11	8E-05
Landbay A	2850-3350	6E-07	3E-02	NC	NC	1E-07	4E-02	8E-08	2E-01	2E-07	2E-02	4E-06	2E-01	NC	NC	1E-06	9E-03	1E-06	9E-03	4E-11	3E-05
Landbay A	2850-3500	8E-13	7E-04	NC	NC	9E-10	8E-04	3E-10	2E-03	2E-14	5E-04	4E-12	4E-03	NC	NC	NC	1E-01	NC	2E-02	4E-12	5E-07
Landbay A	3000-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	3000-3050	5E-07	2E-02	NC	3E-05	1E-07	1E-02	7E-08	6E-02	1E-07	1E-02	4E-06	1E-01	NC	6E-03	1E-06	3E-02	1E-06	3E-02	2E-11	3E-05
Landbay A	3000-3200	5E-07	2E-02	NC	3E-05	1E-07	1E-02	7E-08	6E-02	1E-07	1E-02	4E-06	1E-01	NC	6E-03	1E-06	3E-02	1E-06	3E-02	2E-11	3E-05
Landbay A	3000-3350	8E-13	7E-04	NC	NC	9E-10	8E-04	3E-10	2E-03	2E-14	5E-04	4E-12	4E-03	NC	NC	NC	1E-01	NC	2E-02	4E-12	5E-07
Landbay A	3000-3500	8E-13	7E-04	NC	NC	9E-10	8E-04	3E-10	2E-03	2E-14	5E-04	4E-12	4E-03	NC	NC	NC	1E-01	NC	2E-02	4E-12	5E-07
Landbay A	3150-3050	1E-06	3E-02	NC	NC	2E-07	3E-02	1E-07	1E-01	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	1E-05
Landbay A	3150-3200	5E-07	2E-02	NC	3E-05	1E-07	1E-02	7E-08	6E-02	1E-07	1E-02	4E-06	1E-01	NC	6E-03	1E-06	3E-02	1E-06	3E-02	2E-11	3E-05
Landbay A	3150-3350	8E-07	2E-02	NC	6E-05	2E-07	1E-01	1E-07	3E-01	2E-07	1E-02	6E-06	1E-01	NC	1E-02	2E-06	9E-03	2E-06	9E-03	2E-11	2E-04
Landbay A	3150-3500	8E-13	7E-04	NC	NC	9E-10	8E-04	3E-10	2E-03	2E-14	5E-04	4E-12	4E-03	NC	NC	NC	1E-01	NC	2E-02	4E-12	5E-07
Landbay A	3300-2900	9E-07	4E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	6E-02	2E-06	6E-02	2E-10	4E-05
Landbay A	3300-3050	3E-06	2E-01	NC	2E-08	1E-06	4E-01	5E-07	9E-01	8E-07	2E-01	2E-05	**2E+00**	NC	5E-06	5E-06	3E-02	5E-06	3E-02	2E-09	3E-04
Landbay A	3300-3200	1E-06	5E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	3E-07	3E-02	8E-06	3E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	4E-05
Landbay A	3300-3350	8E-07	2E-02	NC	6E-05	2E-07	1E-01	1E-07	3E-01	2E-07	1E-02	6E-06	1E-01	NC	1E-02	2E-06	9E-03	2E-06	9E-03	2E-11	2E-04
Landbay A	3300-3500	8E-07	2E-02	NC	6E-05	2E-07	1E-01	1E-07	3E-01	2E-07	1E-02	6E-06	1E-01	NC	1E-02	2E-06	9E-03	2E-06	9E-03	2E-11	2E-04
Landbay A	3450-2900	9E-07	4E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	6E-02	2E-06	6E-02	2E-10	4E-05
Landbay A	3450-3050	NC	3E-03	NC	NC	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	4E-03	NC	4E-03	NC	5E-06
Landbay A	3450-3200	5E-07	4E-02	NC	NC	1E-07	4E-02	7E-08	1E-01	1E-07	3E-02	3E-06	3E-01	NC	NC	8E-07	5E-03	8E-07	5E-03	2E-10	3E-05
Landbay A	3450-3350	8E-07	2E-02	NC	6E-05	2E-07	1E-01	1E-07	3E-01	2E-07	1E-02	6E-06	1E-01	NC	1E-02	2E-06	9E-03	2E-06	9E-03	2E-11	2E-04
Landbay A	3450-3500	5E-07	3E-02	NC	NC	1E-07	1E-01	7E-08	3E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	9E-07	9E-03	9E-07	9E-03	1E-10	1E-04
Landbay A	3450-3650	1E-06	2E-02	NC	NC	3E-07	2E-01	2E-07	6E-01	3E-07	1E-02	9E-06	1E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	2E-04
Landbay A	3450-3800	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	3E-04	NC	3E-04	NC	NC
Landbay A	3450-3950	7E-07	1E-02	NC	NC	2E-07	9E-03	9E-08	3E-02	2E-07	8E-03	5E-06	7E-02	NC	NC	1E-06	6E-03	1E-06	6E-03	2E-11	3E-06
Landbay A	34B1	4E-07	8E-03	NC	NC	9E-08	1E-02	5E-08	5E-02	1E-07	6E-03	3E-06	6E-02	NC	NC	7E-07	**4E+00**	7E-07	9E-02	1E-11	1E-05
Landbay A	34B2	4E-07	8E-03	NC	NC	9E-08	1E-02	5E-08	5E-02	1E-07	6E-03	3E-06	6E-02	NC	NC	7E-07	8E-01	7E-07	4E-02	1E-11	1E-05
Landbay A	34G3	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay A	34G4	NC	2E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	1E+00	NC	2E-02	NC	NC
Landbay A	34G5	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	**5E+00**	NC	9E-02	NC	NC
Landbay A	3600-2900	NC	3E-03	NC	NC	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	4E-03	NC	4E-03	NC	5E-06
Landbay A	3600-3050	NC	3E-03	NC	NC	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	4E-03	NC	4E-03	NC	5E-06
Landbay A	3600-31	2E-06	1E-01	NC	NC	7E-07	2E-01	4E-07	3E-01	7E-07	8E-02	2E-05	7E-01	NC	NC	4E-06	2E-02	4E-06	2E-02	9E-10	1E-04
Landbay A	3600-3200	NC	3E-03	NC	NC	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	4E-03	NC	4E-03	NC	5E-06
Landbay A	3600-3350	5E-07	3E-02	NC	NC	1E-07	1E-01	7E-08	3E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	9E-07	9E-03	9E-07	9E-03	1E-10	1E-04
Landbay A	3600-3500	5E-07	3E-02	NC	NC	1E-07	1E-01	7E-08	3E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	9E-07	9E-03	9E-07	9E-03	1E-10	1E-04
Landbay A	3600-3650	5E-07	3E-02	NC	NC	1E-07	1E-01	7E-08	3E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	9E-07	9E-03	9E-07	9E-03	1E-10	1E-04
Landbay A	3600-3800	2E-06	3E-01	NC	NC	1E-06	6E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	5E-06	3E-02	5E-06	3E-02	2E-09	6E-04
Landbay A	3600-3950	5E-07	7E-02	NC	2E-05	2E-07	1E-01	1E-07	4E-01	1E-07	5E-02	4E-06	5E-01	NC	4E-03	9E-07	4E-03	9E-07	4E-03	6E-10	2E-04
Landbay A	3600-4100	5E-07	7E-02	NC	2E-05	2E-07	1E-01	1E-07	4E-01	1E-07	5E-02	4E-06	5E-01	NC	4E-03	9E-07	4E-03	9E-07	4E-03	6E-10	2E-04
Landbay A	3600-4250	1E-06	1E-02	NC	NC	2E-07	8E-03	1E-07	2E-02	3E-07	8E-03	8E-06	7E-02	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	2E-06
Landbay A	3700-32	3E-06	6E-02	NC	3E-04	7E-07	1E-01	4E-07	4E-01	9E-07	4E-02	2E-05	4E-01	NC	6E-02	6E-06	4E-02	6E-06	4E-02	3E-10	5E-04
Landbay A	3750-3050	2E-08	3E-03	3E-10	9E-05	5E-09	2E-02	2E-09	6E-02	6E-09	2E-03	1E-07	2E-02	9E-08	2E-02	2E-08	1E-02	2E-08	1E-02	2E-09	1E-04
Landbay A	3750-3200	2E-08	3E-03	3E-10	9E-05	5E-09	2E-02	2E-09	6E-02	6E-09	2E-03	1E-07	2E-02	9E-08	2E-02	2E-08	1E-02	2E-08	1E-02	2E-09	1E-04
Landbay A	3750-3350	2E-08	2E-03	NC	1E-05	7E-09	4E-03	3E-09	2E-02	5E-09	1E-03	2E-07	1E-02	NC	2E-03	3E-08	6E-04	3E-08	6E-04	9E-12	2E-05
Landbay A	3750-3500	2E-08	2E-03	NC	1E-05	7E-09	4E-03	3E-09	2E-02	5E-09	1E-03	2E-07	1E-02	NC	2E-03	3E-08	6E-04	3E-08	6E-04	9E-12	2E-05
Landbay A	3750-3650	7E-08	1E-02	2E-10	NC	5E-08	1E-02	2E-08	1E-02	2E-08	9E-03	5E-07	9E-02	7E-08	NC	1E-07	1E-03	1E-07	1E-03	1E-09	6E-06
Landbay A	3750-3800	7E-08	1E-02	2E-10	NC	5E-08	1E-02	2E-08	1E-02	2E-08	9E-03	5E-07	9E-02	7E-08	NC	1E-07	1E-03	1E-07	1E-03	1E-09	6E-06
Landbay A	3750-3950	5E-07	7E-02	NC	2E-05	2E-07	1E-01	1E-07	4E-01	1E-07	5E-02	4E-06	5E-01	NC	4E-03	9E-07	4E-03	9E-07	4E-03	6E-10	2E-04
Landbay A	3750-4100	5E-07	7E-02	NC	2E-05	2E-07	1E-01	1E-07	4E-01	1E-07	5E-02	4E-06	5E-01	NC	4E-03	9E-07	4E-03	9E-07	4E-03	6E-10	2E-04
Landbay A	3750-4250	7E-08	1E-02	NC	NC	3E-08	1E-02	2E-08	3E-02	2E-08	8E-03	6E-07	8E-02	NC	NC	2E-07	6E-04	2E-07	6E-04	7E-11	4E-06
Landbay A	3750-4400	4E-08	2E-02	2E-10	3E-05	5E-08	5E-02	2E-08	1E-01	1E-08	1E-02	3E-07	1E-01	6E-08	5E-03	6E-08	2E-03	6E-08	2E-03	1E-09	7E-05
Landbay A	3750-4550	4E-08	2E-02	2E-10	3E-05	5E-08	5E-02	2E-08	1E-01	1E-08	1E-02	3E-07	1E-01	6E-08	5E-03	6E-08	2E-03	6E-08	2E-03	1E-09	7E-05
Landbay A	37B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	3E-03	NC	NC
Landbay A	3800-19	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay A	3800-41	3E-06	2E-01	3E-10	NC	9E-07	4E-01	4E-07	9E-01	7E-07	1E-01	2E-05	1E+00	1E-07	NC	5E-06	3E-02	5E-06	3E-02	3E-09	4E-04
Landbay A	3900-3050	6E-07	7E-02	NC	NC	3E-07	2E-01	1E-07	4E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	6E-03	1E-06	6E-03	7E-10	2E-04
Landbay A	3900-3200	6E-07	7E-02	NC	NC	3E-07	2E-01	1E-07	4E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	6E-03	1E-06	6E-03	7E-10	2E-04
Landbay A	3900-3350	2E-08	2E-03	NC	1E-05	7E-09	4E-03	3E-09	2E-02	5E-09	1E-03	2E-07	1E-02	NC	2E-03	3E-08	6E-04	3E-08	6E-04	9E-12	2E-05
Landbay A	3900-34	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	3900-3500	2E-08	2E-03	NC	1E-05	7E-09	4E-03	3E-09	2E-02	5E-09	1E-03	2E-07	1E-02	NC	2E-03	3E-08	6E-04	3E-08	6E-04	9E-12	2E-05
Landbay A	3900-3650	7E-08	1E-02	2E-10	NC	5E-08	1E-02	2E-08	1E-02	2E-08	9E-03	5E-07	9E-02	7E-08	NC	1E-07	1E-03	1E-07	1E-03	1E-09	6E-06
Landbay A	3900-3800	7E-08	1E-02	2E-10	NC	5E-08	1E-02	2E-08	1E-02	2E-08	9E-03	5E-07	9E-02	7E-08	NC	1E-07	1E-03	1E-07	1E-03	1E-09	6E-06
Landbay A	3900-3950	8E-08	3E-02	NC	NC	7E-08	4E-02	3E-08	1E-01	2E-08	2E-02	7E-07	2E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	2E-10	4E-05
Landbay A	3900-4100	4E-07	6E-03	NC	NC	9E-08	8E-02	5E-08	3E-01	1E-07	4E-03	3E-06	4E-02	NC	NC	7E-07	4E-03	7E-07	4E-03	1E-11	1E-04
Landbay A	3900-4250	1E-09	6E-03	NC	NC	3E-10	9E-02	1E-10	3E-01	4E-10	4E-03	7E-09	4E-02	NC	NC	1E-08	7E-04	1E-08	7E-04	2E-13	1E-04
Landbay A	3900-4400	4E-08	2E-02	2E-10	3E-05	5E-08	5E-02	2E-08	1E-01	1E-08	1E-02	3E-07	1E-01	6E-08	5E-03	6E-08	2E-03	6E-08	2E-03	1E-09	7E-05
Landbay A	3900-4550	4E-08	2E-02	2E-10	3E-05	5E-08	5E-02	2E-08	1E-01	1E-08	1E-02	3E-07	1E-01	6E-08	5E-03	6E-08	2E-03	6E-08	2E-03	1E-09	7E-05
Landbay A	39B1	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	2E-01	NC	5E-03	NC	NC
Landbay A	4000-36	2E-09	4E-03	NC	NC	1E-09	9E-03	5E-10	4E-02	5E-10	3E-03	1E-08	3E-02	NC	NC	3E-09	5E-04	3E-09	5E-04	4E-12	1E-05
Landbay A	4000-37-1	2E-06	3E-02	NC	NC	4E-07	4E-02	2E-07	1E-01	5E-07	2E-02	1E-05	2E-01	NC	NC	3E-06	2E-02	3E-06	2E-02	8E-11	3E-05
Landbay A	4000-37-2	1E-07	6E-02	NC	3E-05	2E-07	1E-01	7E-08	3E-01	4E-08	5E-02	1E-06	5E-01	NC	7E-03	3E-07	1E-03	3E-07	1E-03	7E-10	2E-04
Landbay A	4000-43	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4050-3200	1E-12	1E-02	NC	NC	2E-09	3E-02	5E-10	1E-01	3E-14	9E-03	8E-12	9E-02	NC	NC	NC	1E-03	NC	1E-03	8E-12	3E-05
Landbay A	4050-3350	2E-07	6E-02	NC	NC	1E-07	1E-01	5E-08	3E-01	5E-08	4E-02	1E-06	4E-01	NC	NC	3E-07	2E-03	3E-07	2E-03	4E-10	1E-04
Landbay A	4050-3500	2E-13	4E-05	NC	NC	2E-10	8E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	1E-04	NC	1E-04	8E-13	9E-08
Landbay A	4050-4250	9E-13	2E-03	NC	NC	1E-09	3E-03	3E-10	1E-02	2E-14	1E-03	5E-12	1E-02	NC	NC	NC	2E-02	NC	2E-02	5E-12	3E-06
Landbay A	4050-4400	9E-13	2E-03	NC	NC	1E-09	3E-03	3E-10	1E-02	2E-14	1E-03	5E-12	1E-02	NC	NC	NC	2E-02	NC	2E-02	5E-12	3E-06
Landbay A	4050-4550	4E-06	1E-01	NC	9E-05	1E-06	5E-01	5E-07	1E+00	1E-06	1E-01	3E-05	1E+00	NC	2E-02	7E-06	1E-01	7E-06	5E-02	9E-10	6E-04
Landbay A	4050-4550SE	1E-07	7E-03	NC	NC	3E-08	1E-02	2E-08	6E-02	3E-08	5E-03	9E-07	5E-02	NC	NC	2E-07	1E-03	2E-07	1E-03	4E-11	2E-05
Landbay A	4050-4550SW	3E-13	8E-03	NC	5E-06	4E-10	2E-02	1E-10	7E-02	7E-15	6E-03	2E-12	6E-02	NC	9E-04	NC	3E-04	NC	3E-04	2E-12	2E-05
Landbay A	4100-38	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	8E-01	NC	2E-02	NC	NC
Landbay A	4100-39	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-40	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-44	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-45	1E-06	1E-02	NC	NC	3E-07	7E-03	2E-07	8E-03	4E-07	7E-03	1E-05	6E-02	NC	NC	3E-06	4E-02	3E-06	4E-02	5E-11	2E-06
Landbay A	4200-3500	5E-08	2E-02	NC	NC	2E-08	3E-02	1E-08	1E-01	1E-08	1E-02	4E-07	1E-01	NC	NC	1E-07	5E-03	1E-07	5E-03	3E-11	2E-05
Landbay A	4200-4250	9E-13	2E-03	NC	NC	1E-09	3E-03	3E-10	1E-02	2E-14	1E-03	5E-12	1E-02	NC	NC	NC	2E-02	NC	2E-02	5E-12	3E-06
Landbay A	4200-4400	9E-13	2E-03	NC	NC	1E-09	3E-03	3E-10	1E-02	2E-14	1E-03	5E-12	1E-02	NC	NC	NC	2E-02	NC	2E-02	5E-12	3E-06
Landbay A	4350-2900	2E-08	8E-03	3E-10	NC	8E-09	1E-02	3E-09	5E-02	6E-09	6E-03	1E-07	5E-02	8E-08	NC	2E-08	4E-02	2E-08	4E-02	2E-09	1E-05
Landbay A	4350-3050	1E-12	2E-03	NC	NC	1E-09	2E-03	4E-10	8E-03	3E-14	1E-03	6E-12	1E-02	NC	NC	NC	3E-02	NC	3E-02	6E-12	2E-06
Landbay A	4350-3500	4E-08	9E-03	NC	NC	2E-08	2E-02	9E-09	7E-02	1E-08	7E-03	4E-07	7E-02	NC	NC	9E-08	4E-03	9E-08	4E-03	3E-11	2E-05
Landbay A	4350-4250	6E-07	7E-02	NC	NC	3E-07	1E-01	1E-07	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	8E-10	8E-05
Landbay A	4350-4400	6E-07	7E-02	NC	NC	3E-07	1E-01	1E-07	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	8E-10	8E-05
Landbay A	4400-52	2E-06	2E-02	2E-10	NC	5E-07	2E-02	3E-07	4E-02	7E-07	1E-02	2E-05	1E-01	7E-08	NC	4E-06	3E-02	4E-06	3E-02	1E-09	1E-05
Landbay A	4500-2900	2E-08	8E-03	3E-10	NC	8E-09	1E-02	3E-09	5E-02	6E-09	6E-03	1E-07	5E-02	8E-08	NC	2E-08	4E-02	2E-08	4E-02	2E-09	1E-05
Landbay A	4500-3050	1E-12	4E-03	NC	5E-04	1E-09	7E-03	3E-10	3E-02	2E-14	3E-03	5E-12	3E-02	NC	9E-02	NC	2E-02	NC	2E-02	5E-12	5E-04
Landbay A	4500-3200	1E-12	8E-03	NC	NC	1E-09	1E-02	4E-10	4E-02	3E-14	6E-03	6E-12	6E-02	NC	NC	NC	9E-02	NC	3E-02	6E-12	7E-06
Landbay A	4500-4250	6E-07	7E-02	NC	NC	3E-07	1E-01	1E-07	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	8E-10	8E-05
Landbay A	4500-4400	6E-07	7E-02	NC	NC	3E-07	1E-01	1E-07	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	8E-10	8E-05
Landbay A	4500-53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4650-3050	2E-08	8E-03	3E-10	NC	8E-09	1E-02	3E-09	5E-02	6E-09	6E-03	1E-07	5E-02	8E-08	NC	2E-08	4E-02	2E-08	4E-02	2E-09	1E-05
Landbay A	4650-3200	2E-12	5E-03	NC	NC	2E-09	9E-03	5E-10	4E-02	3E-14	4E-03	8E-12	3E-02	NC	NC	NC	3E-02	NC	3E-02	8E-12	9E-06
Landbay A	4650-4250	3E-08	2E-02	NC	NC	5E-08	3E-02	2E-08	8E-02	9E-09	2E-02	3E-07	2E-01	NC	NC	6E-08	3E-03	6E-08	3E-03	2E-10	2E-05
Landbay A	5100-3050	6E-07	5E-02	NC	2E-04	2E-07	1E-01	1E-07	3E-01	2E-07	4E-02	4E-06	4E-01	NC	3E-02	1E-06	4E-02	1E-06	4E-02	4E-10	3E-04
Landbay A	5100-3200	7E-07	6E-02	1E-09	2E-04	2E-07	1E-01	1E-07	3E-01	2E-07	4E-02	5E-06	4E-01	3E-07	3E-02	1E-06	5E-02	1E-06	5E-02	7E-09	3E-04
Landbay A	5200-70	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	5200-71	2E-06	5E-02	4E-10	3E-06	5E-07	5E-02	3E-07	2E-01	7E-07	3E-02	2E-05	3E-01	1E-07	7E-04	4E-06	**4E+00**	4E-06	1E-01	3E-09	4E-05

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	5300-74	1E-07	1E-02	1E-09	NC	3E-08	1E-02	1E-08	3E-02	4E-08	7E-03	8E-07	5E-02	3E-07	NC	2E-07	6E-03	2E-07	6E-03	6E-09	7E-06
Landbay A	5400-3500	6E-13	6E-04	NC	NC	7E-10	1E-03	2E-10	3E-03	1E-14	5E-04	3E-12	4E-03	NC	NC	NC	2E-02	NC	2E-02	3E-12	9E-07
Landbay A	5400-75	2E-06	4E-02	2E-13	1E-06	6E-07	9E-02	3E-07	2E-01	7E-07	3E-02	2E-05	3E-01	2E-10	3E-04	5E-06	**5E+00**	5E-06	1E-01	3E-10	9E-05
Landbay A	5500-76	2E-06	3E-02	3E-09	2E-04	4E-07	3E-02	2E-07	8E-02	8E-07	2E-02	2E-05	2E-01	1E-06	3E-02	5E-06	8E-01	5E-06	5E-02	6E-08	2E-04
Landbay A	5550-3950	9E-07	4E-02	NC	2E-05	3E-07	3E-02	1E-07	8E-02	3E-07	3E-02	7E-06	3E-01	NC	4E-03	2E-06	1E+00	2E-06	8E-02	2E-10	3E-05
Landbay A	5700-3950	9E-07	4E-02	NC	2E-05	3E-07	3E-02	1E-07	8E-02	3E-07	3E-02	7E-06	3E-01	NC	4E-03	2E-06	1E+00	2E-06	8E-02	2E-10	3E-05
Landbay A	5700-88	2E-06	6E-02	NC	1E-05	5E-07	5E-02	3E-07	1E-01	6E-07	4E-02	1E-05	4E-01	NC	3E-03	4E-06	3E-02	4E-06	3E-02	4E-10	3E-05
Landbay A	5TP1-7	NC	4E-03	NC	NC	NC	8E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	NC	NC	2E-01	NC	4E-03	NC	8E-06
Landbay A	5TP2-7	NC	4E-03	NC	NC	NC	8E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	NC	NC	7E-02	NC	1E-03	NC	8E-06
Landbay A	8TP1-7	NC	5E-03	NC	NC	NC	9E-03	NC	4E-02	NC	3E-03	NC	3E-02	NC	NC	NC	2E-01	NC	4E-03	NC	1E-05
Landbay A	8TP2-7	NC	7E-03	NC	NC	NC	1E-02	NC	6E-02	NC	5E-03	NC	5E-02	NC	NC	NC	NC	NC	NC	NC	1E-05
Landbay A	9TP1-7	3E-08	4E-03	3E-10	1E-08	5E-09	6E-03	2E-09	2E-02	7E-09	3E-03	1E-07	3E-02	9E-08	4E-06	2E-08	**4E+00**	2E-08	7E-02	2E-09	5E-06
Landbay A	9TP2-8	4E-07	4E-03	NC	4E-08	9E-08	6E-03	5E-08	2E-02	1E-07	3E-03	3E-06	3E-02	NC	9E-06	7E-07	4E-03	7E-07	4E-03	1E-11	5E-06
Landbay A	9TP3-6	2E-06	1E-02	3E-10	3E-07	4E-07	8E-03	2E-07	8E-03	5E-07	9E-03	1E-05	7E-02	1E-07	7E-05	3E-06	2E-02	3E-06	2E-02	2E-09	2E-06
Landbay A	9TP4-5	1E-06	1E-02	1E-09	2E-04	2E-07	8E-03	1E-07	2E-02	4E-07	8E-03	1E-05	6E-02	3E-07	4E-02	3E-06	3E-01	3E-06	2E-02	2E-08	2E-04
Landbay A	A1G244	4E-07	4E-02	5E-09	NC	7E-08	2E-02	3E-08	8E-02	1E-07	2E-02	2E-06	2E-01	1E-06	NC	4E-07	2E-02	4E-07	2E-02	3E-08	9E-06
Landbay A	A1G247	9E-08	1E-02	1E-09	NC	2E-08	2E-02	8E-09	6E-02	2E-08	9E-03	4E-07	7E-02	3E-07	NC	8E-08	1E-01	8E-08	8E-03	6E-09	1E-05
Landbay A	A1G253	4E-07	3E-03	NC	NC	9E-08	3E-03	5E-08	5E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	8E-07	4E-03	8E-07	4E-03	2E-11	1E-06
Landbay A	A1G259	2E-07	2E-02	3E-09	5E-04	4E-08	1E-02	2E-08	5E-02	6E-08	1E-02	1E-06	9E-02	9E-07	9E-02	2E-07	**3E+01**	2E-07	6E-01	2E-08	4E-04
Landbay A	A1G262	7E-13	5E-03	NC	NC	8E-10	1E-02	2E-10	4E-02	1E-14	3E-03	4E-12	3E-02	NC	NC	NC	1E-01	NC	3E-03	4E-12	1E-05
Landbay A	A1G265	4E-08	1E-02	5E-10	6E-04	7E-09	1E-02	4E-09	6E-02	1E-08	7E-03	2E-07	6E-02	1E-07	1E-01	4E-08	7E-02	4E-08	3E-03	3E-09	6E-04
Landbay A	A1S130	2E-07	2E-02	2E-09	NC	4E-08	1E-02	2E-08	5E-02	6E-08	1E-02	1E-06	8E-02	7E-07	NC	2E-07	2E-02	2E-07	2E-02	1E-08	9E-06
Landbay A	A1S131	2E-07	8E-03	1E-10	2E-03	4E-08	1E-02	2E-08	5E-02	5E-08	6E-03	1E-06	5E-02	4E-08	3E-01	3E-07	8E-03	3E-07	8E-03	8E-10	2E-03
Landbay A	A1S132	4E-07	3E-02	5E-09	4E-05	7E-08	2E-02	3E-08	5E-02	1E-07	2E-02	2E-06	1E-01	1E-06	7E-03	4E-07	9E-01	4E-07	4E-02	3E-08	4E-05
Landbay A	A1S133	2E-07	2E-02	2E-09	NC	4E-08	1E-02	2E-08	5E-02	6E-08	1E-02	1E-06	8E-02	7E-07	NC	2E-07	2E-02	2E-07	2E-02	1E-08	9E-06
Landbay A	A2G171	6E-07	1E-02	3E-10	NC	1E-07	1E-02	8E-08	5E-02	2E-07	8E-03	4E-06	7E-02	1E-07	NC	1E-06	1E+00	1E-06	5E-02	2E-09	1E-05
Landbay A	A2G173	2E-06	3E-02	1E-09	NC	4E-07	3E-02	3E-07	9E-02	6E-07	2E-02	1E-05	2E-01	3E-07	NC	4E-06	1E+00	4E-06	6E-02	6E-09	2E-05
Landbay A	A2G177	3E-06	8E-02	1E-08	9E-05	6E-07	6E-02	3E-07	1E-01	7E-07	6E-02	2E-05	4E-01	3E-06	2E-02	4E-06	**6E+01**	4E-06	1E+00	5E-08	1E-04
Landbay A	A2G180	2E-06	3E-02	2E-09	NC	4E-07	3E-02	2E-07	9E-02	5E-07	2E-02	1E-05	2E-01	5E-07	NC	3E-06	**6E+02**	3E-06	**1E+01**	9E-09	2E-05
Landbay A	A2G181	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	**2E+00**	4E-08	3E-02	3E-09	NC
Landbay A	A2G184	2E-06	3E-02	1E-09	NC	4E-07	3E-02	2E-07	7E-02	5E-07	2E-02	1E-05	1E-01	4E-07	NC	3E-06	1E-01	3E-06	1E-01	7E-09	2E-05
Landbay A	A2G187	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	A2G192	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	7E-02	4E-08	3E-03	3E-09	NC
Landbay A	A2G195	8E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	1E-01	8E-07	5E-02	6E-08	NC
Landbay A	A2G198	7E-07	5E-02	8E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	**6E+00**	6E-07	2E-01	5E-08	NC
Landbay A	A2G201	4E-07	3E-02	5E-09	NC	7E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	1E-01	1E-06	NC	4E-07	**8E+01**	4E-07	**2E+00**	3E-08	NC
Landbay A	A2G202	4E-07	1E-02	3E-10	NC	1E-07	2E-02	5E-08	7E-02	1E-07	9E-03	3E-06	8E-02	9E-08	NC	8E-07	**2E+02**	8E-07	**5E+00**	2E-09	2E-05
Landbay A	A2S134	2E-06	9E-02	5E-10	NC	5E-07	9E-02	2E-07	2E-01	5E-07	6E-02	1E-05	6E-01	1E-07	NC	3E-06	3E-01	3E-06	3E-02	3E-09	6E-05
Landbay A	A2S135	5E-07	8E-02	5E-10	NC	2E-07	1E-01	1E-07	3E-01	1E-07	6E-02	4E-06	6E-01	2E-07	NC	9E-07	1E-01	9E-07	2E-02	3E-09	7E-05
Landbay A	A2S136	2E-06	9E-02	NC	NC	4E-07	1E-01	2E-07	3E-01	4E-07	6E-02	1E-05	6E-01	NC	NC	3E-06	9E-01	3E-06	4E-02	5E-10	6E-05
Landbay A	A2S137	8E-07	8E-02	3E-10	NC	3E-07	1E-01	1E-07	3E-01	2E-07	6E-02	6E-06	6E-01	1E-07	NC	1E-06	**6E+01**	1E-06	1E+00	2E-09	7E-05
Landbay A	A2S138	1E-06	8E-02	8E-09	NC	3E-07	8E-02	2E-07	2E-01	3E-07	6E-02	7E-06	5E-01	2E-06	NC	2E-06	**5E+00**	2E-06	2E-01	4E-08	5E-05
Landbay A	A2S139	2E-06	1E-01	2E-08	NC	4E-07	1E-01	2E-07	2E-01	5E-07	9E-02	1E-05	6E-01	5E-06	NC	2E-06	4E-01	2E-06	1E-01	9E-08	5E-05
Landbay A	A2S164	6E-07	4E-02	6E-10	NC	2E-07	6E-02	1E-07	2E-01	2E-07	3E-02	4E-06	3E-01	2E-07	NC	1E-06	3E-01	1E-06	3E-02	4E-09	5E-05
Landbay A	A2S167	1E-06	8E-02	8E-09	NC	3E-07	8E-02	2E-07	2E-01	3E-07	6E-02	7E-06	5E-01	2E-06	NC	2E-06	8E-01	2E-06	7E-02	4E-08	5E-05
Landbay A	A3B198	1E-14	1E-02	NC	NC	1E-11	3E-02	4E-12	1E-01	2E-16	9E-03	6E-14	9E-02	NC	NC	NC	4E-03	NC	4E-03	6E-14	3E-05
Landbay A	A3B202	2E-06	2E-02	NC	NC	4E-07	2E-02	2E-07	6E-02	5E-07	1E-02	1E-05	1E-01	NC	NC	3E-06	1E-01	3E-06	6E-02	5E-11	1E-05
Landbay A	A3B205	1E-07	7E-03	NC	NC	2E-08	1E-02	1E-08	6E-02	3E-08	5E-03	7E-07	5E-02	NC	NC	2E-07	2E-01	2E-07	8E-03	5E-12	1E-05
Landbay A	A3B208	2E-08	6E-03	2E-10	NC	3E-09	1E-02	2E-09	4E-02	5E-09	5E-03	8E-08	4E-02	7E-08	NC	2E-08	**2E+00**	2E-08	3E-02	1E-09	9E-06
Landbay A	A3B211	4E-08	6E-03	4E-10	NC	6E-09	9E-03	3E-09	3E-02	9E-09	4E-03	2E-07	4E-02	1E-07	NC	3E-08	8E-01	3E-08	2E-02	2E-09	8E-06
Landbay A	A3B222	2E-08	4E-03	2E-10	6E-05	4E-09	5E-03	2E-09	2E-02	5E-09	3E-03	9E-08	2E-02	7E-08	1E-02	3E-08	1E+00	3E-08	3E-02	1E-09	6E-05
Landbay A	A3G214	1E-06	4E-02	3E-09	NC	2E-07	3E-02	1E-07	1E-01	8E-07	3E-02	2E-05	2E-01	9E-07	NC	5E-06	**8E+03**	5E-06	**2E+02**	6E-08	1E-05
Landbay A	A3G217	2E-08	6E-03	3E-10	NC	5E-09	1E-02	2E-09	4E-02	6E-09	5E-03	1E-07	4E-02	9E-08	NC	2E-08	**7E+01**	2E-08	1E+00	2E-09	9E-06
Landbay A	A3G220	3E-07	6E-02	3E-10	3E-06	6E-08	5E-02	3E-08	3E-01	7E-08	4E-02	2E-06	4E-01	8E-08	7E-04	5E-07	**2E+04**	5E-07	**4E+02**	1E-09	2E-05
Landbay A	A3G223	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	A3G226	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	7E-02	NC	1E-03	NC	NC
Landbay A	A3G229	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	6E-03	6E-07	4E-02	5E-07	NC	1E-07	**1E+02**	1E-07	**2E+00**	9E-09	NC
Landbay A	A3G232	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	3E-03	NC	NC
Landbay A	A3G235	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	9E-02	NC	2E-03	NC	NC
Landbay A	A3G238	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	3E-01	NC	6E-03	NC	NC
Landbay A	A3G241	NC	4E-07	NC	NC	NC	3E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	2E-01	NC	3E-03	NC	NC
Landbay A	A3S144	3E-07	4E-02	3E-09	NC	5E-08	3E-02	2E-08	1E-01	7E-08	3E-02	1E-06	2E-01	1E-06	NC	3E-07	**3E+03**	3E-07	**6E+01**	2E-08	8E-06
Landbay A	A3S145	2E-07	1E-02	2E-09	NC	3E-08	1E-02	1E-08	4E-02	4E-08	1E-02	7E-07	7E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	8E-06
Landbay A	A3S146	2E-07	1E-02	2E-09	NC	3E-08	1E-02	1E-08	4E-02	4E-08	1E-02	7E-07	7E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	8E-06
Landbay A	A3S147	2E-07	1E-02	2E-09	NC	3E-08	1E-02	1E-08	4E-02	4E-08	1E-02	7E-07	7E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	8E-06
Landbay A	A4S140	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	1E-14	2E-03	4E-12	2E-02	NC	NC	NC	7E-01	NC	1E-02	4E-12	6E-06
Landbay A	A4S141	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	1E-14	2E-03	4E-12	2E-02	NC	NC	NC	7E-01	NC	1E-02	4E-12	6E-06
Landbay A	A4S142	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	1E-14	2E-03	4E-12	2E-02	NC	NC	NC	7E-01	NC	1E-02	4E-12	6E-06
Landbay A	A4S143	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	1E-14	2E-03	4E-12	2E-02	NC	NC	NC	7E-01	NC	1E-02	4E-12	6E-06
Landbay A	A5-1	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	7E-02	NC	1E-03	NC	NC
Landbay A	A5-4	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay A	A5B268	NC	7E-07	NC	1E-05	NC	5E-07	NC	3E-06	NC	5E-07	NC	5E-06	NC	1E-03	NC	2E-01	NC	5E-03	NC	4E-07
Landbay A	A5S148	2E-13	4E-04	NC	3E-04	2E-10	3E-04	6E-11	1E-03	4E-15	2E-04	9E-13	3E-03	NC	6E-02	NC	7E-01	NC	2E-02	9E-13	3E-04
Landbay A	A5S149	2E-13	4E-04	NC	3E-04	2E-10	3E-04	6E-11	1E-03	4E-15	2E-04	9E-13	3E-03	NC	6E-02	NC	6E-01	NC	1E-02	9E-13	3E-04
Landbay A	A5S150	7E-08	5E-03	9E-10	3E-04	1E-08	2E-03	6E-09	6E-03	2E-08	4E-03	3E-07	2E-02	3E-07	6E-02	8E-08	5E-03	8E-08	5E-03	5E-09	3E-04
Landbay A	A5S151	7E-08	5E-03	9E-10	3E-04	1E-08	2E-03	6E-09	6E-03	2E-08	4E-03	3E-07	2E-02	3E-07	6E-02	7E-08	2E-01	7E-08	9E-03	5E-09	3E-04
Landbay A	AB-01	2E-08	1E-03	1E-11	2E-08	5E-09	1E-03	3E-09	3E-03	5E-09	1E-03	1E-07	8E-03	3E-09	6E-06	2E-08	3E-02	2E-08	3E-02	9E-10	2E-06
Landbay A	AB-02	4E-11	3E-02	NC	NC	4E-08	3E-02	1E-08	1E-01	8E-13	2E-02	2E-10	2E-01	NC	NC	NC	9E-01	NC	9E-01	2E-10	2E-05
Landbay A	AB-04	1E-12	9E-04	NC	NC	1E-09	9E-04	3E-10	3E-03	2E-14	7E-04	5E-12	5E-03	NC	NC	NC	2E-02	NC	2E-02	5E-12	6E-07
Landbay A	AB-05	9E-13	1E-03	NC	NC	1E-09	1E-03	3E-10	3E-03	2E-14	8E-04	4E-12	6E-03	NC	NC	NC	2E-02	NC	2E-02	4E-12	6E-07
Landbay A	AB-07	5E-09	2E-03	3E-12	6E-09	2E-09	3E-03	8E-10	1E-02	1E-09	1E-03	4E-08	1E-02	9E-10	2E-06	7E-09	1E-01	7E-09	2E-02	3E-10	3E-06
Landbay A	AB-08	1E-12	4E-03	NC	NC	1E-09	8E-03	4E-10	3E-02	2E-14	3E-03	5E-12	3E-02	NC	NC	NC	3E-02	NC	3E-02	5E-12	8E-06
Landbay A	AB-09	3E-08	1E-03	2E-11	3E-08	7E-09	1E-03	4E-09	3E-03	7E-09	1E-03	2E-07	9E-03	5E-09	8E-06	3E-08	2E-02	3E-08	2E-02	1E-09	3E-06
Landbay A	AB-10	3E-07	2E-03	NC	NC	1E-07	3E-03	6E-08	1E-02	9E-08	2E-03	3E-06	2E-02	NC	NC	6E-07	3E-02	6E-07	3E-02	1E-10	2E-06
Landbay A	AB-11	7E-13	8E-04	NC	NC	8E-10	8E-04	3E-10	3E-03	2E-14	6E-04	4E-12	5E-03	NC	NC	NC	2E-02	NC	2E-02	4E-12	5E-07
Landbay A	AB-12	1E-08	1E-03	8E-12	2E-08	4E-09	1E-03	2E-09	3E-03	4E-09	1E-03	1E-07	8E-03	3E-09	5E-06	2E-08	3E-02	2E-08	3E-02	8E-10	2E-06
Landbay A	AJA PP-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	AJA-111	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	Bldg 34-35-36	NC	4E-07	NC	6E-05	NC	2E-07	NC	2E-06	NC	7E-08	NC	2E-06	NC	1E-02	NC	2E-04	NC	2E-04	NC	1E-06
Landbay A	CARD GAP B1	NC	7E-05	NC	NC	NC	3E-05	NC	2E-05	NC	5E-05	NC	3E-04	NC	NC	NC	9E-01	NC	2E-02	NC	NC
Landbay A	DP-23	1E-06	8E-03	NC	NC	3E-07	6E-03	2E-07	6E-03	4E-07	6E-03	9E-06	5E-02	NC	NC	2E-06	3E-02	2E-06	3E-02	4E-11	2E-06
Landbay A	DP-29	6E-07	1E-02	1E-09	NC	1E-07	5E-03	7E-08	9E-03	2E-07	7E-03	4E-06	5E-02	3E-07	NC	1E-06	2E-02	1E-06	2E-02	6E-09	9E-07
Landbay A	GP 100-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 100-05	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay A	GP 103-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay A	GP 104-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 105-01	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay A	GP 105-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 105-06	NC	2E-03	NC	NC	NC	1E-03	NC	8E-03	NC	2E-03	NC	2E-02	NC	NC	NC	**9E+02**	NC	**2E+01**	NC	NC
Landbay A	GP 105-07	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	2E-04	NC	2E-03	NC	NC	NC	**9E+01**	NC	**2E+00**	NC	NC
Landbay A	GP 105-08	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay A	GP 105-09	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	**2E+02**	NC	**5E+00**	NC	NC
Landbay A	GP 105-10	NC	9E-05	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay A	GP 105-11	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	5E-03	NC	5E-02	NC	NC	NC	**3E+03**	NC	**5E+01**	NC	NC
Landbay A	GP 105-12	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	**4E+02**	NC	**8E+00**	NC	NC
Landbay A	GP 105-13	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay A	GP 105-14	NC	2E-03	NC	NC	NC	1E-03	NC	9E-03	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**2E+01**	NC	NC
Landbay A	GP 105-15	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**8E+03**	NC	**2E+02**	NC	NC
Landbay A	GP 107-01	NC	6E-05	NC	NC	NC	9E-05	NC	4E-04	NC	5E-05	NC	5E-04	NC	NC	NC	1E-03	NC	1E-03	NC	7E-08
Landbay A	GP 107-02	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	1E-04	NC	1E-04	NC	NC
Landbay A	GP 108-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-06	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay A	GP 18-01	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay A	GP 33-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 33-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 34-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 34-02	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay A	GP CM-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-03	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	**4E+00**	NC	7E-02	NC	NC
Landbay A	GP CM-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-06	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**3E+03**	NC	**7E+01**	NC	NC
Landbay A	GP CM-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-08	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay A	GP CM-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-10	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay A	GP CM-12	4E-07	3E-03	NC	NC	9E-08	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	7E-07	**3E+02**	7E-07	**5E+00**	1E-11	4E-07
Landbay A	GP CM-13	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay A	GP CM-14	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	**4E+02**	NC	**8E+00**	NC	NC
Landbay A	GP CM-15	NC	1E-03	NC	NC	NC	9E-04	NC	5E-03	NC	1E-03	NC	1E-02	NC	NC	NC	**6E+02**	NC	**1E+01**	NC	NC
Landbay A	GP CM-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-17	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-19	NC	1E-03	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	**4E+02**	NC	**8E+00**	NC	NC
Landbay A	GP CM-20	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP EXT TTU-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP EXT TTU-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-11	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-12	NC	2E-04	NC	NC	NC	5E-04	NC	2E-03	NC	2E-04	NC	2E-03	NC	NC	NC	5E-03	NC	5E-03	NC	6E-07
Landbay A	GP TTF-13	NC	1E-04	NC	NC	NC	6E-04	NC	2E-03	NC	1E-04	NC	1E-03	NC	NC	NC	6E-03	NC	6E-03	NC	7E-07
Landbay A	GP TTU-37	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	9E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay A	GP TTU-41	1E-07	8E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	NC	NC	NC	NC	8E-09	NC

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	GP TTU-43	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-44	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	6E-03	6E-07	3E-02	5E-07	NC	1E-07	7E-03	1E-07	7E-03	9E-09	NC
Landbay A	GP TTU-45	3E-06	2E-01	3E-08	NC	4E-07	8E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	9E-06	NC	2E-06	1E-01	2E-06	1E-01	2E-07	NC
Landbay A	GP TTU-46	1E-07	1E-02	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	7E-03	6E-07	4E-02	5E-07	NC	1E-07	8E-03	1E-07	8E-03	1E-08	NC
Landbay A	GP TTU-47	9E-07	6E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	3E-07	4E-02	4E-06	2E-01	3E-06	NC	9E-07	5E-02	9E-07	5E-02	6E-08	NC
Landbay A	GP TTU-48	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-49	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-50	7E-08	5E-03	8E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	6E-08	4E-03	6E-08	4E-03	5E-09	NC
Landbay A	GP TTU-51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-52	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	IM10-1	3E-06	1E-01	2E-08	1E-04	6E-07	1E-01	3E-07	4E-01	8E-07	9E-02	2E-05	6E-01	5E-06	3E-02	4E-06	1E-01	4E-06	1E-01	9E-08	2E-04
Landbay A	IM10-2	3E-07	2E-02	6E-10	3E-05	8E-08	3E-02	4E-08	1E-01	1E-07	2E-02	2E-06	2E-01	2E-07	6E-03	6E-07	2E-02	6E-07	2E-02	3E-09	6E-05
Landbay A	IM10-3	9E-13	6E-03	NC	3E-05	1E-09	1E-02	3E-10	5E-02	2E-14	4E-03	5E-12	4E-02	NC	6E-03	NC	4E-03	NC	4E-03	5E-12	4E-05
Landbay A	IM10-4	2E-08	6E-03	NC	NC	8E-09	1E-02	4E-09	5E-02	5E-09	5E-03	2E-07	5E-02	NC	NC	3E-08	3E-03	3E-08	3E-03	1E-11	1E-05
Landbay A	IM10-5	3E-08	1E-02	4E-10	NC	9E-09	2E-02	4E-09	8E-02	9E-09	1E-02	1E-07	1E-01	1E-07	NC	3E-08	1E-02	3E-08	1E-02	2E-09	1E-05
Landbay A	IM9-1	5E-06	6E-02	2E-10	5E-03	1E-06	1E-01	5E-07	4E-01	4E-06	4E-02	1E-04	4E-01	2E-07	1E+00	3E-05	5E-02	3E-05	5E-02	3E-07	5E-03
Landbay A	IM9-2	7E-06	2E-02	3E-10	9E-04	1E-06	3E-02	6E-07	1E-01	6E-06	1E-02	1E-04	1E-01	3E-07	2E-01	4E-05	2E-02	4E-05	2E-02	4E-07	9E-04
Landbay A	IM9-3	1E-12	9E-03	NC	NC	1E-09	2E-02	5E-10	6E-02	3E-14	7E-03	7E-12	7E-02	NC	NC	NC	5E-03	NC	5E-03	7E-12	2E-05
Landbay A	IM9-4	8E-11	3E-02	NC	NC	9E-08	9E-02	3E-08	2E-01	2E-12	2E-02	4E-10	3E-01	NC	NC	NC	1E-04	NC	1E-04	4E-10	1E-04
Landbay A	IM9-5	7E-08	1E-02	NC	8E-05	4E-08	2E-02	2E-08	5E-02	2E-08	7E-03	6E-07	7E-02	NC	1E-02	1E-07	6E-03	1E-07	6E-03	8E-11	9E-05
Landbay A	JTOO-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	MCD-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	POND 01 INF	2E-06	2E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	6E-07	1E-01	1E-05	6E-01	8E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay A	SB CM-08	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	**3E+01**	NC	7E-01	NC	NC
Landbay A	SB CM-10	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**1E+03**	NC	**3E+01**	NC	NC
Landbay A	SB CM-11	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	NC
Landbay A	SEDA 13	9E-07	5E-03	NC	NC	2E-07	4E-03	1E-07	3E-03	2E-07	4E-03	6E-06	3E-02	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	9E-07
Landbay A	SEDP 01 INF	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	S-IMSED-1	2E-06	1E-01	2E-08	NC	3E-07	5E-02	1E-07	1E-01	5E-07	8E-02	8E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay A	S-IMSED-3	6E-07	4E-02	8E-09	NC	1E-07	2E-02	5E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	4E-02	6E-07	4E-02	4E-08	NC
Landbay A	SR-100B	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SS-103A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SS-105C	NC	2E-06	NC	NC	NC	1E-06	NC	9E-06	NC	2E-06	NC	2E-05	NC	NC	NC	1E+00	NC	2E-02	NC	NC
Landbay A	SS-CGA	NC	3E-03	NC	NC	NC	1E-03	NC	6E-04	NC	2E-03	NC	1E-02	NC	NC	NC	1E+00	NC	3E-02	NC	NC
Landbay A	SW 105-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 105-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 105-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 106-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-02	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay A	SW CM-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-07	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay A	SW CM-08	NC	1E-03	NC	NC	NC	7E-04	NC	5E-03	NC	8E-04	NC	8E-03	NC	NC	NC	**5E+02**	NC	**9E+00**	NC	NC
Landbay A	SW CM-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW TTU-01	NC	7E-03	NC	NC	NC	1E-02	NC	6E-02	NC	5E-03	NC	5E-02	NC	NC	NC	1E-03	NC	1E-03	NC	2E-05
Landbay A	SW TTU-02	3E-12	7E-03	NC	NC	6E-13	2E-02	4E-13	6E-02	7E-13	5E-03	2E-11	5E-02	NC	NC	NC	**3E+01**	NC	6E-01	NC	2E-05
Landbay A	SW TTU-03	NC	1E-03	NC	NC	NC	3E-03	NC	1E-02	NC	1E-03	NC	1E-02	NC	NC	NC	**1E+01**	NC	3E-01	NC	3E-06
Landbay A	SW TTU-04	2E-08	6E-03	NC	NC	7E-09	1E-02	4E-09	5E-02	6E-09	4E-03	2E-07	4E-02	NC	NC	4E-08	**2E+01**	4E-08	4E-01	7E-12	1E-05
Landbay A	SW TTU-05	9E-09	7E-04	NC	NC	3E-09	2E-03	2E-09	6E-03	3E-09	6E-04	8E-08	6E-03	NC	NC	2E-08	4E-04	2E-08	4E-04	3E-12	2E-06
Landbay A	TP 107-01	8E-08	2E-03	NC	2E-03	2E-08	1E-03	1E-08	4E-03	2E-08	1E-03	6E-07	1E-02	NC	3E-01	2E-07	2E-03	2E-07	2E-03	2E-12	2E-03
Landbay A	TP 107-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-07	2E-14	2E-04	NC	1E-04	2E-11	1E-04	6E-12	8E-04	3E-16	1E-04	8E-14	1E-03	NC	3E-02	NC	3E-06	NC	3E-06	8E-14	1E-04
Landbay A	TRL100B1	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	8E-01	NC	2E-02	NC	NC
Landbay A	TTU GP-01	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay A	TTU GP-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-15	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	4E-03	6E-08	NC	2E-08	9E-04	2E-08	9E-04	1E-09	NC
Landbay A	TTU GP-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-23	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	7E-04	7E-08	4E-03	6E-08	NC	1E-08	9E-04	1E-08	9E-04	1E-09	NC
Landbay A	TTU GP-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-31	9E-08	6E-03	1E-09	NC	2E-08	3E-03	8E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	9E-08	5E-03	9E-08	5E-03	6E-09	NC
Landbay A	TTU GP-33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-54	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-55	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU SED-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU SED-02	1E-07	7E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	1E-07	6E-03	1E-07	6E-03	7E-09	NC
Landbay A	TTU SED-03	1E-06	5E-02	4E-10	6E-05	3E-07	7E-02	1E-07	2E-01	3E-07	4E-02	7E-06	4E-01	1E-07	1E-02	2E-06	**2E+00**	2E-06	5E-02	3E-09	5E-05
Landbay A	TTU1P3-1	NC	7E-02	NC	NC	NC	4E-02	NC	3E-01	NC	5E-02	NC	5E-01	NC	NC	NC	**3E+04**	NC	**6E+02**	NC	NC
Landbay A	TTU1P3-2	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	**2E+03**	NC	**5E+01**	NC	NC
Landbay A	TTU1P3-3	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	3E-04	NC	3E-03	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	NC
Landbay A	TTU1P3-4	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay A	TTU2P2-10	5E-08	9E-03	NC	NC	9E-09	2E-02	4E-09	7E-02	1E-08	6E-03	2E-07	6E-02	NC	NC	NC	**2E+01**	NC	3E-01	NC	2E-05
Landbay A	TTU2P2-9	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay A	TTU2P3-5	NC	4E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**9E+02**	NC	**2E+01**	NC	NC
Landbay A	TTU2P3-6	NC	5E-03	NC	NC	NC	3E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	**2E+03**	NC	**4E+01**	NC	NC
Landbay A	TTU3P3-7	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay A	TTU3P3-8	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay A	TTU3P3-9	NC	2E-07	NC	NC	NC	1E-07	NC	9E-07	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay A	TTUP2-DS-1	6E-10	6E-03	NC	NC	1E-10	1E-02	6E-11	5E-02	2E-10	4E-03	3E-09	4E-02	NC	NC	5E-09	**1E+02**	5E-09	**2E+00**	NC	1E-05
Landbay A	TTUP2-DS-2	NC	5E-04	NC	NC	NC	1E-03	NC	4E-03	NC	4E-04	NC	4E-03	NC	NC	NC	1E+00	NC	3E-02	NC	1E-06
Landbay A	TTUP2-DS-3	NC	7E-03	NC	NC	NC	1E-02	NC	6E-02	NC	5E-03	NC	5E-02	NC	NC	NC	NC	NC	NC	NC	1E-05
Landbay A	TTUP2-DS-4	NC	1E-02	NC	NC	NC	2E-02	NC	9E-02	NC	8E-03	NC	8E-02	NC	NC	NC	3E-03	NC	3E-03	NC	2E-05
Landbay B	116AEC-1	7E-08	9E-04	NC	NC	1E-08	5E-04	6E-09	1E-03	2E-08	6E-04	3E-07	5E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay B	116ANEC	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	8E-05	NC	7E-04	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay B	116B145	4E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	1E-07	1E-01	3E-06	1E+00	NC	NC	7E-07	1E+00	7E-07	3E-02	1E-09	3E-04
Landbay B	116B146	1E-08	3E-02	NC	NC	5E-08	3E-02	2E-08	6E-02	4E-09	2E-02	1E-07	2E-01	NC	NC	3E-08	8E-04	3E-08	8E-04	2E-10	2E-05
Landbay B	116B147	6E-13	6E-03	NC	NC	7E-10	1E-02	2E-10	5E-02	1E-14	5E-03	3E-12	5E-02	NC	NC	NC	4E-04	NC	4E-04	3E-12	1E-05
Landbay B	116G17	2E-08	2E-02	NC	NC	8E-09	2E-02	4E-09	9E-02	5E-09	1E-02	2E-07	1E-01	NC	NC	4E-08	1E-03	4E-08	1E-03	1E-11	2E-05
Landbay B	116G18	7E-08	2E-01	NC	NC	5E-07	4E-01	2E-07	9E-01	2E-08	2E-01	6E-07	**2E+00**	NC	NC	1E-07	5E-03	1E-07	5E-03	2E-09	3E-04
Landbay B	116G19	7E-08	1E-01	2E-10	NC	2E-07	2E-01	6E-08	5E-01	2E-08	7E-02	6E-07	7E-01	6E-08	NC	1E-07	1E-02	1E-07	1E-02	2E-09	2E-04
Landbay B	116G20	7E-08	3E-02	NC	NC	3E-08	4E-02	1E-08	2E-01	2E-08	2E-02	6E-07	2E-01	NC	NC	1E-07	5E-03	1E-07	5E-03	4E-11	4E-05
Landbay B	116G21	2E-08	1E-02	NC	NC	9E-09	2E-02	4E-09	8E-02	5E-09	9E-03	1E-07	9E-02	NC	NC	3E-08	3E-03	3E-08	3E-03	2E-11	2E-05
Landbay B	116G22	2E-08	8E-03	2E-10	NC	7E-09	2E-02	3E-09	6E-02	6E-09	6E-03	1E-07	6E-02	6E-08	NC	3E-08	3E-03	3E-08	3E-03	1E-09	2E-05
Landbay B	116G23	6E-08	1E-01	2E-10	NC	2E-07	1E-01	7E-08	3E-01	2E-08	7E-02	5E-07	7E-01	6E-08	NC	1E-07	3E-03	1E-07	3E-03	2E-09	7E-05
Landbay B	116G24	4E-08	2E-02	NC	NC	2E-08	3E-02	8E-09	1E-01	1E-08	1E-02	4E-07	1E-01	NC	NC	8E-08	2E-03	8E-08	2E-03	3E-11	2E-05
Landbay B	116G25	2E-07	7E-02	NC	NC	2E-07	7E-02	6E-08	2E-01	5E-08	5E-02	1E-06	5E-01	NC	NC	4E-07	3E-03	4E-07	3E-03	5E-10	4E-05
Landbay B	116G26	3E-08	4E-03	2E-10	NC	8E-09	7E-03	4E-09	3E-02	8E-09	3E-03	2E-07	3E-02	6E-08	NC	4E-08	2E-03	4E-08	2E-03	1E-09	7E-06
Landbay B	116G27	3E-07	1E-01	NC	NC	3E-07	3E-01	1E-07	8E-01	9E-08	8E-02	2E-06	8E-01	NC	NC	6E-07	6E-03	6E-07	6E-03	1E-09	3E-04
Landbay B	116G28	1E-08	7E-03	NC	NC	2E-08	7E-03	8E-09	9E-03	3E-09	5E-03	1E-07	5E-02	NC	NC	2E-08	8E-04	2E-08	8E-04	9E-11	5E-06
Landbay B	117AEC-1	NC	3E-02	NC	NC	NC	2E-02	NC	1E-01	NC	2E-02	NC	2E-01	NC	NC	NC	**1E+04**	NC	**2E+02**	NC	NC
Landbay B	117ANEC	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay B	117B1	1E-06	1E-02	NC	3E-06	3E-07	9E-03	2E-07	3E-02	3E-07	9E-03	9E-06	9E-02	NC	5E-04	2E-06	**2E+03**	2E-06	**4E+01**	4E-11	5E-06
Landbay B	117B2	1E-06	8E-03	NC	3E-06	3E-07	6E-03	2E-07	8E-03	3E-07	6E-03	9E-06	5E-02	NC	5E-04	2E-06	**2E+00**	2E-06	7E-02	4E-11	5E-06
Landbay B	117B3	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	2E-06	NC	2E-05	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay B	117G4	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay B	119AEC-2	NC	5E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**2E+03**	NC	**4E+01**	NC	NC
Landbay B	119ANEC	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**3E+03**	NC	**6E+01**	NC	NC
Landbay B	119B137	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119B138	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G31	4E-08	4E-02	2E-10	NC	7E-08	4E-02	2E-08	1E-01	1E-08	3E-02	3E-07	3E-01	7E-08	NC	6E-08	4E-03	6E-08	4E-03	2E-09	2E-05
Landbay B	119G32	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G34	4E-08	4E-02	2E-10	NC	7E-08	4E-02	2E-08	1E-01	1E-08	3E-02	3E-07	3E-01	7E-08	NC	6E-08	4E-03	6E-08	4E-03	2E-09	2E-05
Landbay B	119G35	4E-08	4E-02	2E-10	NC	7E-08	4E-02	2E-08	1E-01	1E-08	3E-02	3E-07	3E-01	7E-08	NC	6E-08	4E-03	6E-08	4E-03	2E-09	2E-05
Landbay B	119G37	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**3E+00**	NC	NC
Landbay B	119G38	4E-08	4E-02	2E-10	NC	7E-08	4E-02	2E-08	1E-01	1E-08	3E-02	3E-07	3E-01	7E-08	NC	6E-08	**4E+01**	6E-08	9E-01	2E-09	2E-05
Landbay B	119G39	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	8E-01	NC	2E-02	NC	NC
Landbay B	119G40	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	15TP1-7	NC	4E-03	NC	NC	NC	9E-03	NC	4E-02	NC	3E-03	NC	3E-02	NC	NC	NC	1E+00	NC	3E-02	NC	9E-06
Landbay B	16TP1-7	NC	3E-03	NC	1E-08	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	3E-06	NC	2E-01	NC	4E-03	NC	6E-06
Landbay B	16TP2-7	1E-06	8E-03	NC	5E-08	2E-07	5E-03	1E-07	4E-03	3E-07	6E-03	7E-06	4E-02	NC	1E-05	4E-06	4E-01	4E-06	4E-02	2E-11	8E-07
Landbay B	16TP3-7	5E-10	4E-03	7E-08	2E-02	1E-10	7E-03	9E-11	3E-02	3E-11	3E-03	2E-09	3E-02	1E-05	**3E+00**	6E-09	**5E+02**	6E-09	**9E+00**	2E-09	5E-04
Landbay B	16TP4-7	7E-07	6E-03	3E-08	9E-03	1E-07	4E-03	8E-08	9E-03	2E-07	4E-03	5E-06	3E-02	7E-06	**2E+00**	1E-06	**2E+02**	1E-06	**4E+00**	1E-09	2E-04
Landbay B	16TP5-7	1E-11	2E-03	1E-09	4E-04	6E-10	3E-03	2E-10	1E-02	5E-13	1E-03	5E-11	1E-02	3E-07	6E-02	1E-10	7E-04	1E-10	7E-04	4E-11	1E-05
Landbay B	16TP6-7	6E-13	3E-03	NC	4E-08	7E-10	4E-03	2E-10	2E-02	1E-14	2E-03	3E-12	2E-02	NC	9E-06	NC	7E-04	NC	7E-04	3E-12	3E-06
Landbay B	42B136	2E-07	1E-02	2E-09	NC	3E-08	6E-03	1E-08	1E-02	5E-08	9E-03	8E-07	5E-02	7E-07	NC	2E-07	**3E+02**	2E-07	**6E+00**	1E-08	NC
Landbay B	42G110	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	42G115	4E-06	1E-02	2E-09	NC	8E-07	2E-02	4E-07	5E-02	3E-06	1E-02	8E-05	7E-02	6E-07	NC	2E-05	7E-01	2E-05	2E-02	3E-07	1E-05
Landbay B	42G116	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	42G117	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	7E-01	6E-07	5E-02	4E-08	NC
Landbay B	42TP3-25	3E-06	2E-01	4E-08	NC	5E-07	1E-01	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	**2E+01**	3E-06	6E-01	2E-07	8E-06
Landbay B	42TP3-37	4E-08	7E-03	5E-10	NC	9E-09	1E-02	4E-09	4E-02	1E-08	5E-03	2E-07	4E-02	1E-07	NC	5E-08	**1E+01**	5E-08	3E-01	2E-09	9E-06
Landbay B	42TP3-43	1E-08	2E-03	2E-10	NC	3E-09	2E-03	1E-09	7E-03	4E-09	1E-03	7E-08	1E-02	5E-08	NC	1E-08	**1E+01**	1E-08	3E-01	1E-09	2E-06
Landbay B	42TP4-125	1E-10	4E-02	NC	2E-07	1E-07	9E-02	3E-08	2E-01	2E-12	3E-02	5E-10	3E-01	NC	5E-05	NC	2E-02	NC	2E-02	5E-10	1E-04
Landbay B	42TP4-127	2E-06	1E-01	2E-08	NC	3E-07	5E-02	1E-07	1E-01	4E-07	8E-02	8E-06	4E-01	6E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	3E-06
Landbay B	42TP4-136	5E-07	4E-02	3E-09	2E-03	1E-07	1E-01	6E-08	3E-01	3E-07	3E-02	7E-06	2E-01	8E-07	4E-01	2E-06	5E-01	2E-06	9E-02	3E-08	2E-03
Landbay B	42TP4-165	1E-06	8E-02	1E-08	1E-04	2E-07	4E-02	1E-07	9E-02	3E-07	6E-02	5E-06	3E-01	4E-06	2E-02	1E-06	8E-02	1E-06	8E-02	8E-08	1E-04
Landbay B	42TP4-180	8E-08	7E-03	1E-09	NC	2E-08	6E-03	7E-09	2E-02	2E-08	5E-03	4E-07	3E-02	3E-07	NC	8E-08	**2E+01**	8E-08	4E-01	5E-09	3E-06
Landbay B	42TP4-195	4E-07	3E-02	4E-09	1E-06	6E-08	2E-02	3E-08	4E-02	1E-07	2E-02	2E-06	1E-01	1E-06	3E-04	4E-07	**2E+00**	4E-07	8E-02	2E-08	5E-06

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	42TP4-75	8E-13	2E-03	NC	NC	1E-09	4E-03	3E-10	1E-02	2E-14	1E-03	4E-12	1E-02	NC	NC	NC	6E-04	NC	6E-04	4E-12	4E-06
Landbay B	42TP5-260	4E-08	2E-01	5E-10	4E-08	3E-07	3E-01	1E-07	9E-01	1E-08	1E-01	2E-07	1E+00	1E-07	1E-05	4E-08	7E-01	4E-08	7E-02	4E-09	4E-04
Landbay B	42TP5-275	7E-08	5E-02	NC	NC	2E-07	1E-01	5E-08	3E-01	2E-08	4E-02	6E-07	4E-01	NC	NC	1E-07	5E-01	1E-07	1E-02	6E-10	2E-04
Landbay B	42TP6-40	5E-11	2E-02	NC	2E-06	5E-08	3E-02	2E-08	7E-02	1E-12	2E-02	2E-10	2E-01	NC	4E-04	NC	5E-01	NC	1E-02	2E-10	2E-05
Landbay B	42TP6-5	9E-13	6E-03	NC	NC	1E-09	1E-02	3E-10	5E-02	2E-14	4E-03	5E-12	4E-02	NC	NC	NC	2E-01	NC	5E-03	5E-12	1E-05
Landbay B	5100-2750	1E-06	5E-02	2E-11	3E-04	3E-07	6E-02	1E-07	2E-01	5E-07	4E-02	1E-05	4E-01	1E-08	6E-02	3E-06	8E-01	3E-06	8E-02	2E-08	3E-04
Landbay B	5100-2750N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2750SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2750SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2900	8E-07	5E-02	NC	3E-04	2E-07	6E-02	1E-07	2E-01	2E-07	4E-02	5E-06	4E-01	NC	6E-02	1E-06	8E-01	1E-06	8E-02	3E-10	3E-04
Landbay B	5250-2600	8E-07	5E-02	NC	3E-04	2E-07	6E-02	1E-07	2E-01	2E-07	4E-02	5E-06	4E-01	NC	6E-02	1E-06	8E-01	1E-06	8E-02	3E-10	3E-04
Landbay B	5250-2750	8E-07	5E-02	NC	3E-04	2E-07	6E-02	1E-07	2E-01	2E-07	4E-02	5E-06	4E-01	NC	6E-02	1E-06	8E-01	1E-06	8E-02	3E-10	3E-04
Landbay B	5400-77	1E-06	2E-02	2E-09	7E-05	3E-07	1E-02	2E-07	3E-02	4E-07	1E-02	1E-05	1E-01	5E-07	1E-02	3E-06	1E+00	3E-06	4E-02	9E-09	7E-05
Landbay B	5550-3350	6E-13	6E-04	NC	NC	7E-10	1E-03	2E-10	3E-03	1E-14	5E-04	3E-12	4E-03	NC	NC	NC	2E-02	NC	2E-02	3E-12	9E-07
Landbay B	5700-2600	2E-08	4E-02	NC	NC	1E-07	5E-02	3E-08	9E-02	7E-09	3E-02	2E-07	3E-01	NC	NC	5E-08	6E-01	5E-08	7E-02	4E-10	4E-05
Landbay B	5850-2300	3E-07	7E-02	NC	NC	2E-07	1E-01	8E-08	3E-01	8E-08	5E-02	2E-06	5E-01	NC	NC	5E-07	7E-02	5E-07	7E-02	6E-10	1E-04
Landbay B	5850-2600	2E-08	3E-01	NC	NC	1E-07	2E-01	3E-08	1E+00	7E-09	2E-01	2E-07	**3E+00**	NC	NC	5E-08	**1E+05**	5E-08	**2E+03**	4E-10	4E-05
Landbay B	5850-2600N	NC	2E-02	NC	NC	NC	1E-02	NC	7E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**7E+03**	NC	**1E+02**	NC	NC
Landbay B	5850-2600SE	NC	7E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	**3E+02**	NC	**6E+00**	NC	NC
Landbay B	5850-2600SW	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**2E+01**	NC	NC
Landbay B	5850-3350	6E-07	7E-03	NC	NC	1E-07	4E-03	8E-08	1E-02	2E-07	5E-03	4E-06	4E-02	NC	NC	1E-06	6E-01	1E-06	2E-02	2E-11	7E-07
Landbay B	5850-3650	1E-07	9E-03	NC	NC	3E-08	1E-02	2E-08	5E-02	4E-08	6E-03	1E-06	6E-02	NC	NC	3E-07	6E-01	3E-07	1E-02	4E-12	7E-06
Landbay B	5850-3800	9E-07	2E-02	NC	3E-05	2E-07	2E-02	1E-07	7E-02	2E-07	2E-02	6E-06	2E-01	NC	7E-03	2E-06	5E-02	2E-06	5E-02	3E-11	4E-05
Landbay B	5850-3950	9E-07	4E-02	NC	2E-05	3E-07	3E-02	1E-07	8E-02	3E-07	3E-02	7E-06	3E-01	NC	4E-03	2E-06	1E+00	2E-06	8E-02	2E-10	3E-05
Landbay B	6000-2000	2E-08	4E-03	NC	2E-08	1E-08	7E-03	5E-09	2E-02	5E-09	3E-03	1E-07	3E-02	NC	5E-06	3E-08	7E-03	3E-08	7E-03	4E-11	6E-06
Landbay B	6000-2150	3E-07	7E-02	NC	NC	2E-07	1E-01	8E-08	3E-01	8E-08	5E-02	2E-06	5E-01	NC	NC	5E-07	7E-02	5E-07	7E-02	6E-10	1E-04
Landbay B	6000-2300	3E-07	7E-02	NC	NC	2E-07	1E-01	8E-08	3E-01	8E-08	5E-02	2E-06	5E-01	NC	NC	5E-07	7E-02	5E-07	7E-02	6E-10	1E-04
Landbay B	6000-2600	2E-08	4E-02	NC	NC	1E-07	5E-02	3E-08	9E-02	7E-09	3E-02	2E-07	3E-01	NC	NC	5E-08	2E-01	5E-08	6E-02	4E-10	4E-05
Landbay B	6000-2750	2E-08	4E-02	NC	1E-08	1E-07	5E-02	3E-08	9E-02	7E-09	3E-02	2E-07	3E-01	NC	3E-06	5E-08	9E-01	5E-08	7E-02	4E-10	4E-05
Landbay B	6000-2900	7E-13	3E-03	NC	9E-07	8E-10	6E-03	2E-10	3E-02	1E-14	3E-03	3E-12	2E-02	NC	2E-04	NC	3E-02	NC	3E-02	3E-12	7E-06
Landbay B	6000-3350	4E-14	1E-03	NC	NC	4E-11	1E-03	1E-11	6E-03	8E-16	9E-04	2E-13	9E-03	NC	NC	NC	5E-03	NC	5E-03	2E-13	6E-07
Landbay B	6000-3500	4E-14	1E-03	NC	NC	4E-11	1E-03	1E-11	6E-03	8E-16	9E-04	2E-13	9E-03	NC	NC	NC	5E-03	NC	5E-03	2E-13	6E-07
Landbay B	6000-3650	6E-12	2E-02	NC	2E-05	6E-09	2E-02	2E-09	9E-02	1E-13	2E-02	3E-11	2E-01	NC	4E-03	NC	4E-01	NC	6E-02	3E-11	3E-05
Landbay B	6000-3800	9E-07	2E-02	NC	4E-05	2E-07	2E-02	1E-07	7E-02	2E-07	2E-02	6E-06	2E-01	NC	7E-03	2E-06	5E-02	2E-06	5E-02	3E-11	4E-05
Landbay B	6000-94	2E-06	4E-02	6E-09	9E-05	4E-07	2E-02	2E-07	4E-02	6E-07	3E-02	1E-05	2E-01	2E-06	2E-02	3E-06	4E-01	3E-06	7E-02	3E-08	9E-05
Landbay B	6150-2150	2E-08	4E-03	NC	1E-08	1E-08	7E-03	5E-09	2E-02	5E-09	3E-03	1E-07	3E-02	NC	4E-06	3E-08	7E-03	3E-08	7E-03	4E-11	6E-06
Landbay B	6150-3050	7E-13	3E-03	NC	NC	8E-10	6E-03	2E-10	3E-02	1E-14	3E-03	3E-12	2E-02	NC	NC	NC	2E-02	NC	2E-02	3E-12	6E-06
Landbay B	6150-3350	4E-14	1E-03	NC	NC	4E-11	1E-03	1E-11	6E-03	8E-16	9E-04	2E-13	9E-03	NC	NC	NC	5E-03	NC	5E-03	2E-13	6E-07
Landbay B	6150-3500	6E-12	2E-02	NC	2E-05	6E-09	2E-02	2E-09	9E-02	1E-13	2E-02	3E-11	2E-01	NC	4E-03	NC	4E-01	NC	6E-02	3E-11	3E-05
Landbay B	6150-3650	6E-12	2E-02	NC	2E-05	6E-09	2E-02	2E-09	9E-02	1E-13	2E-02	3E-11	2E-01	NC	4E-03	NC	4E-01	NC	6E-02	3E-11	3E-05
Landbay B	6150-3800	9E-07	2E-02	NC	3E-05	2E-07	2E-02	1E-07	7E-02	2E-07	2E-02	6E-06	2E-01	NC	7E-03	2E-06	5E-02	2E-06	5E-02	3E-11	4E-05
Landbay B	6200-96	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	1E-06	NC	NC	NC	8E-02	NC	2E-03	NC	NC
Landbay B	6300-107	5E-07	1E-02	1E-09	NC	1E-07	1E-02	6E-08	4E-02	1E-07	9E-03	3E-06	7E-02	3E-07	NC	9E-07	9E-03	9E-07	9E-03	6E-09	9E-06
Landbay B	6300-2150	8E-08	3E-02	NC	3E-07	9E-08	4E-02	3E-08	9E-02	2E-08	3E-02	7E-07	3E-01	NC	7E-05	2E-07	2E-03	2E-07	2E-03	3E-10	2E-05
Landbay B	6300-2300	2E-08	4E-03	NC	NC	1E-08	7E-03	5E-09	2E-02	5E-09	3E-03	1E-07	3E-02	NC	NC	3E-08	7E-03	3E-08	7E-03	4E-11	6E-06
Landbay B	6300-2450	2E-08	4E-03	NC	NC	1E-08	7E-03	5E-09	2E-02	5E-09	3E-03	1E-07	3E-02	NC	NC	3E-08	7E-03	3E-08	7E-03	4E-11	6E-06
Landbay B	6300-3350	4E-14	1E-03	NC	NC	4E-11	1E-03	1E-11	6E-03	8E-16	9E-04	2E-13	9E-03	NC	NC	NC	5E-03	NC	5E-03	2E-13	6E-07
Landbay B	6300-3500	6E-12	2E-02	NC	2E-05	6E-09	2E-02	2E-09	9E-02	1E-13	2E-02	3E-11	2E-01	NC	4E-03	NC	4E-01	NC	6E-02	3E-11	3E-05
Landbay B	6400-108	1E-07	1E-03	6E-08	2E-03	3E-08	8E-04	2E-08	2E-03	3E-08	8E-04	9E-07	7E-03	2E-05	4E-01	2E-07	4E-03	2E-07	4E-03	3E-08	7E-04
Landbay B	6450-2600	4E-07	3E-03	NC	NC	1E-07	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	8E-07	1E-02	8E-07	1E-02	1E-11	1E-06
Landbay B	6450-2750	4E-07	3E-03	NC	1E-08	1E-07	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	3E-06	8E-07	1E-02	8E-07	1E-02	1E-11	1E-06
Landbay B	6450-2900	4E-07	3E-03	NC	NC	1E-07	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	8E-07	1E-02	8E-07	1E-02	1E-11	1E-06
Landbay B	6450-3200	2E-13	3E-04	NC	NC	2E-10	6E-04	8E-11	2E-03	5E-15	2E-04	1E-12	2E-03	NC	NC	NC	9E-03	NC	9E-03	1E-12	6E-07
Landbay B	6450-3350	2E-13	3E-04	NC	NC	2E-10	6E-04	8E-11	2E-03	5E-15	2E-04	1E-12	2E-03	NC	NC	NC	9E-03	NC	9E-03	1E-12	6E-07
Landbay B	6450-3500	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	8E-03	6E-15	1E-03	1E-12	1E-02	NC	NC	NC	7E-05	NC	7E-05	1E-12	2E-06
Landbay B	6450-3650	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	8E-03	6E-15	1E-03	1E-12	1E-02	NC	NC	NC	7E-05	NC	7E-05	1E-12	2E-06
Landbay B	6600-3350	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	8E-03	6E-15	1E-03	1E-12	1E-02	NC	NC	NC	7E-05	NC	7E-05	1E-12	2E-06
Landbay B	6600-3500	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	8E-03	6E-15	1E-03	1E-12	1E-02	NC	NC	NC	7E-05	NC	7E-05	1E-12	2E-06
Landbay B	6750-2750	4E-08	3E-02	NC	NC	6E-08	3E-02	2E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	7E-04	8E-08	7E-04	2E-10	2E-05
Landbay B	6750-2900	4E-08	3E-02	NC	NC	6E-08	3E-02	2E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	7E-04	8E-08	7E-04	2E-10	2E-05
Landbay B	6750-3050	4E-08	3E-02	NC	4E-07	6E-08	3E-02	2E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	9E-05	8E-08	1E-03	8E-08	1E-03	2E-10	2E-05
Landbay B	6750-3350	1E-07	9E-04	NC	NC	3E-08	7E-04	2E-08	1E-03	4E-08	6E-04	9E-07	5E-03	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-12	2E-07
Landbay B	6750-3500	1E-07	9E-04	NC	NC	3E-08	7E-04	2E-08	1E-03	4E-08	6E-04	9E-07	5E-03	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-12	2E-07
Landbay B	6800-117	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	5E-01	NC	9E-03	NC	NC
Landbay B	6800-118	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	6900-3200	1E-07	9E-04	NC	NC	3E-08	7E-04	2E-08	1E-03	4E-08	6E-04	9E-07	5E-03	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-12	2E-07
Landbay B	6900-3350	1E-07	9E-04	NC	NC	3E-08	7E-04	2E-08	1E-03	4E-08	6E-04	9E-07	5E-03	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-12	2E-07
Landbay B	7050-3200	7E-14	2E-05	NC	NC	8E-11	2E-05	3E-11	1E-04	2E-15	1E-05	4E-13	1E-04	NC	NC	NC	1E-05	NC	1E-05	4E-13	2E-08
Landbay B	7050-3350	7E-14	2E-05	NC	NC	8E-11	2E-05	3E-11	1E-04	2E-15	1E-05	4E-13	1E-04	NC	NC	NC	1E-05	NC	1E-05	4E-13	2E-08
Landbay B	70AEC-3	9E-11	4E-03	8E-09	8E-04	2E-11	3E-03	2E-11	2E-02	5E-12	3E-03	5E-10	3E-02	2E-06	2E-01	7E-09	**2E+03**	7E-09	**4E+01**	4E-10	2E-05
Landbay B	70ANEC	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	3E-02	NC	NC	NC	**1E+03**	NC	**3E+01**	NC	NC
Landbay B	70B1	2E-07	6E-03	5E-10	1E-04	5E-08	4E-03	3E-08	1E-02	6E-08	4E-03	1E-06	3E-02	2E-07	2E-02	4E-07	**1E+02**	4E-07	**2E+00**	3E-09	1E-04
Landbay B	70B2	2E-07	3E-03	NC	1E-04	4E-08	3E-03	2E-08	1E-02	5E-08	2E-03	1E-06	2E-02	NC	2E-02	3E-07	**2E+01**	3E-07	5E-01	7E-12	1E-04
Landbay B	70B3	5E-13	3E-04	NC	NC	6E-10	5E-04	2E-10	2E-03	1E-14	3E-04	2E-12	3E-03	NC	NC	NC	2E-01	NC	5E-03	2E-12	5E-07
Landbay B	70G4	1E-10	3E-04	NC	NC	2E-11	2E-04	1E-11	1E-03	3E-11	2E-04	5E-10	2E-03	NC	NC	1E-08	**1E+02**	1E-08	**2E+00**	NC	NC
Landbay B	73B105	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay B	73B106	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73B107	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73B108	NC	3E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	7E-01	NC	1E-02	NC	NC
Landbay B	73B151	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G76	3E-08	3E-03	4E-10	NC	6E-09	3E-03	3E-09	1E-02	8E-09	2E-03	2E-07	2E-02	1E-07	NC	3E-08	**7E+01**	3E-08	1E+00	2E-09	2E-06
Landbay B	73G77	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G78	NC	2E-06	NC	NC	NC	1E-06	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G79	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay B	73G80	3E-08	3E-03	4E-10	NC	6E-09	3E-03	3E-09	1E-02	8E-09	2E-03	2E-07	2E-02	1E-07	NC	3E-08	4E-01	3E-08	1E-02	2E-09	2E-06
Landbay B	73G81	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G82	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**8E+01**	NC	**2E+00**	NC	NC
Landbay B	73G83	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	4E-01	NC	7E-03	NC	NC
Landbay B	73G84	3E-08	3E-03	4E-10	NC	6E-09	3E-03	3E-09	1E-02	8E-09	2E-03	2E-07	2E-02	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	2E-06
Landbay B	73G85	NC	2E-04	NC	NC	NC	1E-04	NC	9E-04	NC	2E-04	NC	2E-03	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay B	73G86	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G87	3E-08	3E-03	4E-10	NC	6E-09	3E-03	3E-09	1E-02	8E-09	2E-03	2E-07	2E-02	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	2E-06
Landbay B	74AEC-2	8E-08	8E-02	NC	NC	1E-08	5E-02	7E-09	3E-01	2E-08	6E-02	4E-07	6E-01	NC	NC	NC	**3E+04**	NC	**6E+02**	NC	NC
Landbay B	74ANEC	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay B	74B100	2E-08	2E-04	NC	NC	3E-09	1E-04	2E-09	3E-04	4E-09	1E-04	8E-08	1E-03	NC	NC	NC	1E+00	NC	3E-02	NC	NC
Landbay B	74B101	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74B102	NC	9E-05	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay B	74B103	NC	2E-04	NC	NC	NC	1E-04	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	9E-01	NC	2E-02	NC	NC
Landbay B	74B104	NC	9E-07	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	4E-01	NC	8E-03	NC	NC
Landbay B	74B99	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**8E+01**	NC	**2E+00**	NC	NC
Landbay B	74G88	NC	2E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	5E-01	NC	9E-03	NC	NC
Landbay B	74G89	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	5E-01	NC	NC
Landbay B	74G91	1E-08	1E-04	NC	NC	2E-09	6E-05	1E-09	7E-05	3E-09	9E-05	6E-08	6E-04	NC	NC	NC	**6E+00**	NC	1E-01	NC	NC
Landbay B	74G92	4E-08	1E-02	2E-10	NC	1E-08	2E-02	5E-09	7E-02	1E-08	8E-03	2E-07	8E-02	7E-08	NC	8E-08	5E-01	8E-08	1E-02	1E-09	1E-05
Landbay B	74G93	NC	1E-03	NC	NC	NC	8E-04	NC	5E-03	NC	9E-04	NC	9E-03	NC	NC	NC	**5E+02**	NC	**1E+01**	NC	NC
Landbay B	74G94	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74G95	4E-08	1E-02	2E-10	NC	1E-08	2E-02	5E-09	7E-02	1E-08	8E-03	2E-07	8E-02	7E-08	NC	8E-08	**3E+00**	8E-08	6E-02	1E-09	1E-05
Landbay B	74G96	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74G97	NC	1E-02	NC	NC	NC	7E-03	NC	4E-02	NC	8E-03	NC	8E-02	NC	NC	NC	**5E+03**	NC	**9E+01**	NC	NC
Landbay B	74G98	4E-08	1E-02	2E-10	NC	1E-08	2E-02	5E-09	7E-02	1E-08	8E-03	2E-07	8E-02	7E-08	NC	8E-08	4E-03	8E-08	4E-03	1E-09	1E-05
Landbay B	76AEC-1	4E-08	5E-03	NC	NC	7E-09	3E-03	4E-09	2E-02	1E-08	3E-03	2E-07	3E-02	NC	NC	NC	**2E+03**	NC	**3E+01**	NC	NC
Landbay B	76ANEC	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**8E+03**	NC	**2E+02**	NC	NC
Landbay B	76B12	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	4E-01	NC	7E-03	NC	NC
Landbay B	76B13	NC	2E-05	NC	NC	NC	7E-06	NC	3E-06	NC	1E-05	NC	6E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76B14	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	1E-06	NC	1E-05	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay B	76B15	NC	4E-06	NC	NC	NC	2E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	**2E+00**	NC	3E-02	NC	NC
Landbay B	76G1	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	2E-05	NC	NC	NC	8E-01	NC	2E-02	NC	NC
Landbay B	76G10	NC	1E-06	NC	NC	NC	9E-07	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay B	76G11	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay B	76G16	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay B	76G2	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76G3	2E-08	4E-03	3E-10	NC	4E-09	6E-03	2E-09	2E-02	5E-09	3E-03	9E-08	2E-02	8E-08	NC	2E-08	4E-01	2E-08	9E-03	1E-09	6E-06
Landbay B	76G4	NC	9E-07	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	4E-01	NC	8E-03	NC	NC
Landbay B	76G5	2E-08	4E-03	3E-10	NC	4E-09	6E-03	2E-09	2E-02	5E-09	3E-03	9E-08	2E-02	8E-08	NC	2E-08	**2E+00**	2E-08	4E-02	1E-09	6E-06
Landbay B	76G6	2E-08	4E-03	3E-10	NC	4E-09	6E-03	2E-09	2E-02	5E-09	3E-03	9E-08	2E-02	8E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	6E-06
Landbay B	76G7	NC	6E-07	NC	NC	NC	4E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	2E-01	NC	5E-03	NC	NC
Landbay B	76G8	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76G9	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	4E-01	NC	9E-03	NC	NC
Landbay B	78B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	81B1	4E-13	3E-03	NC	NC	4E-10	4E-03	1E-10	2E-02	8E-15	2E-03	2E-12	2E-02	NC	NC	NC	4E-01	NC	2E-02	2E-12	4E-06
Landbay B	81B2	4E-13	3E-03	NC	NC	4E-10	4E-03	1E-10	2E-02	8E-15	2E-03	2E-12	2E-02	NC	NC	NC	1E-02	NC	1E-02	2E-12	4E-06
Landbay B	81G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	81G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85AEC-1	NC	1E-04	NC	3E-04	NC	7E-05	NC	4E-04	NC	9E-05	NC	8E-04	NC	4E-02	NC	**4E+01**	NC	9E-01	NC	4E-06
Landbay B	85ANEC	NC	1E-04	NC	NC	NC	9E-05	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**6E+01**	NC	1E+00	NC	NC
Landbay B	85B140	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	3E-01	NC	6E-03	NC	NC
Landbay B	85B141	NC	3E-03	NC	NC	NC	1E-03	NC	7E-04	NC	2E-03	NC	1E-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85B142	NC	2E-05	NC	NC	NC	1E-05	NC	5E-06	NC	2E-05	NC	1E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85B143	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay B	85B144	NC	2E-05	NC	NC	NC	7E-06	NC	4E-06	NC	1E-05	NC	7E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G54	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	4E-01	NC	8E-03	NC	NC
Landbay B	85G55	NC	2E-06	NC	NC	NC	1E-06	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	5E-01	NC	9E-03	NC	NC
Landbay B	85G56	NC	1E-06	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	4E-01	NC	8E-03	NC	NC
Landbay B	85G57	NC	4E-06	NC	NC	NC	2E-06	NC	1E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G58	2E-07	3E-03	2E-10	4E-05	4E-08	1E-02	2E-08	3E-02	5E-08	2E-03	1E-06	2E-02	7E-08	8E-03	3E-07	3E-03	3E-07	3E-03	1E-09	5E-05
Landbay B	85G59	2E-07	3E-03	2E-10	4E-05	4E-08	1E-02	2E-08	3E-02	5E-08	2E-03	1E-06	2E-02	7E-08	8E-03	3E-07	3E-03	3E-07	3E-03	1E-09	5E-05
Landbay B	85G60	NC	2E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	1E+00	NC	2E-02	NC	NC
Landbay B	85G61	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G62	2E-07	3E-03	2E-10	4E-05	4E-08	1E-02	2E-08	3E-02	5E-08	2E-03	1E-06	2E-02	7E-08	8E-03	3E-07	4E-01	3E-07	1E-02	1E-09	5E-05
Landbay B	85G63	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G64	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	7E-01	NC	1E-02	NC	NC

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	86B1	3E-07	7E-03	4E-10	1E-03	7E-08	4E-03	4E-08	1E-02	8E-08	5E-03	2E-06	4E-02	1E-07	2E-01	5E-07	1E-01	5E-07	3E-02	2E-09	1E-03
Landbay B	86B2	3E-07	7E-03	4E-10	1E-03	7E-08	4E-03	4E-08	1E-02	8E-08	5E-03	2E-06	4E-02	1E-07	2E-01	5E-07	1E-01	5E-07	3E-02	2E-09	1E-03
Landbay B	86G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	86G4	3E-07	7E-03	4E-10	1E-03	7E-08	4E-03	4E-08	1E-02	8E-08	5E-03	2E-06	4E-02	1E-07	2E-01	5E-07	3E-02	5E-07	3E-02	2E-09	1E-03
Landbay B	87B1	7E-09	1E-03	NC	NC	4E-09	1E-03	2E-09	3E-03	2E-09	7E-04	6E-08	6E-03	NC	NC	1E-08	**6E+01**	1E-08	1E+00	7E-12	6E-07
Landbay B	87B2	7E-09	9E-04	NC	NC	4E-09	9E-04	2E-09	3E-03	2E-09	6E-04	6E-08	5E-03	NC	NC	1E-08	**1E+01**	1E-08	2E-01	7E-12	6E-07
Landbay B	87G4	7E-09	8E-04	NC	NC	4E-09	9E-04	2E-09	3E-03	2E-09	6E-04	6E-08	5E-03	NC	NC	1E-08	2E-02	1E-08	2E-02	7E-12	6E-07
Landbay B	97B1	8E-09	1E-03	NC	NC	3E-09	2E-03	2E-09	9E-03	2E-09	1E-03	7E-08	1E-02	NC	NC	2E-08	1E-02	2E-08	1E-02	6E-12	2E-06
Landbay B	98B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	A6G183	6E-07	4E-02	7E-09	1E-03	1E-07	2E-02	5E-08	6E-02	2E-07	3E-02	3E-06	2E-01	2E-06	3E-01	5E-07	**3E+01**	5E-07	7E-01	4E-08	1E-03
Landbay B	A6G184	2E-06	2E-02	1E-09	NC	4E-07	2E-02	2E-07	6E-02	5E-07	2E-02	1E-05	1E-01	3E-07	NC	3E-06	1E-01	3E-06	3E-02	6E-09	1E-05
Landbay B	A6G185	5E-07	1E-02	1E-09	5E-04	1E-07	2E-02	5E-08	5E-02	1E-07	1E-02	3E-06	8E-02	3E-07	9E-02	8E-07	9E-01	8E-07	4E-02	6E-09	5E-04
Landbay B	A6G186	6E-13	1E-02	NC	6E-05	7E-10	3E-02	2E-10	1E-01	1E-14	9E-03	3E-12	9E-02	NC	1E-02	NC	2E-01	NC	3E-02	3E-12	8E-05
Landbay B	A6G187	6E-13	7E-03	NC	NC	7E-10	1E-02	2E-10	6E-02	1E-14	5E-03	3E-12	5E-02	NC	NC	NC	2E-02	NC	2E-02	3E-12	2E-05
Landbay B	A6S158	7E-07	6E-02	9E-09	4E-03	1E-07	3E-02	6E-08	7E-02	2E-07	4E-02	3E-06	2E-01	3E-06	7E-01	7E-07	3E-01	7E-07	5E-02	5E-08	3E-03
Landbay B	A7G188	6E-07	7E-03	NC	1E-05	1E-07	1E-02	8E-08	3E-02	2E-07	5E-03	4E-06	5E-02	NC	2E-03	1E-06	2E-01	1E-06	2E-02	2E-11	2E-05
Landbay B	A7G189	8E-07	6E-03	NC	NC	2E-07	5E-03	1E-07	8E-03	2E-07	4E-03	6E-06	4E-02	NC	NC	2E-06	4E-01	2E-06	4E-02	3E-11	2E-06
Landbay B	A7G190	2E-06	1E-02	NC	NC	4E-07	8E-03	2E-07	1E-02	4E-07	8E-03	1E-05	6E-02	NC	NC	3E-06	3E-01	3E-06	5E-02	5E-11	3E-06
Landbay B	A7S162	6E-07	1E-01	2E-10	NC	3E-07	3E-01	1E-07	9E-01	2E-07	7E-02	4E-06	7E-01	7E-08	NC	1E-06	2E-02	1E-06	2E-02	2E-09	4E-04
Landbay B	A7S163	2E-08	1E-01	2E-10	NC	2E-07	3E-01	6E-08	9E-01	5E-09	7E-02	9E-08	7E-01	7E-08	NC	2E-08	6E-01	2E-08	5E-02	2E-09	4E-04
Landbay B	A8G193	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay B	A8G194	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay B	A8G195	3E-07	3E-02	4E-09	1E-03	6E-08	3E-02	3E-08	9E-02	9E-08	2E-02	2E-06	1E-01	1E-06	3E-01	3E-07	**9E+01**	3E-07	**2E+00**	2E-08	1E-03
Landbay B	A8S154	1E-05	7E-01	1E-07	NC	2E-06	3E-01	8E-07	6E-01	3E-06	4E-01	4E-05	**3E+00**	4E-05	NC	9E-06	5E-01	9E-06	5E-01	7E-07	7E-06
Landbay B	A8S155	1E-05	7E-01	1E-07	NC	2E-06	3E-01	8E-07	6E-01	3E-06	4E-01	4E-05	**3E+00**	4E-05	NC	9E-06	5E-01	9E-06	5E-01	7E-07	7E-06
Landbay B	A8S156	3E-07	3E-02	4E-09	1E-04	5E-08	2E-02	3E-08	7E-02	8E-08	2E-02	1E-06	1E-01	1E-06	2E-02	3E-07	**1E+03**	3E-07	**3E+01**	2E-08	1E-04
Landbay B	A8S159	2E-08	5E-03	2E-10	NC	5E-09	7E-03	2E-09	3E-02	5E-09	3E-03	9E-08	3E-02	7E-08	NC	2E-08	1E+00	2E-08	3E-02	1E-09	7E-06
Landbay B	A8S169	3E-06	2E-01	4E-08	NC	5E-07	1E-01	3E-07	2E-01	8E-07	2E-01	1E-05	9E-01	1E-05	NC	3E-06	**3E+00**	3E-06	2E-01	2E-07	1E-05
Landbay B	A8S170	6E-08	4E-03	8E-10	NC	1E-08	2E-03	5E-09	4E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	6E-08	2E-01	6E-08	8E-03	4E-09	NC
Landbay B	AB-03	3E-09	8E-04	2E-12	4E-09	2E-09	8E-04	7E-10	2E-03	9E-10	6E-04	2E-08	5E-03	6E-10	1E-06	4E-09	2E-02	4E-09	2E-02	2E-10	8E-07
Landbay B	AB-06	2E-07	4E-03	1E-11	2E-08	8E-08	6E-03	4E-08	2E-02	7E-08	3E-03	2E-06	3E-02	3E-09	6E-06	5E-07	3E-02	5E-07	3E-02	1E-09	8E-06
Landbay B	AB-13	7E-07	2E-03	NC	NC	2E-07	3E-03	1E-07	1E-02	2E-07	2E-03	6E-06	2E-02	NC	NC	1E-06	2E-03	1E-06	2E-03	2E-10	3E-06
Landbay B	AB-14	3E-08	8E-03	2E-12	4E-09	1E-08	2E-02	5E-09	7E-02	9E-09	6E-03	3E-07	6E-02	6E-10	1E-06	6E-08	2E-02	6E-08	2E-02	2E-10	2E-05
Landbay B	AB-15	8E-13	5E-03	NC	NC	9E-10	9E-03	3E-10	4E-02	2E-14	4E-03	4E-12	3E-02	NC	NC	NC	2E-02	NC	2E-02	4E-12	9E-06
Landbay B	AB-16	4E-13	3E-03	NC	NC	5E-10	5E-03	1E-10	2E-02	8E-15	2E-03	2E-12	2E-02	NC	NC	NC	1E-02	NC	1E-02	2E-12	6E-06
Landbay B	AB-17	2E-08	3E-03	1E-11	3E-08	6E-09	4E-03	3E-09	2E-02	7E-09	2E-03	2E-07	2E-02	4E-09	8E-06	3E-08	2E-02	3E-08	2E-02	1E-09	6E-06
Landbay B	AB-18	4E-09	9E-04	3E-12	5E-09	2E-09	8E-04	8E-10	2E-03	1E-09	6E-04	3E-08	5E-03	8E-10	1E-06	6E-09	2E-02	6E-09	2E-02	2E-10	1E-06
Landbay B	AB-19	5E-09	6E-04	3E-12	6E-09	1E-09	5E-04	8E-10	1E-03	1E-09	4E-04	3E-08	3E-03	9E-10	2E-06	6E-09	2E-01	6E-09	1E-02	3E-10	7E-07
Landbay B	AB-20	7E-13	8E-04	NC	NC	8E-10	8E-04	2E-10	3E-03	1E-14	6E-04	3E-12	5E-03	NC	NC	NC	2E-02	NC	2E-02	3E-12	4E-07
Landbay B	AB-21	6E-13	7E-04	NC	NC	7E-10	7E-04	2E-10	2E-03	1E-14	5E-04	3E-12	4E-03	NC	NC	NC	1E-02	NC	1E-02	3E-12	4E-07
Landbay B	AB-22	3E-08	2E-03	2E-11	3E-08	7E-09	1E-03	4E-09	3E-03	8E-09	1E-03	2E-07	1E-02	5E-09	8E-06	4E-08	2E-02	4E-08	2E-02	1E-09	3E-06
Landbay B	AJA EE-2	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	AJAY-301	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	B97AEC-1S	NC	2E-04	NC	NC	NC	1E-04	NC	9E-04	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay B	BKG-A	NC	6E-03	NC	NC	NC	1E-02	NC	5E-02	NC	5E-03	NC	5E-02	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	1E-05
Landbay B	BKG-B	NC	4E-04	NC	NC	NC	2E-04	NC	2E-03	NC	3E-04	NC	3E-03	NC	NC	NC	**2E+02**	NC	**3E+00**	NC	NC
Landbay B	BKG-C	NC	2E-04	NC	NC	NC	1E-04	NC	9E-04	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+01**	NC	2E-01	NC	4E-09
Landbay B	BKG-D	NC	3E-03	NC	NC	NC	6E-03	NC	3E-02	NC	2E-03	NC	2E-02	NC	NC	NC	**3E+01**	NC	6E-01	NC	7E-06
Landbay B	BKG-E	NC	7E-03	NC	NC	NC	2E-02	NC	6E-02	NC	5E-03	NC	6E-02	NC	NC	NC	**8E+01**	NC	**2E+00**	NC	2E-05
Landbay B	BKG-F	NC	8E-03	NC	NC	NC	2E-02	NC	6E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**1E+01**	NC	2E-01	NC	2E-05
Landbay B	BKG-G	NC	4E-03	NC	NC	NC	7E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC	NC	NC	NC	7E-06
Landbay B	BKG-H	NC	5E-03	NC	NC	NC	8E-03	NC	4E-02	NC	4E-03	NC	4E-02	NC	NC	NC	NC	NC	NC	NC	8E-06
Landbay B	BKG-I	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-J	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-K	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-L	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-10	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay B	BW 78-11	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**2E+01**	NC	NC
Landbay B	BW 78-12	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay B	DP-119	1E-06	5E-02	NC	7E-04	3E-07	5E-02	2E-07	1E-01	3E-07	3E-02	8E-06	3E-01	NC	1E-01	2E-06	1E+00	2E-06	1E+00	2E-10	7E-04
Landbay B	DP-30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 108-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 116-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay B	GP 119-02	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	GP 42-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-04	NC	6E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	**3E+02**	NC	**5E+00**	NC	NC
Landbay B	GP 70-05	NC	4E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**2E+03**	NC	**3E+01**	NC	NC
Landbay B	GP 70-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-03	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	GP 73-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-03	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	GP 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-06	NC	8E-04	NC	NC	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	NC	NC	**4E+02**	NC	**7E+00**	NC	NC
Landbay B	GP 74-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-05	NC	2E-02	NC	**3E+00**	NC	9E-03	NC	8E-02	NC	2E-03	NC	7E-02	NC	**5E+02**	NC	2E-01	NC	2E-01	NC	6E-02
Landbay B	GP 77-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-02	NC	2E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay B	GP 77-05	NC	2E-03	NC	NC	NC	1E-03	NC	7E-03	NC	1E-03	NC	1E-02	NC	NC	NC	**8E+02**	NC	**2E+01**	NC	NC
Landbay B	GP 77-06	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	2E-03	NC	NC	NC	**8E+01**	NC	**2E+00**	NC	NC
Landbay B	GP 77-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-12	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay B	GP 77-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 78-01	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**3E+03**	NC	**7E+01**	NC	NC
Landbay B	GP 78-03	NC	4E-02	NC	NC	NC	3E-02	NC	2E-01	NC	3E-02	NC	3E-01	NC	NC	NC	**2E+04**	NC	**3E+02**	NC	NC
Landbay B	GP 79-01	NC	3E-04	NC	2E-02	NC	1E-04	NC	4E-04	NC	3E-05	NC	1E-03	NC	**4E+00**	NC	1E-03	NC	1E-03	NC	1E-03
Landbay B	GP 79-02	NC	1E-04	NC	7E-03	NC	5E-05	NC	2E-04	NC	1E-05	NC	4E-04	NC	**2E+00**	NC	NC	NC	NC	NC	4E-04
Landbay B	GP 81-01	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay B	GP 81-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 81-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 82-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 82-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 84-01	NC	2E-05	NC	NC	NC	7E-06	NC	3E-06	NC	1E-05	NC	6E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 85-01	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay B	GP 86-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP BG-03	1E-06	8E-02	NC	1E-04	4E-07	1E-01	2E-07	3E-01	4E-07	6E-02	9E-06	6E-01	NC	2E-02	2E-06	1E-02	2E-06	1E-02	6E-10	2E-04
Landbay B	GP PP-01	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	4E-04	NC	4E-04	NC	NC
Landbay B	GP PP-02	NC	1E-06	NC	NC	NC	9E-07	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	2E-04	NC	2E-04	NC	NC
Landbay B	GP PP-03	NC	4E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	4E-04	NC	4E-04	NC	NC
Landbay B	GP PP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-1	3E-06	1E-01	NC	NC	9E-07	1E-01	4E-07	2E-01	8E-07	9E-02	2E-05	9E-01	NC	NC	5E-06	7E-02	5E-06	7E-02	1E-09	8E-05
Landbay B	IM11-10	1E-10	5E-02	NC	NC	1E-07	4E-01	3E-08	1E+00	2E-12	4E-02	5E-10	4E-01	NC	NC	NC	NC	NC	NC	5E-10	5E-04
Landbay B	IM11-2	9E-11	1E-01	NC	NC	1E-07	9E-01	3E-08	**3E+00**	2E-12	7E-02	5E-10	7E-01	NC	NC	NC	2E-02	NC	2E-02	5E-10	1E-03
Landbay B	IM11-3	2E-07	3E-02	NC	NC	4E-08	2E-01	2E-08	7E-01	4E-08	2E-02	1E-06	2E-01	NC	NC	3E-07	1E-02	3E-07	1E-02	1E-11	3E-04
Landbay B	IM11-4	1E-07	2E-02	NC	NC	4E-08	4E-01	2E-08	1E+00	4E-08	2E-02	1E-06	2E-01	NC	NC	3E-07	4E-02	3E-07	4E-02	2E-11	5E-04
Landbay B	IM11-5	7E-07	8E-02	NC	NC	3E-07	4E-01	1E-07	1E+00	2E-07	6E-02	5E-06	6E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	7E-10	6E-04
Landbay B	IM11-6	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-7	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-8	3E-11	1E-02	NC	NC	3E-08	1E-02	1E-08	9E-03	6E-13	9E-03	2E-10	9E-02	NC	NC	NC	NC	NC	NC	2E-10	7E-06
Landbay B	IM11-9	3E-11	2E-02	NC	NC	4E-08	2E-01	1E-08	6E-01	7E-13	2E-02	2E-10	2E-01	NC	NC	NC	NC	NC	NC	2E-10	3E-04
Landbay B	JT O-01A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	MC D-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 117-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 70-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 70-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 71-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 77-02	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	**4E+01**	NC	7E-01	NC	NC
Landbay B	SB 77-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 77-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-04	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay B	SB 78-05	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	SB 78-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-08	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	SB 78-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-11	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-17	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-18	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**1E+03**	NC	**3E+01**	NC	NC
Landbay B	SB 78-19	NC	1E-03	NC	NC	NC	7E-04	NC	4E-03	NC	8E-04	NC	8E-03	NC	NC	NC	**5E+02**	NC	**9E+00**	NC	NC
Landbay B	SB 78-20	NC	2E-02	NC	NC	NC	1E-02	NC	9E-02	NC	2E-02	NC	2E-01	NC	NC	NC	**1E+04**	NC	**2E+02**	NC	NC
Landbay B	SB 78-21	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay B	SB 78-22	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	SB 78-23	NC	8E-04	NC	NC	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	NC	NC	**3E+02**	NC	**6E+00**	NC	NC
Landbay B	SB 78-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-25	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-26	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-28	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-30	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay B	SB 78-31	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-32	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-34	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-35	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-36	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-37	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay B	SB 78-38	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-39	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay B	SB 78-40	NC	2E-04	NC	NC	NC	1E-04	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**7E+01**	NC	1E+00	NC	NC
Landbay B	SB 78-41	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-42	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**3E+01**	NC	NC
Landbay B	SB 78-43	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay B	SED 40-26	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SED 40-27	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay B	SED 40-28	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	S-IMSED-4	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	6E-08	3E-03	6E-08	3E-03	4E-09	NC
Landbay B	S-IMSED-6	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	7E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay B	SR-116	7E-07	9E-03	NC	NC	1E-07	4E-03	7E-08	4E-03	2E-07	6E-03	4E-06	4E-02	NC	NC	NC	**3E+02**	NC	**6E+00**	NC	NC
Landbay B	SR-76B	NC	7E-04	NC	7E-04	NC	4E-04	NC	2E-03	NC	4E-04	NC	5E-03	NC	1E-01	NC	7E-03	NC	7E-03	NC	7E-04
Landbay B	SR-76S	1E-08	6E-04	NC	2E-04	3E-09	4E-04	1E-09	1E-03	3E-09	4E-04	6E-08	3E-03	NC	4E-02	NC	3E-03	NC	3E-03	2E-12	2E-04
Landbay B	SR-85S	6E-06	6E-02	NC	NC	1E-06	3E-02	6E-07	8E-03	2E-06	4E-02	3E-05	2E-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-108A	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	**5E+00**	NC	9E-02	NC	NC
Landbay B	SS-116B	NC	5E-05	NC	NC	NC	2E-05	NC	1E-05	NC	3E-05	NC	2E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-116C	5E-06	5E-02	NC	NC	9E-07	2E-02	4E-07	7E-03	1E-06	3E-02	2E-05	2E-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-116D	3E-08	3E-04	NC	NC	5E-09	1E-04	3E-09	4E-05	8E-09	2E-04	1E-07	1E-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-74A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-74E	8E-07	1E-02	NC	NC	1E-07	6E-03	7E-08	2E-03	2E-07	8E-03	4E-06	5E-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-74G	2E-05	2E-01	NC	NC	3E-06	7E-02	2E-06	2E-02	5E-06	1E-01	9E-05	6E-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-85A	NC	2E-02	NC	NC	NC	7E-03	NC	4E-03	NC	1E-02	NC	7E-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-86A	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	8E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay B	SS-98A	NC	2E-06	NC	NC	NC	1E-06	NC	7E-06	NC	1E-06	NC	1E-05	NC	NC	NC	7E-01	NC	1E-02	NC	NC
Landbay B	SW 115-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 70-01	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay B	SW 70-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 74-02	NC	7E-04	NC	NC	NC	5E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	**6E+00**	NC	1E-01	NC	NC
Landbay B	SW 74-03	NC	1E-05	NC	NC	NC	9E-06	NC	6E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**6E+00**	NC	1E-01	NC	NC
Landbay B	SW 74-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-02	NC	7E-03	NC	NC	NC	4E-03	NC	3E-02	NC	5E-03	NC	5E-02	NC	NC	NC	**3E+03**	NC	**6E+01**	NC	NC
Landbay B	TRL200B1	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay C	194B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	23TP2-10	2E-06	1E-02	4E-10	3E-05	4E-07	9E-03	2E-07	1E-02	5E-07	1E-02	1E-05	8E-02	1E-07	5E-03	3E-06	1E-01	3E-06	3E-02	2E-09	4E-06
Landbay C	23TP3-7	8E-07	2E-02	NC	1E-04	2E-07	3E-02	1E-07	1E-01	2E-07	1E-02	6E-06	1E-01	NC	3E-02	2E-06	4E-02	2E-06	4E-02	3E-11	3E-05
Landbay C	23TP4-7	NC	8E-03	NC	NC	NC	2E-02	NC	7E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**8E+00**	NC	2E-01	NC	2E-05
Landbay C	23TP5-12	1E-06	1E-02	7E-10	5E-08	2E-07	2E-02	1E-07	7E-02	1E-06	9E-03	2E-05	8E-02	3E-07	1E-05	8E-06	**8E+00**	8E-06	2E-01	9E-08	2E-05
Landbay C	25TP1-25	1E-13	3E-05	NC	6E-08	2E-10	4E-05	5E-11	2E-04	3E-15	2E-05	7E-13	2E-04	NC	2E-05	NC	1E-04	NC	1E-04	7E-13	9E-08
Landbay C	25TP2-30	6E-07	6E-03	NC	1E-08	1E-07	6E-03	8E-08	2E-02	2E-07	4E-03	4E-06	4E-02	NC	3E-06	1E-06	1E-01	1E-06	8E-03	2E-11	5E-06
Landbay C	25TP3-10	NC	2E-08	NC	3E-08	NC	1E-08	NC	5E-08	NC	1E-08	NC	1E-07	NC	8E-06	NC	4E-05	NC	4E-05	NC	2E-08
Landbay C	25TP4-25	8E-09	1E-04	2E-08	1E-04	2E-09	8E-05	2E-09	3E-04	2E-10	6E-05	3E-08	6E-04	6E-06	4E-02	NC	**2E+00**	NC	8E-02	3E-08	2E-04
Landbay C	26TP1-5	4E-13	5E-04	NC	2E-08	5E-10	9E-04	2E-10	4E-03	9E-15	3E-04	2E-12	3E-03	NC	6E-06	NC	9E-02	NC	2E-03	2E-12	9E-07
Landbay C	26TP2-7	8E-07	5E-03	NC	2E-08	2E-07	4E-03	1E-07	4E-03	2E-07	4E-03	6E-06	3E-02	NC	4E-06	1E-06	2E-01	1E-06	1E-02	3E-11	1E-06
Landbay C	27TP1-7	7E-07	5E-03	NC	8E-08	2E-07	3E-03	9E-08	3E-03	2E-07	3E-03	5E-06	3E-02	NC	2E-05	1E-06	7E-02	1E-06	8E-03	2E-11	8E-07
Landbay C	27TP2-7	6E-07	4E-03	NC	1E-08	1E-07	2E-03	8E-08	2E-03	2E-07	3E-03	4E-06	2E-02	NC	3E-06	1E-06	6E-03	1E-06	6E-03	2E-11	6E-07
Landbay C	6150-1850	7E-08	6E-02	NC	NC	2E-07	1E-01	5E-08	3E-01	2E-08	4E-02	6E-07	4E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	6E-10	1E-04
Landbay C	6300-1850	5E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	1E-03	9E-08	1E-03	3E-10	4E-05
Landbay C	6450-1700	5E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	1E-03	9E-08	1E-03	3E-10	4E-05
Landbay C	6450-1850	5E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	1E-03	9E-08	1E-03	3E-10	4E-05
Landbay C	6450-2000	4E-05	4E-02	2E-07	5E-03	7E-06	4E-02	3E-06	9E-02	3E-05	3E-02	**7E-04**	3E-01	5E-05	1E+00	**2E-04**	4E-02	**2E-04**	4E-02	2E-06	2E-03
Landbay C	6450-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6450-2000SE	2E-05	3E-03	4E-08	1E-03	4E-06	1E-03	2E-06	1E-03	2E-05	2E-03	**5E-04**	1E-02	1E-05	3E-01	1E-04	2E-02	1E-04	2E-02	1E-06	4E-04
Landbay C	6450-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6450-2150	8E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	9E-02	2E-08	3E-02	7E-07	3E-01	NC	NC	2E-07	2E-03	2E-07	2E-03	3E-10	2E-05
Landbay C	6500-111	1E-06	2E-02	NC	NC	3E-07	3E-02	2E-07	1E-01	3E-07	2E-02	9E-06	2E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	9E-11	3E-05
Landbay C	6600-1850	5E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	1E-03	9E-08	1E-03	3E-10	4E-05
Landbay C	6600-2000	8E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	9E-02	2E-08	3E-02	7E-07	3E-01	NC	NC	2E-07	2E-03	2E-07	2E-03	3E-10	2E-05
Landbay C	6600-2300	6E-08	3E-02	NC	9E-06	7E-08	4E-02	3E-08	1E-01	2E-08	2E-02	5E-07	2E-01	NC	2E-03	1E-07	1E-03	1E-07	1E-03	3E-10	3E-05
Landbay C	6750-1850	9E-07	2E-02	NC	4E-08	2E-07	5E-02	1E-07	2E-01	3E-07	1E-02	6E-06	1E-01	NC	1E-05	2E-06	8E-03	2E-06	8E-03	3E-11	5E-05
Landbay C	6750-2000	4E-08	3E-02	NC	6E-03	8E-08	3E-02	3E-08	4E-02	1E-08	2E-02	4E-07	2E-01	NC	1E+00	8E-08	2E-03	8E-08	2E-03	3E-10	3E-04
Landbay C	6750-2300	6E-08	3E-02	NC	NC	7E-08	4E-02	3E-08	1E-01	2E-08	2E-02	5E-07	2E-01	NC	NC	1E-07	7E-04	1E-07	7E-04	3E-10	3E-05
Landbay C	6900-119	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6900-1850	9E-07	2E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	3E-07	1E-02	6E-06	1E-01	NC	NC	2E-06	8E-03	2E-06	8E-03	3E-11	5E-05
Landbay C	6900-2000	4E-08	3E-02	NC	NC	8E-08	3E-02	3E-08	4E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	6E-04	8E-08	6E-04	3E-10	2E-05
Landbay C	6900-2150	4E-08	3E-02	NC	NC	8E-08	3E-02	3E-08	4E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	6E-04	8E-08	6E-04	3E-10	2E-05
Landbay C	6900-2300	3E-08	7E-03	NC	NC	3E-08	1E-02	1E-08	2E-02	9E-09	6E-03	3E-07	6E-02	NC	NC	6E-08	1E-04	6E-08	1E-04	9E-11	9E-06
Landbay C	6900-2450	6E-08	3E-02	NC	1E-05	7E-08	4E-02	3E-08	1E-01	2E-08	2E-02	5E-07	2E-01	NC	2E-03	1E-07	1E-03	1E-07	1E-03	3E-10	3E-05
Landbay C	7000-120	2E-06	7E-02	NC	7E-07	5E-07	1E-01	3E-07	3E-01	5E-07	5E-02	1E-05	5E-01	NC	1E-04	4E-06	2E-02	4E-06	2E-02	5E-10	1E-04
Landbay C	7000-121	2E-06	2E-02	NC	2E-04	4E-07	5E-02	2E-07	1E-01	4E-07	2E-02	1E-05	2E-01	NC	3E-02	3E-06	2E-02	3E-06	2E-02	2E-10	2E-04
Landbay C	7000-122	NC	2E-07	NC	NC	NC	1E-07	NC	7E-07	NC	1E-07	NC	1E-06	NC	NC	NC	7E-02	NC	1E-03	NC	NC
Landbay C	7050-1700	9E-07	2E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	3E-07	1E-02	6E-06	1E-01	NC	NC	2E-06	8E-03	2E-06	8E-03	3E-11	5E-05
Landbay C	7050-1850	9E-07	2E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	3E-07	1E-02	6E-06	1E-01	NC	NC	2E-06	8E-03	2E-06	8E-03	3E-11	5E-05
Landbay C	7050-2150	4E-08	3E-02	NC	NC	8E-08	3E-02	3E-08	4E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	6E-04	8E-08	6E-04	3E-10	2E-05
Landbay C	7050-2300	3E-08	7E-03	NC	NC	3E-08	1E-02	1E-08	2E-02	9E-09	6E-03	3E-07	6E-02	NC	NC	6E-08	1E-04	6E-08	1E-04	9E-11	9E-06
Landbay C	7050-2900	4E-08	3E-02	NC	NC	6E-08	3E-02	2E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	7E-04	8E-08	7E-04	2E-10	2E-05
Landbay C	7100-135	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7100-137	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7200-138	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	1E-06	NC	NC	NC	8E-02	NC	2E-03	NC	NC
Landbay C	7200-2000	2E-08	8E-03	NC	NC	5E-09	4E-02	3E-09	1E-01	5E-09	6E-03	1E-07	6E-02	NC	NC	3E-08	2E-03	3E-08	2E-03	5E-12	5E-05
Landbay C	7200-2150	2E-08	8E-03	NC	NC	5E-09	4E-02	3E-09	1E-01	5E-09	6E-03	1E-07	6E-02	NC	NC	3E-08	2E-03	3E-08	2E-03	5E-12	5E-05
Landbay C	7200-2300	3E-08	7E-03	NC	NC	3E-08	1E-02	1E-08	2E-02	9E-09	6E-03	3E-07	6E-02	NC	NC	6E-08	1E-04	6E-08	1E-04	9E-11	9E-06
Landbay C	7200-2450	3E-08	6E-02	NC	6E-05	1E-07	8E-02	5E-08	2E-01	8E-09	5E-02	3E-07	5E-01	NC	1E-02	6E-08	1E-04	6E-08	1E-04	6E-10	1E-04
Landbay C	7200-2600	1E-07	3E-02	7E-10	2E-04	8E-08	6E-02	3E-08	1E-01	3E-08	2E-02	7E-07	2E-01	2E-07	4E-02	2E-07	4E-03	2E-07	4E-03	4E-09	3E-04
Landbay C	7200-2750	1E-07	3E-02	7E-10	2E-04	8E-08	6E-02	3E-08	1E-01	3E-08	2E-02	7E-07	2E-01	2E-07	4E-02	2E-07	4E-03	2E-07	4E-03	4E-09	3E-04
Landbay C	7200-3050	7E-14	2E-05	NC	NC	8E-11	2E-05	3E-11	1E-04	2E-15	1E-05	4E-13	1E-04	NC	NC	NC	1E-05	NC	1E-05	4E-13	2E-08
Landbay C	7200-3200	7E-14	2E-05	NC	NC	8E-11	2E-05	3E-11	1E-04	2E-15	1E-05	4E-13	1E-04	NC	NC	NC	1E-05	NC	1E-05	4E-13	2E-08
Landbay C	7350-1850	2E-08	8E-03	NC	NC	5E-09	4E-02	3E-09	1E-01	5E-09	6E-03	1E-07	6E-02	NC	NC	3E-08	2E-03	3E-08	2E-03	5E-12	5E-05
Landbay C	7350-2000	2E-08	8E-03	NC	NC	5E-09	4E-02	3E-09	1E-01	5E-09	6E-03	1E-07	6E-02	NC	NC	3E-08	2E-03	3E-08	2E-03	5E-12	5E-05
Landbay C	7350-2300	3E-08	6E-02	NC	6E-05	1E-07	8E-02	5E-08	2E-01	8E-09	5E-02	3E-07	5E-01	NC	1E-02	6E-08	1E-04	6E-08	1E-04	6E-10	1E-04
Landbay C	7350-2450	3E-08	6E-02	NC	6E-05	1E-07	8E-02	5E-08	2E-01	8E-09	5E-02	3E-07	5E-01	NC	1E-02	6E-08	1E-04	6E-08	1E-04	6E-10	1E-04
Landbay C	7350-2750	1E-07	3E-02	7E-10	2E-04	8E-08	6E-02	3E-08	1E-01	3E-08	2E-02	7E-07	2E-01	2E-07	4E-02	2E-07	4E-03	2E-07	4E-03	4E-09	3E-04
Landbay C	7350-2900	1E-07	3E-02	7E-10	2E-04	8E-08	6E-02	3E-08	1E-01	3E-08	2E-02	7E-07	2E-01	2E-07	4E-02	2E-07	4E-03	2E-07	4E-03	4E-09	3E-04
Landbay C	7350-3050	8E-13	9E-04	NC	NC	8E-10	9E-04	3E-10	3E-03	2E-14	7E-04	4E-12	6E-03	NC	NC	NC	3E-01	NC	3E-02	4E-12	6E-07
Landbay C	7350-3200	2E-14	2E-05	NC	NC	3E-11	3E-05	9E-12	8E-05	5E-16	2E-05	1E-13	1E-04	NC	NC	NC	2E-01	NC	4E-03	1E-13	2E-08
Landbay C	7500-141	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7500-144	NC	2E-07	NC	NC	NC	1E-07	NC	7E-07	NC	1E-07	NC	1E-06	NC	NC	NC	7E-02	NC	1E-03	NC	NC
Landbay C	7500-145	NC	2E-02	NC	NC	NC	8E-02	NC	3E-01	NC	1E-02	NC	1E-01	NC	NC	NC	1E+00	NC	9E-01	NC	1E-04
Landbay C	7500-146	3E-07	2E-02	3E-09	5E-04	4E-08	8E-03	2E-08	2E-02	7E-08	1E-02	1E-06	7E-02	9E-07	1E-01	2E-07	2E-02	2E-07	2E-02	2E-08	5E-04
Landbay C	7500-1700	NC	1E-03	NC	NC	NC	2E-02	NC	8E-02	NC	8E-04	NC	8E-03	NC	NC	NC	3E-04	NC	3E-04	NC	3E-05
Landbay C	7500-1850	NC	1E-03	NC	NC	NC	2E-02	NC	8E-02	NC	8E-04	NC	8E-03	NC	NC	NC	3E-04	NC	3E-04	NC	3E-05
Landbay C	7500-2000	2E-13	9E-05	NC	1E-04	2E-10	9E-05	7E-11	4E-04	4E-15	5E-05	1E-12	6E-04	NC	2E-02	NC	4E-05	NC	4E-05	1E-12	9E-05
Landbay C	7500-2300	4E-07	5E-03	2E-10	1E-04	9E-08	3E-03	5E-08	7E-03	1E-07	3E-03	3E-06	3E-02	5E-08	2E-02	8E-07	5E-03	8E-07	5E-03	1E-09	1E-04
Landbay C	7500-2450	3E-08	6E-02	NC	6E-05	1E-07	8E-02	5E-08	2E-01	8E-09	5E-02	3E-07	5E-01	NC	1E-02	6E-08	5E-04	6E-08	5E-04	6E-10	1E-04
Landbay C	7500-2900	1E-10	6E-02	NC	2E-04	1E-07	2E-01	4E-08	6E-01	3E-12	4E-02	6E-10	4E-01	NC	4E-02	NC	4E-01	NC	1E-02	6E-10	5E-04
Landbay C	7500-3050	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	2E-01	NC	3E-03	8E-13	4E-08
Landbay C	7600-147	NC	4E-07	NC	NC	NC	3E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	2E-01	NC	4E-03	NC	NC
Landbay C	7650-1700	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-04	NC	3E-04	8E-13	4E-08
Landbay C	7650-2150	2E-13	1E-04	NC	1E-03	2E-10	9E-05	7E-11	5E-04	4E-15	5E-05	1E-12	6E-04	NC	2E-01	NC	1E-04	NC	1E-04	1E-12	1E-04
Landbay C	7650-2300	4E-07	5E-03	2E-10	1E-04	9E-08	3E-03	5E-08	7E-03	1E-07	3E-03	3E-06	3E-02	5E-08	2E-02	8E-07	5E-03	8E-07	5E-03	1E-09	1E-04
Landbay C	7650-2450	4E-07	5E-03	2E-10	1E-04	9E-08	3E-03	5E-08	7E-03	1E-07	3E-03	3E-06	3E-02	5E-08	2E-02	8E-07	5E-03	8E-07	5E-03	1E-09	1E-04
Landbay C	7650-2600	3E-13	4E-04	NC	1E-04	4E-10	5E-04	1E-10	2E-03	7E-15	3E-04	2E-12	3E-03	NC	2E-02	NC	2E-03	NC	2E-03	2E-12	1E-04
Landbay C	7650-2750	3E-13	4E-04	NC	1E-04	4E-10	5E-04	1E-10	2E-03	7E-15	3E-04	2E-12	3E-03	NC	2E-02	NC	2E-03	NC	2E-03	2E-12	1E-04
Landbay C	7650-2900	1E-13	1E-04	NC	1E-04	1E-10	9E-05	4E-11	4E-04	2E-15	7E-05	5E-13	7E-04	NC	2E-02	NC	4E-04	NC	4E-04	5E-13	1E-04
Landbay C	7650-3050	9E-08	2E-03	3E-10	1E-04	2E-08	1E-03	1E-08	2E-03	2E-08	1E-03	5E-07	9E-03	9E-08	2E-02	1E-07	4E-03	1E-07	4E-03	2E-09	1E-04
Landbay C	7800-1700	5E-13	6E-04	NC	NC	6E-10	5E-04	2E-10	2E-03	1E-14	4E-04	3E-12	4E-03	NC	NC	NC	3E-01	NC	1E-02	3E-12	3E-07
Landbay C	7800-1850	5E-13	6E-04	NC	3E-07	6E-10	5E-04	2E-10	2E-03	1E-14	4E-04	3E-12	4E-03	NC	7E-05	NC	3E-01	NC	1E-02	3E-12	5E-07
Landbay C	7800-2000	2E-07	1E-03	NC	1E-04	4E-08	8E-04	2E-08	1E-03	4E-08	8E-04	1E-06	7E-03	NC	3E-02	3E-07	2E-03	3E-07	2E-03	7E-12	1E-04
Landbay C	7800-2150	2E-13	9E-05	NC	1E-04	2E-10	9E-05	7E-11	4E-04	4E-15	5E-05	1E-12	6E-04	NC	2E-02	NC	4E-05	NC	4E-05	1E-12	9E-05
Landbay C	7800-2300	4E-07	5E-03	2E-10	1E-04	9E-08	3E-03	5E-08	7E-03	1E-07	3E-03	3E-06	3E-02	5E-08	2E-02	8E-07	5E-03	8E-07	5E-03	1E-09	1E-04

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay C	7800-2450	3E-13	4E-04	NC	1E-04	4E-10	5E-04	1E-10	2E-03	7E-15	3E-04	2E-12	3E-03	NC	2E-02	NC	2E-03	NC	2E-03	2E-12	1E-04
Landbay C	7800-2600	3E-13	4E-04	NC	1E-04	4E-10	5E-04	1E-10	2E-03	7E-15	3E-04	2E-12	3E-03	NC	2E-02	NC	2E-03	NC	2E-03	2E-12	1E-04
Landbay C	7800-2750	1E-13	1E-04	NC	1E-04	1E-10	9E-05	4E-11	4E-04	2E-15	7E-05	5E-13	7E-04	NC	2E-02	NC	9E-04	NC	9E-04	5E-13	1E-04
Landbay C	7950-1700	5E-13	6E-04	NC	3E-07	6E-10	5E-04	2E-10	2E-03	1E-14	4E-04	3E-12	4E-03	NC	8E-05	NC	3E-01	NC	1E-02	3E-12	5E-07
Landbay C	7950-1850	5E-13	6E-04	NC	2E-07	6E-10	5E-04	2E-10	2E-03	1E-14	4E-04	3E-12	4E-03	NC	6E-05	NC	3E-01	NC	1E-02	3E-12	4E-07
Landbay C	7950-2000	2E-07	1E-03	NC	1E-04	4E-08	8E-04	2E-08	1E-03	4E-08	8E-04	1E-06	7E-03	NC	3E-02	3E-07	2E-03	3E-07	2E-03	7E-12	1E-04
Landbay C	7950-2150	2E-07	1E-03	NC	1E-04	4E-08	8E-04	2E-08	1E-03	4E-08	8E-04	1E-06	7E-03	NC	3E-02	3E-07	2E-03	3E-07	2E-03	7E-12	1E-04
Landbay C	7950-2300	2E-13	7E-05	NC	4E-05	2E-10	8E-05	8E-11	4E-04	5E-15	4E-05	1E-12	5E-04	NC	8E-03	NC	4E-05	NC	4E-05	1E-12	4E-05
Landbay C	7950-2450	2E-13	7E-05	NC	4E-05	2E-10	8E-05	8E-11	4E-04	5E-15	4E-05	1E-12	5E-04	NC	8E-03	NC	4E-05	NC	4E-05	1E-12	4E-05
Landbay C	7950-2600	1E-13	1E-04	NC	1E-04	1E-10	9E-05	4E-11	4E-04	2E-15	7E-05	5E-13	7E-04	NC	2E-02	NC	4E-04	NC	4E-04	5E-13	1E-04
Landbay C	8100-1700	8E-08	7E-04	NC	1E-04	2E-08	5E-04	1E-08	9E-04	2E-08	5E-04	6E-07	4E-03	NC	2E-02	2E-07	9E-04	2E-07	9E-04	4E-12	1E-04
Landbay C	8100-1850	8E-08	7E-04	NC	1E-04	2E-08	5E-04	1E-08	9E-04	2E-08	5E-04	6E-07	4E-03	NC	2E-02	2E-07	9E-04	2E-07	9E-04	4E-12	1E-04
Landbay C	8100-2000	2E-07	1E-03	NC	1E-04	4E-08	8E-04	2E-08	1E-03	4E-08	8E-04	1E-06	7E-03	NC	3E-02	3E-07	2E-03	3E-07	2E-03	7E-12	1E-04
Landbay C	8100-2150	2E-13	7E-05	NC	4E-05	2E-10	8E-05	8E-11	4E-04	5E-15	4E-05	1E-12	5E-04	NC	8E-03	NC	4E-05	NC	4E-05	1E-12	4E-05
Landbay C	8100-2300	2E-13	7E-05	NC	4E-05	2E-10	8E-05	8E-11	4E-04	5E-15	4E-05	1E-12	5E-04	NC	8E-03	NC	4E-05	NC	4E-05	1E-12	4E-05
Landbay C	8100-2450	1E-13	1E-04	NC	1E-04	1E-10	9E-05	4E-11	4E-04	2E-15	7E-05	5E-13	7E-04	NC	2E-02	NC	4E-04	NC	4E-04	5E-13	1E-04
Landbay C	8200-158	1E-07	1E-03	NC	2E-05	3E-08	8E-04	2E-08	2E-03	3E-08	8E-04	8E-07	7E-03	NC	3E-03	2E-07	2E-01	2E-07	4E-03	4E-12	1E-05
Landbay C	8250-1550	4E-08	5E-04	NC	6E-05	1E-08	4E-04	5E-09	1E-03	1E-08	4E-04	3E-07	3E-03	NC	1E-02	7E-08	8E-04	7E-08	8E-04	3E-12	6E-05
Landbay C	8250-1700	8E-08	7E-04	NC	1E-04	2E-08	5E-04	1E-08	9E-04	2E-08	5E-04	6E-07	4E-03	NC	2E-02	2E-07	9E-04	2E-07	9E-04	4E-12	1E-04
Landbay C	8250-1850	8E-08	7E-04	NC	1E-04	2E-08	5E-04	1E-08	9E-04	2E-08	5E-04	6E-07	4E-03	NC	2E-02	2E-07	9E-04	2E-07	9E-04	4E-12	1E-04
Landbay C	8250-2000	1E-06	7E-03	NC	NC	2E-07	5E-03	1E-07	4E-03	3E-07	5E-03	7E-06	4E-02	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	1E-06
Landbay C	8250-2150	3E-14	7E-06	NC	NC	3E-11	9E-06	9E-12	4E-05	5E-16	5E-06	1E-13	6E-05	NC	NC	NC	6E-05	NC	6E-05	1E-13	6E-09
Landbay C	8250-2300	3E-14	7E-06	NC	NC	3E-11	9E-06	9E-12	4E-05	5E-16	5E-06	1E-13	6E-05	NC	NC	NC	6E-05	NC	6E-05	1E-13	6E-09
Landbay C	8400-1700	1E-06	7E-03	NC	NC	2E-07	5E-03	1E-07	4E-03	3E-07	5E-03	7E-06	4E-02	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	1E-06
Landbay C	8400-1850	1E-06	7E-03	NC	3E-08	2E-07	5E-03	1E-07	4E-03	3E-07	5E-03	7E-06	4E-02	NC	7E-06	2E-06	1E-02	2E-06	1E-02	3E-11	1E-06
Landbay C	8400-2000	3E-14	7E-06	NC	NC	3E-11	9E-06	9E-12	4E-05	5E-16	5E-06	1E-13	6E-05	NC	NC	NC	6E-05	NC	6E-05	1E-13	6E-09
Landbay C	8400-2150	3E-14	7E-06	NC	NC	3E-11	9E-06	9E-12	4E-05	5E-16	5E-06	1E-13	6E-05	NC	NC	NC	6E-05	NC	6E-05	1E-13	6E-09
Landbay C	87G3	7E-09	8E-04	NC	NC	4E-09	9E-04	2E-09	3E-03	2E-09	6E-04	6E-08	5E-03	NC	NC	1E-08	2E-02	1E-08	2E-02	7E-12	6E-07
Landbay C	88B1	2E-08	5E-03	3E-10	4E-04	5E-09	6E-03	2E-09	2E-02	6E-09	3E-03	1E-07	3E-02	8E-08	7E-02	2E-08	3E-02	2E-08	3E-02	2E-09	4E-04
Landbay C	88B2	2E-08	5E-03	3E-10	4E-04	5E-09	6E-03	2E-09	2E-02	6E-09	3E-03	1E-07	3E-02	8E-08	7E-02	2E-08	2E-01	2E-08	3E-02	2E-09	4E-04
Landbay C	88G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	88G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	90B1	2E-12	3E-03	NC	4E-04	2E-09	3E-03	5E-10	1E-02	3E-14	2E-03	8E-12	2E-02	NC	8E-02	NC	4E-02	NC	4E-02	8E-12	4E-04
Landbay C	90B2	2E-12	3E-03	NC	4E-04	2E-09	4E-03	5E-10	1E-02	3E-14	2E-03	8E-12	2E-02	NC	8E-02	NC	1E-01	NC	4E-02	8E-12	4E-04
Landbay C	90G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	90G4	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay C	93B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	6E-02	NC	1E-03	NC	NC
Landbay C	94B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	95AB1	NC	2E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	6E-02	NC	1E-03	NC	NC
Landbay C	96B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	97B2	8E-09	1E-03	NC	NC	3E-09	2E-03	2E-09	9E-03	2E-09	1E-03	7E-08	1E-02	NC	NC	2E-08	1E-02	2E-08	1E-02	6E-12	2E-06
Landbay C	97G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	99B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	3E-03	NC	NC
Landbay C	AJA W-201	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	AJAY-1 MCD-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	AJAY-101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 190-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 221-05	6E-10	7E-04	NC	NC	4E-09	2E-03	1E-09	5E-03	2E-10	5E-04	3E-09	5E-03	NC	NC	5E-09	2E-03	5E-09	2E-03	2E-11	2E-06
Landbay C	GP 221-06	7E-09	1E-05	NC	NC	2E-09	1E-05	1E-09	3E-05	2E-09	1E-05	6E-08	1E-04	NC	NC	1E-08	2E-05	1E-08	2E-05	2E-12	5E-09
Landbay C	GP 221-07	5E-13	1E-04	NC	NC	6E-10	2E-04	2E-10	7E-04	1E-14	9E-05	3E-12	9E-04	NC	NC	NC	1E-04	NC	1E-04	3E-12	1E-07
Landbay C	GP 221-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 221-12	6E-08	2E-04	NC	NC	2E-08	2E-04	1E-08	9E-04	2E-08	1E-04	5E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	2E-07
Landbay C	GP 221-15	8E-09	2E-05	NC	NC	3E-09	1E-05	2E-09	4E-05	2E-09	1E-05	8E-08	1E-04	NC	NC	2E-08	3E-05	2E-08	3E-05	3E-12	5E-09
Landbay C	GP 221-16	7E-08	2E-04	NC	NC	2E-08	2E-04	1E-08	7E-04	2E-08	1E-04	6E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay C	GP 88-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 88-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 91-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 92-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 94-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-03	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay C	GP 97-01	3E-08	6E-05	NC	NC	9E-09	7E-05	5E-09	2E-04	8E-09	4E-05	3E-07	5E-04	NC	NC	6E-08	9E-05	6E-08	9E-05	9E-12	4E-08
Landbay C	GP 97-02	NC	2E-05	NC	NC	NC	6E-05	NC	2E-04	NC	1E-05	NC	1E-04	NC	NC	NC	NC	NC	NC	NC	6E-08
Landbay C	GP 97-03	9E-11	3E-05	1E-09	6E-04	2E-11	1E-05	1E-11	3E-05	6E-11	1E-05	3E-09	2E-04	1E-06	2E-01	6E-07	4E-02	6E-07	4E-02	2E-10	4E-05
Landbay C	GP 97-04	2E-08	3E-05	NC	NC	6E-09	3E-05	3E-09	9E-05	5E-09	2E-05	2E-07	2E-04	NC	NC	3E-08	5E-05	3E-08	5E-05	6E-12	1E-08
Landbay C	GP BG-01	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-05	NC	3E-05	8E-13	4E-08
Landbay C	GP NPB-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP NPB-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP NPB-03	8E-08	2E-04	NC	NC	3E-08	2E-04	1E-08	7E-04	2E-08	1E-04	7E-07	1E-03	NC	NC	2E-07	2E-04	2E-07	2E-04	3E-11	2E-07
Landbay C	HA BG-01	1E-06	8E-03	NC	NC	3E-07	5E-03	2E-07	5E-03	4E-07	6E-03	9E-06	5E-02	NC	NC	2E-06	1E-02	2E-06	1E-02	4E-11	1E-06
Landbay C	IM13-1	9E-09	3E-02	NC	NC	8E-09	4E-02	3E-09	2E-01	3E-09	2E-02	8E-08	2E-01	NC	NC	2E-08	2E-02	2E-08	2E-02	3E-11	4E-05
Landbay C	IM13-2	4E-07	3E-02	1E-11	NC	1E-07	4E-02	6E-08	2E-01	3E-07	2E-02	7E-06	2E-01	1E-08	NC	2E-06	3E-02	2E-06	3E-02	2E-08	3E-05
Landbay C	IM13-3	4E-13	5E-03	NC	NC	5E-10	1E-02	2E-10	5E-02	9E-15	4E-03	2E-12	4E-02	NC	NC	NC	3E-03	NC	3E-03	2E-12	1E-05
Landbay C	IM13-4	9E-09	3E-02	NC	NC	7E-09	4E-02	3E-09	2E-01	3E-09	2E-02	8E-08	2E-01	NC	NC	2E-08	1E-02	2E-08	1E-02	2E-11	4E-05
Landbay C	IM13-5	3E-12	1E-02	NC	NC	3E-09	3E-02	9E-10	1E-01	6E-14	9E-03	1E-11	1E-01	NC	NC	NC	1E-02	NC	1E-02	1E-11	3E-05
Landbay C	JSEE-0101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	JT GG-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	JTGG-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	MCD-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	MOB	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SB PBN-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SB PBN-02	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay C	SR-90	NC	2E-05	NC	NC	NC	7E-06	NC	4E-06	NC	1E-05	NC	7E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SS-96A	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay C	SW 94-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	TP 221-02	2E-08	1E-03	NC	NC	1E-08	3E-03	6E-09	8E-03	7E-09	1E-03	2E-07	1E-02	NC	NC	5E-08	1E-02	5E-08	1E-02	3E-11	3E-06
Landbay C	TP 97-01	4E-13	9E-05	NC	NC	4E-10	2E-04	1E-10	5E-04	8E-15	6E-05	2E-12	7E-04	NC	NC	NC	7E-04	NC	7E-04	2E-12	2E-07
Landbay C	TP 97-02	9E-13	2E-04	NC	NC	1E-09	4E-04	3E-10	1E-03	2E-14	1E-04	4E-12	1E-03	NC	NC	NC	1E-03	NC	1E-03	4E-12	5E-07
Landbay C	TP NPB-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	TP NPB-03	3E-10	3E-06	NC	NC	5E-11	1E-06	3E-11	1E-06	8E-11	2E-06	1E-09	1E-05	NC	NC	2E-09	2E-05	2E-09	2E-05	NC	NC
Landbay D	10TP1-7	NC	1E-02	NC	1E-08	NC	2E-02	NC	9E-02	NC	8E-03	NC	8E-02	NC	3E-06	NC	2E-05	NC	2E-05	NC	2E-05
Landbay D	10TP2-7	NC	8E-03	NC	NC	NC	2E-02	NC	7E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**6E+00**	NC	1E-01	NC	2E-05
Landbay D	11 GP-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	11 GP-02	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	5E-03	6E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	NC
Landbay D	11 GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	11B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	13B1	1E-07	7E-03	NC	NC	3E-08	1E-02	2E-08	6E-02	3E-08	5E-03	8E-07	5E-02	NC	NC	2E-07	9E-03	2E-07	9E-03	3E-12	1E-05
Landbay D	15 GP-01	9E-08	6E-03	1E-09	NC	1E-08	3E-03	7E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	8E-08	5E-03	8E-08	5E-03	6E-09	NC
Landbay D	15 GP-02	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	1E-07	3E-02	3E-06	1E-01	2E-06	NC	NC	NC	NC	NC	4E-08	NC
Landbay D	15 GP-03	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	7E-08	NC
Landbay D	15 GP-04	1E-05	9E-01	2E-07	NC	2E-06	4E-01	1E-06	7E-01	3E-06	6E-01	6E-05	**3E+00**	5E-05	NC	1E-06	8E-02	1E-06	8E-02	9E-07	NC
Landbay D	15 GP-05	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	15 GP-06	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	15 GP-07	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	3E-02	6E-07	3E-02	4E-08	NC
Landbay D	15 GP-08	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	9E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	15 GP-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-11	8E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	5E-02	8E-07	5E-02	6E-08	NC
Landbay D	15 GP-12	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	15 GP-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-14	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	15 GP-16	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	15 GP-17	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	8E-04	7E-08	4E-03	6E-08	NC	NC	NC	NC	NC	1E-09	NC
Landbay D	15 GP-18	5E-06	3E-01	6E-08	NC	9E-07	1E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	3E-07	NC
Landbay D	15 GP-19	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	15 GP-20	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	6E-03	3E-08	5E-03	4E-07	3E-02	4E-07	NC	2E-08	1E-03	2E-08	1E-03	7E-09	NC
Landbay D	15 GP-21	3E-06	2E-01	3E-08	NC	4E-07	7E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	9E-06	NC	2E-06	1E-01	2E-06	1E-01	2E-07	NC
Landbay D	15 GP-22	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	1E-02	5E-08	8E-03	8E-07	4E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	15 GP-23	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	NC
Landbay D	15 GP-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-25	3E-07	2E-02	4E-09	NC	5E-08	9E-03	2E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	NC	NC	NC	NC	2E-08	NC
Landbay D	15 GP-26	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-08	3E-03	4E-08	3E-03	3E-09	NC
Landbay D	15 GP-27	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	15 GP-29	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	2E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	NC	NC	NC	NC	2E-09	NC
Landbay D	15 GP-30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-32	3E-07	2E-02	4E-09	NC	6E-08	1E-02	3E-08	2E-02	9E-08	2E-02	2E-06	9E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	15 GP-33	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	NC	NC	NC	NC	2E-09	NC
Landbay D	151B1	1E-06	3E-02	NC	6E-03	3E-07	5E-02	2E-07	2E-01	4E-07	2E-02	9E-06	2E-01	NC	1E+00	2E-06	3E-02	2E-06	3E-02	4E-11	5E-03
Landbay D	152B1	5E-07	9E-03	NC	7E-04	1E-07	1E-02	6E-08	5E-02	1E-07	6E-03	3E-06	6E-02	NC	1E-01	9E-07	1E-02	9E-07	1E-02	1E-11	7E-04
Landbay D	15ANEC	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	**4E+02**	NC	**8E+00**	NC	NC
Landbay D	17AB1	NC	1E-04	NC	NC	NC	7E-05	NC	4E-04	NC	8E-05	NC	8E-04	NC	NC	NC	**4E+01**	NC	9E-01	NC	NC
Landbay D	17B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-01	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	NC	NC	NC	NC	2E-09	NC
Landbay D	2 GP-02	8E-06	6E-01	1E-07	NC	1E-06	2E-01	7E-07	5E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-06	5E-01	8E-06	5E-01	6E-07	NC
Landbay D	2 GP-03	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-06	4E-01	8E-06	4E-01	5E-07	NC
Landbay D	2 GP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-05	3E-06	2E-01	4E-08	NC	5E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	2 GP-06	4E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	2 GP-07	4E-07	3E-02	5E-09	NC	7E-08	1E-02	4E-08	2E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	4E-07	2E-02	4E-07	2E-02	3E-08	NC
Landbay D	2 GP-08	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	1E-06	7E-02	1E-06	7E-02	9E-08	NC
Landbay D	2 GP-09	2E-05	**2E+00**	3E-07	NC	4E-06	7E-01	2E-06	1E+00	6E-06	1E+00	1E-04	**6E+00**	9E-05	NC	2E-05	1E+00	2E-05	1E+00	2E-06	NC
Landbay D	2 GP-10	5E-07	3E-02	6E-09	NC	8E-08	1E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	5E-07	3E-02	5E-07	3E-02	3E-08	NC
Landbay D	2 GP-11	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	3E-06	2E-01	3E-06	2E-01	5E-07	NC
Landbay D	2 GP-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-13	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	5E-07	NC	1E-07	7E-03	1E-07	7E-03	9E-09	NC
Landbay D	2 GP-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-15	7E-08	5E-03	9E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	3E-07	NC	7E-08	4E-03	7E-08	4E-03	5E-09	NC
Landbay D	2 GP-16	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	8E-07	5E-02	7E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	2 GP-17	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	2 GP-18	5E-08	4E-03	6E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	2 GP-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Routine Worker – Outdoor Activities Risk	Routine Worker – Outdoor Activities HI	Routine Worker – Vapor Intrusion Risk	Routine Worker – Vapor Intrusion HI	Maint. Worker – Maint. Activities Risk	Maint. Worker – Maint. Activities HI	Constr. Worker – Redevel. Activities Risk	Constr. Worker – Redevel. Activities HI	Recreator – Outdoor Activities Risk	Recreator – Outdoor Activities HI	On-Site Resident – Outdoor Activities Risk	On-Site Resident – Outdoor Activities HI	On-Site Resident – Vapor Intrusion Risk	On-Site Resident – Vapor Intrusion HI	On-Site Resident – Plant Uptake No Depl. Risk	On-Site Resident – Plant Uptake No Depl. HI	On-Site Resident – Plant Uptake Risk	On-Site Resident – Plant Uptake HI	Off-Site Resident – Outdoor Air Inhalation Risk	Off-Site Resident – Outdoor Air Inhalation HI
Landbay D	2 GP-20	5E-07	4E-02	6E-09	NC	9E-08	2E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	5E-07	3E-02	5E-07	3E-02	4E-08	NC
Landbay D	2 GP-21	4E-07	3E-02	5E-09	NC	7E-08	1E-02	4E-08	2E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	4E-07	2E-02	4E-07	2E-02	3E-08	NC
Landbay D	2 GP-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-23	4E-08	2E-03	4E-10	NC	6E-09	1E-03	3E-09	2E-03	9E-09	2E-03	2E-07	9E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	2 GP-24	2E-07	1E-02	2E-09	NC	3E-08	5E-03	2E-08	1E-02	5E-08	8E-03	8E-07	5E-02	7E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	2 GP-25	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-26	2E-06	1E-01	2E-08	NC	3E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	2 SED-01	5E-07	3E-02	4E-10	2E-04	1E-07	3E-02	7E-08	1E-01	1E-07	2E-02	4E-06	2E-01	1E-07	3E-02	9E-07	2E-02	9E-07	2E-02	2E-09	2E-04
Landbay D	22B1	1E-07	1E-03	NC	4E-04	3E-08	1E-03	2E-08	4E-03	3E-08	1E-03	9E-07	8E-03	NC	9E-02	2E-07	1E-01	2E-07	3E-02	3E-11	3E-05
Landbay D	22B2	1E-07	1E-03	NC	2E-04	3E-08	1E-03	2E-08	4E-03	3E-08	1E-03	9E-07	8E-03	NC	5E-02	2E-07	4E-01	2E-07	4E-02	3E-11	1E-05
Landbay D	22B3	1E-07	1E-03	NC	8E-06	3E-08	1E-03	2E-08	4E-03	3E-08	1E-03	9E-07	8E-03	NC	8E-04	2E-07	**9E+00**	2E-07	2E-01	3E-11	1E-06
Landbay D	22B4	1E-07	3E-03	2E-09	7E-03	4E-08	2E-03	2E-08	5E-03	4E-08	2E-03	1E-06	1E-02	4E-07	1E+00	2E-07	1E+00	2E-07	6E-02	1E-09	2E-04
Landbay D	22B7	9E-12	1E-05	1E-09	4E-04	2E-12	6E-06	2E-12	4E-05	5E-13	6E-06	5E-11	6E-05	3E-07	6E-02	1E-10	**3E+00**	1E-10	6E-02	4E-11	9E-06
Landbay D	22G5	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**4E+03**	NC	**7E+01**	NC	NC
Landbay D	22G6	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	**2E+03**	NC	**4E+01**	NC	NC
Landbay D	24B1	NC	1E-02	NC	NC	NC	3E-02	NC	1E-01	NC	1E-02	NC	1E-01	NC	NC	NC	8E-03	NC	8E-03	NC	3E-05
Landbay D	2550-2300	3E-07	2E-02	NC	2E-05	6E-08	2E-02	4E-08	6E-02	8E-08	1E-02	2E-06	1E-01	NC	3E-03	5E-07	3E-02	5E-07	3E-02	1E-11	2E-05
Landbay D	2550-2450	3E-07	2E-02	NC	2E-05	6E-08	2E-02	4E-08	6E-02	8E-08	1E-02	2E-06	1E-01	NC	3E-03	5E-07	3E-02	5E-07	3E-02	1E-11	2E-05
Landbay D	2550-2600	3E-07	2E-02	NC	2E-05	6E-08	2E-02	4E-08	6E-02	8E-08	1E-02	2E-06	1E-01	NC	3E-03	5E-07	3E-02	5E-07	3E-02	1E-11	2E-05
Landbay D	2550-2750	8E-09	2E-02	NC	1E-05	3E-08	6E-02	1E-08	2E-01	2E-09	2E-02	6E-08	2E-01	NC	2E-03	2E-08	2E-02	2E-08	2E-02	1E-10	7E-05
Landbay D	2700-2150	2E-13	4E-03	NC	NC	3E-10	3E-03	8E-11	1E-02	5E-15	3E-03	1E-12	3E-02	NC	NC	NC	1E-02	NC	1E-02	1E-12	5E-07
Landbay D	2700-2300	2E-13	4E-03	NC	NC	3E-10	3E-03	8E-11	1E-02	5E-15	3E-03	1E-12	3E-02	NC	NC	NC	1E-02	NC	1E-02	1E-12	5E-07
Landbay D	2700-2750	8E-09	2E-02	NC	1E-05	3E-08	6E-02	1E-08	2E-01	2E-09	2E-02	6E-08	2E-01	NC	2E-03	2E-08	2E-02	2E-08	2E-02	1E-10	7E-05
Landbay D	2700-2900	8E-09	2E-02	NC	1E-05	3E-08	6E-02	1E-08	2E-01	2E-09	2E-02	6E-08	2E-01	NC	2E-03	2E-08	2E-02	2E-08	2E-02	1E-10	7E-05
Landbay D	2700-3050	2E-06	4E-02	NC	NC	4E-07	5E-02	2E-07	2E-01	5E-07	3E-02	1E-05	2E-01	NC	NC	3E-06	2E-02	3E-06	2E-02	6E-11	4E-05
Landbay D	28 SED-01	7E-07	3E-02	NC	1E-07	2E-07	8E-02	1E-07	2E-01	2E-07	2E-02	5E-06	2E-01	NC	3E-05	1E-06	9E-03	1E-06	9E-03	3E-10	9E-05
Landbay D	2800-23	7E-07	5E-03	NC	NC	2E-07	8E-03	1E-07	2E-02	2E-07	4E-03	5E-06	3E-02	NC	NC	1E-06	9E-03	1E-06	9E-03	2E-11	8E-06
Landbay D	2850-2000	2E-13	4E-03	NC	NC	3E-10	3E-03	8E-11	1E-02	5E-15	3E-03	1E-12	3E-02	NC	NC	NC	1E-02	NC	1E-02	1E-12	5E-07
Landbay D	2850-2150	2E-13	4E-03	NC	NC	3E-10	3E-03	8E-11	1E-02	5E-15	3E-03	1E-12	3E-02	NC	NC	NC	1E-02	NC	1E-02	1E-12	5E-07
Landbay D	28B1	3E-08	8E-03	NC	2E-04	2E-08	1E-02	8E-09	4E-02	1E-08	6E-03	3E-07	5E-02	NC	5E-02	8E-08	2E-01	8E-08	1E-01	3E-11	2E-04
Landbay D	28B2	7E-07	5E-02	8E-09	2E-04	1E-07	3E-02	6E-08	6E-02	2E-07	3E-02	3E-06	2E-01	2E-06	5E-02	7E-07	4E-01	7E-07	5E-02	4E-08	2E-04
Landbay D	28B5	NC	4E-07	NC	NC	NC	2E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	2E-01	NC	3E-03	NC	NC
Landbay D	29B1	6E-09	7E-03	NC	NC	1E-09	2E-02	6E-10	6E-02	2E-09	6E-03	3E-08	6E-02	NC	NC	5E-08	5E-03	5E-08	5E-03	NC	2E-05
Landbay D	29B2	NC	5E-03	NC	NC	NC	1E-02	NC	4E-02	NC	3E-03	NC	3E-02	NC	NC	NC	2E-03	NC	2E-03	NC	1E-05
Landbay D	29B3	NC	4E-03	NC	NC	NC	9E-03	NC	4E-02	NC	3E-03	NC	3E-02	NC	NC	NC	2E-03	NC	2E-03	NC	1E-05
Landbay D	2B1	2E-09	5E-03	NC	1E-04	3E-10	1E-02	1E-10	4E-02	4E-10	4E-03	8E-09	4E-02	NC	2E-02	1E-08	**2E+01**	1E-08	5E-01	NC	1E-04
Landbay D	3000-2000	1E-06	7E-02	NC	NC	3E-07	2E-01	2E-07	6E-01	4E-07	5E-02	9E-06	5E-01	NC	NC	2E-06	8E-01	2E-06	1E-01	3E-10	2E-04
Landbay D	3000-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2000SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2150	9E-12	2E-02	NC	NC	1E-08	2E-02	3E-09	6E-02	2E-13	1E-02	5E-11	1E-01	NC	NC	NC	2E-01	NC	3E-02	5E-11	7E-06
Landbay D	3000-2300	4E-06	1E-01	NC	1E-04	9E-07	9E-02	5E-07	3E-01	1E-06	7E-02	3E-05	7E-01	NC	2E-02	8E-06	5E-02	8E-06	5E-02	1E-10	1E-04
Landbay D	3000-2300N	2E-12	1E-02	NC	NC	2E-09	2E-02	5E-10	1E-01	3E-14	9E-03	8E-12	9E-02	NC	NC	NC	3E-02	NC	3E-02	8E-12	2E-05
Landbay D	3000-2300SE	6E-13	5E-03	NC	5E-05	7E-10	1E-02	2E-10	4E-02	1E-14	4E-03	3E-12	4E-02	NC	1E-02	NC	6E-04	NC	6E-04	3E-12	6E-05
Landbay D	3000-2300SW	1E-12	7E-03	NC	2E-04	1E-09	1E-02	4E-10	5E-02	2E-14	5E-03	5E-12	5E-02	NC	4E-02	NC	1E-02	NC	1E-02	5E-12	2E-04
Landbay D	3000-2450	1E-12	7E-03	NC	NC	1E-09	2E-02	3E-10	6E-02	2E-14	5E-03	5E-12	5E-02	NC	NC	NC	7E-04	NC	7E-04	5E-12	2E-05
Landbay D	3000-26	1E-06	1E-02	NC	NC	2E-07	2E-02	1E-07	5E-02	3E-07	9E-03	7E-06	8E-02	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	1E-05
Landbay D	3000-2900	1E-06	3E-02	NC	NC	3E-07	6E-02	2E-07	2E-01	4E-07	2E-02	9E-06	2E-01	NC	NC	2E-06	4E-02	2E-06	4E-02	4E-11	7E-05
Landbay D	3150-1850	4E-07	2E-02	NC	NC	9E-08	1E-02	5E-08	7E-02	1E-07	2E-02	3E-06	1E-01	NC	NC	8E-07	5E-03	8E-07	5E-03	1E-11	3E-06
Landbay D	3150-2000	4E-06	5E-02	2E-07	7E-02	7E-07	3E-02	3E-07	7E-02	1E-06	4E-02	2E-05	3E-01	5E-05	**2E+01**	4E-05	**2E+00**	4E-05	1E+00	1E-07	1E-02
Landbay D	3150-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2000SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2150	3E-07	2E-02	NC	NC	6E-08	1E-02	3E-08	5E-02	7E-08	1E-02	2E-06	1E-01	NC	NC	5E-07	2E-01	5E-07	5E-02	1E-11	6E-06
Landbay D	3300-17	5E-10	7E-04	NC	NC	3E-10	9E-04	1E-10	4E-03	1E-10	5E-04	3E-09	5E-03	NC	NC	4E-09	1E-02	4E-09	1E-02	1E-12	7E-07
Landbay D	3300-1700	4E-06	9E-02	NC	NC	1E-06	3E-01	6E-07	1E+00	1E-06	7E-02	3E-05	7E-01	NC	NC	8E-06	5E-02	8E-06	5E-02	3E-10	4E-04
Landbay D	3300-1850	2E-06	4E-02	NC	NC	4E-07	3E-02	2E-07	1E-01	5E-07	3E-02	1E-05	3E-01	NC	NC	4E-06	2E-02	4E-06	2E-02	5E-11	6E-06
Landbay D	3300-2000	7E-07	6E-03	NC	9E-05	2E-07	5E-03	9E-08	8E-03	2E-07	4E-03	5E-06	4E-02	NC	2E-02	1E-06	7E-03	1E-06	7E-03	2E-11	9E-05
Landbay D	3300-2150	7E-07	6E-03	NC	9E-05	2E-07	5E-03	9E-08	8E-03	2E-07	4E-03	5E-06	4E-02	NC	2E-02	1E-06	7E-03	1E-06	7E-03	2E-11	9E-05
Landbay D	3300-2750	1E-06	3E-02	NC	NC	3E-07	6E-02	2E-07	2E-01	4E-07	2E-02	9E-06	2E-01	NC	NC	2E-06	4E-02	2E-06	4E-02	4E-11	7E-05
Landbay D	3450-1850	1E-06	2E-02	NC	1E-08	2E-07	2E-02	1E-07	5E-02	3E-07	1E-02	7E-06	1E-01	NC	3E-06	2E-06	1E-02	2E-06	1E-02	3E-11	4E-06
Landbay D	3450-2000	7E-07	6E-03	NC	9E-05	2E-07	5E-03	9E-08	8E-03	2E-07	4E-03	5E-06	4E-02	NC	2E-02	1E-06	7E-03	1E-06	7E-03	2E-11	9E-05
Landbay D	3450-2750	9E-07	4E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	6E-02	2E-06	6E-02	2E-10	4E-05
Landbay D	35B1	2E-07	1E-02	2E-09	7E-04	3E-08	7E-03	2E-08	2E-02	5E-08	1E-02	8E-07	6E-02	7E-07	1E-01	2E-07	**2E+00**	2E-07	9E-02	1E-08	6E-04
Landbay D	35B2	1E-07	9E-03	1E-09	7E-04	2E-08	5E-03	9E-09	1E-02	3E-08	6E-03	5E-07	4E-02	4E-07	1E-01	1E-07	**3E+00**	1E-07	1E-01	7E-09	6E-04
Landbay D	35G3	4E-08	3E-03	5E-10	NC	7E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-08	**1E+01**	4E-08	3E-01	3E-09	NC
Landbay D	3600-18	1E-06	1E-02	5E-10	2E-04	3E-07	1E-02	1E-07	2E-02	3E-07	8E-03	8E-06	7E-02	2E-07	4E-02	2E-06	1E+00	2E-06	4E-02	3E-09	2E-04
Landbay D	3600-2750	9E-07	4E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	6E-02	2E-06	6E-02	2E-10	4E-05
Landbay D	3750-2150	3E-07	8E-03	NC	4E-04	6E-08	5E-02	4E-08	2E-01	8E-08	6E-03	2E-06	6E-02	NC	7E-02	5E-07	2E-02	5E-07	2E-02	8E-12	4E-04
Landbay D	3750-2300	3E-07	8E-03	NC	4E-04	6E-08	5E-02	4E-08	2E-01	8E-08	6E-03	2E-06	6E-02	NC	7E-02	5E-07	2E-02	5E-07	2E-02	8E-12	4E-04
Landbay D	3750-2450	3E-07	8E-03	NC	4E-04	6E-08	5E-02	4E-08	2E-01	8E-08	6E-03	2E-06	6E-02	NC	7E-02	5E-07	2E-02	5E-07	2E-02	8E-12	4E-04
Landbay D	3750-2750	2E-08	3E-03	3E-10	9E-05	5E-09	2E-02	2E-09	6E-02	6E-09	2E-03	1E-07	2E-02	9E-08	2E-02	2E-08	1E-02	2E-08	1E-02	2E-09	1E-04
Landbay D	3750-2900	2E-08	3E-03	3E-10	9E-05	5E-09	2E-02	2E-09	6E-02	6E-09	2E-03	1E-07	2E-02	9E-08	2E-02	2E-08	1E-02	2E-08	1E-02	2E-09	1E-04
Landbay D	3900-2750	6E-07	7E-02	NC	NC	3E-07	2E-01	1E-07	4E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	6E-03	1E-06	6E-03	7E-10	2E-04
Landbay D	3900-2900	6E-07	7E-02	NC	NC	3E-07	2E-01	1E-07	4E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	6E-03	1E-06	6E-03	7E-10	2E-04
Landbay D	3TP1-7	2E-12	5E-03	NC	2E-08	3E-09	4E-03	8E-10	2E-02	5E-14	4E-03	1E-11	3E-02	NC	6E-06	NC	6E-01	NC	7E-02	1E-11	2E-06
Landbay D	3TP2-7	2E-12	4E-03	NC	4E-08	3E-09	3E-03	8E-10	1E-02	5E-14	3E-03	1E-11	2E-02	NC	9E-06	NC	1E-01	NC	6E-02	1E-11	2E-06
Landbay D	3TP3-7	NC	7E-04	NC	1E-08	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	3E-06	NC	8E-02	NC	2E-03	NC	1E-08
Landbay D	3TP4-7	NC	8E-04	NC	3E-08	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	9E-06	NC	9E-05	NC	9E-05	NC	3E-08
Landbay D	4000-20	2E-06	2E-02	5E-10	3E-04	4E-07	2E-02	2E-07	6E-02	5E-07	2E-02	1E-05	2E-01	1E-07	5E-02	3E-06	2E-02	3E-06	2E-02	3E-09	2E-04
Landbay D	4050-2450	1E-08	3E-03	NC	NC	4E-09	5E-03	2E-09	2E-02	3E-09	2E-03	9E-08	2E-02	NC	NC	2E-08	9E-04	2E-08	9E-04	5E-12	5E-06
Landbay D	4050-2600	1E-08	3E-03	NC	NC	4E-09	5E-03	2E-09	2E-02	3E-09	2E-03	9E-08	2E-02	NC	NC	2E-08	9E-04	2E-08	9E-04	5E-12	5E-06
Landbay D	41B1	2E-08	7E-03	2E-10	2E-04	3E-09	1E-02	2E-09	5E-02	5E-09	5E-03	8E-08	5E-02	6E-08	3E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04
Landbay D	41B2	2E-08	7E-03	2E-10	2E-04	3E-09	1E-02	2E-09	5E-02	5E-09	5E-03	8E-08	5E-02	8E-08	3E-02	3E-08	5E-01	3E-08	2E-02	1E-09	2E-04
Landbay D	41B3	2E-08	7E-03	2E-10	2E-04	3E-09	1E-02	2E-09	5E-02	5E-09	5E-03	8E-08	5E-02	9E-08	3E-02	2E-08	1E+00	2E-08	4E-02	1E-09	2E-04
Landbay D	41B6	3E-09	5E-05	8E-09	6E-05	7E-10	3E-05	7E-10	8E-05	1E-10	2E-05	2E-08	2E-04	2E-06	2E-02	NC	5E-01	NC	2E-02	2E-08	1E-04
Landbay D	41G4	5E-10	8E-05	NC	NC	1E-10	4E-05	5E-11	2E-05	1E-10	6E-05	3E-09	4E-04	NC	NC	4E-09	7E-02	4E-09	1E-03	NC	NC
Landbay D	41G5	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**3E+03**	NC	**6E+01**	NC	NC
Landbay D	42 GP-01	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	9E-07	NC	2E-07	1E-02	2E-07	1E-02	2E-08	NC
Landbay D	42 GP-02	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	8E-02	4E-07	6E-02	6E-06	4E-01	5E-06	NC	1E-06	8E-02	1E-06	8E-02	9E-08	NC
Landbay D	42 GP-03	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-07	1E-02	2E-07	1E-02	2E-08	NC
Landbay D	42 GP-04	1E-07	1E-02	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	7E-03	6E-07	4E-02	5E-07	NC	1E-07	8E-03	1E-07	8E-03	1E-08	NC
Landbay D	42 GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-06	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	4E-03	6E-08	NC	2E-08	9E-04	2E-08	9E-04	1E-09	NC
Landbay D	42 GP-07	5E-08	3E-03	6E-10	NC	9E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	3E-09	NC
Landbay D	42 GP-08	1E-05	7E-01	1E-07	NC	2E-06	3E-01	9E-07	6E-01	3E-06	5E-01	5E-05	**3E+00**	4E-05	NC	1E-05	6E-01	1E-05	6E-01	7E-07	NC
Landbay D	42 GP-09	3E-06	2E-01	4E-08	NC	5E-07	9E-02	2E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	42 GP-16	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	42 GP-17	2E-07	1E-02	3E-09	NC	4E-08	6E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	3E-08	2E-03	3E-08	2E-03	1E-08	NC
Landbay D	42 GP-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-19	2E-05	1E+00	2E-07	NC	3E-06	5E-01	2E-06	1E+00	5E-06	8E-01	8E-05	**5E+00**	7E-05	NC	2E-05	1E+00	2E-05	1E+00	1E-06	NC
Landbay D	42 GP-20	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-23	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-24	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	NC
Landbay D	42 GP-25	9E-06	6E-01	1E-07	NC	1E-06	3E-01	7E-07	5E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-06	5E-01	8E-06	5E-01	6E-07	NC
Landbay D	42 GP-26	1E-07	8E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	4E-07	NC	1E-07	7E-03	1E-07	7E-03	8E-09	NC
Landbay D	42 GP-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-28	2E-05	**2E+00**	3E-07	NC	4E-06	7E-01	2E-06	1E+00	6E-06	1E+00	1E-04	**6E+00**	8E-05	NC	2E-05	1E+00	2E-05	1E+00	2E-06	NC
Landbay D	42 GP-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-32	1E-06	8E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	7E-08	NC
Landbay D	42 GP-33	3E-06	2E-01	3E-08	NC	5E-07	8E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	1E-05	NC	3E-06	1E-01	3E-06	1E-01	2E-07	NC
Landbay D	42 GP-34	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay D	42 GP-35	7E-06	5E-01	9E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	NC	7E-06	4E-01	7E-06	4E-01	5E-07	NC
Landbay D	42 GP-36	1E-06	8E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	8E-08	NC
Landbay D	42 GP-37	2E-06	1E-01	2E-08	NC	3E-07	5E-02	1E-07	9E-02	4E-07	7E-02	7E-06	4E-01	6E-06	NC	1E-06	9E-02	1E-06	9E-02	1E-07	NC
Landbay D	42 GP-38	5E-06	4E-01	7E-08	NC	9E-07	2E-01	5E-07	3E-01	1E-06	3E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	4E-07	NC
Landbay D	42 GP-39	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	NC	7E-06	4E-01	7E-06	4E-01	5E-07	NC
Landbay D	4200-1100	7E-07	7E-02	NC	1E-04	3E-07	1E-01	1E-07	3E-01	2E-07	5E-02	5E-06	5E-01	NC	2E-02	1E-06	2E-02	1E-06	2E-02	7E-10	2E-04
Landbay D	4200-1250	2E-08	2E-03	3E-10	2E-04	4E-09	1E-03	2E-09	4E-03	5E-09	2E-03	9E-08	1E-02	7E-08	4E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04
Landbay D	4200-1550	3E-12	1E-03	NC	1E-04	3E-09	2E-03	9E-10	4E-03	5E-14	1E-03	1E-11	1E-02	NC	3E-02	NC	5E-01	NC	2E-02	1E-11	1E-04
Landbay D	4200-47	2E-06	4E-02	NC	4E-05	5E-07	5E-02	3E-07	2E-01	6E-07	3E-02	1E-05	3E-01	NC	8E-03	4E-06	2E-02	4E-06	2E-02	7E-11	7E-05
Landbay D	4200-48	6E-08	2E-03	4E-10	2E-04	1E-08	1E-03	5E-09	2E-03	3E-08	2E-03	6E-07	9E-03	1E-07	5E-02	1E-07	2E-03	1E-07	2E-03	3E-09	2E-04
Landbay D	42B133	7E-08	5E-03	9E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	3E-07	NC	7E-08	**7E+00**	7E-08	1E-01	5E-09	NC
Landbay D	42B134	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	3E-08	1E-03	3E-08	1E-03	2E-09	NC
Landbay D	42B135	1E-06	1E-01	2E-08	NC	2E-07	4E-02	1E-07	8E-02	4E-07	7E-02	6E-06	4E-01	5E-06	NC	6E-07	**2E+00**	6E-07	7E-02	1E-07	NC
Landbay D	42G109	7E-10	1E-04	NC	NC	1E-10	6E-05	7E-11	4E-04	2E-10	7E-05	4E-09	7E-04	NC	NC	6E-09	4E-01	6E-09	8E-03	NC	NC
Landbay D	42G111	6E-07	6E-03	2E-13	NC	1E-07	1E-02	6E-08	5E-02	5E-07	4E-03	1E-05	4E-02	1E-11	NC	2E-06	2E-03	2E-06	2E-03	2E-08	1E-05
Landbay D	42G112	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42G114	9E-06	3E-01	5E-08	NC	2E-06	1E-01	7E-07	3E-01	5E-06	2E-01	1E-04	1E+00	1E-05	NC	3E-05	2E-01	3E-05	2E-01	6E-07	1E-05
Landbay D	42G118	8E-07	1E-02	2E-09	NC	1E-07	2E-02	7E-08	5E-02	5E-07	1E-02	1E-05	8E-02	5E-07	NC	2E-06	**4E+00**	2E-06	8E-02	3E-08	1E-05
Landbay D	42G119	4E-06	3E-01	5E-08	NC	6E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	4E-06	1E+00	4E-06	2E-01	3E-07	NC
Landbay D	42G120	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	**8E+00**	3E-06	3E-01	2E-07	NC
Landbay D	42TP3-125	1E-12	6E-03	NC	NC	1E-09	1E-02	4E-10	5E-02	2E-14	5E-03	6E-12	5E-02	NC	NC	NC	8E-01	NC	2E-02	6E-12	1E-05
Landbay D	42TP3-175	4E-12	1E-03	NC	5E-07	4E-09	2E-03	1E-09	6E-03	7E-14	1E-03	2E-11	9E-03	NC	1E-04	NC	2E-01	NC	3E-02	2E-11	2E-06
Landbay D	42TP3-227	9E-13	7E-03	NC	NC	1E-09	1E-02	3E-10	6E-02	2E-14	5E-03	5E-12	5E-02	NC	NC	NC	**4E+01**	NC	9E-01	5E-12	1E-05
Landbay D	42TP3-75	5E-09	4E-03	NC	NC	4E-09	5E-03	2E-09	2E-02	1E-09	3E-03	3E-08	3E-02	NC	NC	4E-08	**8E+02**	4E-08	**2E+01**	1E-11	4E-06
Landbay D	42TP4-(-5)	4E-13	6E-03	NC	NC	5E-10	1E-02	1E-10	5E-02	9E-15	5E-03	2E-12	5E-02	NC	NC	NC	**4E+00**	NC	7E-02	2E-12	1E-05
Landbay D	42TP5-138	1E-06	3E-02	2E-11	4E-07	2E-07	3E-02	1E-07	1E-01	5E-07	2E-02	1E-05	2E-01	2E-08	1E-04	4E-06	8E-01	4E-06	1E-01	3E-08	1E-05
Landbay D	42TP5-150	3E-07	4E-03	NC	3E-08	7E-08	4E-03	4E-08	1E-02	9E-08	3E-03	2E-06	3E-02	NC	9E-06	6E-07	8E-01	6E-07	2E-02	9E-12	2E-06
Landbay D	42TP5-200	2E-07	2E-02	NC	1E-02	8E-08	2E-02	4E-08	5E-02	5E-08	2E-02	1E-06	2E-01	NC	**3E+00**	4E-07	8E-01	4E-07	3E-02	2E-10	4E-04
Landbay D	42TP5-25	2E-07	2E-02	3E-09	3E-08	4E-08	1E-02	2E-08	3E-02	6E-08	1E-02	1E-06	8E-02	8E-07	8E-06	2E-07	1E-01	2E-07	2E-02	2E-08	5E-06
Landbay D	42TP5-75	1E-09	6E-02	NC	5E-08	2E-07	9E-02	5E-08	2E-01	3E-10	5E-02	6E-09	5E-01	NC	1E-05	9E-09	**8E+00**	9E-09	2E-01	7E-10	8E-05
Landbay D	42TP6-125	2E-06	1E-01	2E-08	4E-07	3E-07	7E-02	1E-07	2E-01	4E-07	8E-02	7E-06	4E-01	6E-06	1E-04	2E-06	5E-01	2E-06	1E-01	1E-07	3E-05
Landbay D	42TP6-175	2E-12	1E-02	NC	4E-08	2E-09	2E-02	8E-10	9E-02	5E-14	8E-03	1E-11	8E-02	NC	1E-05	NC	1E-01	NC	6E-03	1E-11	2E-05
Landbay D	42TP6-185	7E-07	2E-01	NC	NC	6E-07	5E-01	2E-07	1E+00	2E-07	2E-01	5E-06	**2E+00**	NC	NC	1E-06	1E+00	1E-06	4E-02	2E-09	5E-04
Landbay D	42TP6-200	7E-13	6E-03	NC	NC	8E-10	1E-02	2E-10	5E-02	1E-14	5E-03	3E-12	5E-02	NC	NC	NC	5E-04	NC	5E-04	3E-12	1E-05
Landbay D	42TP6-215	NC	7E-04	NC	NC	NC	2E-03	NC	6E-03	NC	5E-04	NC	5E-03	NC	NC	NC	NC	NC	NC	NC	2E-06
Landbay D	42TP6-75	1E-11	3E-02	NC	1E-07	1E-08	5E-02	4E-09	2E-01	2E-13	2E-02	6E-11	2E-01	NC	3E-05	NC	6E-01	NC	2E-02	6E-11	5E-05
Landbay D	4350-0950	7E-07	7E-02	NC	1E-04	3E-07	1E-01	1E-07	3E-01	2E-07	5E-02	5E-06	5E-01	NC	2E-02	1E-06	2E-02	1E-06	2E-02	7E-10	2E-04
Landbay D	4350-1100	2E-08	2E-03	3E-10	2E-04	4E-09	1E-03	2E-09	4E-03	5E-09	2E-03	9E-08	1E-02	7E-08	4E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	4350-1250	2E-08	2E-03	3E-10	2E-04	4E-09	1E-03	2E-09	4E-03	5E-09	2E-03	9E-08	1E-02	7E-08	4E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04
Landbay D	4350-1400	3E-12	1E-03	NC	1E-04	3E-09	2E-03	9E-10	4E-03	5E-14	1E-03	1E-11	1E-02	NC	3E-02	NC	5E-01	NC	2E-02	1E-11	1E-04
Landbay D	43B132	4E-07	3E-02	5E-09	NC	6E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	1E-01	1E-06	NC	4E-07	4E-01	4E-07	3E-02	3E-08	NC
Landbay D	43G113	6E-07	4E-02	8E-09	NC	1E-07	2E-02	5E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	4E-02	6E-07	4E-02	4E-08	NC
Landbay D	43G121	5E-08	4E-03	7E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	**2E+00**	5E-08	4E-02	4E-09	NC
Landbay D	43G122	9E-06	6E-01	1E-07	NC	2E-06	3E-01	7E-07	5E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-06	5E-01	8E-06	5E-01	6E-07	1E-05
Landbay D	43G123	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay D	43G124	2E-06	1E-01	2E-08	NC	3E-07	7E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	1E-05
Landbay D	43G125	4E-06	3E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	1E+00	1E-05	NC	1E-06	**2E+00**	1E-06	1E-01	2E-07	1E-05
Landbay D	43G126	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	7E-04	7E-08	4E-03	6E-08	NC	1E-08	8E-04	1E-08	8E-04	1E-09	NC
Landbay D	43G127	4E-06	3E-01	5E-08	NC	7E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	4E-06	**3E+00**	4E-06	3E-01	3E-07	NC
Landbay D	43G128	3E-07	3E-02	4E-09	NC	6E-08	2E-02	3E-08	6E-02	9E-08	2E-02	1E-06	1E-01	1E-06	NC	1E-07	7E-03	1E-07	7E-03	2E-08	1E-05
Landbay D	43G129	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	**2E+01**	5E-08	4E-01	3E-09	NC
Landbay D	43G130	4E-06	3E-01	5E-08	NC	7E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	4E-06	2E-01	4E-06	2E-01	3E-07	NC
Landbay D	4500-0800	7E-07	7E-02	NC	1E-04	3E-07	1E-01	1E-07	3E-01	2E-07	5E-02	5E-06	5E-01	NC	2E-02	1E-06	2E-02	1E-06	2E-02	7E-10	2E-04
Landbay D	4500-0950	7E-07	7E-02	NC	1E-04	3E-07	1E-01	1E-07	3E-01	2E-07	5E-02	5E-06	5E-01	NC	2E-02	1E-06	2E-02	1E-06	2E-02	7E-10	2E-04
Landbay D	4500-1100	2E-08	2E-03	3E-10	2E-04	4E-09	1E-03	2E-09	4E-03	5E-09	2E-03	9E-08	1E-02	7E-08	4E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04
Landbay D	4500-1250	3E-12	1E-03	NC	1E-04	3E-09	2E-03	9E-10	4E-03	5E-14	1E-03	1E-11	1E-02	NC	3E-02	NC	5E-01	NC	2E-02	1E-11	1E-04
Landbay D	4500-1400	3E-08	3E-02	3E-10	4E-04	7E-08	2E-02	2E-08	3E-02	7E-09	2E-02	1E-07	2E-01	9E-08	8E-02	2E-08	2E-02	2E-08	2E-02	2E-09	4E-04
Landbay D	4500-2750	2E-08	8E-03	3E-10	NC	8E-09	1E-02	3E-09	5E-02	6E-09	6E-03	1E-07	5E-02	8E-08	NC	2E-08	4E-02	2E-08	4E-02	2E-09	1E-05
Landbay D	4500-57	NC	2E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay D	4600-58	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4650-1100	5E-07	3E-02	NC	2E-04	2E-07	9E-02	8E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	3E-02	9E-07	1E-02	9E-07	1E-02	3E-10	3E-04
Landbay D	4650-1250	3E-08	3E-02	3E-10	4E-04	7E-08	2E-02	2E-08	3E-02	7E-09	2E-02	1E-07	2E-01	9E-08	8E-02	2E-08	2E-02	2E-08	2E-02	2E-09	4E-04
Landbay D	4650-1400	3E-08	3E-02	3E-10	4E-04	7E-08	2E-02	2E-08	3E-02	7E-09	2E-02	1E-07	2E-01	9E-08	8E-02	2E-08	2E-02	2E-08	2E-02	2E-09	4E-04
Landbay D	4650-1550	3E-08	3E-02	3E-10	4E-04	7E-08	2E-02	2E-08	3E-02	7E-09	2E-02	1E-07	2E-01	9E-08	8E-02	2E-08	2E-02	2E-08	2E-02	2E-09	4E-04
Landbay D	4700-62	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4800-1250	7E-07	2E-02	3E-10	1E-04	2E-07	2E-02	9E-08	4E-02	2E-07	1E-02	5E-06	1E-01	9E-08	2E-02	1E-06	2E-02	1E-06	2E-02	2E-09	1E-04
Landbay D	4800-51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	49-01	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	4E-04	NC	4E-04	NC	NC
Landbay D	49-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4950-1550	8E-07	8E-02	NC	2E-05	4E-07	2E-01	2E-07	4E-01	2E-07	6E-02	6E-06	6E-01	NC	4E-03	2E-06	5E-02	2E-06	5E-02	8E-10	2E-04
Landbay D	4950-1700	8E-07	8E-02	NC	2E-05	4E-07	2E-01	2E-07	4E-01	2E-07	6E-02	6E-06	6E-01	NC	4E-03	2E-06	5E-02	2E-06	5E-02	8E-10	2E-04
Landbay D	4B1	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	5E-01	NC	1E-02	NC	NC
Landbay D	50B1	3E-07	7E-03	NC	NC	7E-08	1E-02	4E-08	4E-02	9E-08	5E-03	2E-06	5E-02	NC	NC	6E-07	2E-02	6E-07	2E-02	9E-12	1E-05
Landbay D	5100-1700	8E-07	8E-02	NC	2E-05	4E-07	2E-01	2E-07	4E-01	2E-07	6E-02	6E-06	6E-01	NC	4E-03	2E-06	5E-02	2E-06	5E-02	8E-10	2E-04
Landbay D	5100-1850	2E-08	2E-03	2E-10	NC	4E-09	1E-03	2E-09	4E-03	4E-09	1E-03	8E-08	7E-03	6E-08	NC	2E-08	7E-03	2E-08	7E-03	1E-09	1E-06
Landbay D	5100-2000	2E-08	2E-03	2E-10	NC	4E-09	1E-03	2E-09	4E-03	4E-09	1E-03	8E-08	7E-03	6E-08	NC	2E-08	7E-03	2E-08	7E-03	1E-09	1E-06
Landbay D	51B1	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	2E-06	NC	NC	NC	8E-02	NC	2E-03	NC	NC
Landbay D	53B1	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	4E-01	NC	9E-03	NC	NC
Landbay D	54-02	9E-08	7E-04	NC	NC	2E-08	5E-04	1E-08	1E-03	3E-08	5E-04	6E-07	4E-03	NC	NC	2E-07	3E-03	2E-07	3E-03	3E-12	1E-07
Landbay D	59B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	5B1	4E-06	3E-01	5E-08	1E-03	7E-07	1E-01	3E-07	3E-01	1E-06	2E-01	2E-05	1E+00	1E-05	3E-01	6E-06	3E-01	6E-06	3E-01	3E-07	1E-03
Landbay D	5B2	3E-08	1E-02	1E-11	1E-03	1E-08	2E-02	5E-09	8E-02	9E-09	8E-03	2E-07	8E-02	8E-09	3E-01	1E-07	8E-01	1E-07	4E-02	1E-11	1E-03
Landbay D	5B3	2E-08	1E-02	NC	1E-03	8E-09	2E-02	4E-09	8E-02	6E-09	8E-03	2E-07	8E-02	NC	3E-01	4E-08	2E-02	4E-08	2E-02	1E-11	1E-03
Landbay D	5B4	4E-08	1E-02	NC	1E-03	1E-08	2E-02	5E-09	8E-02	1E-08	8E-03	3E-07	8E-02	NC	3E-01	2E-07	**8E+00**	2E-07	2E-01	1E-11	1E-03
Landbay D	5B6	3E-09	3E-03	NC	2E-08	2E-09	7E-03	8E-10	3E-02	8E-10	3E-03	1E-08	3E-02	NC	4E-06	2E-08	1E-03	2E-08	1E-03	7E-12	8E-06
Landbay D	5G5	5E-08	5E-04	NC	NC	9E-09	2E-04	5E-09	2E-04	1E-08	3E-04	3E-07	2E-03	NC	NC	4E-07	7E-02	4E-07	5E-03	NC	NC
Landbay D	62B1	2E-07	8E-03	NC	NC	5E-08	1E-02	3E-08	5E-02	6E-08	6E-03	1E-06	6E-02	NC	NC	5E-07	1E-02	5E-07	1E-02	6E-12	1E-05
Landbay D	64B1	NC	2E-07	NC	NC	NC	1E-07	NC	9E-07	NC	2E-07	NC	2E-06	NC	NC	NC	9E-02	NC	2E-03	NC	NC
Landbay D	67B1	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	2E-01	NC	4E-03	NC	NC
Landbay D	68G65	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G66	NC	3E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	1E+00	NC	2E-02	NC	NC
Landbay D	68G67	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G68	6E-08	2E-02	7E-10	NC	1E-08	1E-02	5E-09	6E-02	2E-08	1E-02	3E-07	1E-01	2E-07	NC	6E-08	6E-03	6E-08	6E-03	4E-09	4E-06
Landbay D	68G69	6E-08	2E-02	7E-10	NC	1E-08	1E-02	5E-09	6E-02	2E-08	1E-02	3E-07	1E-01	2E-07	NC	6E-08	6E-03	6E-08	6E-03	4E-09	4E-06
Landbay D	68G70	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G71	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G72	6E-08	2E-02	7E-10	2E-06	1E-08	1E-02	5E-09	6E-02	2E-08	1E-02	3E-07	1E-01	2E-07	5E-04	6E-08	6E-03	6E-08	6E-03	4E-09	5E-06
Landbay D	68G73	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G74	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G75	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	6B1	NC	2E-07	NC	NC	NC	1E-07	NC	6E-07	NC	1E-07	NC	1E-06	NC	NC	NC	6E-02	NC	1E-03	NC	NC
Landbay D	9 GP-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	A6G197	9E-08	1E-02	1E-09	NC	2E-08	1E-02	7E-09	4E-02	2E-08	7E-03	4E-07	5E-02	3E-07	NC	8E-08	**4E+00**	8E-08	8E-02	6E-09	8E-06
Landbay D	A6S152	2E-06	2E-02	NC	NC	4E-07	2E-02	2E-07	7E-02	5E-07	1E-02	1E-05	1E-01	NC	NC	3E-06	2E-01	3E-06	7E-02	5E-11	2E-05
Landbay D	A6S153	3E-07	3E-02	3E-09	NC	5E-08	3E-02	2E-08	9E-02	7E-08	2E-02	1E-06	1E-01	1E-06	NC	3E-07	6E-01	3E-07	3E-02	2E-08	2E-05
Landbay D	A6S157	2E-08	9E-03	3E-10	NC	5E-09	2E-02	2E-09	6E-02	6E-09	6E-03	1E-07	6E-02	9E-08	NC	2E-08	**1E+01**	2E-08	3E-01	2E-09	2E-05
Landbay D	B11AEC-1S	NC	2E-03	NC	NC	NC	1E-03	NC	9E-03	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**2E+01**	NC	NC
Landbay D	B31AEC-1S	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay D	B32AEC-1S	NC	2E-03	NC	NC	NC	1E-03	NC	7E-03	NC	1E-03	NC	1E-02	NC	NC	NC	**7E+02**	NC	**1E+01**	NC	NC
Landbay D	B41AEC-1S	NC	2E-01	NC	NC	NC	1E-01	NC	6E-01	NC	1E-01	NC	1E+00	NC	NC	NC	**7E+04**	NC	**1E+03**	NC	NC
Landbay D	B6AEC-1S	NC	2E-01	NC	NC	NC	1E-01	NC	6E-01	NC	1E-01	NC	1E+00	NC	NC	NC	**6E+04**	NC	**1E+03**	NC	NC
Landbay D	BW 10-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 14-02	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay D	BW 16-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 17-02	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	3E-03	NC	NC	NC	**1E+02**	NC	**3E+00**	NC	NC
Landbay D	BW 21-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 21-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 21-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 32-01	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	2E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay D	BW 32-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 5-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 5-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 6-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 9-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	CDP1	8E-08	7E-03	NC	NC	3E-08	1E-02	2E-08	6E-02	2E-08	5E-03	7E-07	5E-02	NC	NC	2E-07	1E+00	2E-07	3E-02	4E-11	1E-05
Landbay D	CDP2	2E-12	6E-03	NC	1E-04	2E-09	1E-02	6E-10	5E-02	4E-14	4E-03	9E-12	5E-02	NC	2E-02	NC	**2E+00**	NC	5E-02	9E-12	1E-04
Landbay D	CDP3	1E-12	5E-03	NC	NC	1E-09	1E-02	4E-10	4E-02	3E-14	4E-03	6E-12	4E-02	NC	NC	NC	**3E+01**	NC	6E-01	6E-12	1E-05
Landbay D	CDP4	7E-13	5E-03	NC	NC	8E-10	1E-02	3E-10	4E-02	2E-14	4E-03	4E-12	4E-02	NC	NC	NC	**3E+00**	NC	6E-02	4E-12	1E-05
Landbay D	CDP5	7E-13	5E-03	NC	NC	8E-10	1E-02	2E-10	4E-02	1E-14	4E-03	3E-12	4E-02	NC	NC	NC	6E-01	NC	1E-02	3E-12	1E-05
Landbay D	CDP6	1E-09	3E-03	3E-09	2E-03	2E-09	6E-03	6E-10	2E-02	4E-10	2E-03	7E-09	2E-02	6E-07	4E-01	1E-08	7E-01	1E-08	3E-02	9E-11	9E-05
Landbay D	CDP7	1E-12	6E-03	NC	NC	2E-09	1E-02	5E-10	5E-02	3E-14	5E-03	7E-12	5E-02	NC	NC	NC	4E-01	NC	2E-02	7E-12	1E-05
Landbay D	CDP8	6E-07	3E-02	3E-11	NC	1E-07	3E-02	5E-08	1E-01	5E-07	2E-02	1E-05	2E-01	2E-08	NC	3E-06	1E+00	3E-06	7E-02	3E-08	2E-05
Landbay D	DP-42	2E-08	7E-02	NC	NC	2E-08	6E-02	7E-09	3E-01	7E-09	5E-02	2E-07	5E-01	NC	NC	5E-08	**2E+04**	5E-08	**5E+02**	5E-11	3E-05
Landbay D	DW-17	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay D	DW-18	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay D	GP 10-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 13-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 150-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 15-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 151A-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 16-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 16-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay D	GP 17-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-07	5E-09	4E-04	NC	NC	3E-09	6E-04	1E-09	2E-03	1E-09	3E-04	4E-08	3E-03	NC	NC	1E-08	**8E+01**	1E-08	**2E+00**	7E-12	5E-07
Landbay D	GP 17-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-10	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay D	GP 17-11	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay D	GP 22-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 22-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 22-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 25-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 3-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay D	GP 31-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 32-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 32-03	2E-09	8E-06	5E-08	2E-04	4E-10	4E-06	4E-10	4E-05	2E-10	2E-06	1E-08	4E-05	2E-05	5E-02	NC	NC	NC	NC	7E-09	2E-05
Landbay D	GP 35-01	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay D	GP 4-01	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 4-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 41-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 41-02	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay D	GP 41-05	NC	7E-05	NC	NC	NC	5E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay D	GP 42-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 42-03	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay D	GP 43-01	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	NC
Landbay D	GP 49-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 50-01	NC	4E-06	NC	NC	NC	2E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	4E-04	NC	4E-04	NC	NC
Landbay D	GP 50-01A	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 50-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 51-01	NC	7E-06	NC	NC	NC	5E-06	NC	9E-06	NC	5E-06	NC	5E-05	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	GP 51-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 52-01	NC	4E-06	NC	NC	NC	3E-06	NC	5E-06	NC	3E-06	NC	3E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 52-02	NC	2E-05	NC	NC	NC	1E-05	NC	2E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 52-04	NC	1E-02	NC	NC	NC	2E-02	NC	8E-02	NC	7E-03	NC	7E-02	NC	NC	NC	NC	NC	NC	NC	2E-05
Landbay D	GP 54-01	2E-07	1E-03	NC	NC	4E-08	9E-04	2E-08	1E-03	5E-08	9E-04	1E-06	8E-03	NC	NC	3E-07	4E-03	3E-07	4E-03	5E-12	2E-07
Landbay D	GP 56-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 58-01	NC	1E-03	NC	NC	NC	2E-03	NC	8E-03	NC	8E-04	NC	8E-03	NC	NC	NC	2E-03	NC	2E-03	NC	2E-06
Landbay D	GP 59-01	NC	7E-03	NC	NC	NC	2E-02	NC	6E-02	NC	6E-03	NC	6E-02	NC	NC	NC	NC	NC	NC	NC	2E-05
Landbay D	GP 59-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay D	GP 6-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 62-03	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	7E-06	NC	8E-05	NC	NC	NC	NC	NC	NC	NC	1E-09
Landbay D	GP 64-01	NC	1E-04	NC	NC	NC	9E-05	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC	NC	NC	NC	1E-08
Landbay D	GP 64-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 65-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 66-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 67-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 67-02	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**6E+01**	NC	1E+00	NC	NC
Landbay D	GP 68-01	NC	5E-06	NC	NC	NC	4E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	NC	NC	NC	NC	6E-10
Landbay D	GP 8-01	7E-08	9E-03	NC	NC	4E-08	1E-02	2E-08	4E-02	2E-08	7E-03	6E-07	7E-02	NC	NC	1E-07	1E-01	1E-07	1E-01	1E-10	1E-05
Landbay D	GP 8-02	5E-09	7E-04	NC	NC	5E-09	2E-03	2E-09	5E-03	1E-09	6E-04	4E-08	6E-03	NC	NC	1E-08	2E-03	1E-08	2E-03	2E-11	2E-06
Landbay D	GP 8-03	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	2E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay D	GP 9-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP BG-07	2E-06	2E-01	NC	NC	7E-07	3E-01	3E-07	8E-01	5E-07	1E-01	1E-05	1E+00	NC	NC	3E-06	2E-02	3E-06	2E-02	2E-09	3E-04
Landbay D	GP GS-01	5E-14	3E-04	NC	NC	5E-11	2E-04	2E-11	1E-03	1E-15	2E-04	2E-13	2E-03	NC	NC	NC	8E-04	NC	8E-04	2E-13	1E-08
Landbay D	GP GS-02	NC	4E-03	NC	NC	NC	8E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC	NC	NC	NC	8E-06
Landbay D	GP GS-03	6E-13	2E-04	NC	NC	7E-10	3E-04	2E-10	1E-03	1E-14	1E-04	3E-12	1E-03	NC	NC	NC	2E-03	NC	2E-03	3E-12	2E-07
Landbay D	GP GS-04	NC	3E-03	NC	NC	NC	6E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	NC	NC	NC	NC	6E-06
Landbay D	GP PBS-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP PBS-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	HA 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	HA 62-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	IM8-1	4E-06	3E-01	5E-08	NC	7E-07	1E-01	4E-07	2E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	4E-06	2E-01	4E-06	2E-01	3E-07	NC
Landbay D	IM8-2	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay D	IM8-3	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay D	IM8-4	4E-07	2E-02	4E-09	NC	7E-08	1E-02	3E-08	2E-02	1E-07	1E-02	2E-06	8E-02	1E-06	NC	8E-07	2E-02	8E-07	2E-02	2E-08	NC
Landbay D	JT O-01B	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 2-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 43-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SR-4S	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-1	4E-07	3E-02	5E-09	NC	6E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	9E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SRA4-10	6E-06	4E-01	7E-08	NC	1E-06	2E-01	5E-07	3E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	6E-06	3E-01	6E-06	3E-01	4E-07	NC
Landbay D	SRA4-11	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-16	1E-06	7E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	3E-07	4E-02	4E-06	3E-01	4E-06	NC	1E-07	8E-03	1E-07	8E-03	7E-08	NC
Landbay D	SRA4-17	1E-07	8E-03	1E-09	NC	2E-08	3E-03	1E-08	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	1E-07	6E-03	1E-07	6E-03	8E-09	NC
Landbay D	SRA4-18	9E-07	6E-02	1E-08	NC	2E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	5E-02	8E-07	5E-02	6E-08	NC
Landbay D	SRA4-19	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	6E-06	4E-01	6E-06	4E-01	5E-07	NC
Landbay D	SRA4-2	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	SRA4-20	4E-06	3E-01	5E-08	NC	8E-07	1E-01	4E-07	2E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	4E-06	2E-01	4E-06	2E-01	3E-07	NC
Landbay D	SRA4-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-23	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	3E-08	1E-03	3E-08	1E-03	2E-09	NC
Landbay D	SRA4-24	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	6E-03	3E-08	5E-03	4E-07	3E-02	4E-07	NC	9E-08	5E-03	9E-08	5E-03	7E-09	NC
Landbay D	SRA4-25	2E-07	1E-02	3E-09	NC	4E-08	6E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	SRA4-26	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	7E-07	4E-02	7E-07	4E-02	5E-08	NC
Landbay D	SRA4-27	1E-06	8E-02	1E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	5E-06	3E-01	4E-06	NC	1E-06	7E-02	1E-06	7E-02	8E-08	NC
Landbay D	SRA4-29	3E-06	2E-01	4E-08	NC	6E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA4-3	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	5E-03	3E-08	4E-03	4E-07	3E-02	4E-07	NC	9E-08	5E-03	9E-08	5E-03	7E-09	NC
Landbay D	SRA4-30	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	7E-08	NC
Landbay D	SRA4-31	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	7E-07	4E-02	7E-07	4E-02	5E-08	NC
Landbay D	SRA4-32	5E-06	4E-01	7E-08	NC	1E-06	2E-01	5E-07	3E-01	1E-06	3E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	4E-07	NC
Landbay D	SRA4-33	1E-06	8E-02	1E-08	NC	2E-07	3E-02	1E-07	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	8E-08	NC
Landbay D	SRA4-34	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	7E-08	NC
Landbay D	SRA4-35	2E-06	1E-01	2E-08	NC	3E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	SRA4-36	1E-07	7E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	1E-07	6E-03	1E-07	6E-03	7E-09	NC
Landbay D	SRA4-38	8E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	4E-02	3E-06	2E-01	3E-06	NC	7E-07	4E-02	7E-07	4E-02	5E-08	NC
Landbay D	SRA4-4	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	9E-07	5E-02	7E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	SRA4-5	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SRA4-6	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA4-8	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	SRA4-9	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	7E-07	4E-02	7E-07	4E-02	5E-08	NC
Landbay D	SRA5-1	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA5-10	8E-07	6E-02	1E-08	NC	1E-07	2E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	5E-02	8E-07	5E-02	6E-08	NC
Landbay D	SRA5-11	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SRA5-13	7E-06	5E-01	9E-08	2E-04	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	5E-02	7E-06	4E-01	7E-06	4E-01	5E-07	8E-05
Landbay D	SRA5-14	3E-08	2E-03	4E-10	NC	6E-09	1E-03	3E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	NC	NC	NC	NC	2E-09	NC
Landbay D	SRA5-16	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	1E-07	3E-02	3E-06	1E-01	2E-06	NC	5E-07	3E-02	5E-07	3E-02	4E-08	NC
Landbay D	SRA5-17	2E-08	1E-03	3E-10	NC	4E-09	6E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	NC	NC	NC	NC	1E-09	NC
Landbay D	SRA5-18	9E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	5E-02	8E-07	5E-02	6E-08	NC
Landbay D	SRA5-19	3E-06	2E-01	4E-08	NC	5E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA5-2	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	5E-07	NC	1E-07	7E-03	1E-07	7E-03	9E-09	NC
Landbay D	SRA5-20	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	3E-02	6E-07	3E-02	4E-08	NC
Landbay D	SRA5-21	3E-06	2E-01	3E-08	NC	5E-07	8E-02	2E-07	2E-01	7E-07	1E-01	1E-05	7E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA5-22	5E-06	4E-01	6E-08	NC	9E-07	2E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	4E-07	NC
Landbay D	SRA5-23	5E-06	3E-01	6E-08	NC	9E-07	2E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	3E-07	NC
Landbay D	SRA5-24	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	NC	NC	NC	NC	2E-08	NC
Landbay D	SRA5-25	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	7E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	SRA5-26	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay D	SRA5-27	9E-07	6E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	9E-07	5E-02	9E-07	5E-02	6E-08	NC
Landbay D	SRA5-28	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-07	5E-02	8E-07	5E-02	5E-07	NC
Landbay D	SRA5-3	1E-06	8E-02	1E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	8E-08	NC
Landbay D	SRA5-30	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	7E-08	4E-03	7E-08	4E-03	5E-08	NC
Landbay D	SRA5-31	4E-08	3E-03	5E-10	NC	8E-09	1E-03	4E-09	2E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-08	2E-03	3E-08	2E-03	3E-09	NC
Landbay D	SRA5-32	8E-08	6E-03	1E-09	NC	1E-08	2E-03	7E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	8E-08	5E-03	8E-08	5E-03	6E-09	NC
Landbay D	SRA5-34	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	6E-06	4E-01	6E-06	4E-01	5E-07	NC
Landbay D	SRA5-35	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	1E-02	5E-08	8E-03	8E-07	5E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	SRA5-36	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	1E-06	7E-02	1E-06	7E-02	9E-08	NC
Landbay D	SRA5-5	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	3E-09	NC
Landbay D	SRA5-6	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	1E-06	7E-02	1E-06	7E-02	9E-08	NC
Landbay D	SRA5-7	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA5-8	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SRA5-9	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA6-1	5E-08	4E-03	7E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	SRA6-10	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	1E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA6-11	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	9E-03	4E-08	7E-03	7E-07	4E-02	6E-07	NC	2E-07	9E-03	2E-07	9E-03	1E-08	NC
Landbay D	SRA6-12	1E-06	1E-01	2E-08	NC	3E-07	4E-02	1E-07	8E-02	4E-07	7E-02	7E-06	4E-01	5E-06	NC	1E-06	8E-02	1E-06	8E-02	1E-07	NC
Landbay D	SRA6-2	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-07	1E-02	2E-07	1E-02	2E-08	NC
Landbay D	SRA6-3	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	9E-03	4E-08	8E-03	8E-07	4E-02	6E-07	NC	2E-07	9E-03	2E-07	9E-03	1E-08	NC
Landbay D	SRA6-4	1E-06	1E-01	2E-08	NC	3E-07	4E-02	1E-07	8E-02	4E-07	7E-02	7E-06	4E-01	5E-06	NC	1E-06	8E-02	1E-06	8E-02	1E-07	NC
Landbay D	SRA6-5	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	6E-07	1E-01	9E-06	5E-01	8E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	SRA6-6	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	9E-07	5E-02	7E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	SRA6-7	4E-07	3E-02	6E-09	NC	8E-08	1E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	4E-07	2E-02	4E-07	2E-02	3E-08	NC
Landbay D	SRA6-8	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay D	SRA6-9	4E-07	2E-02	4E-09	NC	6E-08	1E-02	3E-08	2E-02	9E-08	2E-02	2E-06	9E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SS-08A	6E-08	8E-04	NC	NC	2E-08	2E-03	1E-08	5E-03	2E-08	6E-04	6E-07	6E-03	NC	NC	1E-07	2E-03	1E-07	2E-03	4E-11	2E-06
Landbay D	SS-09A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SS-15A	1E-14	9E-04	NC	1E-04	1E-11	6E-04	4E-12	3E-03	2E-16	6E-04	6E-14	7E-03	NC	3E-02	NC	8E-04	NC	8E-04	6E-14	1E-04
Landbay D	SS-22A	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	**4E+00**	NC	7E-02	NC	NC
Landbay D	SS-35A	2E-08	6E-04	NC	NC	8E-09	1E-03	4E-09	3E-03	5E-09	4E-04	1E-07	4E-03	NC	NC	3E-08	4E-03	3E-08	4E-03	2E-11	1E-06
Landbay D	SS-43A	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay D	SS-60A	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay D	SS-67A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SS-68A	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay D	SW 14-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 16-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 17-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 21-01	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**7E+00**	NC	1E-01	NC	NC
Landbay D	SW 27-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 35-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 41-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 43-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 43-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 45-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 5-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 5-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 7-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 9-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	119B139	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	119G36	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	120AB1	NC	6E-07	NC	NC	NC	4E-07	NC	3E-06	NC	5E-07	NC	5E-06	NC	NC	NC	3E-01	NC	5E-03	NC	NC
Landbay E	121B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	3E-07	NC	3E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	200B1	3E-09	8E-03	NC	6E-03	2E-09	1E-02	8E-10	5E-02	8E-10	5E-03	2E-08	6E-02	NC	1E+00	5E-09	5E-01	5E-09	2E-02	5E-12	6E-03
Landbay E	200B2	3E-09	8E-03	NC	6E-03	2E-09	1E-02	8E-10	5E-02	8E-10	5E-03	2E-08	6E-02	NC	1E+00	5E-09	5E-01	5E-09	2E-02	5E-12	6E-03
Landbay E	200B3	3E-09	8E-03	NC	6E-03	2E-09	1E-02	8E-10	5E-02	8E-10	5E-03	2E-08	6E-02	NC	1E+00	5E-09	5E-01	5E-09	2E-02	5E-12	6E-03
Landbay E	207B1	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	8E-02	NC	2E-03	NC	NC

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	208B1	9E-07	2E-02	NC	NC	2E-07	7E-02	1E-07	2E-01	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	4E-02	2E-06	4E-02	3E-11	8E-05
Landbay E	209B1	3E-11	1E-02	NC	NC	4E-08	2E-02	1E-08	2E-02	7E-13	1E-02	2E-10	1E-01	NC	NC	NC	1E-02	NC	1E-02	2E-10	1E-05
Landbay E	20TP1-7	2E-13	1E-02	NC	1E-08	3E-10	2E-02	8E-11	1E-01	5E-15	9E-03	1E-12	9E-02	NC	3E-06	NC	5E-01	NC	2E-02	2E-12	3E-05
Landbay E	212B1	1E-09	1E-02	NC	NC	5E-10	2E-02	3E-10	9E-02	4E-10	8E-03	1E-08	8E-02	NC	NC	3E-09	1E-01	3E-09	6E-03	5E-13	2E-05
Landbay E	214B1	4E-13	2E-04	NC	NC	5E-10	2E-04	1E-10	9E-04	8E-15	2E-04	2E-12	1E-03	NC	NC	NC	1E-01	NC	6E-03	2E-12	2E-07
Landbay E	214B2	4E-13	2E-04	NC	NC	5E-10	2E-04	1E-10	9E-04	8E-15	2E-04	2E-12	1E-03	NC	NC	NC	4E-03	NC	4E-03	2E-12	2E-07
Landbay E	214G3	4E-13	2E-04	NC	NC	5E-10	2E-04	1E-10	9E-04	8E-15	2E-04	2E-12	1E-03	NC	NC	NC	4E-03	NC	4E-03	2E-12	2E-07
Landbay E	214G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	217B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	3E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay E	219B1	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	4E-01	NC	9E-03	NC	NC
Landbay E	21TP1-5	4E-13	6E-03	NC	5E-08	4E-10	1E-02	1E-10	5E-02	8E-15	4E-03	2E-12	4E-02	NC	1E-05	NC	**2E+00**	NC	4E-02	2E-12	1E-05
Landbay E	21TP2-7	NC	3E-03	NC	NC	NC	7E-03	NC	3E-02	NC	2E-03	NC	2E-02	NC	NC	NC	1E-01	NC	3E-03	NC	7E-06
Landbay E	230AEC-2	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**8E+03**	NC	**2E+02**	NC	NC
Landbay E	230ANEC	NC	2E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay E	230B1	NC	1E-02	NC	1E-03	NC	2E-02	NC	8E-02	NC	7E-03	NC	7E-02	NC	2E-01	NC	1E-02	NC	1E-02	NC	1E-03
Landbay E	230-BM	2E-06	4E-02	NC	2E-02	6E-07	4E-02	3E-07	1E-01	7E-07	3E-02	2E-05	2E-01	NC	**3E+00**	4E-06	2E-01	4E-06	2E-01	3E-10	2E-02
Landbay E	235B1	NC	6E-03	NC	NC	NC	1E-02	NC	6E-02	NC	5E-03	NC	5E-02	NC	NC	NC	4E-03	NC	4E-03	NC	1E-05
Landbay E	235B2	NC	1E-02	NC	NC	NC	3E-02	NC	1E-01	NC	9E-03	NC	9E-02	NC	NC	NC	8E-03	NC	8E-03	NC	3E-05
Landbay E	236B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	237B1	NC	1E-02	NC	NC	NC	9E-03	NC	6E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**3E+03**	NC	**6E+01**	NC	NC
Landbay E	23TP1-7	6E-13	1E-02	NC	3E-08	7E-10	3E-02	2E-10	1E-01	1E-14	9E-03	3E-12	9E-02	NC	8E-06	NC	8E-01	NC	4E-02	3E-12	3E-05
Landbay E	253B1	NC	6E-03	NC	NC	NC	1E-02	NC	5E-02	NC	4E-03	NC	4E-02	NC	NC	NC	6E-02	NC	1E-03	NC	1E-05
Landbay E	253B2	6E-07	1E-02	NC	NC	1E-07	2E-02	8E-08	9E-02	2E-07	1E-02	5E-06	1E-01	NC	NC	1E-06	1E-01	1E-06	9E-03	2E-11	2E-05
Landbay E	253B3	2E-06	1E-02	NC	NC	3E-07	1E-02	2E-07	4E-02	4E-07	1E-02	1E-05	9E-02	NC	NC	3E-06	2E-02	3E-06	2E-02	4E-11	1E-05
Landbay E	253B5	2E-06	2E-02	NC	3E-08	4E-07	3E-02	2E-07	1E-01	5E-07	2E-02	1E-05	2E-01	NC	8E-06	3E-06	1E+00	3E-06	5E-02	5E-11	3E-05
Landbay E	253G4	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	1E+00	NC	3E-02	NC	NC
Landbay E	253G5	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	3E-07	NC	3E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay E	255B1	NC	4E-04	NC	NC	NC	2E-04	NC	1E-03	NC	3E-04	NC	3E-03	NC	NC	NC	**1E+02**	NC	**3E+00**	NC	NC
Landbay E	28B3	6E-08	8E-03	3E-10	2E-04	2E-08	1E-02	9E-09	4E-02	2E-08	6E-03	4E-07	5E-02	8E-08	5E-02	1E-07	2E-01	1E-07	9E-02	2E-09	2E-04
Landbay E	28B6	2E-07	5E-03	1E-09	5E-04	7E-08	9E-03	4E-08	4E-02	6E-08	3E-03	2E-06	3E-02	3E-07	8E-02	4E-07	8E-04	4E-07	8E-04	1E-10	3E-05
Landbay E	28G4	3E-08	4E-03	NC	2E-04	1E-08	7E-03	6E-09	3E-02	1E-08	3E-03	3E-07	3E-02	NC	5E-02	8E-08	**1E+01**	8E-08	3E-01	1E-11	2E-04
Landbay E	40AEC-2	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	5E-01	NC	NC
Landbay E	40ANEC	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay E	40B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-10	3E-07	2E-02	4E-09	NC	5E-08	9E-03	2E-08	2E-02	8E-08	1E-02	1E-06	7E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay E	42 GP-11	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay E	42 GP-12	1E-07	1E-02	2E-09	NC	3E-08	4E-03	1E-08	8E-03	4E-08	7E-03	7E-07	4E-02	5E-07	NC	1E-07	8E-03	1E-07	8E-03	1E-08	NC
Landbay E	42 GP-13	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	NC
Landbay E	42 GP-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-30	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay E	42 GP-31	4E-08	3E-03	5E-10	NC	7E-09	1E-03	4E-09	2E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay E	45B1	2E-07	6E-03	NC	NC	5E-08	1E-02	3E-08	4E-02	6E-08	4E-03	1E-06	4E-02	NC	NC	4E-07	**2E+01**	4E-07	5E-01	9E-12	9E-06
Landbay E	45B2	2E-07	6E-03	NC	NC	5E-08	1E-02	3E-08	4E-02	6E-08	4E-03	1E-06	4E-02	NC	NC	4E-07	1E-01	4E-07	3E-02	9E-12	9E-06
Landbay E	45B4	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay E	45B5	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay E	45B6	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay E	45G3	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay E	4650-0800	2E-06	1E-02	NC	8E-05	4E-07	8E-03	2E-07	1E-02	5E-07	8E-03	1E-05	7E-02	NC	2E-02	3E-06	3E-02	3E-06	3E-02	5E-11	7E-05
Landbay E	4650-0950	5E-07	3E-02	NC	2E-04	2E-07	9E-02	8E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	3E-02	9E-07	1E-02	9E-07	1E-02	3E-10	3E-04
Landbay E	46B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	47B1	3E-07	9E-03	NC	6E-06	6E-08	2E-02	4E-08	6E-02	8E-08	6E-03	2E-06	6E-02	NC	1E-03	5E-07	1E-02	5E-07	1E-02	1E-11	2E-05
Landbay E	4800-0650	2E-06	1E-02	NC	8E-05	4E-07	8E-03	2E-07	1E-02	5E-07	8E-03	1E-05	7E-02	NC	2E-02	3E-06	3E-02	3E-06	3E-02	5E-11	7E-05
Landbay E	4800-0800	5E-07	3E-02	NC	2E-04	2E-07	9E-02	8E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	3E-02	9E-07	1E-02	9E-07	1E-02	3E-10	3E-04
Landbay E	4800-0950	5E-07	3E-02	NC	2E-04	2E-07	9E-02	8E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	3E-02	9E-07	1E-02	9E-07	1E-02	3E-10	3E-04
Landbay E	4800-1100	7E-07	2E-02	3E-10	1E-04	2E-07	2E-02	9E-08	4E-02	2E-07	1E-02	5E-06	1E-01	9E-08	2E-02	1E-06	2E-02	1E-06	2E-02	2E-09	1E-04
Landbay E	4800-60	6E-08	4E-03	NC	NC	2E-08	8E-03	1E-08	3E-02	2E-08	3E-03	5E-07	3E-02	NC	NC	1E-07	1E-03	1E-07	1E-03	3E-11	9E-06
Landbay E	4950-0500	2E-06	1E-02	NC	8E-05	4E-07	8E-03	2E-07	1E-02	5E-07	8E-03	1E-05	7E-02	NC	2E-02	3E-06	3E-02	3E-06	3E-02	5E-11	7E-05
Landbay E	4950-0650	2E-08	2E-03	2E-10	1E-04	3E-09	8E-04	2E-09	3E-03	5E-09	1E-03	8E-08	8E-03	7E-08	2E-02	2E-08	5E-03	2E-08	5E-03	1E-09	1E-04
Landbay E	4950-0800	2E-08	2E-03	2E-10	1E-04	3E-09	8E-04	2E-09	3E-03	5E-09	1E-03	8E-08	8E-03	7E-08	2E-02	2E-08	5E-03	2E-08	5E-03	1E-09	1E-04
Landbay E	4950-0950	7E-07	2E-02	3E-10	1E-04	2E-07	2E-02	9E-08	4E-02	2E-07	1E-02	5E-06	1E-01	9E-08	2E-02	1E-06	2E-02	1E-06	2E-02	2E-09	1E-04
Landbay E	4950-1100	7E-07	2E-02	3E-10	1E-04	2E-07	2E-02	9E-08	4E-02	2E-07	1E-02	5E-06	1E-01	9E-08	2E-02	1E-06	2E-02	1E-06	2E-02	2E-09	1E-04
Landbay E	5100-0350	2E-06	1E-02	NC	8E-05	4E-07	8E-03	2E-07	1E-02	5E-07	8E-03	1E-05	7E-02	NC	2E-02	3E-06	3E-02	3E-06	3E-02	5E-11	7E-05
Landbay E	5100-0500	2E-08	2E-03	2E-10	1E-04	3E-09	8E-04	2E-09	3E-03	5E-09	1E-03	8E-08	8E-03	7E-08	2E-02	2E-08	5E-03	2E-08	5E-03	1E-09	1E-04
Landbay E	5100-0650	2E-11	8E-03	NC	NC	2E-08	2E-02	7E-09	3E-02	4E-13	6E-03	1E-10	6E-02	NC	NC	NC	NC	NC	NC	1E-10	2E-05
Landbay E	5100-0800	2E-11	8E-03	NC	NC	2E-08	2E-02	7E-09	3E-02	4E-13	6E-03	1E-10	6E-02	NC	NC	NC	NC	NC	NC	1E-10	2E-05
Landbay E	5100-1250	2E-07	8E-02	3E-10	NC	2E-07	3E-01	8E-08	9E-01	5E-08	6E-02	1E-06	6E-01	1E-07	NC	3E-07	9E-03	3E-07	9E-03	3E-09	4E-04
Landbay E	5100-1400	2E-07	8E-02	4E-10	NC	2E-07	3E-01	9E-08	9E-01	8E-08	6E-02	2E-06	6E-01	1E-07	NC	5E-07	9E-03	5E-07	9E-03	4E-09	4E-04
Landbay E	5100-1550	8E-07	8E-02	NC	2E-05	4E-07	2E-01	2E-07	4E-01	2E-07	6E-02	6E-06	6E-01	NC	4E-03	2E-06	5E-02	2E-06	5E-02	8E-10	2E-04
Landbay E	5200-67	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	5250-0350	2E-08	2E-03	2E-10	1E-04	3E-09	8E-04	2E-09	3E-03	5E-09	1E-03	8E-08	8E-03	7E-08	2E-02	2E-08	5E-03	2E-08	5E-03	1E-09	1E-04
Landbay E	5250-0500	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	7E-03	6E-15	9E-04	1E-12	9E-03	NC	NC	NC	7E-03	NC	7E-03	1E-12	1E-06
Landbay E	5250-0650	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	7E-03	6E-15	9E-04	1E-12	9E-03	NC	NC	NC	7E-03	NC	7E-03	1E-12	1E-06
Landbay E	5400-0200	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	7E-03	6E-15	9E-04	1E-12	9E-03	NC	NC	NC	7E-03	NC	7E-03	1E-12	1E-06
Landbay E	5400-0350	8E-08	8E-02	NC	NC	2E-07	1E-01	6E-08	2E-01	2E-08	6E-02	7E-07	6E-01	NC	NC	2E-07	7E-02	2E-07	7E-02	7E-10	8E-05
Landbay E	5400-0500	8E-08	8E-02	NC	NC	2E-07	1E-01	6E-08	2E-01	2E-08	6E-02	7E-07	6E-01	NC	NC	2E-07	7E-02	2E-07	7E-02	7E-10	8E-05
Landbay E	5400-0650	8E-08	8E-02	NC	NC	2E-07	1E-01	6E-08	2E-01	2E-08	6E-02	7E-07	6E-01	NC	NC	2E-07	7E-02	2E-07	7E-02	7E-10	8E-05
Landbay E	5400-0800	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	7E-03	6E-15	9E-04	1E-12	9E-03	NC	NC	NC	7E-03	NC	7E-03	1E-12	1E-06
Landbay E	5400-0950	5E-08	1E-02	3E-10	NC	3E-08	2E-02	1E-08	5E-02	1E-08	8E-03	3E-07	7E-02	9E-08	NC	7E-08	3E-02	7E-08	3E-02	2E-09	2E-05
Landbay E	5400-1100	5E-08	1E-02	3E-10	NC	3E-08	2E-02	1E-08	5E-02	1E-08	8E-03	3E-07	7E-02	9E-08	NC	7E-08	3E-02	7E-08	3E-02	2E-09	2E-05
Landbay E	5400-1250	2E-07	8E-02	4E-10	2E-08	2E-07	3E-01	8E-08	9E-01	7E-08	6E-02	2E-06	6E-01	1E-07	5E-06	4E-07	9E-03	4E-07	9E-03	4E-09	4E-04
Landbay E	5400-79	3E-06	8E-02	7E-10	NC	7E-07	2E-01	4E-07	5E-01	7E-07	6E-02	2E-05	5E-01	2E-07	NC	5E-06	3E-02	5E-06	3E-02	5E-09	2E-04
Landbay E	5400-86	NC	7E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	**3E+02**	NC	**6E+00**	NC	NC
Landbay E	5500-84-1	2E-06	2E-02	2E-10	NC	4E-07	2E-02	2E-07	8E-02	5E-07	2E-02	1E-05	1E-01	6E-08	NC	3E-06	8E-01	3E-06	3E-02	1E-09	2E-05
Landbay E	5500-84-2	8E-07	1E-02	NC	NC	2E-07	1E-02	1E-07	5E-02	2E-07	1E-02	6E-06	9E-02	NC	NC	1E-06	1E+00	1E-06	4E-02	3E-11	1E-05
Landbay E	5500-84-3	3E-06	1E-01	NC	NC	9E-07	3E-01	5E-07	7E-01	1E-06	8E-02	2E-05	8E-01	NC	NC	6E-06	**2E+00**	6E-06	7E-02	9E-10	3E-04
Landbay E	5550-0200	4E-08	2E-03	NC	NC	1E-08	5E-03	8E-09	2E-02	1E-08	2E-03	3E-07	2E-02	NC	NC	8E-08	9E-03	8E-08	9E-03	2E-11	5E-06
Landbay E	5550-0500	4E-08	2E-03	NC	NC	1E-08	5E-03	8E-09	2E-02	1E-08	2E-03	3E-07	2E-02	NC	NC	8E-08	9E-03	8E-08	9E-03	2E-11	5E-06
Landbay E	5550-0650	4E-08	2E-03	NC	NC	1E-08	5E-03	8E-09	2E-02	1E-08	2E-03	3E-07	2E-02	NC	NC	8E-08	9E-03	8E-08	9E-03	2E-11	5E-06
Landbay E	5550-0800	7E-08	3E-02	NC	NC	9E-08	3E-02	4E-08	6E-02	2E-08	2E-02	7E-07	2E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	3E-10	2E-05
Landbay E	5550-0950	5E-08	1E-02	3E-10	NC	3E-08	2E-02	1E-08	5E-02	1E-08	8E-03	3E-07	7E-02	9E-08	NC	7E-08	3E-02	7E-08	3E-02	2E-09	2E-05
Landbay E	5550-1100	5E-08	1E-02	3E-10	NC	3E-08	2E-02	1E-08	5E-02	1E-08	8E-03	3E-07	7E-02	9E-08	NC	7E-08	3E-02	7E-08	3E-02	2E-09	2E-05
Landbay E	5550-1250	4E-07	3E-02	NC	NC	2E-07	9E-02	7E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	7E-07	2E-02	7E-07	2E-02	3E-10	1E-04
Landbay E	5550-1400	4E-07	3E-02	NC	NC	2E-07	9E-02	7E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	7E-07	2E-02	7E-07	2E-02	3E-10	1E-04
Landbay E	5550-1550	4E-07	3E-02	NC	NC	2E-07	9E-02	7E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	7E-07	2E-02	7E-07	2E-02	3E-10	1E-04
Landbay E	5550-1700	1E-07	2E-02	1E-09	NC	6E-08	8E-02	2E-08	2E-01	3E-08	2E-02	5E-07	2E-01	3E-07	NC	1E-07	4E-02	1E-07	4E-02	6E-09	9E-05
Landbay E	5550-1850	2E-08	2E-02	NC	NC	5E-08	7E-02	2E-08	2E-01	6E-09	1E-02	2E-07	1E-01	NC	NC	4E-08	3E-02	4E-08	3E-02	2E-10	9E-05
Landbay E	5600-82	6E-08	6E-03	6E-10	2E-04	1E-08	6E-03	5E-09	2E-02	2E-08	4E-03	3E-07	3E-02	2E-07	4E-02	5E-08	3E-03	5E-08	3E-03	3E-09	2E-04
Landbay E	5600-83	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	3E-03	NC	NC
Landbay E	5700-0650	4E-08	2E-03	NC	NC	1E-08	5E-03	8E-09	2E-02	1E-08	2E-03	3E-07	2E-02	NC	NC	8E-08	9E-03	8E-08	9E-03	2E-11	5E-06
Landbay E	5700-0800	7E-08	3E-02	NC	NC	9E-08	3E-02	4E-08	6E-02	2E-08	2E-02	7E-07	2E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	3E-10	2E-05
Landbay E	5700-0950	7E-08	3E-02	NC	NC	9E-08	3E-02	4E-08	6E-02	2E-08	2E-02	7E-07	2E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	3E-10	2E-05
Landbay E	5700-1100	3E-08	9E-03	NC	NC	4E-08	9E-03	1E-08	8E-03	1E-08	6E-03	3E-07	6E-02	NC	NC	7E-08	5E-04	7E-08	5E-04	1E-10	5E-06
Landbay E	5700-1250	3E-08	9E-03	NC	NC	4E-08	9E-03	1E-08	8E-03	1E-08	6E-03	3E-07	6E-02	NC	NC	7E-08	5E-04	7E-08	5E-04	1E-10	5E-06
Landbay E	5700-1400	3E-07	3E-02	NC	NC	1E-07	9E-02	6E-08	2E-01	9E-08	2E-02	2E-06	2E-01	NC	NC	6E-07	5E-03	6E-07	5E-03	3E-10	1E-04
Landbay E	5700-1550	3E-07	3E-02	NC	NC	1E-07	9E-02	6E-08	2E-01	9E-08	2E-02	2E-06	2E-01	NC	NC	6E-07	5E-03	6E-07	5E-03	3E-10	1E-04
Landbay E	5700-1700	7E-08	4E-02	NC	NC	1E-07	9E-02	4E-08	2E-01	2E-08	3E-02	5E-07	3E-01	NC	NC	1E-07	1E-02	1E-07	1E-02	5E-10	1E-04
Landbay E	5700-1850	7E-08	4E-02	NC	NC	1E-07	9E-02	4E-08	2E-01	2E-08	3E-02	5E-07	3E-01	NC	NC	1E-07	1E-02	1E-07	1E-02	5E-10	1E-04
Landbay E	5850-0950	7E-08	3E-02	NC	NC	9E-08	3E-02	4E-08	6E-02	2E-08	2E-02	7E-07	2E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	3E-10	2E-05
Landbay E	5850-1100	3E-08	9E-03	NC	NC	4E-08	9E-03	1E-08	8E-03	1E-08	6E-03	3E-07	6E-02	NC	NC	7E-08	5E-04	7E-08	5E-04	1E-10	5E-06
Landbay E	5850-1250	3E-08	9E-03	NC	NC	4E-08	9E-03	1E-08	8E-03	1E-08	6E-03	3E-07	6E-02	NC	NC	7E-08	5E-04	7E-08	5E-04	1E-10	5E-06
Landbay E	5850-1400	3E-07	3E-02	NC	NC	1E-07	9E-02	6E-08	2E-01	9E-08	2E-02	2E-06	2E-01	NC	NC	6E-07	5E-03	6E-07	5E-03	3E-10	1E-04
Landbay E	5850-1550	3E-07	3E-02	NC	NC	1E-07	9E-02	6E-08	2E-01	9E-08	2E-02	2E-06	2E-01	NC	NC	6E-07	5E-03	6E-07	5E-03	3E-10	1E-04
Landbay E	5850-1700	4E-08	8E-03	NC	NC	2E-08	2E-02	8E-09	7E-02	1E-08	6E-03	3E-07	6E-02	NC	NC	7E-08	3E-03	7E-08	3E-03	3E-11	2E-05
Landbay E	5850-1850	7E-08	4E-02	NC	NC	1E-07	9E-02	4E-08	2E-01	2E-08	3E-02	5E-07	3E-01	NC	NC	1E-07	1E-02	1E-07	1E-02	5E-10	1E-04
Landbay E	6000-0950	1E-07	9E-02	NC	NC	2E-07	3E-01	7E-08	8E-01	4E-08	7E-02	1E-06	7E-01	NC	NC	3E-07	1E-03	3E-07	1E-03	7E-10	3E-04
Landbay E	6000-1100	9E-08	4E-02	NC	NC	1E-07	5E-02	5E-08	7E-02	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-10	4E-05
Landbay E	6000-1250	9E-08	4E-02	NC	NC	1E-07	5E-02	5E-08	7E-02	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-10	4E-05
Landbay E	6000-1400	1E-07	1E-01	7E-10	NC	3E-07	2E-01	9E-08	4E-01	3E-08	7E-02	8E-07	7E-01	2E-07	NC	2E-07	4E-02	2E-07	4E-02	5E-09	2E-04
Landbay E	6000-1550	1E-07	1E-01	7E-10	NC	3E-07	2E-01	9E-08	4E-01	3E-08	7E-02	8E-07	7E-01	2E-07	NC	2E-07	4E-02	2E-07	4E-02	5E-09	2E-04
Landbay E	6000-1700	6E-08	3E-02	NC	NC	8E-08	3E-02	3E-08	5E-02	2E-08	2E-02	5E-07	2E-01	NC	NC	1E-07	3E-03	1E-07	3E-03	3E-10	2E-05
Landbay E	6000-91	8E-07	5E-03	NC	NC	2E-07	3E-03	1E-07	3E-03	2E-07	3E-03	5E-06	3E-02	NC	NC	1E-06	5E-01	1E-06	2E-02	4E-11	8E-07
Landbay E	6100-101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6150-0050	7E-08	1E-02	3E-10	1E-06	5E-08	2E-02	2E-08	3E-02	2E-08	1E-02	5E-07	9E-02	8E-08	3E-04	1E-07	2E-02	1E-07	2E-02	2E-09	1E-05
Landbay E	6150-0950	1E-12	6E-03	NC	NC	1E-09	1E-02	4E-10	5E-02	2E-14	4E-03	6E-12	4E-02	NC	NC	NC	8E-04	NC	8E-04	6E-12	1E-05
Landbay E	6150-1100	9E-08	4E-02	NC	NC	1E-07	5E-02	5E-08	7E-02	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-10	4E-05
Landbay E	6150-1250	9E-08	4E-02	NC	NC	1E-07	5E-02	5E-08	7E-02	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-10	4E-05
Landbay E	6150-1400	1E-07	1E-01	7E-10	NC	3E-07	2E-01	9E-08	4E-01	3E-08	7E-02	8E-07	7E-01	2E-07	NC	2E-07	4E-02	2E-07	4E-02	5E-09	2E-04
Landbay E	6150-1550	1E-07	1E-01	7E-10	NC	3E-07	2E-01	9E-08	4E-01	3E-08	7E-02	8E-07	7E-01	2E-07	NC	2E-07	4E-02	2E-07	4E-02	5E-09	2E-04
Landbay E	6150-1700	9E-08	4E-02	NC	NC	1E-07	1E-01	4E-08	3E-01	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	5E-03	2E-07	5E-03	4E-10	1E-04
Landbay E	6150-9750	7E-08	1E-02	3E-10	1E-06	5E-08	2E-02	2E-08	3E-02	2E-08	1E-02	5E-07	9E-02	8E-08	3E-04	1E-07	2E-02	1E-07	2E-02	2E-09	1E-05
Landbay E	6150-9900	7E-08	1E-02	3E-10	1E-06	5E-08	2E-02	2E-08	3E-02	2E-08	1E-02	5E-07	9E-02	8E-08	3E-04	1E-07	2E-02	1E-07	2E-02	2E-09	1E-05
Landbay E	6300-0800	6E-07	1E-01	NC	NC	4E-07	2E-01	2E-07	5E-01	2E-07	9E-02	4E-06	9E-01	NC	NC	1E-06	5E-03	1E-06	5E-03	1E-09	2E-04
Landbay E	6300-0950	6E-07	1E-01	NC	NC	4E-07	2E-01	1E-07	4E-01	2E-07	7E-02	5E-06	7E-01	NC	NC	1E-06	7E-03	1E-06	7E-03	1E-09	2E-04
Landbay E	6300-1100	1E-07	8E-02	NC	NC	2E-07	1E-01	7E-08	3E-01	3E-08	6E-02	9E-07	6E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	8E-10	1E-04
Landbay E	6300-1250	1E-07	8E-02	NC	NC	2E-07	1E-01	7E-08	3E-01	3E-08	6E-02	9E-07	6E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	8E-10	1E-04
Landbay E	6300-1400	1E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	3E-08	1E-01	9E-07	1E+00	NC	NC	2E-07	4E-03	2E-07	4E-03	2E-09	3E-04
Landbay E	6300-1550	1E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	3E-08	1E-01	9E-07	1E+00	NC	NC	2E-07	4E-03	2E-07	4E-03	2E-09	3E-04
Landbay E	6300-1700	5E-08	7E-04	NC	NC	2E-08	1E-03	1E-08	5E-03	1E-08	5E-04	4E-07	5E-03	NC	NC	1E-07	2E-03	1E-07	2E-03	2E-11	1E-06
Landbay E	6300-9900	7E-08	1E-02	3E-10	1E-06	5E-08	2E-02	2E-08	3E-02	2E-08	1E-02	5E-07	9E-02	8E-08	3E-04	1E-07	2E-02	1E-07	2E-02	2E-09	1E-05
Landbay E	6400-103	2E-06	4E-02	NC	2E-08	5E-07	5E-02	3E-07	2E-01	6E-07	3E-02	2E-05	3E-01	NC	6E-06	4E-06	2E-02	4E-06	2E-02	1E-10	4E-05
Landbay E	6450-0050	4E-07	2E-01	2E-10	6E-05	5E-07	4E-01	2E-07	9E-01	1E-07	1E-01	3E-06	1E+00	7E-08	1E-02	7E-07	7E-02	7E-07	7E-02	3E-09	5E-04
Landbay E	6450-1100	1E-07	8E-02	NC	NC	2E-07	1E-01	7E-08	3E-01	3E-08	6E-02	9E-07	6E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	8E-10	1E-04
Landbay E	6450-1250	1E-07	8E-02	NC	NC	2E-07	1E-01	7E-08	3E-01	3E-08	6E-02	9E-07	6E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	8E-10	1E-04
Landbay E	6450-1400	1E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	3E-08	1E-01	9E-07	1E+00	NC	NC	2E-07	4E-03	2E-07	4E-03	2E-09	3E-04
Landbay E	6450-1550	1E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	3E-08	1E-01	9E-07	1E+00	NC	NC	2E-07	4E-03	2E-07	4E-03	2E-09	3E-04
Landbay E	6600-0050	4E-07	2E-01	2E-10	6E-05	5E-07	4E-01	2E-07	9E-01	1E-07	1E-01	3E-06	1E+00	7E-08	1E-02	7E-07	7E-02	7E-07	7E-02	3E-09	5E-04
Landbay E	6600-0200	4E-07	2E-01	2E-10	6E-05	5E-07	4E-01	2E-07	9E-01	1E-07	1E-01	3E-06	1E+00	7E-08	1E-02	7E-07	7E-02	7E-07	7E-02	3E-09	5E-04
Landbay E	6600-0350	4E-07	2E-01	2E-10	6E-05	5E-07	4E-01	2E-07	9E-01	1E-07	1E-01	3E-06	1E+00	7E-08	1E-02	7E-07	7E-02	7E-07	7E-02	3E-09	5E-04
Landbay E	6600-1100	5E-08	3E-02	NC	NC	1E-07	4E-02	3E-08	8E-02	2E-08	2E-02	5E-07	2E-01	NC	NC	1E-07	4E-01	1E-07	9E-03	4E-10	4E-05
Landbay E	6600-112	3E-06	2E-01	NC	NC	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	5E-06	3E-02	5E-06	3E-02	2E-09	5E-04
Landbay E	6600-113	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	6600-1250	5E-08	3E-02	NC	NC	1E-07	4E-02	3E-08	8E-02	2E-08	2E-02	5E-07	2E-01	NC	NC	1E-07	4E-01	1E-07	9E-03	4E-10	4E-05
Landbay E	6600-1400	4E-07	5E-02	NC	NC	2E-07	8E-02	8E-08	2E-01	1E-07	3E-02	3E-06	3E-01	NC	NC	8E-07	5E-03	8E-07	5E-03	3E-10	7E-05
Landbay E	6750-0050	6E-07	7E-02	3E-10	7E-07	3E-07	2E-01	1E-07	6E-01	2E-07	5E-02	4E-06	5E-01	7E-08	1E-04	1E-06	5E-02	1E-06	5E-02	2E-09	3E-04
Landbay E	6750-0200	6E-07	7E-02	3E-10	7E-07	3E-07	2E-01	1E-07	6E-01	2E-07	5E-02	4E-06	5E-01	7E-08	1E-04	1E-06	5E-02	1E-06	5E-02	2E-09	3E-04
Landbay E	6750-0350	2E-06	1E-01	3E-10	NC	7E-07	3E-01	3E-07	6E-01	5E-07	1E-01	1E-05	1E+00	8E-08	NC	3E-06	2E-02	3E-06	2E-02	3E-09	3E-04
Landbay E	6750-0500	8E-08	8E-03	3E-10	NC	3E-08	1E-02	1E-08	6E-02	2E-08	6E-03	6E-07	6E-02	8E-08	NC	1E-07	3E-03	1E-07	3E-03	1E-09	1E-05
Landbay E	6750-0650	8E-08	8E-02	2E-10	NC	2E-07	2E-01	7E-08	3E-01	2E-08	6E-02	6E-07	6E-01	7E-08	NC	1E-07	6E-02	1E-07	6E-02	2E-09	1E-04
Landbay E	6750-0800	8E-08	8E-02	2E-10	4E-07	2E-07	2E-01	7E-08	3E-01	2E-08	6E-02	6E-07	6E-01	7E-08	9E-05	1E-07	6E-02	1E-07	6E-02	2E-09	1E-04
Landbay E	6750-1100	5E-08	3E-02	NC	NC	1E-07	4E-02	3E-08	8E-02	2E-08	2E-02	5E-07	2E-01	NC	NC	1E-07	4E-01	1E-07	9E-03	4E-10	4E-05
Landbay E	6750-1250	5E-08	3E-02	NC	NC	1E-07	4E-02	3E-08	8E-02	2E-08	2E-02	5E-07	2E-01	NC	NC	1E-07	4E-01	1E-07	9E-03	4E-10	4E-05
Landbay E	6750-1400	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6900-0050	6E-07	7E-02	3E-10	7E-07	3E-07	2E-01	1E-07	6E-01	2E-07	5E-02	4E-06	5E-01	7E-08	1E-04	1E-06	5E-02	1E-06	5E-02	2E-09	3E-04
Landbay E	6900-0200	9E-07	2E-01	3E-10	NC	6E-07	3E-01	3E-07	7E-01	3E-07	1E-01	7E-06	1E+00	8E-08	NC	2E-06	1E-02	2E-06	1E-02	3E-09	3E-04
Landbay E	6900-0350	6E-08	5E-02	3E-10	NC	1E-07	6E-02	5E-08	9E-02	2E-08	4E-02	4E-07	4E-01	8E-08	NC	9E-08	2E-03	9E-08	2E-03	2E-09	4E-05
Landbay E	6900-0500	8E-08	8E-02	2E-10	NC	2E-07	2E-01	7E-08	3E-01	2E-08	6E-02	6E-07	6E-01	7E-08	NC	1E-07	6E-02	1E-07	6E-02	2E-09	1E-04
Landbay E	6900-0650	8E-08	8E-02	2E-10	NC	2E-07	2E-01	7E-08	3E-01	2E-08	6E-02	6E-07	6E-01	7E-08	NC	1E-07	6E-02	1E-07	6E-02	2E-09	1E-04
Landbay E	6900-9900	6E-07	7E-02	3E-10	7E-07	3E-07	2E-01	1E-07	6E-01	2E-07	5E-02	4E-06	5E-01	7E-08	1E-04	1E-06	5E-02	1E-06	5E-02	2E-09	3E-04
Landbay E	7000-126	4E-06	1E-01	NC	NC	1E-06	2E-01	6E-07	3E-01	1E-06	1E-01	3E-05	1E+00	NC	NC	7E-06	4E-02	7E-06	4E-02	1E-09	1E-04
Landbay E	7000-127	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7050-0050	3E-07	2E-03	NC	NC	8E-08	3E-03	4E-08	5E-03	1E-07	2E-03	2E-06	1E-02	NC	NC	6E-07	3E-03	6E-07	3E-03	9E-12	2E-06
Landbay E	7050-0200	2E-08	5E-02	2E-10	NC	1E-07	2E-01	4E-08	6E-01	6E-09	4E-02	1E-07	4E-01	7E-08	NC	2E-08	4E-01	2E-08	4E-02	2E-09	3E-04
Landbay E	7050-0350	2E-08	5E-02	2E-10	NC	1E-07	2E-01	4E-08	6E-01	6E-09	4E-02	1E-07	4E-01	7E-08	NC	2E-08	4E-01	2E-08	4E-02	2E-09	3E-04
Landbay E	7050-0500	2E-08	5E-02	2E-10	NC	1E-07	2E-01	4E-08	6E-01	6E-09	4E-02	1E-07	4E-01	7E-08	NC	2E-08	4E-01	2E-08	4E-02	2E-09	3E-04
Landbay E	7050-0650	2E-08	5E-02	2E-10	NC	1E-07	2E-01	4E-08	6E-01	6E-09	4E-02	1E-07	4E-01	7E-08	NC	2E-08	4E-01	2E-08	4E-02	2E-09	3E-04
Landbay E	7050-0800	4E-14	8E-06	NC	NC	4E-11	1E-05	1E-11	5E-05	7E-16	6E-06	2E-13	6E-05	NC	NC	NC	7E-06	NC	7E-06	2E-13	9E-09
Landbay E	7050-0950	1E-06	2E-02	NC	NC	3E-07	2E-02	1E-07	2E-02	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	2E-10	1E-05
Landbay E	7050-1100	1E-06	2E-02	NC	NC	3E-07	2E-02	1E-07	2E-02	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	2E-10	1E-05
Landbay E	7200-0200	3E-07	2E-03	NC	NC	8E-08	3E-03	4E-08	5E-03	1E-07	2E-03	2E-06	1E-02	NC	NC	6E-07	3E-03	6E-07	3E-03	9E-12	2E-06
Landbay E	7200-0350	6E-07	4E-03	NC	NC	1E-07	3E-03	7E-08	4E-03	2E-07	3E-03	4E-06	2E-02	NC	NC	1E-06	2E-02	1E-06	2E-02	2E-11	1E-06
Landbay E	7200-0500	6E-07	4E-03	NC	NC	1E-07	3E-03	7E-08	4E-03	2E-07	3E-03	4E-06	2E-02	NC	NC	1E-06	2E-02	1E-06	2E-02	2E-11	1E-06
Landbay E	7200-0650	4E-14	8E-06	NC	NC	4E-11	1E-05	1E-11	5E-05	7E-16	6E-06	2E-13	6E-05	NC	NC	NC	7E-06	NC	7E-06	2E-13	9E-09
Landbay E	7200-0800	4E-14	8E-06	NC	NC	4E-11	1E-05	1E-11	5E-05	7E-16	6E-06	2E-13	6E-05	NC	NC	NC	7E-06	NC	7E-06	2E-13	9E-09
Landbay E	7200-0950	1E-06	2E-02	NC	NC	3E-07	2E-02	1E-07	2E-02	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	2E-10	1E-05
Landbay E	7200-1100	1E-06	2E-02	NC	NC	3E-07	2E-02	1E-07	2E-02	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	2E-10	1E-05
Landbay E	7200-130	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-132	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-133	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-1400	6E-07	1E-02	NC	NC	2E-07	3E-02	8E-08	6E-02	2E-07	1E-02	4E-06	1E-01	NC	NC	1E-06	6E-03	1E-06	6E-03	1E-10	3E-05
Landbay E	7350-0500	6E-07	4E-03	NC	NC	1E-07	3E-03	7E-08	4E-03	2E-07	3E-03	4E-06	2E-02	NC	NC	1E-06	2E-02	1E-06	2E-02	2E-11	1E-06
Landbay E	7350-0650	6E-07	4E-03	NC	NC	1E-07	3E-03	7E-08	4E-03	2E-07	3E-03	4E-06	2E-02	NC	NC	1E-06	2E-02	1E-06	2E-02	2E-11	1E-06
Landbay E	7350-0800	4E-14	8E-06	NC	NC	4E-11	1E-05	1E-11	5E-05	7E-16	6E-06	2E-13	6E-05	NC	NC	NC	7E-06	NC	7E-06	2E-13	9E-09
Landbay E	7350-1400	6E-07	1E-02	NC	NC	2E-07	3E-02	8E-08	6E-02	2E-07	1E-02	4E-06	1E-01	NC	NC	1E-06	6E-03	1E-06	6E-03	1E-10	3E-05
Landbay E	7500-0650	8E-08	6E-04	NC	NC	2E-08	4E-04	1E-08	7E-04	2E-08	4E-04	6E-07	4E-03	NC	NC	2E-07	9E-04	2E-07	9E-04	4E-12	2E-07
Landbay E	7500-0800	8E-08	6E-04	NC	NC	2E-08	4E-04	1E-08	7E-04	2E-08	4E-04	6E-07	4E-03	NC	NC	2E-07	9E-04	2E-07	9E-04	4E-12	2E-07
Landbay E	7500-0950	8E-08	6E-04	NC	NC	2E-08	4E-04	1E-08	7E-04	2E-08	4E-04	6E-07	4E-03	NC	NC	2E-07	9E-04	2E-07	9E-04	4E-12	2E-07
Landbay E	7500-1100	8E-08	6E-04	NC	NC	2E-08	4E-04	1E-08	7E-04	2E-08	4E-04	6E-07	4E-03	NC	NC	2E-07	9E-04	2E-07	9E-04	4E-12	2E-07
Landbay E	7500-1400	NC	1E-03	NC	NC	NC	2E-02	NC	8E-02	NC	8E-04	NC	8E-03	NC	NC	NC	3E-04	NC	3E-04	NC	3E-05
Landbay E	7500-1550	NC	1E-03	NC	NC	NC	2E-02	NC	8E-02	NC	8E-04	NC	8E-03	NC	NC	NC	3E-04	NC	3E-04	NC	3E-05
Landbay E	7650-0800	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-0950	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1100	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1250	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1550	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-04	NC	3E-04	8E-13	4E-08
Landbay E	7700-150	2E-06	1E-02	NC	NC	4E-07	7E-03	2E-07	7E-03	5E-07	7E-03	1E-05	6E-02	NC	NC	3E-06	**2E+01**	3E-06	3E-01	5E-11	2E-06
Landbay E	7700-151	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7800-1100	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7800-1250	NC	1E-05	NC	8E-04	NC	6E-06	NC	5E-05	NC	2E-06	NC	5E-05	NC	2E-01	NC	9E-05	NC	9E-05	NC	4E-05
Landbay E	7800-1400	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-04	NC	3E-04	8E-13	4E-08
Landbay E	7800-1550	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-04	NC	3E-04	8E-13	4E-08
Landbay E	7950-1250	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7950-1400	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7950-1550	4E-08	5E-04	NC	6E-05	1E-08	4E-04	5E-09	1E-03	1E-08	4E-04	3E-07	3E-03	NC	1E-02	7E-08	8E-04	7E-08	8E-04	3E-12	6E-05
Landbay E	8100-1400	4E-08	5E-04	NC	6E-05	1E-08	4E-04	5E-09	1E-03	1E-08	4E-04	3E-07	3E-03	NC	1E-02	7E-08	8E-04	7E-08	8E-04	3E-12	6E-05
Landbay E	8100-1550	4E-08	5E-04	NC	6E-05	1E-08	4E-04	5E-09	1E-03	1E-08	4E-04	3E-07	3E-03	NC	1E-02	7E-08	8E-04	7E-08	8E-04	3E-12	6E-05
Landbay E	A7G191	8E-07	9E-03	NC	5E-05	2E-07	1E-02	1E-07	4E-02	2E-07	7E-03	6E-06	6E-02	NC	1E-02	1E-06	9E-01	1E-06	4E-02	2E-11	6E-05
Landbay E	A7G192	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	2E-14	2E-03	4E-12	2E-02	NC	NC	NC	3E-02	NC	3E-02	4E-12	6E-06
Landbay E	A7S160	9E-07	1E-01	2E-10	NC	4E-07	3E-01	2E-07	9E-01	3E-07	8E-02	6E-06	8E-01	7E-08	NC	2E-06	8E-02	2E-06	3E-02	2E-09	4E-04
Landbay E	A7S161	2E-08	1E-01	2E-10	NC	2E-07	3E-01	6E-08	9E-01	5E-09	7E-02	9E-08	7E-01	7E-08	NC	2E-08	5E-03	2E-08	5E-03	2E-09	4E-04
Landbay E	AAMARKB1-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	AAN-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	B227AEC-1S	NC	1E-03	NC	NC	NC	8E-04	NC	5E-03	NC	1E-03	NC	1E-02	NC	NC	NC	**6E+02**	NC	**1E+01**	NC	NC
Landbay E	DP-223	3E-13	6E-05	NC	NC	3E-10	8E-05	9E-11	4E-04	5E-15	4E-05	1E-12	4E-04	NC	NC	NC	5E-05	NC	5E-05	1E-12	6E-08
Landbay E	DP-223A	7E-13	2E-04	NC	NC	8E-10	2E-04	3E-10	1E-03	2E-14	1E-04	4E-12	1E-03	NC	NC	NC	1E-04	NC	1E-04	4E-12	2E-07
Landbay E	DP-223B	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	F-234	NC	3E-06	NC	1E-08	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	3E-06	NC	1E+00	NC	2E-02	NC	8E-09
Landbay E	F-6	4E-08	9E-03	NC	NC	1E-08	2E-02	7E-09	8E-02	1E-08	7E-03	4E-07	7E-02	NC	NC	7E-08	7E-02	7E-08	8E-03	1E-11	2E-05
Landbay E	GP 200-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 200-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 201-03	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay E	GP 201-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 202-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 202-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 203-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 203-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 204-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 204-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 205-03	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay E	GP 208-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-15	6E-13	1E-04	NC	NC	7E-10	2E-04	2E-10	9E-04	1E-14	1E-04	3E-12	1E-03	NC	NC	NC	1E-04	NC	1E-04	3E-12	2E-07
Landbay E	GP 211-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 212-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 212-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 213-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 213-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 214-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 215-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 220-07	1E-13	3E-05	NC	NC	1E-10	4E-05	5E-11	2E-04	3E-15	2E-05	7E-13	2E-04	NC	NC	NC	3E-05	NC	3E-05	7E-13	3E-08
Landbay E	GP 221-10	2E-08	1E-04	NC	NC	7E-09	1E-04	4E-09	6E-04	6E-09	9E-05	2E-07	9E-04	NC	NC	4E-08	1E-04	4E-08	1E-04	8E-12	1E-07
Landbay E	GP 221-11	4E-08	9E-05	NC	NC	1E-08	1E-04	8E-09	4E-04	1E-08	7E-05	4E-07	7E-04	NC	NC	8E-08	1E-04	8E-08	1E-04	1E-11	8E-08
Landbay E	GP 221-13	6E-08	1E-04	NC	NC	2E-08	2E-04	1E-08	6E-04	2E-08	1E-04	6E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	GP 221-14	1E-07	3E-04	NC	NC	5E-08	4E-04	3E-08	1E-03	4E-08	3E-04	1E-06	3E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	5E-11	3E-07
Landbay E	GP 223-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 223-06	5E-08	1E-04	NC	NC	2E-08	1E-04	8E-09	4E-04	1E-08	8E-05	4E-07	8E-04	NC	NC	9E-08	1E-04	9E-08	1E-04	1E-11	9E-08
Landbay E	GP 223-07	3E-08	7E-05	NC	NC	1E-08	8E-05	6E-09	2E-04	9E-09	5E-05	3E-07	5E-04	NC	NC	6E-08	1E-04	6E-08	1E-04	1E-11	5E-08
Landbay E	GP 223-08	6E-08	1E-04	NC	NC	2E-08	2E-04	1E-08	6E-04	2E-08	1E-04	5E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	GP 223-09	2E-08	4E-05	NC	NC	6E-09	4E-05	3E-09	1E-04	6E-09	3E-05	2E-07	3E-04	NC	NC	4E-08	6E-05	4E-08	6E-05	6E-12	2E-08
Landbay E	GP 223-10	3E-08	7E-05	NC	NC	1E-08	9E-05	6E-09	3E-04	1E-08	6E-05	3E-07	6E-04	NC	NC	7E-08	1E-04	7E-08	1E-04	1E-11	6E-08
Landbay E	GP 223-11	NC	4E-06	NC	NC	NC	1E-05	NC	4E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC	NC	NC	NC	1E-08
Landbay E	GP 223-12	5E-08	1E-04	NC	NC	2E-08	1E-04	9E-09	4E-04	1E-08	8E-05	4E-07	8E-04	NC	NC	9E-08	1E-04	9E-08	1E-04	2E-11	9E-08
Landbay E	GP 223-13	6E-08	1E-04	NC	NC	2E-08	2E-04	1E-08	5E-04	2E-08	1E-04	5E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	GP 223-14	5E-08	1E-04	NC	NC	2E-08	1E-04	9E-09	4E-04	2E-08	9E-05	5E-07	9E-04	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	GP 225-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 225-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 226-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 227-01	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay E	GP 227-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 228-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 234-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 234-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 235-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 235-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 236-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 236-02	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay E	GP 237-01	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay E	GP 237-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 240-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 244-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 250-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 252-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 252-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 253-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 253-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-11	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay E	GP 45-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 46-01	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay E	GP 47-03	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay E	GP 47-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-07	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay E	GP 47-09	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay E	GP 47-12	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	5E-05	NC	5E-04	NC	NC	NC	3E-02	NC	5E-04	NC	NC
Landbay E	GP 47-14	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	5E-02	NC	1E-03	NC	NC

Table 4-2c: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	GP 47-15	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	8E-04	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay E	GP 47-17	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	**5E+00**	NC	9E-02	NC	NC
Landbay E	GP 47-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP BG-04	3E-07	2E-03	NC	NC	6E-08	1E-03	4E-08	1E-03	8E-08	1E-03	2E-06	1E-02	NC	NC	5E-07	3E-03	5E-07	3E-03	8E-12	3E-07
Landbay E	GP BG-05	2E-06	1E-02	NC	2E-05	4E-07	7E-03	2E-07	6E-03	5E-07	7E-03	1E-05	6E-02	NC	5E-03	3E-06	2E-02	3E-06	2E-02	5E-11	2E-05
Landbay E	GP BG-06	6E-07	8E-02	NC	5E-05	3E-07	2E-01	1E-07	4E-01	2E-07	6E-02	4E-06	6E-01	NC	1E-02	1E-06	1E-02	1E-06	1E-02	9E-10	2E-04
Landbay E	GP PBS-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP PBS-04	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay E	GP PBS-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP PBS-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	HA 211-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	HA 211-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	IM12-1	2E-05	1E-01	9E-12	1E-05	4E-06	9E-02	2E-06	1E-01	5E-06	9E-02	1E-04	7E-01	7E-09	2E-03	4E-05	2E-01	4E-05	2E-01	2E-09	4E-05
Landbay E	IM12-2	4E-07	3E-03	NC	NC	9E-08	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	7E-07	7E-03	7E-07	7E-03	2E-11	1E-06
Landbay E	IM12-3	3E-06	2E-02	NC	NC	8E-07	1E-02	4E-07	1E-02	1E-06	2E-02	2E-05	1E-01	NC	NC	6E-06	4E-02	6E-06	4E-02	1E-10	4E-06
Landbay E	IM12-4	5E-13	2E-04	NC	NC	6E-10	5E-04	2E-10	2E-03	1E-14	1E-04	3E-12	1E-03	NC	NC	NC	3E-03	NC	3E-03	3E-12	5E-07
Landbay E	IM12-5	2E-06	1E-02	NC	NC	4E-07	8E-03	2E-07	7E-03	5E-07	8E-03	1E-05	7E-02	NC	NC	3E-06	2E-02	3E-06	2E-02	5E-11	2E-06
Landbay E	IM14-1	NC	8E-07	NC	6E-05	NC	5E-07	NC	2E-06	NC	4E-07	NC	5E-06	NC	1E-02	NC	1E-04	NC	1E-04	NC	1E-06
Landbay E	IM14-2	3E-10	9E-05	4E-08	1E-02	6E-11	5E-05	6E-11	2E-04	2E-11	1E-05	2E-09	4E-04	9E-06	**2E+00**	NC	NC	NC	NC	1E-09	3E-04
Landbay E	IM14-3	9E-10	1E-05	1E-07	1E-03	2E-10	6E-06	2E-10	4E-05	1E-10	4E-06	4E-08	6E-05	8E-05	2E-01	2E-10	5E-04	2E-10	5E-04	7E-09	3E-05
Landbay E	IM14-4	1E-09	2E-05	2E-07	3E-03	3E-10	1E-05	3E-10	7E-05	2E-10	6E-06	6E-08	1E-04	1E-04	4E-01	3E-10	3E-04	3E-10	3E-04	1E-08	6E-05
Landbay E	IM14-5	4E-09	1E-03	5E-07	1E-01	8E-10	6E-04	8E-10	2E-03	4E-10	2E-04	5E-08	5E-03	**2E-04**	**2E+01**	6E-08	6E-03	6E-08	6E-03	2E-08	4E-03
Landbay E	IM14-6	NC	2E-06	NC	4E-04	NC	9E-07	NC	9E-06	NC	2E-07	NC	7E-06	NC	6E-02	NC	1E-04	NC	1E-04	NC	6E-06
Landbay E	IM14-7	7E-10	2E-04	9E-08	3E-02	1E-10	1E-04	1E-10	7E-04	4E-11	2E-05	4E-09	8E-04	2E-05	**5E+00**	9E-09	8E-04	9E-09	8E-04	3E-09	7E-04
Landbay E	JT I-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JT O-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JT O-01C	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JTF-0101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	MARKH-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	MCD-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	S-234	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	2E-01	NC	4E-03	NC	NC
Landbay E	SB 211-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SR-200S	5E-10	3E-04	7E-08	2E-02	5E-10	2E-04	2E-10	1E-03	3E-11	1E-04	2E-09	1E-03	1E-05	**3E+00**	6E-09	1E-03	6E-09	1E-03	2E-09	5E-04
Landbay E	SR-235	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-219A	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay E	SS-227A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-227B	NC	1E-03	NC	NC	NC	7E-04	NC	3E-04	NC	1E-03	NC	6E-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-236A	NC	6E-06	NC	NC	NC	4E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	**2E+00**	NC	5E-02	NC	NC
Landbay E	SS-244A	NC	7E-04	NC	NC	NC	1E-03	NC	6E-03	NC	5E-04	NC	5E-03	NC	NC	NC	NC	NC	NC	NC	2E-06
Landbay E	SS-250A	4E-08	2E-03	NC	4E-03	2E-08	2E-03	8E-09	9E-03	1E-08	1E-03	4E-07	2E-02	NC	8E-01	8E-08	2E-03	8E-08	2E-03	2E-11	4E-03
Landbay E	SS-255A	NC	2E-05	NC	NC	NC	1E-05	NC	9E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay E	SS-40A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 205-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 221-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 252-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 45-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 47-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 47-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 221-01	1E-08	2E-03	NC	NC	9E-09	3E-03	4E-09	1E-02	4E-09	2E-03	1E-07	2E-02	NC	NC	3E-08	2E-02	3E-08	2E-02	3E-11	2E-06
Landbay E	TP 221-03	2E-08	1E-03	NC	NC	1E-08	2E-03	4E-09	6E-03	5E-09	8E-04	1E-07	8E-03	NC	NC	3E-08	4E-03	3E-08	4E-03	3E-11	2E-06
Landbay E	TP 223-01	6E-08	1E-04	NC	NC	2E-08	2E-04	1E-08	6E-04	2E-08	1E-04	6E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	TP 223-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 223-04	2E-12	5E-04	NC	NC	3E-09	1E-03	8E-10	3E-03	5E-14	4E-04	1E-11	4E-03	NC	NC	NC	2E-03	NC	2E-03	1E-11	1E-06

Notes:

1. Landbay Use Designation:
   - Landbay A - industrial/commercial use
   - Landbay B - mixed use
   - Landbay C - industrial/commercial use
   - Landbay D - residential use
   - Landbay E - residential use
2. Cumulative cancer risk and HI estimates in excess of 1E-4 and 1, respectively, are shaded gray and in bold font.
3. Cumulative cancer risk and HI estimates are based on the highest concentration for each chemical at each location.
4. Cumulative cancer risk and HI estimates are calculated using site-related concentrations, which are those in excess of site-specific background for inorganics.
5. Cumulative cancer risk and HI estimates due to the ingestion of homegrown produce are based on concentrations from shallow soil samples (less than or equal to 3 ft bgs). For soil sampling locations without samples less than or equal to 3 ft bgs, the concentrations used were assumed to equal those in the shallowest most sample.
6. NC - risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected at this location.

Table 4-2d: Refined Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil during Outdoor Activities
ARC Gainesville, Gainesville, VA

Land Use	Soil Exposure Area	Routine Worker		Constr. Worker		Resident	
		Outdoor Activities		Outdoor Activities		Outdoor Activities	
		Risk	HI	Risk	HI	Risk	HI
Residential	42 GP-28/42 GP-19 Area	NR	1E+00	NR	NR	NR	**4E+00**
Residential	42TP6-185 Area	NR	NR	NR	NR	NR	1E+00
Non-Residential	IM-3	NR	NR	NR	NR	**4E-04**	NR
Residential	SRA 3	NR	NR	NR	NR	NR	**2E+00**
Residential	SRA 4	NR	NR	NR	NR	NR	1E+00
Residential	SRA 5	NR	NR	NR	NR	NR	1E+00
Residential	SRA 6 (Mid)	NR	NR	NR	NR	NR	1E+00
Residential	SRA 6 (North)	NR	NR	NR	NR	NR	1E+00
Residential	SRA 6 (South)	NR	6E-01	NR	NR	NR	**2E+00**
Mixed Use	SRA 9	NR	NR	NR	1E+00	NR	NR

Notes:

1. Only exposure areas with at least one location with an unnacceptable risk from exposure during outdoor activities are shown.
2. Cumulative cancer risk and HI estimates in excess of 1E-4 and 1, respectively, are shaded gray and in bold.
3. Cumulative cancer risk and HI estimates are based on the reasonable maximum exposure concentration for each chemical in presented exposure areas.
4. NR - No refinements were necessary based on the upper-bound risk estimates.

Table 4-2e: Refined Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil Vapor Intrusion
ARC Gainesville, Gainesville, VA

Landbay	Location	Routine Worker		Resident	
		Vapor Intrusion		Vapor Intrusion	
		Risk	HI	Risk	HI
Landbay A	107B1	NR	NR	4E-07	7E-03
Landbay A	107B2	NR	NR	NR	2E-02
Landbay B	16TP3-7	NR	NR	NR	2E-02
Landbay B	16TP4-7	NR	NR	NR	1E-02
Landbay B	GP 76-05	NR	3E-02	NR	5E-01
Landbay B	GP 79-01	NR	NR	NR	1E-01
Landbay B	GP 79-02	NR	NR	NR	4E-02
Landbay D	3150-2000	NR	NR	NR	**7E+00**
Landbay D	42TP5-200	NR	NR	NR	2E-02
Landbay E	230-BM	NR	NR	NR	**3E+00**
Landbay E	IM14-2	NR	NR	NR	2E-02
Landbay E	IM14-5	NR	NR	1E-06	2E-01
Landbay E	IM14-7	NR	NR	NR	3E-02
Landbay E	SR-200S	NR	NR	NR	2E-02
Notes:					

1. Only locations with an unnacceptable risk from exposure to vapor in indoor air are shown.
2. Cumulative cancer risk and HI estimates in excess of 1E-4 and 1, respectively, are shaded gray and in bold.
3. These risk estimates are based on indoor air concentrations that were calculated with a mass balance check, which assumes that contamination extends to a finite depth. A 5.1 ft contaminant thickness, which is the depth from the bottom of the basement slab to the maximum depth to the water table among these locations (12 ft bgs), was assumed, except for location GP 76-05. For GP 76-05, the depth to water table is 3 ft bgs, which is shallower than the depth of the basement slab; therefore a contaminant thickness of 1 ft was conservatively assumed for this location. See Appendix D for more details.
4. NR - No refinements were necessary based on the upper-bound risk estimates.

Table 4-3: Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Groundwater
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maintenance Worker		Construction Worker		Resident			
		Vapor Intrusion		Outdoor Air Inhalation		Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	BW 100-02D	NA	NA	NC	1E-09	NC	2E-06	NC	5E-06	NA	NA	NC	5E-09
Landbay A	BW 100-02S	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	BW 33-01D	NA	NA	2E-10	6E-05	2E-07	1E-01	6E-08	1E-01	NA	NA	1E-09	3E-04
Landbay A	BW 33-01S	1E-08	4E-03	1E-10	3E-05	1E-07	7E-02	3E-08	8E-02	4E-07	8E-02	6E-10	1E-04
Landbay A	BW 34-01	3E-09	1E-04	3E-11	9E-07	6E-08	2E-01	2E-08	8E-01	3E-07	3E-03	2E-10	4E-06
Landbay A	BW 39-01D	NA	NA	8E-13	2E-07	6E-10	3E-02	2E-10	8E-02	NA	NA	4E-12	1E-06
Landbay A	BW CG-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	BW CG-01S	3E-09	1E-03	3E-11	8E-06	2E-08	3E-01	7E-09	8E-01	9E-08	2E-02	2E-10	3E-05
Landbay A	BW CM-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	BW CM-01S	2E-09	4E-04	1E-11	3E-06	8E-09	3E-01	3E-09	8E-01	3E-08	7E-03	6E-11	1E-05
Landbay A	BW CM-02D	7E-11	2E-05	6E-13	1E-07	NA	NA	NA	NA	1E-09	3E-04	3E-12	6E-07
Landbay A	BW CM-03	NC	NC	NC	NC	NA	NA	NA	NA	NC	NC	NC	NC
Landbay A	BW TTU-02D	NA	NA	7E-11	6E-06	3E-06	6E-01	8E-07	1E+00	NA	NA	4E-10	2E-05
Landbay A	BW TTU-02S	2E-09	2E-05	1E-11	2E-07	4E-08	1E-03	1E-08	7E-04	5E-08	5E-04	7E-11	7E-07
Landbay A	BW TTU-03D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	BW TTU-03S	2E-07	5E-02	1E-09	3E-04	1E-06	6E-01	4E-07	6E-01	5E-06	9E-01	9E-09	1E-03
Landbay A	BW TTU-05	NA	NA	6E-11	1E-07	NA	NA	NA	NA	NA	NA	3E-10	6E-07
Landbay A	DW 106-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW 52-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW CM-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-23	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-3	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-30D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-30I	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-30S	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-32I	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-33I	NC	5E-05	NC	4E-07	NA	NA	NA	NA	NC	9E-04	NC	2E-06
Landbay A	DW-72B	3E-07	8E-03	3E-09	6E-05	NA	NA	NA	NA	2E-05	2E-01	4E-08	2E-04
Landbay A	DW-72B-122-162	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-72B-195-235	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-72B-223	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	DW-72B-49-89	5E-08	7E-04	4E-10	6E-06	NA	NA	NA	NA	3E-06	1E-02	7E-09	2E-05
Landbay A	DW-72B-75-115	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	GP 105-01	1E-10	4E-05	1E-12	3E-07	8E-10	3E-02	2E-10	9E-02	3E-09	7E-04	6E-12	1E-06
Landbay A	GP TTF-04	1E-09	7E-03	7E-12	4E-05	7E-06	2E-01	2E-06	5E-01	3E-08	1E-01	3E-11	2E-04
Landbay A	SW 100-01	NC	NC	NC	NC	NC	7E-04	NC	2E-03	NC	NC	NC	NC
Landbay A	SW 105-01	2E-10	5E-05	1E-12	4E-07	1E-09	3E-02	3E-10	8E-02	4E-09	8E-04	7E-12	2E-06
Landbay A	SW 105-02D	NA	NA	NC	2E-08	NC	5E-04	NC	2E-03	NA	NA	NC	9E-08
Landbay A	SW 105-02S	NC	1E-05	NC	1E-07	NC	4E-04	NC	1E-03	NC	2E-04	NC	4E-07
Landbay A	SW 105-03D	NA	NA	2E-11	5E-06	1E-08	1E+00	4E-09	**3E+00**	NA	NA	9E-11	2E-05
Landbay A	SW 105-03S	NC	NC	NC	NC	NC	3E-03	NC	9E-03	NC	NC	NC	NC
Landbay A	SW 106-01	NC	NC	NC	NC	NC	4E-04	NC	1E-03	NC	NC	NC	NC
Landbay A	SW 107-01	NC	NC	NC	NC	NC	2E-03	NC	7E-03	NC	NC	NC	NC
Landbay A	SW 107-02	1E-10	4E-05	1E-12	3E-07	8E-10	1E-03	3E-10	4E-03	3E-09	7E-04	6E-12	1E-06
Landbay A	SW CM-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-02	NC	NC	NC	NC	NC	2E-04	NC	6E-04	NC	NC	NC	NC
Landbay A	SW CM-03	1E-10	4E-05	1E-12	3E-07	8E-10	5E-04	2E-10	1E-03	3E-09	7E-04	6E-12	1E-06
Landbay A	SW CM-05	NC	8E-05	NC	4E-07	NC	1E-03	NC	4E-03	NC	1E-03	NC	2E-06
Landbay A	SW CM-06	1E-10	3E-05	8E-13	2E-07	6E-10	3E-02	2E-10	9E-02	2E-09	5E-04	4E-12	9E-07
Landbay A	SW CM-07	NC	NC	NC	NC	NC	2E-01	NC	7E-01	NC	NC	NC	NC
Landbay A	SW CM-08D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay A	SW CM-08S	3E-11	8E-06	2E-13	7E-08	2E-10	4E-02	5E-11	1E-01	7E-10	1E-04	1E-12	3E-07
Landbay A	SW CM-09D	NA	NA	NC	NC	NC	2E-04	NC	6E-04	NA	NA	NC	NC
Landbay A	SW CM-09S	NC	NC	NC	NC	NC	1E-03	NC	4E-03	NC	NC	NC	NC
Landbay A	SW CM-10	NC	NC	NC	NC	NC	3E-03	NC	1E-02	NC	NC	NC	NC
Landbay A	SW TTU-03	NC	NC	NC	NC	9E-11	4E-02	3E-11	1E-01	NC	NC	NC	NC
Landbay A	SW TTU-05	7E-09	2E-03	5E-11	2E-05	1E-05	9E-02	4E-06	2E-01	2E-07	4E-02	3E-10	7E-05
Landbay A	TP 107-01	NA	NA	NC	2E-07	NC	6E-04	NC	2E-03	NA	NA	NC	9E-07
Landbay B	BW 116-01	NC	NC	NC	NC	5E-09	4E-03	2E-09	8E-03	NC	NC	NC	NC
Landbay B	BW 119-01	NC	5E-06	NC	5E-08	2E-07	4E-02	7E-08	1E-01	NC	9E-05	NC	2E-07
Landbay B	BW 45-03D	NA	NA	4E-10	4E-05	5E-07	8E-02	2E-07	1E-01	NA	NA	6E-09	2E-04
Landbay B	BW 45-03S	3E-08	8E-03	2E-10	6E-05	3E-07	1E-01	8E-08	1E-01	1E-06	2E-01	2E-09	3E-04
Landbay B	BW 45-06D	NA	NA	1E-12	3E-07	8E-10	5E-04	2E-10	1E-03	NA	NA	6E-12	1E-06
Landbay B	BW 45-06S	3E-10	1E-04	3E-12	9E-07	2E-09	4E-02	6E-10	1E-01	7E-09	2E-03	1E-11	4E-06
Landbay B	BW 70-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	BW 73-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	BW 73-01S	NC	NC	NC	NC	NC	3E-04	NC	1E-03	NC	NC	NC	NC
Landbay B	BW 78-01S	NC	NC	NC	NC	NC	7E-04	NC	2E-03	NC	NC	NC	NC
Landbay B	BW 78-02D	NA	NA	NC	NC	NC	5E-01	NC	**2E+00**	NA	NA	NC	NC
Landbay B	BW 78-02S	NC	NC	NC	NC	NC	4E-04	NC	1E-03	NC	NC	NC	NC
Landbay B	BW 78-03	NC	NC	NC	NC	NC	6E-03	NC	2E-02	NC	NC	NC	NC
Landbay B	BW 78-04S	NC	NC	NC	NC	NC	4E-04	NC	1E-03	NC	NC	NC	NC
Landbay B	BW 78-05D	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-06S	NC	2E-07	NC	2E-09	NC	3E-05	NC	8E-05	NC	4E-06	NC	8E-09
Landbay B	BW 78-07D	NA	NA	NC	NC	NC	4E-03	NC	1E-02	NA	NA	NC	NC
Landbay B	BW 78-07S	NC	NC	NC	NC	NC	3E-03	NC	8E-03	NC	NC	NC	NC
Landbay B	BW 78-08S	NC	NC	NC	NC	NC	7E-04	NC	2E-03	NC	NC	NC	NC
Landbay B	BW 78-10D	NA	NA	NC	NC	NC	**5E+00**	NC	**2E+01**	NA	NA	NC	NC
Landbay B	BW 78-10S	NC	NC	NC	NC	NC	1E-02	NC	3E-02	NC	NC	NC	NC
Landbay B	BW 78-11D	NA	NA	NC	NC	NC	1E-03	NC	4E-03	NA	NA	NC	NC
Landbay B	BW 78-11S	NC	NC	NC	NC	NC	**3E+00**	NC	**9E+00**	NC	NC	NC	NC
Landbay B	BW 78-12D	NA	NA	NC	8E-07	NC	1E+00	NC	**4E+00**	NA	NA	NC	3E-06
Landbay B	BW 78-12S	NC	NC	NC	NC	NC	**4E+00**	NC	**1E+01**	NC	NC	NC	NC
Landbay B	BW 79-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	BW 79-01S	7E-11	2E-05	6E-13	2E-07	4E-10	6E-03	1E-10	2E-02	1E-09	5E-04	3E-12	9E-07
Landbay B	BW 79-02D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	BW 79-02S	NC	3E-04	NC	3E-06	7E-10	4E-03	2E-10	1E-02	NC	6E-03	NC	1E-05

Table 4-3: Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Groundwater
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maintenance Worker		Construction Worker		Resident			
		Vapor Intrusion		Outdoor Air Inhalation		Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	BW 86-01	NC	1E-05	NC	1E-07	NA	NA	NA	NA	NC	2E-04	NC	4E-07
Landbay B	DW 76-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW 85-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13 EFF	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13-120-160	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13-150-190	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13-190-230	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13-245	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13-296	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13-32-72	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-13-75-115	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-15	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-16	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-16-Diabase	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-16-Metased	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-21	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-21-Diabase	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-22	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-24	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-25	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-26D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-26I	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-26S	7E-11	3E-05	6E-13	3E-07	NA	NA	NA	NA	1E-09	5E-04	3E-12	1E-06
Landbay B	DW-28	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	DW-28D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-28DD	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-28I	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-28S	NC	1E-04	NC	1E-06	NA	NA	NA	NA	NC	3E-03	NC	5E-06
Landbay B	DW-29D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-29I	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-29S	NC	2E-05	NC	2E-07	NA	NA	NA	NA	NC	3E-04	NC	7E-07
Landbay B	DW-35 Zone 1	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35 Zone 2	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35 Zone 3	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35 Zone 4	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35 Zone 5	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35 Zone 6	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35 Zone 7	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35 Zone 8	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35-100-125	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35-139-164	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35-170-195	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35-194-219	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35-219	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35-40-70	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-35-70-95	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-36D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-36DD	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-5	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-6	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	DW-72A	1E-09	8E-04	1E-11	7E-06	9E-09	2E-02	3E-09	4E-02	4E-08	1E-02	6E-11	3E-05
Landbay B	GP 119-01	NC	NC	NC	NC	NC	6E-05	NC	2E-05	NC	NC	NC	NC
Landbay B	GP 42-04	1E-10	4E-05	1E-12	3E-07	8E-10	9E-03	2E-10	3E-02	3E-09	7E-04	6E-12	1E-06
Landbay B	GP 70-03	NC	1E-05	NC	8E-08	NC	5E-04	NC	1E-03	NC	2E-04	NC	3E-07
Landbay B	GP 76-02	3E-09	2E-03	2E-11	1E-05	2E-06	5E-02	6E-07	1E-01	2E-07	8E-02	3E-10	6E-05
Landbay B	GP 78-01	NC	NC	NC	NC	NC	6E-01	NC	**2E+00**	NC	NC	NC	NC
Landbay B	IW-6	4E-09	1E-04	4E-11	1E-06	NA	NA	NA	NA	3E-07	3E-03	6E-10	5E-06
Landbay B	IW-7	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	IW-8	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	IW-8-110-150	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	IW-8-154-194	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	IW-8-197-237	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	IW-8-235-275	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	IW-8-65-105	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	SW 115-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	SW 115-01S	NC	NC	NC	NC	NC	4E-03	NC	1E-02	NC	NC	NC	NC
Landbay B	SW 42-02	1E-10	4E-05	8E-13	3E-07	6E-10	3E-02	2E-10	8E-02	2E-09	6E-04	4E-12	1E-06
Landbay B	SW 70-01	NC	3E-06	NC	2E-08	1E-09	4E-03	4E-10	1E-02	NC	5E-05	NC	7E-08
Landbay B	SW 70-02	NC	NC	NC	NC	NC	2E-05	NC	7E-05	NC	NC	NC	NC
Landbay B	SW 74-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay B	SW 74-02	1E-08	4E-03	1E-10	3E-05	1E-07	6E-02	3E-08	1E-01	3E-07	6E-02	5E-10	1E-04
Landbay B	SW 74-03	NC	NC	NC	NC	1E-06	4E-02	4E-07	4E-02	NC	NC	NC	NC
Landbay B	SW 74-04	6E-08	2E-02	5E-10	1E-04	4E-07	1E+00	1E-07	**4E+00**	2E-06	3E-01	3E-09	6E-04
Landbay B	SW 74-05	5E-08	1E-02	4E-10	1E-04	4E-07	2E-01	1E-07	3E-01	2E-06	2E-01	3E-09	4E-04
Landbay B	SW 74-06	4E-08	1E-02	3E-10	8E-05	3E-07	2E-01	1E-07	2E-01	1E-06	2E-01	2E-09	4E-04
Landbay B	SW 74-07	5E-08	2E-02	4E-10	1E-04	4E-07	3E-01	1E-07	4E-01	2E-06	3E-01	3E-09	5E-04
Landbay B	SW 74-09	NC	NC	NC	NC	NC	1E-04	NC	4E-04	NC	NC	NC	NC
Landbay B	SW 77-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-01	NC	NC	NC	NC	NC	9E-04	NC	3E-03	NC	NC	NC	NC
Landbay B	SW 78-03D	NA	NA	NC	1E-10	NC	**1E+01**	NC	**5E+01**	NA	NA	NC	6E-10
Landbay B	SW 78-03S	NC	NC	NC	NC	NC	5E-01	NC	1E+00	NC	NC	NC	NC
Landbay B	SW 78-04	3E-08	8E-03	2E-10	6E-05	2E-07	4E-01	6E-08	1E+00	9E-07	2E-01	1E-09	3E-04
Landbay C	BW 90-01	NC	3E-05	NC	3E-07	NA	NA	NA	NA	NC	4E-04	NC	1E-06
Landbay C	BW 93-01	NC	NC	NC	NC	NA	NA	NA	NA	NC	NC	NC	NC
Landbay C	BW NE-01D	NA	NA	NC	NC	NC	2E-05	NC	5E-05	NA	NA	NC	NC
Landbay C	BW NE-01S	NC	NC	NC	NC	NC	1E-05	NC	3E-05	NC	NC	NC	NC

Table 4-3: Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Groundwater
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maintenance Worker		Construction Worker		Resident			
		Vapor Intrusion		Outdoor Air Inhalation		Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay C	DW-10	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay C	DW-31D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay C	DW-31I	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay C	EX W 221-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay C	GP 91-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	IW-5	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 10-01D	3E-10	8E-05	2E-12	6E-07	2E-09	8E-03	5E-10	3E-02	6E-09	1E-03	1E-11	3E-06
Landbay D	BW 10-02D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 10-02S	4E-09	1E-03	3E-11	9E-06	2E-08	6E-02	8E-09	2E-01	1E-07	2E-02	2E-10	4E-05
Landbay D	BW 10-03D	NA	NA	2E-13	7E-08	2E-10	1E-04	5E-11	3E-04	NA	NA	1E-12	3E-07
Landbay D	BW 10-03S	NC	NC	NC	NC	NC	5E-05	NC	2E-04	NC	NC	NC	NC
Landbay D	BW 14-02D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 14-02S	3E-08	1E-02	2E-10	7E-05	2E-07	2E-01	6E-08	5E-01	8E-07	2E-01	1E-09	3E-04
Landbay D	BW 16-04D	2E-08	5E-03	1E-10	4E-05	1E-07	6E-01	3E-08	**2E+00**	4E-07	1E-01	7E-10	2E-04
Landbay D	BW 17-02D	NA	NA	2E-11	6E-06	2E-08	7E-02	6E-09	2E-01	NA	NA	1E-10	3E-05
Landbay D	BW 17-02S	3E-09	8E-04	2E-11	6E-06	2E-08	7E-02	6E-09	2E-01	7E-08	2E-02	1E-10	3E-05
Landbay D	BW 17-03D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 17-03S	1E-08	4E-03	1E-10	3E-05	9E-08	1E-01	3E-08	3E-01	4E-07	8E-02	6E-10	1E-04
Landbay D	BW 21-02D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 21-02S	4E-09	2E-03	3E-11	1E-05	3E-08	2E-02	1E-08	2E-02	1E-07	3E-02	2E-10	5E-05
Landbay D	BW 21-03D	NA	NA	NC	3E-08	NC	4E-05	NC	1E-04	NA	NA	NC	1E-07
Landbay D	BW 21-03S	NC	4E-06	NC	2E-08	NC	3E-04	NC	7E-04	NC	8E-05	NC	1E-07
Landbay D	BW 21-04D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 21-04S	2E-09	7E-04	2E-11	5E-06	2E-08	1E-02	5E-09	2E-02	7E-08	1E-02	1E-10	2E-05
Landbay D	BW 21-05D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 21-05S	NC	NC	NC	NC	NC	2E-03	NC	8E-03	NC	NC	NC	NC
Landbay D	BW 22-01D	7E-11	4E-05	6E-13	4E-07	4E-10	3E-02	1E-10	8E-02	1E-09	7E-04	3E-12	1E-06
Landbay D	BW 28-01	4E-09	1E-03	3E-11	9E-06	2E-08	1E-01	7E-09	4E-01	9E-08	2E-02	2E-10	4E-05
Landbay D	BW 28-02D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 28-02S	2E-08	6E-03	1E-10	4E-05	1E-07	3E-01	4E-08	8E-01	5E-07	1E-01	8E-10	2E-04
Landbay D	BW 28-03D	9E-10	3E-04	7E-12	2E-06	6E-09	4E-03	2E-09	5E-03	2E-08	5E-03	4E-11	9E-06
Landbay D	BW 31-01D	NA	NA	1E-10	3E-05	9E-08	7E-02	3E-08	1E-01	NA	NA	6E-10	1E-04
Landbay D	BW 31-01S	3E-08	1E-02	2E-10	7E-05	2E-07	1E-01	7E-08	1E-01	9E-07	2E-01	1E-09	3E-04
Landbay D	BW 31-02D	NA	NA	5E-11	2E-05	5E-08	3E-02	1E-08	3E-02	NA	NA	3E-10	6E-05
Landbay D	BW 31-02S	1E-08	3E-03	9E-11	2E-05	1E-07	4E-02	3E-08	3E-02	5E-07	6E-02	9E-10	9E-05
Landbay D	BW 32-01	1E-08	4E-03	1E-10	3E-05	9E-08	8E-02	3E-08	2E-01	4E-07	7E-02	6E-10	1E-04
Landbay D	BW 32-02D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 32-02S	2E-08	6E-03	2E-10	5E-05	1E-07	2E-01	4E-08	4E-01	6E-07	1E-01	9E-10	2E-04
Landbay D	BW 5-05D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	BW 5-05S	2E-08	7E-03	2E-10	5E-05	1E-07	1E-01	4E-08	1E-01	6E-07	1E-01	9E-10	2E-04
Landbay D	BW 5-06D	NA	NA	9E-11	3E-05	8E-08	7E-02	3E-08	1E-01	NA	NA	6E-10	1E-04
Landbay D	BW 5-06S	3E-09	1E-03	3E-11	8E-06	2E-08	6E-02	7E-09	2E-01	9E-08	2E-02	2E-10	3E-05
Landbay D	BW 5-07D	NA	NA	1E-11	4E-06	1E-08	4E-02	4E-09	1E-01	NA	NA	8E-11	2E-05
Landbay D	BW 5-07S	1E-09	4E-04	9E-12	3E-06	7E-09	3E-02	2E-09	7E-02	3E-08	7E-03	5E-11	1E-05
Landbay D	BW 6-02D	NA	NA	3E-11	1E-05	3E-08	1E-01	9E-09	3E-01	NA	NA	2E-10	4E-05
Landbay D	BW 6-02S	3E-09	1E-03	3E-11	8E-06	2E-08	9E-02	7E-09	3E-01	9E-08	2E-02	2E-10	3E-05
Landbay D	BW 6-03D	NA	NA	1E-11	5E-06	1E-08	9E-03	5E-09	9E-03	NA	NA	1E-10	2E-05
Landbay D	BW 6-03S	6E-09	2E-03	4E-11	1E-05	4E-08	4E-02	1E-08	7E-02	2E-07	4E-02	3E-10	6E-05
Landbay D	BW 68-01	NC	NC	NC	NC	NA	NA	NA	NA	NC	NC	NC	NC
Landbay D	BW 9-02D	8E-09	3E-03	6E-11	2E-05	5E-08	3E-01	2E-08	8E-01	2E-07	5E-02	4E-10	8E-05
Landbay D	DW 68-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	DW-17	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	DW-18	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	DW-18I	1E-08	4E-03	9E-11	3E-05	8E-08	1E-01	3E-08	2E-01	3E-07	7E-02	5E-10	1E-04
Landbay D	GP 15-02	NC	NC	NC	NC	NC	1E-02	NC	4E-02	NC	NC	NC	NC
Landbay D	GP 175-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-01	NC	NC	NC	NC	NC	1E-03	NC	4E-03	NC	NC	NC	NC
Landbay D	GP 4-01	NC	NC	NC	NC	NC	2E-02	NC	6E-02	NC	NC	NC	NC
Landbay D	GP 50-01A	NC	NC	NC	NC	3E-07	1E-03	9E-08	3E-03	NC	NC	NC	NC
Landbay D	GP 52-02	NC	NC	NC	NC	NC	4E-04	NC	1E-03	NC	NC	NC	NC
Landbay D	GP 62-03	NC	NC	NC	NC	NC	3E-05	NC	9E-05	NC	NC	NC	NC
Landbay D	GP GS-04	NC	NC	NC	NC	NC	1E-03	NC	4E-03	NC	NC	NC	NC
Landbay D	IW-2	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	IW-4	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	SW 14-01	7E-09	2E-03	5E-11	2E-05	4E-08	3E-01	1E-08	8E-01	2E-07	4E-02	3E-10	6E-05
Landbay D	SW 15-01	5E-09	1E-03	4E-11	8E-06	3E-08	2E-02	1E-08	5E-02	2E-07	2E-02	2E-10	3E-05
Landbay D	SW 15-02	7E-09	3E-03	5E-11	2E-05	5E-08	5E-02	2E-08	8E-02	2E-07	5E-02	3E-10	9E-05
Landbay D	SW 152-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 16-01	6E-09	2E-03	4E-11	1E-05	4E-08	3E-01	1E-08	8E-01	2E-07	3E-02	3E-10	6E-05
Landbay D	SW 16-02	4E-09	1E-03	3E-11	9E-06	3E-08	2E-01	8E-09	6E-01	1E-07	2E-02	2E-10	4E-05
Landbay D	SW 16-03	NC	NC	NC	NC	NC	1E-04	NC	3E-04	NC	NC	NC	NC
Landbay D	SW 17-01	7E-11	1E-04	6E-13	1E-06	4E-10	2E-03	1E-10	7E-03	1E-09	3E-03	3E-12	5E-06
Landbay D	SW 21-01	4E-09	1E-03	3E-11	1E-05	3E-08	2E-02	9E-09	3E-02	1E-07	3E-02	2E-10	4E-05
Landbay D	SW 27-02D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	SW 27-02S	4E-08	1E-02	3E-10	1E-04	3E-07	4E-01	1E-07	8E-01	1E-06	3E-01	2E-09	4E-04
Landbay D	SW 35-01D	NA	NA	3E-11	8E-06	2E-08	5E-02	7E-09	1E-01	NA	NA	2E-10	3E-05
Landbay D	SW 35-01S	NC	NC	NC	NC	NC	1E-05	NC	3E-05	NC	NC	NC	NC
Landbay D	SW 40-51	2E-08	NC	8E-11	NC	4E-06	7E-01	1E-06	9E-01	7E-07	NC	4E-10	NC
Landbay D	SW 41-01	4E-10	1E-04	3E-12	9E-07	2E-09	4E-02	7E-10	1E-01	8E-09	2E-03	2E-11	4E-06
Landbay D	SW 41-02	3E-09	9E-04	2E-11	7E-06	2E-08	2E-01	6E-09	5E-01	8E-08	2E-02	1E-10	3E-05
Landbay D	SW 41-03	5E-09	1E-03	4E-11	1E-05	3E-08	2E-01	1E-08	6E-01	1E-07	3E-02	2E-10	5E-05
Landbay D	SW 41-04	6E-09	2E-03	4E-11	1E-05	4E-08	2E-01	1E-08	6E-01	1E-07	3E-02	3E-10	6E-05
Landbay D	SW 41-05	3E-11	9E-06	3E-13	7E-08	2E-10	5E-04	6E-11	2E-03	7E-10	2E-04	1E-12	3E-07
Landbay D	SW 42-01	3E-11	9E-06	3E-13	7E-08	2E-10	1E-04	6E-11	3E-04	7E-10	2E-04	1E-12	3E-07
Landbay D	SW 43-01	2E-09	8E-04	2E-11	6E-06	2E-08	9E-02	5E-09	3E-01	6E-08	1E-02	1E-10	2E-05
Landbay D	SW 43-02D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	SW 43-02S	4E-09	4E-04	3E-11	3E-06	2E-08	1E-01	6E-09	5E-01	1E-07	6E-03	1E-10	1E-05

Table 4-3: Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Groundwater
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maintenance Worker		Construction Worker		Resident			
		Vapor Intrusion		Outdoor Air Inhalation		Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	SW 45-02D	NA	NA	2E-11	6E-06	2E-08	2E-02	5E-09	5E-02	NA	NA	1E-10	2E-05
Landbay D	SW 45-02S	NC	NC	NC	NC	NC	7E-04	NC	2E-03	NC	NC	NC	NC
Landbay D	SW 5-01	6E-10	2E-04	5E-12	2E-06	5E-09	8E-03	1E-09	2E-02	2E-08	5E-03	3E-11	8E-06
Landbay D	SW 5-02	2E-09	6E-04	1E-11	5E-06	1E-08	1E-02	4E-09	3E-02	5E-08	1E-02	9E-11	2E-05
Landbay D	SW 5-03	4E-10	1E-04	4E-12	1E-06	2E-09	1E-02	8E-10	4E-02	1E-08	2E-03	2E-11	4E-06
Landbay D	SW 5-04	2E-07	9E-02	1E-09	7E-04	2E-05	**4E+00**	6E-06	**5E+00**	7E-06	**2E+00**	9E-09	3E-03
Landbay D	SW 6-01	3E-09	1E-03	3E-11	1E-05	2E-08	4E-02	8E-09	8E-02	1E-07	2E-02	2E-10	4E-05
Landbay D	SW 7-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay D	SW 7-01S	1E-08	3E-03	8E-11	3E-05	7E-08	4E-01	2E-08	1E+00	3E-07	6E-02	5E-10	1E-04
Landbay D	SW 9-01D	NA	NA	6E-13	2E-07	4E-10	4E-04	1E-10	1E-03	NA	NA	3E-12	6E-07
Landbay D	SW 9-01S	3E-11	9E-06	3E-13	7E-08	2E-10	1E-04	6E-11	3E-04	7E-10	2E-04	1E-12	3E-07
Landbay D	SW SB-01	NC	NC	NC	NC	3E-06	2E-02	1E-06	4E-02	NC	NC	NC	NC
Landbay E	BW 200-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	BW 212-01	6E-09	2E-03	4E-11	2E-05	NA	NA	NA	NA	2E-07	4E-02	3E-10	6E-05
Landbay E	BW 217-01	NC	NC	NC	NC	NA	NA	NA	NA	NC	NC	NC	NC
Landbay E	BW 225-01	8E-09	8E-04	5E-11	6E-06	4E-08	1E-02	1E-08	2E-02	2E-07	2E-02	3E-10	2E-05
Landbay E	BW 237-01D	NC	1E-05	NC	9E-08	NA	NA	NA	NA	NC	2E-04	NC	4E-07
Landbay E	BW 28-04D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	BW 28-04S	3E-08	9E-03	2E-10	7E-05	2E-07	1E-01	8E-08	2E-01	1E-06	2E-01	2E-09	3E-04
Landbay E	BW 40-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	BW 40-01S	7E-10	2E-04	5E-12	2E-06	4E-09	4E-02	1E-09	1E-01	1E-08	4E-03	3E-11	7E-06
Landbay E	BW 40-02D	NA	NA	6E-12	2E-06	6E-09	6E-02	2E-09	2E-01	NA	NA	4E-11	9E-06
Landbay E	BW 40-02S	5E-10	2E-04	4E-12	1E-06	3E-09	1E-02	1E-09	4E-02	1E-08	3E-03	2E-11	6E-06
Landbay E	BW 40-03D	NA	NA	9E-12	3E-06	9E-09	6E-03	3E-09	5E-03	NA	NA	6E-11	1E-05
Landbay E	BW 40-03S	2E-09	8E-04	2E-11	6E-06	2E-08	1E-02	5E-09	8E-03	7E-08	1E-02	1E-10	2E-05
Landbay E	BW 40-04	3E-08	9E-03	2E-10	7E-05	NA	NA	NA	NA	8E-07	2E-01	1E-09	3E-04
Landbay E	BW 45-04D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	BW 45-04S	2E-08	6E-03	2E-10	5E-05	2E-07	9E-02	5E-08	1E-01	6E-07	1E-01	1E-09	2E-04
Landbay E	BW 45-05D	NA	NA	7E-10	2E-04	8E-07	4E-01	2E-07	3E-01	NA	NA	6E-09	8E-04
Landbay E	BW 45-05S	8E-08	2E-02	6E-10	2E-04	6E-07	3E-01	2E-07	3E-01	2E-06	5E-01	4E-09	8E-04
Landbay E	BW 46-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	BW 46-01S	2E-08	3E-03	1E-10	2E-05	1E-07	4E-02	3E-08	4E-02	5E-07	5E-02	7E-10	8E-05
Landbay E	BW 46-02	1E-09	4E-04	9E-12	3E-06	NA	NA	NA	NA	4E-08	8E-03	6E-11	1E-05
Landbay E	BW SB-02	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW 200-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW 213-01	NC	NC	NC	NC	NA	NA	NA	NA	NC	NC	NC	NC
Landbay E	DW SB-01	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW SB-02	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW-12	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW-14	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW-19	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW-2	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW-20	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW-20I	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW-27I	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	DW-34	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	GP 40-01	4E-08	1E-02	3E-10	1E-04	3E-07	2E-01	9E-08	4E-01	1E-06	2E-01	2E-09	4E-04
Landbay E	GP 40-02	6E-08	1E-02	5E-10	9E-05	7E-07	2E-01	2E-07	2E-01	3E-06	2E-01	7E-09	4E-04
Landbay E	GP 40-03	4E-09	6E-04	3E-11	4E-06	4E-08	8E-03	1E-08	7E-03	2E-07	1E-02	4E-10	2E-05
Landbay E	GP 40-04	3E-07	8E-02	3E-09	6E-04	3E-06	1E+00	9E-07	1E+00	1E-05	1E+00	2E-08	2E-03
Landbay E	GP 40-08	1E-07	3E-02	7E-10	2E-04	7E-07	4E-01	2E-07	4E-01	3E-06	6E-01	5E-09	1E-03
Landbay E	GP 45-01	2E-08	1E-03	1E-10	7E-06	1E-07	5E-02	4E-08	1E-01	6E-07	2E-02	9E-10	3E-05
Landbay E	GP 47-01	2E-08	6E-03	2E-10	5E-05	1E-07	1E-01	4E-08	3E-01	5E-07	1E-01	9E-10	2E-04
Landbay E	GP 47-03	2E-09	5E-04	1E-11	4E-06	1E-08	9E-02	3E-09	3E-01	5E-08	1E-02	7E-11	2E-05
Landbay E	GP 47-05	NC	NC	NC	NC	NC	3E-02	NC	8E-02	NC	NC	NC	NC
Landbay E	GP 47-07	3E-08	9E-03	2E-10	7E-05	2E-07	2E-01	6E-08	3E-01	8E-07	2E-01	1E-09	3E-04
Landbay E	GP 47-08	2E-10	2E-05	1E-12	1E-07	2E-09	8E-04	6E-10	8E-04	1E-08	3E-04	6E-12	6E-07
Landbay E	GP 47-09	6E-10	2E-04	4E-12	1E-06	4E-09	9E-03	1E-09	2E-02	2E-08	4E-03	3E-11	6E-06
Landbay E	GP 47-10	NC	2E-09	NC	1E-10	NC	6E-05	NC	2E-05	NC	5E-07	NC	5E-10
Landbay E	GP 47-12	NC	NC	NC	NC	NC	3E-03	NC	9E-03	NC	NC	NC	NC
Landbay E	GP 47-14	1E-08	4E-03	9E-11	3E-05	7E-08	1E-01	2E-08	4E-01	3E-07	7E-02	5E-10	1E-04
Landbay E	GP 47-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-19	2E-10	2E-05	1E-12	1E-07	2E-09	3E-04	6E-10	6E-04	1E-08	3E-04	6E-12	6E-07
Landbay E	GP 47-21	1E-08	2E-03	1E-10	1E-05	8E-08	3E-02	3E-08	3E-02	4E-07	4E-02	6E-10	6E-05
Landbay E	GP 47-22	8E-09	2E-03	6E-11	2E-05	5E-08	3E-02	2E-08	4E-02	2E-07	5E-02	4E-10	8E-05
Landbay E	GP PBS-05	6E-10	2E-04	5E-12	2E-06	5E-09	3E-03	1E-09	2E-03	2E-08	4E-03	3E-11	6E-06
Landbay E	GP PBS-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	IW-1	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	IW-3	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	MPIT 40 A-01	1E-07	2E-02	1E-09	2E-04	2E-06	3E-01	5E-07	3E-01	8E-06	4E-01	2E-08	6E-04
Landbay E	MPIT 40 A-02	8E-08	1E-02	6E-10	9E-05	9E-07	2E-01	3E-07	1E-01	4E-06	2E-01	9E-09	4E-04
Landbay E	MPIT 40 B-01	7E-08	4E-04	6E-10	4E-06	1E-06	8E-03	3E-07	2E-02	5E-06	8E-03	1E-08	2E-05
Landbay E	MPIT 40 B-03	5E-07	8E-02	4E-09	6E-04	6E-06	1E+00	2E-06	1E+00	3E-05	**2E+00**	6E-08	2E-03
Landbay E	MPIT 40 C-01	1E-08	2E-03	1E-10	2E-05	2E-07	3E-02	5E-08	3E-02	8E-07	4E-02	2E-09	7E-05
Landbay E	MPIT 46 A-01	NC	NC	NC	NC	NC	3E-03	NC	1E-02	NC	NC	NC	NC
Landbay E	MPIT 46 B-02	2E-08	5E-03	1E-10	3E-05	2E-07	7E-02	5E-08	8E-02	7E-07	9E-02	1E-09	1E-04
Landbay E	MPIT 46 C-01	2E-08	4E-03	1E-10	3E-05	1E-07	5E-02	4E-08	5E-02	6E-07	7E-02	1E-09	1E-04
Landbay E	MPIT 46 C-02	5E-08	1E-02	4E-10	9E-05	4E-07	2E-01	1E-07	2E-01	2E-06	2E-01	4E-09	4E-04
Landbay E	MPIT 46 C-05	6E-09	1E-03	5E-11	9E-06	7E-08	3E-02	2E-08	2E-02	3E-07	2E-02	6E-10	4E-05
Landbay E	MPIT 46 C-07	2E-08	5E-03	1E-10	4E-05	2E-07	8E-02	5E-08	1E-01	7E-07	1E-01	1E-09	2E-04
Landbay E	MPIT 46 C-08	1E-08	1E-03	8E-11	1E-05	1E-07	3E-02	4E-08	3E-02	5E-07	3E-02	1E-09	4E-05
Landbay E	MPIT 46 C-09	8E-08	2E-02	6E-10	1E-04	7E-07	2E-01	2E-07	2E-01	3E-06	3E-01	6E-09	6E-04
Landbay E	MPIT 46 D-01	1E-08	1E-04	1E-10	1E-06	2E-07	3E-03	7E-08	5E-03	1E-06	2E-03	2E-09	4E-06
Landbay E	MPIT 46 E-01	8E-09	1E-03	6E-11	1E-05	9E-08	2E-02	3E-08	1E-02	4E-07	3E-02	8E-10	4E-05
Landbay E	RW-1	2E-08	7E-03	2E-10	5E-05	2E-07	1E-01	7E-08	2E-01	9E-07	1E-01	2E-09	2E-04
Landbay E	SW 200-01	4E-09	2E-03	3E-11	1E-05	3E-08	2E-02	1E-08	2E-02	1E-07	3E-02	2E-10	5E-05
Landbay E	SW 200-02	NC	1E-05	NC	9E-08	1E-10	2E-04	5E-11	2E-04	NC	2E-04	NC	4E-07

Table 4-3: Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Groundwater
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maintenance Worker		Construction Worker		Resident			
		Vapor Intrusion		Outdoor Air Inhalation		Groundwater Contact		Groundwater Contact		Vapor Intrusion		Outdoor Air Inhalation	
Landbay	**Location**	**Risk**	**HI**	**Risk**	**HI**	**Risk**	**HI**	**Risk**	**HI**	**Risk**	**HI**	**Risk**	**HI**
Landbay E	SW 200-03	NC	NC	NC	NC	NC	2E-03	NC	4E-03	NC	NC	NC	NC
Landbay E	SW 200-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 204-01	NC	8E-05	NC	4E-07	NC	4E-03	NC	9E-03	NC	2E-03	NC	2E-06
Landbay E	SW 212-01	NC	3E-06	NC	2E-08	NC	1E-04	NC	4E-04	NC	5E-05	NC	7E-08
Landbay E	SW 222-01	9E-09	2E-03	6E-11	2E-05	3E-07	3E-02	8E-08	4E-02	3E-07	4E-02	4E-10	7E-05
Landbay E	SW 222-02	6E-10	2E-04	4E-12	1E-06	5E-09	4E-03	2E-09	5E-03	2E-08	4E-03	3E-11	6E-06
Landbay E	SW 250-01	NC	NC	NC	NC	NC	1E-03	NC	2E-03	NC	NC	NC	NC
Landbay E	SW 28-40	7E-10	2E-04	5E-12	2E-06	5E-09	5E-03	2E-09	1E-02	2E-08	4E-03	3E-11	7E-06
Landbay E	SW 28-41	3E-09	1E-03	2E-11	8E-06	2E-08	6E-02	7E-09	2E-01	9E-08	2E-02	2E-10	3E-05
Landbay E	SW 40-01	2E-08	7E-03	2E-10	5E-05	1E-07	1E-01	4E-08	2E-01	6E-07	1E-01	1E-09	2E-04
Landbay E	SW 40-01A	2E-07	5E-02	1E-09	4E-04	1E-06	7E-01	5E-07	8E-01	6E-06	1E+00	1E-08	2E-03
Landbay E	SW 40-06	8E-10	2E-04	6E-12	2E-06	5E-09	3E-03	2E-09	4E-03	2E-08	5E-03	4E-11	8E-06
Landbay E	SW 40-07	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	SW 40-07A	7E-07	2E-01	6E-09	1E-03	7E-06	**2E+00**	2E-06	**3E+00**	3E-05	**3E+00**	6E-08	5E-03
Landbay E	SW 40-50	8E-09	3E-03	6E-11	2E-05	6E-08	9E-02	2E-08	2E-01	2E-07	5E-02	4E-10	8E-05
Landbay E	SW 40-53	4E-10	1E-04	4E-12	1E-06	2E-09	5E-03	8E-10	2E-02	1E-08	2E-03	2E-11	4E-06
Landbay E	SW 40-54	NC	NC	NC	NC	NC	4E-04	NC	1E-03	NC	NC	NC	NC
Landbay E	SW 40-55	1E-08	6E-04	7E-11	5E-06	5E-08	1E+00	2E-08	**3E+00**	3E-07	1E-02	4E-10	2E-05
Landbay E	SW 40-56	2E-07	6E-02	2E-09	4E-04	2E-06	8E-01	5E-07	7E-01	8E-06	1E+00	1E-08	2E-03
Landbay E	SW 40-57	2E-07	4E-02	1E-09	3E-04	1E-06	6E-01	4E-07	8E-01	6E-06	8E-01	1E-08	1E-03
Landbay E	SW 40-58	2E-09	6E-04	1E-11	5E-06	1E-08	1E-02	4E-09	2E-02	5E-08	1E-02	9E-11	2E-05
Landbay E	SW 40-59	2E-09	6E-04	1E-11	4E-06	1E-08	9E-03	4E-09	1E-02	5E-08	1E-02	8E-11	2E-05
Landbay E	SW 45-01D	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	NC
Landbay E	SW 45-01S	3E-09	1E-03	2E-11	7E-06	2E-08	9E-02	7E-09	2E-01	9E-08	2E-02	1E-10	3E-05
Landbay E	SW 46-01	2E-08	7E-03	2E-10	6E-05	2E-07	1E-01	5E-08	2E-01	6E-07	1E-01	1E-09	2E-04
Landbay E	SW 46-02	9E-10	3E-04	7E-12	2E-06	6E-09	8E-03	2E-09	2E-02	2E-08	5E-03	4E-11	9E-06
Landbay E	SW 46-03	1E-08	4E-03	9E-11	3E-05	9E-08	8E-02	3E-08	2E-01	3E-07	7E-02	6E-10	1E-04
Landbay E	SW 46-04	5E-10	1E-04	4E-12	1E-06	3E-09	6E-02	9E-10	2E-01	1E-08	3E-03	2E-11	5E-06
Landbay E	SW 47-02	3E-09	1E-03	3E-11	8E-06	2E-08	4E-02	8E-09	1E-01	1E-07	2E-02	2E-10	3E-05
Landbay E	SW 47-03	3E-07	1E-01	2E-09	8E-04	2E-06	1E+00	7E-07	1E+00	1E-05	**2E+00**	2E-08	3E-03
Landbay E	SW 47-04	4E-09	1E-03	3E-11	9E-06	3E-08	4E-02	8E-09	9E-02	1E-07	2E-02	2E-10	4E-05
Landbay E	SW 47-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW PBS-01	NC	1E-10	NC	3E-11	7E-11	2E-07	2E-11	8E-08	NC	3E-08	NC	1E-10
Landbay E	SW SB-02	NC	NC	NC	NC	5E-07	3E-03	1E-07	6E-03	NC	NC	NC	NC
Landbay E	SW SB-03	NC	6E-06	NC	5E-08	3E-07	2E-03	9E-08	5E-03	NC	1E-04	NC	2E-07

Notes:

1. Landbay Use Designation:
   - Landbay A - industrial/commercial use
   - Landbay B - mixed use
   - Landbay C - industrial/commercial use
   - Landbay D - residential use
   - Landbay E - residential use
2. Cumulative cancer risks and HI estimates are calculated using highest exposure concentration from the groundwater data collected within 2 years of the most recent analysis at each location by constituent.
3. Cumulative cancer risks and HI estimates greater than 1E-04 and 1, respectively, and shaded in gray and in bold font.
4. NA - Based on depth and/or location of the groundwater sampling point, the receptor is not exposed to contamination via the indicated pathway.
5. NC - risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected at this location.

Table 4-4: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Sediment
ARC Gainesville, Gainesville, Virginia

Location	Maintenance Worker		Recreator	
	Outdoor Activities		Outdoor Activities	
	Risk	HI	Risk	HI
2 SED-01	5E-08	6E-03	1E-07	1E-02
2 SED-02	2E-09	3E-04	4E-09	7E-04
Infall 001	NC	5E-06	NC	9E-06
Infall 002	2E-07	1E-02	4E-07	2E-02
P1-IMSED-1	2E-07	3E-02	4E-07	6E-02
P1-IMSED-2	1E-07	2E-02	2E-07	4E-02
P1-IMSED-3	2E-07	3E-02	4E-07	7E-02
P1-IMSED-4	2E-07	3E-02	4E-07	7E-02
P1-IMSED-5	7E-08	1E-02	2E-07	3E-02
P1-IMSED-6	2E-07	3E-02	4E-07	7E-02
P1-IMSED-7	7E-08	1E-02	2E-07	3E-02
P1-IMSED-8	2E-07	3E-02	4E-07	6E-02
P1-IMSED-9	2E-07	4E-02	6E-07	1E-01
P2-IMSED-1	2E-08	4E-03	5E-08	8E-03
P2-IMSED-10	2E-08	4E-03	6E-08	1E-02
P2-IMSED-2	1E-08	2E-03	3E-08	5E-03
P2-IMSED-3	3E-08	5E-03	7E-08	1E-02
P2-IMSED-4	2E-08	3E-03	4E-08	8E-03
P2-IMSED-5	2E-08	3E-03	4E-08	7E-03
P2-IMSED-6	2E-08	4E-03	5E-08	9E-03
P2-IMSED-7	2E-08	3E-03	4E-08	6E-03
P2-IMSED-8	1E-08	2E-03	3E-08	5E-03
P2-IMSED-9	2E-08	4E-03	5E-08	1E-02
POND 01 CTR	1E-07	2E-02	3E-07	5E-02
POND 01 INF	2E-07	3E-02	4E-07	7E-02
POND 03 EFF	NC	3E-03	NC	6E-03
SEDA 06	7E-10	1E-04	2E-09	3E-04
SEDA 07	NC	NC	NC	NC
SEDA 08	NC	NC	NC	NC
SEDA 09	NC	NC	NC	NC
SEDA 10	5E-12	4E-06	1E-11	7E-06
SEDA 11	6E-09	1E-03	1E-08	2E-03
SEDA 12	1E-06	6E-03	2E-06	1E-02
SEDA 13	9E-08	1E-03	2E-07	2E-03
SEDP 01 CTR	3E-07	1E-03	5E-07	3E-03
SEDP 01 EFF	2E-07	1E-03	4E-07	2E-03
SEDP 01 INF	2E-08	1E-04	4E-08	2E-04
S-IMSED-10	2E-09	4E-04	5E-09	9E-04
S-IMSED-11	2E-08	3E-03	4E-08	7E-03
S-IMSED-12	2E-08	4E-03	5E-08	9E-03
S-IMSED-13	1E-09	2E-04	2E-09	4E-04
S-IMSED-2	1E-08	2E-03	3E-08	6E-03
S-IMSED-5	9E-09	2E-03	2E-08	4E-03
S-IMSED-6	2E-09	3E-04	5E-09	8E-04
S-IMSED-7	NC	NC	NC	NC
S-IMSED-8	NC	NC	NC	NC
S-IMSED-9	2E-09	3E-04	4E-09	7E-04
STR 02	NC	5E-09	NC	9E-09
STR 04	NC	2E-08	NC	3E-08
STR 06	9E-14	5E-08	2E-13	1E-07
STRA 06	NC	NC	NC	NC
TTU SED-03	8E-08	1E-02	2E-07	2E-02
POND 03-02	4E-09	6E-03	1E-08	1E-02
POND 03-03	NC	3E-04	NC	6E-04
POND 03-05	NC	9E-08	NC	2E-07
PONSED 1	2E-07	2E-03	4E-07	4E-03
PONSED 2	3E-07	1E-03	5E-07	2E-03
PONSED 3	4E-07	2E-03	7E-07	4E-03
PONSED 4	3E-07	3E-03	5E-07	7E-03
RTA POND	NC	NC	NC	NC

Table 4-4: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Sediment ARC Gainesville, Gainesville, Virginia				
Location	**Maintenance Worker**		**Recreator**	
	Outdoor Activities		**Outdoor Activities**	
	Risk	**HI**	**Risk**	**HI**
SED 52-01	NC	2E-02	NC	4E-02
SEDA 01	NC	NC	NC	NC
SEDA 02	6E-09	1E-03	1E-08	2E-03
SEDA 03	NC	NC	NC	NC
SEDA 05	NC	NC	NC	NC
1. No cumulative cancer risk and HI estimates are in excess of 1E-4 and 1, respectively.				
2. Cumulative cancer risk and HI estimates are calculated using site-related concentrations, which are those in excess of site-specific background for inorganics.				
3. NC - risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected at this location.				

Table 4-5: Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Each Surface Water Location ARC Gainesville, Gainesville, Virginia				
Location	Maintenance Worker		Recreator	
	Outdoor Activities		Outdoor Activities	
	Risk	HI	Risk	HI
Bldg 34-35-36	NC	5E-04	NC	5E-03
Bldg 96 POND	NC	2E-05	NC	2E-04
East 01	NC	NC	NC	NC
Infall 001	2E-07	3E-03	2E-06	3E-02
Infall 002	2E-06	1E-02	1E-05	1E-01
Outfall 001	NC	7E-04	NC	7E-03
Outfall 002	NC	5E-04	NC	5E-03
Outfall 1-A3	NC	NC	NC	NC
Outfall 1-AZ	NC	NC	NC	NC
Outfall 1-FWC	NC	2E-04	NC	1E-03
Outfall 1-GS	NC	2E-04	NC	2E-03
Outfall 2-A1	NC	NC	NC	NC
Outfall 2-A2	NC	NC	NC	NC
Outfall 2-A3	NC	NC	NC	NC
Outfall 2-FWC	NC	4E-04	NC	4E-03
Outfall 2-GS	NC	4E-04	NC	4E-03
POND 01 CTR	NC	NC	NC	NC
POND 01 EFF	NC	2E-04	NC	2E-03
POND 01 INF	3E-07	8E-03	2E-06	6E-02
POND 02 CTR	NC	NC	NC	NC
POND 02 EFF	2E-10	4E-04	1E-09	5E-03
POND 02 INF 1	2E-10	5E-04	2E-09	5E-03
POND 02 INF 2	NC	2E-04	NC	2E-03
POND 03 EFF	4E-07	4E-03	4E-06	4E-02
POND 03-01	NC	2E-03	NC	2E-02
POND 03-03	3E-07	4E-03	3E-06	4E-02
POND 03-05	NC	NC	NC	NC
RTA POND	NC	NC	NC	NC
SEEP-40	3E-08	2E-04	3E-07	1E-03
STR 02	6E-09	3E-03	1E-07	2E-02
STR 04	1E-09	2E-03	5E-08	3E-02
STR 06	1E-08	8E-03	3E-07	8E-02
STR 28-02	NC	1E-03	NC	1E-02
STR 28-06	NC	4E-04	NC	4E-03
STR 28-10	NC	2E-03	NC	2E-02
STR 28-14	NC	1E-03	NC	1E-02
STR 28-18	NC	1E-03	NC	2E-02
STR 40-04	NC	4E-04	NC	4E-03
STR 40-06	NC	2E-03	NC	2E-02
STR 40-08	NC	3E-03	NC	3E-02
STR 40-09	NC	3E-03	NC	3E-02
STR 40-10	NC	4E-03	NC	4E-02
STR 40-12	NC	2E-03	NC	2E-02
STR 40-15	4E-10	1E-03	1E-08	1E-02
STR 40-16	NC	8E-03	NC	8E-02
STR 40-17	NC	2E-03	NC	2E-02
STR 40-19	NC	1E-02	NC	1E-01
STR 40-20	NC	1E-02	NC	1E-01
STR 40-22	NC	2E-04	NC	2E-03
STR 40-24	NC	3E-03	NC	3E-02
STR 40-25	NC	NC	NC	NC
STR 40-26	NC	5E-04	NC	6E-03

Table 4-5: Upper-Bound Cumulative Cancer Risks and Noncancer HIs for Each Surface Water Location ARC Gainesville, Gainesville, Virginia				
Location	Maintenance Worker		Recreator	
	Outdoor Activities		Outdoor Activities	
	Risk	HI	Risk	HI
STR 40-27	NC	1E-06	NC	1E-05
STR 40-28	NC	2E-04	NC	2E-03
STR 52-01	NC	7E-04	NC	7E-03
STR GS-01	NC	7E-04	NC	7E-03
STRA 01	NC	NC	NC	NC
STRA 02	NC	NC	NC	NC
STRA 03	NC	NC	NC	NC
STRA 04	9E-07	6E-03	8E-06	6E-02
STRA 05	NC	1E-03	NC	2E-02
STRA 06	NC	NC	NC	NC
STRA 07	1E-10	2E-03	4E-09	2E-02
STRA 09	1E-08	7E-03	3E-07	6E-02
STRA 10	3E-08	2E-02	5E-07	1E-01
STRA 11	NC	4E-03	NC	5E-02
STRA 13	NC	7E-04	NC	8E-03
STRA 14	NC	NC	NC	NC
STRA 15	NC	1E-03	NC	1E-02
STRA 18	NC	5E-04	NC	5E-03
SW POND-01	NC	2E-04	NC	3E-03
West 01	5E-07	1E-02	4E-06	1E-01

1. No cumulative cancer risk or HI estimates are in excess of 1E-4 and 1, respectively.
2. Cumulative cancer risks and HI estimates are calculated using highest exposure concentration from the surface water data collected within 2 years of the most recent analysis at each location by constituent.
3. NC - Risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected at this location.

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	100AB1	PCB	PCBs (total)	1336-36-3	B2	4.85E-02				NA		1.4E+00	EqP	3.5E-02
Landbay A	100AB1	INORG	Aluminum	7429-90-5	ID	3.41E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.2E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	100AB1	INORG	Arsenic	7440-38-2	A	3.18E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.7E-02
Landbay A	100AB1	INORG	Barium	7440-39-3	NC	6.34E+01	2.24E+02	2.8E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**1.9E+01**
Landbay A	100AB1	INORG	Cadmium	7440-43-9	B1	1.70E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay A	100AB1	INORG	Chromium III	16065-83-1	D	3.74E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay A	100AB1	INORG	Chromium VI	18540-29-9	A	2.85E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay A	100AB1	INORG	Copper	7440-50-8	D	9.25E+01	1.31E+02	7.1E-01	3.5E+05	EqP	2.7E-04	8.4E+00	EqP	**1.1E+01**
Landbay A	100AB1	INORG	Lead	7439-92-1	B2	3.64E+01						3.5E+02	EqP	1.0E-01
Landbay A	100AB1	INORG	Mercury	7439-97-6	D	9.54E-02	7.10E-02	**1.3E+00**		NA		3.7E-01	EqP	2.6E-01
Landbay A	100AB1	INORG	Perchlorate	14797-73-0	NC	1.45E-02			3.4E+03	LT	4.2E-06	7.7E+02	LT	1.9E-05
Landbay A	100AB1	INORG	Silver	7440-22-4	D	5.93E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.2E-01
Landbay A	100AB1	INORG	Strontium	7440-24-6		4.06E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay A	100AB2	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.80E+01				NA		9.6E+03	EqP	2.9E-03
Landbay A	100AB2	PCB	PCBs (total)	1336-36-3	B2	4.85E-02				NA		1.4E+00	EqP	3.5E-02
Landbay A	100AB2	INORG	Aluminum	7429-90-5	ID	3.41E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.2E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	100AB2	INORG	Arsenic	7440-38-2	A	3.18E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.7E-02
Landbay A	100AB2	INORG	Barium	7440-39-3	NC	6.34E+01	2.24E+02	2.8E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**1.9E+01**
Landbay A	100AB2	INORG	Cadmium	7440-43-9	B1	1.70E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay A	100AB2	INORG	Chromium III	16065-83-1	D	3.74E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay A	100AB2	INORG	Chromium VI	18540-29-9	A	2.85E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay A	100AB2	INORG	Copper	7440-50-8	D	9.25E+01	1.31E+02	7.1E-01	3.5E+05	EqP	2.7E-04	8.4E+00	EqP	**1.1E+01**
Landbay A	100AB2	INORG	Lead	7439-92-1	B2	3.64E+01						3.5E+02	EqP	1.0E-01
Landbay A	100AB2	INORG	Mercury	7439-97-6	D	9.54E-02	7.10E-02	**1.3E+00**		NA		3.7E-01	EqP	2.6E-01
Landbay A	100AB2	INORG	Perchlorate	14797-73-0	NC	3.90E-04			3.4E+03	LT	1.1E-07	7.7E+02	LT	5.0E-07
Landbay A	100AB2	INORG	Silver	7440-22-4	D	5.93E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.2E-01
Landbay A	100AB2	INORG	Strontium	7440-24-6		4.06E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay A	100AG3	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9.90E-02				NA		9.6E+03	EqP	1.0E-05
Landbay A	100AG3	INORG	Perchlorate	14797-73-0	NC	2.20E-03			3.4E+03	LT	6.4E-07	7.7E+02	LT	2.8E-06
Landbay A	100AG4	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay A	105B148	INORG	Perchlorate	14797-73-0	NC	3.20E-03			3.4E+03	LT	9.3E-07	7.7E+02	LT	4.1E-06
Landbay A	105B149	INORG	Perchlorate	14797-73-0	NC	5.10E-03			3.4E+03	LT	1.5E-06	7.7E+02	LT	6.6E-06
Landbay A	105B150	INORG	Perchlorate	14797-73-0	NC	1.10E-03			3.4E+03	LT	3.2E-07	7.7E+02	LT	1.4E-06
Landbay A	105G41	INORG	Perchlorate	14797-73-0	NC	3.40E+00			3.4E+03	LT	9.9E-04	7.7E+02	LT	4.4E-03
Landbay A	105G42	INORG	Perchlorate	14797-73-0	NC	3.70E-01			3.4E+03	LT	1.1E-04	7.7E+02	LT	4.8E-04
Landbay A	105G43	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.00E-01				NA		9.6E+03	EqP	2.1E-05
Landbay A	105G43	PCB	PCBs (total)	1336-36-3	B2	2.41E-02				NA		1.4E+00	EqP	1.8E-02
Landbay A	105G43	INORG	Aluminum	7429-90-5	ID	4.61E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	105G43	INORG	Arsenic	7440-38-2	A	1.21E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.2E-03	8.6E+01	EqP	1.4E-02
Landbay A	105G43	INORG	Barium	7440-39-3	NC	1.29E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay A	105G43	INORG	Beryllium	7440-41-7	B1	5.34E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay A	105G43	INORG	Chromium III	16065-83-1	D	8.27E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay A	105G43	INORG	Chromium VI	18540-29-9	A	3.15E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay A	105G43	INORG	Cobalt	7440-48-4	LC	3.23E+01	8.60E+01	3.8E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay A	105G43	INORG	Copper	7440-50-8	D	7.68E+01	1.31E+02	5.9E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**9.1E+00**
Landbay A	105G43	INORG	Iron	7439-89-6	D	5.41E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	105G43	INORG	Lead	7439-92-1	B2	8.02E+00						3.5E+02	EqP	2.3E-02
Landbay A	105G43	INORG	Manganese	7439-96-5	D	8.48E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.4E+00**
Landbay A	105G43	INORG	Mercury	7439-97-6	D	1.54E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay A	105G43	INORG	Nickel	7440-02-0	A	6.69E+01	7.30E+01	9.2E-01	1.2E+05	EqP	5.4E-04	3.4E+01	EqP	**2.0E+00**
Landbay A	105G43	INORG	Perchlorate	14797-73-0	NC	3.10E-03			3.4E+03	LT	9.0E-07	7.7E+02	LT	4.0E-06
Landbay A	105G43	INORG	Vanadium	7440-62-2	ID	1.27E+02	2.83E+02	4.5E-01	1.5E+05	EqP	8.2E-04	4.0E+02	EqP	3.2E-01
Landbay A	105G43	INORG	Zinc	7440-66-6	ID	5.64E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay A	105G44	INORG	Perchlorate	14797-73-0	NC	1.70E-03			3.4E+03	LT	4.9E-07	7.7E+02	LT	2.2E-06
Landbay A	105G46	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.00E-01				NA		9.6E+03	EqP	2.1E-05
Landbay A	105G46	PCB	PCBs (total)	1336-36-3	B2	2.41E-02				NA		1.4E+00	EqP	1.8E-02
Landbay A	105G46	INORG	Aluminum	7429-90-5	ID	4.61E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	105G46	INORG	Arsenic	7440-38-2	A	1.21E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.2E-03	8.6E+01	EqP	1.4E-02
Landbay A	105G46	INORG	Barium	7440-39-3	NC	1.29E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay A	105G46	INORG	Beryllium	7440-41-7	B1	5.34E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay A	105G46	INORG	Chromium III	16065-83-1	D	8.27E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay A	105G46	INORG	Chromium VI	18540-29-9	A	3.15E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay A	105G46	INORG	Cobalt	7440-48-4	LC	3.23E+01	8.60E+01	3.8E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay A	105G46	INORG	Copper	7440-50-8	D	7.68E+01	1.31E+02	5.9E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**9.1E+00**
Landbay A	105G46	INORG	Iron	7439-89-6	D	5.41E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	105G46	INORG	Lead	7439-92-1	B2	8.02E+00						3.5E+02	EqP	2.3E-02
Landbay A	105G46	INORG	Manganese	7439-96-5	D	8.48E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.4E+00**
Landbay A	105G46	INORG	Mercury	7439-97-6	D	1.54E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay A	105G46	INORG	Nickel	7440-02-0	A	6.69E+01	7.30E+01	9.2E-01	1.2E+05	EqP	5.4E-04	3.4E+01	EqP	**2.0E+00**
Landbay A	105G46	INORG	Perchlorate	14797-73-0	NC	8.40E-01			3.4E+03	LT	2.4E-04	7.7E+02	LT	1.1E-03
Landbay A	105G46	INORG	Vanadium	7440-62-2	ID	1.27E+02	2.83E+02	4.5E-01	1.5E+05	EqP	8.2E-04	4.0E+02	EqP	3.2E-01
Landbay A	105G46	INORG	Zinc	7440-66-6	ID	5.64E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay A	105G47	INORG	Perchlorate	14797-73-0	NC	2.30E-02			3.4E+03	LT	6.7E-06	7.7E+02	LT	3.0E-05
Landbay A	105G48	INORG	Perchlorate	14797-73-0	NC	2.40E-02			3.4E+03	LT	7.0E-06	7.7E+02	LT	3.1E-05
Landbay A	105G49	INORG	Perchlorate	14797-73-0	NC	7.10E-02			3.4E+03	LT	2.1E-05	7.7E+02	LT	9.2E-05
Landbay A	105G50	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.00E-01				NA		9.6E+03	EqP	2.1E-05
Landbay A	105G50	PCB	PCBs (total)	1336-36-3	B2	2.41E-02				NA		1.4E+00	EqP	1.8E-02
Landbay A	105G50	INORG	Aluminum	7429-90-5	ID	4.61E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	105G50	INORG	Arsenic	7440-38-2	A	1.21E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.2E-03	8.6E+01	EqP	1.4E-02
Landbay A	105G50	INORG	Barium	7440-39-3	NC	1.29E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay A	105G50	INORG	Beryllium	7440-41-7	B1	5.34E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay A	105G50	INORG	Chromium III	16065-83-1	D	8.27E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay A	105G50	INORG	Chromium VI	18540-29-9	A	3.15E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay A	105G50	INORG	Cobalt	7440-48-4	LC	3.23E+01	8.60E+01	3.8E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay A	105G50	INORG	Copper	7440-50-8	D	7.68E+01	1.31E+02	5.9E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**9.1E+00**
Landbay A	105G50	INORG	Iron	7439-89-6	D	5.41E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	105G50	INORG	Lead	7439-92-1	B2	8.02E+00						3.5E+02	EqP	2.3E-02
Landbay A	105G50	INORG	Manganese	7439-96-5	D	8.48E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.4E+00**
Landbay A	105G50	INORG	Mercury	7439-97-6	D	1.54E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay A	105G50	INORG	Nickel	7440-02-0	A	6.69E+01	7.30E+01	9.2E-01	1.2E+05	EqP	5.4E-04	3.4E+01	EqP	**2.0E+00**
Landbay A	105G50	INORG	Perchlorate	14797-73-0	NC	1.60E-01			3.4E+03	LT	4.6E-05	7.7E+02	LT	2.1E-04
Landbay A	105G50	INORG	Vanadium	7440-62-2	ID	1.27E+02	2.83E+02	4.5E-01	1.5E+05	EqP	8.2E-04	4.0E+02	EqP	3.2E-01
Landbay A	105G50	INORG	Zinc	7440-66-6	ID	5.64E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay A	106B1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.20E-01				NA		9.6E+03	EqP	1.2E-05
Landbay A	106B1	INORG	Aluminum	7429-90-5	ID	4.45E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	106B1	INORG	Arsenic	7440-38-2	A	3.93E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.6E-02
Landbay A	106B1	INORG	Barium	7440-39-3	NC	8.28E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	106B1	INORG	Beryllium	7440-41-7	B1	1.14E-01	1.20E+00	9.5E-02	6.8E+03	EqP	1.7E-05	1.0E+01	EqP	1.1E-02
Landbay A	106B1	INORG	Cadmium	7440-43-9	B1	1.17E+00	2.70E+00	4.3E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.5E-01
Landbay A	106B1	INORG	Chromium III	16065-83-1	D	6.33E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay A	106B1	INORG	Chromium VI	18540-29-9	A	3.02E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.9E-01
Landbay A	106B1	INORG	Copper	7440-50-8	D	5.50E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay A	106B1	INORG	Lead	7439-92-1	B2	9.42E+00						3.5E+02	EqP	2.7E-02
Landbay A	106B1	INORG	Mercury	7439-97-6	D	2.60E-02	7.10E-02	3.7E-01		NA		3.7E-01	EqP	7.0E-02
Landbay A	106B1	INORG	Silver	7440-22-4	D	2.15E+00	2.30E+00	9.3E-01	3.8E+03	LT	5.7E-04	2.7E+00	LT	8.1E-01
Landbay A	106B1	INORG	Strontium	7440-24-6		5.64E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.3E-02
Landbay A	106B2	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.20E-01				NA		9.6E+03	EqP	1.2E-05
Landbay A	106B2	INORG	Aluminum	7429-90-5	ID	4.45E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	106B2	INORG	Arsenic	7440-38-2	A	3.93E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.6E-02
Landbay A	106B2	INORG	Barium	7440-39-3	NC	8.28E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	106B2	INORG	Beryllium	7440-41-7	B1	1.14E-01	1.20E+00	9.5E-02	6.8E+03	EqP	1.7E-05	1.0E+01	EqP	1.1E-02
Landbay A	106B2	INORG	Cadmium	7440-43-9	B1	1.17E+00	2.70E+00	4.3E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.5E-01
Landbay A	106B2	INORG	Chromium III	16065-83-1	D	6.33E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay A	106B2	INORG	Chromium VI	18540-29-9	A	3.02E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.9E-01
Landbay A	106B2	INORG	Copper	7440-50-8	D	5.50E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay A	106B2	INORG	Lead	7439-92-1	B2	9.42E+00						3.5E+02	EqP	2.7E-02
Landbay A	106B2	INORG	Mercury	7439-97-6	D	2.60E-02	7.10E-02	3.7E-01		NA		3.7E-01	EqP	7.0E-02
Landbay A	106B2	INORG	Perchlorate	14797-73-0	NC	9.20E-04			3.4E+03	LT	2.7E-07	7.7E+02	LT	1.2E-06
Landbay A	106B2	INORG	Silver	7440-22-4	D	2.15E+00	2.30E+00	9.3E-01	3.8E+03	LT	5.7E-04	2.7E+00	LT	8.1E-01
Landbay A	106B2	INORG	Strontium	7440-24-6		5.64E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.3E-02
Landbay A	106B3	VOC	Acetone	67-64-1	ID	8.00E-03			2.0E+06	LT	3.9E-09	6.0E+02	LT	1.3E-05
Landbay A	106B3	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.20E-01				NA		9.6E+03	EqP	1.2E-05
Landbay A	106B3	INORG	Aluminum	7429-90-5	ID	4.45E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	106B3	INORG	Arsenic	7440-38-2	A	3.93E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.6E-02
Landbay A	106B3	INORG	Barium	7440-39-3	NC	8.28E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	106B3	INORG	Beryllium	7440-41-7	B1	1.14E-01	1.20E+00	9.5E-02	6.8E+03	EqP	1.7E-05	1.0E+01	EqP	1.1E-02
Landbay A	106B3	INORG	Cadmium	7440-43-9	B1	1.17E+00	2.70E+00	4.3E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.5E-01
Landbay A	106B3	INORG	Chromium III	16065-83-1	D	6.33E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay A	106B3	INORG	Chromium VI	18540-29-9	A	3.02E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.9E-01
Landbay A	106B3	INORG	Copper	7440-50-8	D	5.50E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay A	106B3	INORG	Lead	7439-92-1	B2	9.42E+00						3.5E+02	EqP	2.7E-02
Landbay A	106B3	INORG	Mercury	7439-97-6	D	2.60E-02	7.10E-02	3.7E-01		NA		3.7E-01	EqP	7.0E-02
Landbay A	106B3	INORG	Perchlorate	14797-73-0	NC	3.00E-04			3.4E+03	LT	8.7E-08	7.7E+02	LT	3.9E-07

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	106B3	INORG	Silver	7440-22-4	D	2.15E+00	2.30E+00	9.3E-01	3.8E+03	LT	5.7E-04	2.7E+00	LT	8.1E-01
Landbay A	106B3	INORG	Strontium	7440-24-6		5.64E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.3E-02
Landbay A	106G5	INORG	Perchlorate	14797-73-0	NC	6.75E-01			3.4E+03	LT	2.0E-04	7.7E+02	LT	8.7E-04
Landbay A	106TP1-7	VOC	Acetone	67-64-1	ID	6.10E-02			2.0E+06	LT	3.0E-08	6.0E+02	LT	1.0E-04
Landbay A	106TP1-7	VOC	Carbon Disulfide	75-15-0		1.00E-03			1.4E+04	LT	6.9E-08	3.7E-01	LT	2.7E-03
Landbay A	106TP1-7	INORG	Aluminum	7429-90-5	ID	3.79E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	106TP1-7	INORG	Arsenic	7440-38-2	A	4.10E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.9E-03	8.6E+01	EqP	4.8E-02
Landbay A	106TP1-7	INORG	Barium	7440-39-3	NC	8.43E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay A	106TP1-7	INORG	Cadmium	7440-43-9	B1	5.53E-01	2.70E+00	2.0E-01	1.1E+03	EqP	5.1E-04	2.1E+00	EqP	2.6E-01
Landbay A	106TP1-7	INORG	Chromium III	16065-83-1	D	1.28E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay A	106TP1-7	INORG	Chromium VI	18540-29-9	A	1.10E+00	4.97E+00	2.2E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.5E-01
Landbay A	106TP1-7	INORG	Copper	7440-50-8	D	4.85E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay A	106TP1-7	INORG	Lead	7439-92-1	B2	2.05E+01						3.5E+02	EqP	5.9E-02
Landbay A	106TP1-7	INORG	Mercury	7439-97-6	D	1.96E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.3E-02
Landbay A	106TP1-7	INORG	Silver	7440-22-4	D	1.72E+00	2.30E+00	7.5E-01	3.8E+03	LT	4.6E-04	2.7E+00	LT	6.5E-01
Landbay A	106TP1-7	INORG	Strontium	7440-24-6		2.98E+01	3.80E+01	7.8E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay A	106TP3-7	VOC	Acetone	67-64-1	ID	1.90E-02			2.0E+06	LT	9.3E-09	6.0E+02	LT	3.2E-05
Landbay A	106TP3-7	VOC	Carbon Disulfide	75-15-0		2.00E-03			1.4E+04	LT	1.4E-07	3.7E-01	LT	5.4E-03
Landbay A	106TP3-7	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.00E+01				NA		9.6E+03	EqP	2.1E-03
Landbay A	106TP3-7	PCB	PCBs (total)	1336-36-3	B2	1.27E-01				NA		1.4E+00	EqP	9.3E-02
Landbay A	106TP3-7	INORG	Aluminum	7429-90-5	ID	4.24E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	106TP3-7	INORG	Arsenic	7440-38-2	A	2.83E+00	9.90E+00	2.9E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay A	106TP3-7	INORG	Barium	7440-39-3	NC	5.43E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.6E+01**
Landbay A	106TP3-7	INORG	Cadmium	7440-43-9	B1	5.11E-01	2.70E+00	1.9E-01	1.1E+03	EqP	4.7E-04	2.1E+00	EqP	2.4E-01
Landbay A	106TP3-7	INORG	Chromium III	16065-83-1	D	2.27E+01	2.61E+02	8.7E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	6.7E-06
Landbay A	106TP3-7	INORG	Copper	7440-50-8	D	6.45E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.7E+00**
Landbay A	106TP3-7	INORG	Lead	7439-92-1	B2	6.75E+00						3.5E+02	EqP	1.9E-02
Landbay A	106TP3-7	INORG	Silver	7440-22-4	D	1.10E+00	2.30E+00	4.8E-01	3.8E+03	LT	2.9E-04	2.7E+00	LT	4.1E-01
Landbay A	106TP3-7	INORG	Strontium	7440-24-6		1.31E+02	3.80E+01	**3.4E+00**	1.6E+07	EqP	8.0E-06	1.1E+03	EqP	1.2E-01
Landbay A	107B1	VOC	Acetone	67-64-1	ID	1.10E-02			2.0E+06	LT	5.4E-09	6.0E+02	LT	1.8E-05
Landbay A	107B1	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03			5.0E+03	LT	6.0E-07	1.0E+01	LT	3.0E-04
Landbay A	107B1	INORG	Aluminum	7429-90-5	ID	3.08E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	107B1	INORG	Arsenic	7440-38-2	A	3.35E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay A	107B1	INORG	Barium	7440-39-3	NC	1.77E+02	2.24E+02	7.9E-01	3.2E+05	EqP	5.5E-04	3.3E+00	EqP	**5.4E+01**
Landbay A	107B1	INORG	Beryllium	7440-41-7	B1	1.54E+00	1.20E+00	**1.3E+00**	6.8E+03	EqP	2.3E-04	1.0E+01	EqP	1.5E-01
Landbay A	107B1	INORG	Chromium III	16065-83-1	D	6.33E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay A	107B1	INORG	Copper	7440-50-8	D	3.98E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay A	107B1	INORG	Lead	7439-92-1	B2	1.49E+00						3.5E+02	EqP	4.3E-03
Landbay A	107B1	INORG	Perchlorate	14797-73-0	NC	2.50E-04			3.4E+03	LT	7.3E-08	7.7E+02	LT	3.2E-07
Landbay A	107B1	INORG	Silver	7440-22-4	D	3.08E-01	2.30E+00	1.3E-01	3.8E+03	LT	8.2E-05	2.7E+00	LT	1.2E-01
Landbay A	107B1	INORG	Strontium	7440-24-6		2.13E+01	3.80E+01	5.6E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay A	107B2	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03			2.5E+04	LT	8.1E-08	1.9E+01	LT	1.1E-04
Landbay A	107B2	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03			5.0E+03	LT	8.0E-07	1.0E+01	LT	4.0E-04
Landbay A	107B2	VOC	1,4-Dioxane	123-91-1	LC	1.90E-01			1.4E+04	LT	1.3E-05	2.0E+02	LT	9.6E-04
Landbay A	107B2	INORG	Aluminum	7429-90-5	ID	1.82E+04	5.34E+04	3.4E-01	3.7E+08	EqP	4.9E-05	2.6E+03	EqP	**7.0E+00**
Landbay A	107B2	INORG	Arsenic	7440-38-2	A	3.54E+00	9.90E+00	3.6E-01	1.1E+03	EqP	3.4E-03	8.6E+01	EqP	4.1E-02
Landbay A	107B2	INORG	Barium	7440-39-3	NC	9.40E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay A	107B2	INORG	Beryllium	7440-41-7	B1	5.00E-01	1.20E+00	4.2E-01	6.8E+03	EqP	7.4E-05	1.0E+01	EqP	4.8E-02
Landbay A	107B2	INORG	Chromium III	16065-83-1	D	3.77E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay A	107B2	INORG	Copper	7440-50-8	D	1.66E+02	1.31E+02	**1.3E+00**	3.5E+05	EqP	4.8E-04	8.4E+00	EqP	**2.0E+01**
Landbay A	107B2	INORG	Lead	7439-92-1	B2	8.63E-01						3.5E+02	EqP	2.5E-03
Landbay A	107B2	INORG	Perchlorate	14797-73-0	NC	1.50E-03			3.4E+03	LT	4.4E-07	7.7E+02	LT	1.9E-06
Landbay A	107B2	INORG	Silver	7440-22-4	D	1.87E-01	2.30E+00	8.1E-02	3.8E+03	LT	5.0E-05	2.7E+00	LT	7.0E-02
Landbay A	107B2	INORG	Strontium	7440-24-6		1.33E+01	3.80E+01	3.5E-01	1.6E+07	EqP	8.2E-07	1.1E+03	EqP	1.3E-02
Landbay A	107B3	VOC	Acetone	67-64-1	ID	1.65E-02			2.0E+06	LT	8.1E-09	6.0E+02	LT	2.8E-05
Landbay A	107B3	VOC	1,1-Dichloroethane	75-34-3	SC	8.50E-03			2.5E+04	LT	3.4E-07	1.9E+01	LT	4.5E-04
Landbay A	107B3	VOC	1,1-Dichloroethene	75-35-4	C	3.15E-02			5.0E+03	LT	6.3E-06	1.0E+01	LT	3.2E-03
Landbay A	107B3	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.50E-04				NA		4.4E+00	LT	1.7E-04
Landbay A	107B3	VOC	Vinyl Chloride	75-01-4	A	7.50E-04			5.9E+01	LT	1.3E-05	2.5E+01	LT	3.0E-05
Landbay A	107B3	PCB	PCBs (total)	1336-36-3	B2	3.12E-02				NA		1.4E+00	EqP	2.3E-02
Landbay A	107B3	INORG	Aluminum	7429-90-5	ID	1.62E+04	5.34E+04	3.0E-01	3.7E+08	EqP	4.4E-05	2.6E+03	EqP	**6.2E+00**
Landbay A	107B3	INORG	Arsenic	7440-38-2	A	3.07E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	107B3	INORG	Barium	7440-39-3	NC	5.07E+01	2.24E+02	2.3E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.5E+01**
Landbay A	107B3	INORG	Beryllium	7440-41-7	B1	4.65E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.9E-05	1.0E+01	EqP	4.5E-02
Landbay A	107B3	INORG	Chromium III	16065-83-1	D	2.01E+01	2.61E+02	7.7E-02	2.1E+10	EqP	9.4E-10	3.4E+06	EqP	6.0E-06
Landbay A	107B3	INORG	Copper	7440-50-8	D	1.39E+02	1.31E+02	**1.1E+00**	3.5E+05	EqP	4.0E-04	8.4E+00	EqP	**1.7E+01**
Landbay A	107B3	INORG	Lead	7439-92-1	B2	4.07E+00						3.5E+02	EqP	1.2E-02
Landbay A	107B3	INORG	Perchlorate	14797-73-0	NC	1.70E-03			3.4E+03	LT	4.9E-07	7.7E+02	LT	2.2E-06
Landbay A	107B3	INORG	Silver	7440-22-4	D	4.24E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay A	107B3	INORG	Strontium	7440-24-6		1.09E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.7E-07	1.1E+03	EqP	1.0E-02
Landbay A	107G4	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	107G4	INORG	Arsenic	7440-38-2	A	5.07E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay A	107G4	INORG	Barium	7440-39-3	NC	5.04E+01	2.24E+02	2.3E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.5E+01**
Landbay A	107G4	INORG	Beryllium	7440-41-7	B1	9.28E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay A	107G4	INORG	Chromium III	16065-83-1	D	6.17E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.8E-05
Landbay A	107G4	INORG	Copper	7440-50-8	D	6.96E+02	1.31E+02	**5.3E+00**	3.5E+05	EqP	2.0E-03	8.4E+00	EqP	**8.3E+01**
Landbay A	107G4	INORG	Lead	7439-92-1	B2	4.80E+00						3.5E+02	EqP	1.4E-02
Landbay A	107G4	INORG	Perchlorate	14797-73-0	NC	1.10E-03			3.4E+03	LT	3.2E-07	7.7E+02	LT	1.4E-06
Landbay A	107G4	INORG	Silver	7440-22-4	D	1.15E+00	2.30E+00	5.0E-01	3.8E+03	LT	3.1E-04	2.7E+00	LT	4.3E-01
Landbay A	107G4	INORG	Strontium	7440-24-6		1.75E+01	3.80E+01	4.6E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay A	107G5	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay A	107G5	INORG	Arsenic	7440-38-2	A	6.22E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay A	107G5	INORG	Barium	7440-39-3	NC	8.03E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay A	107G5	INORG	Beryllium	7440-41-7	B1	1.14E+00	1.20E+00	9.5E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay A	107G5	INORG	Cadmium	7440-43-9	B1	3.08E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.8E-04	2.1E+00	EqP	1.4E-01
Landbay A	107G5	INORG	Chromium III	16065-83-1	D	6.49E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay A	107G5	INORG	Chromium VI	18540-29-9	A	8.30E-01	4.97E+00	1.7E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.9E-01
Landbay A	107G5	INORG	Copper	7440-50-8	D	6.03E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.2E+00**
Landbay A	107G5	INORG	Perchlorate	14797-73-0	NC	1.10E-03			3.4E+03	LT	3.2E-07	7.7E+02	LT	1.4E-06
Landbay A	107G5	INORG	Silver	7440-22-4	D	9.79E-01	2.30E+00	4.3E-01	3.8E+03	LT	2.6E-04	2.7E+00	LT	3.7E-01
Landbay A	107G5	INORG	Strontium	7440-24-6		1.36E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.4E-07	1.1E+03	EqP	1.3E-02
Landbay A	107G6	INORG	Aluminum	7429-90-5	ID	3.72E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	107G6	INORG	Arsenic	7440-38-2	A	3.06E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	107G6	INORG	Barium	7440-39-3	NC	2.90E+02	2.24E+02	**1.3E+00**	3.2E+05	EqP	9.0E-04	3.3E+00	EqP	**8.8E+01**
Landbay A	107G6	INORG	Beryllium	7440-41-7	B1	2.30E+00	1.20E+00	**1.9E+00**	6.8E+03	EqP	3.4E-04	1.0E+01	EqP	2.2E-01
Landbay A	107G6	INORG	Cadmium	7440-43-9	B1	8.26E-01	2.70E+00	3.1E-01	1.1E+03	EqP	7.6E-04	2.1E+00	EqP	3.9E-01
Landbay A	107G6	INORG	Chromium III	16065-83-1	D	7.89E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay A	107G6	INORG	Copper	7440-50-8	D	2.62E+02	1.31E+02	**2.0E+00**	3.5E+05	EqP	7.5E-04	8.4E+00	EqP	**3.1E+01**
Landbay A	107G6	INORG	Perchlorate	14797-73-0	NC	3.50E-04			3.4E+03	LT	1.0E-07	7.7E+02	LT	4.5E-07
Landbay A	107G6	INORG	Silver	7440-22-4	D	1.54E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay A	107G6	INORG	Strontium	7440-24-6		2.82E+01	3.80E+01	7.4E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.7E-02
Landbay A	107G7	INORG	Aluminum	7429-90-5	ID	1.81E+04	5.34E+04	3.4E-01	3.7E+08	EqP	4.9E-05	2.6E+03	EqP	**6.9E+00**
Landbay A	107G7	INORG	Arsenic	7440-38-2	A	3.21E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.7E-02
Landbay A	107G7	INORG	Barium	7440-39-3	NC	2.31E+02	2.24E+02	1.0E+00	3.2E+05	EqP	7.1E-04	3.3E+00	EqP	**7.0E+01**
Landbay A	107G7	INORG	Beryllium	7440-41-7	B1	1.94E+00	1.20E+00	**1.6E+00**	6.8E+03	EqP	2.9E-04	1.0E+01	EqP	1.9E-01
Landbay A	107G7	INORG	Chromium III	16065-83-1	D	6.57E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	1.9E-05
Landbay A	107G7	INORG	Copper	7440-50-8	D	5.89E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay A	107G7	INORG	Lead	7439-92-1	B2	2.02E+00						3.5E+02	EqP	5.8E-03
Landbay A	107G7	INORG	Perchlorate	14797-73-0	NC	1.00E-03			3.4E+03	LT	2.9E-07	7.7E+02	LT	1.3E-06
Landbay A	107G7	INORG	Silver	7440-22-4	D	1.29E+00	2.30E+00	5.6E-01	3.8E+03	LT	3.4E-04	2.7E+00	LT	4.9E-01
Landbay A	107G7	INORG	Strontium	7440-24-6		2.55E+01	3.80E+01	6.7E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay A	107G8	INORG	Aluminum	7429-90-5	ID	2.26E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.7E+00**
Landbay A	107G8	INORG	Arsenic	7440-38-2	A	3.90E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay A	107G8	INORG	Barium	7440-39-3	NC	6.31E+01	2.24E+02	2.8E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**1.9E+01**
Landbay A	107G8	INORG	Beryllium	7440-41-7	B1	7.97E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay A	107G8	INORG	Chromium III	16065-83-1	D	5.60E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	107G8	INORG	Copper	7440-50-8	D	1.22E+02	1.31E+02	9.3E-01	3.5E+05	EqP	3.5E-04	8.4E+00	EqP	**1.5E+01**
Landbay A	107G8	INORG	Lead	7439-92-1	B2	1.64E+00						3.5E+02	EqP	4.7E-03
Landbay A	107G8	INORG	Perchlorate	14797-73-0	NC	6.60E-04			3.4E+03	LT	1.9E-07	7.7E+02	LT	8.5E-07
Landbay A	107G8	INORG	Silver	7440-22-4	D	1.12E+00	2.30E+00	4.9E-01	3.8E+03	LT	3.0E-04	2.7E+00	LT	4.2E-01
Landbay A	107G8	INORG	Strontium	7440-24-6		9.48E+00	3.80E+01	2.5E-01	1.6E+07	EqP	5.8E-07	1.1E+03	EqP	9.0E-03
Landbay A	107TP1-20	INORG	Aluminum	7429-90-5	ID	3.18E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	107TP1-20	INORG	Arsenic	7440-38-2	A	2.22E+00	9.90E+00	2.2E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.6E-02
Landbay A	107TP1-20	INORG	Barium	7440-39-3	NC	6.72E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay A	107TP1-20	INORG	Beryllium	7440-41-7	B1	6.08E-01	1.20E+00	5.1E-01	6.8E+03	EqP	9.0E-05	1.0E+01	EqP	5.8E-02
Landbay A	107TP1-20	INORG	Cadmium	7440-43-9	B1	1.49E+00	2.70E+00	5.5E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.0E-01
Landbay A	107TP1-20	INORG	Chromium III	16065-83-1	D	5.52E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay A	107TP1-20	INORG	Cobalt	7440-48-4	LC	1.87E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.0E-01
Landbay A	107TP1-20	INORG	Copper	7440-50-8	D	2.00E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.7E-05	8.4E+00	EqP	**2.4E+00**
Landbay A	107TP1-20	INORG	Iron	7439-89-6	D	4.43E+04	9.52E+04	4.6E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay A	107TP1-20	INORG	Lead	7439-92-1	B2	4.43E+00						3.5E+02	EqP	1.3E-02
Landbay A	107TP1-20	INORG	Manganese	7439-96-5	D	1.68E+02	4.27E+03	3.9E-02	3.1E+05	EqP	5.4E-04	1.6E+02	EqP	**1.1E+00**
Landbay A	107TP1-20	INORG	Mercury	7439-97-6	D	3.75E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	107TP1-20	INORG	Nickel	7440-02-0	A	2.45E+01	7.30E+01	3.3E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.2E-01
Landbay A	107TP1-20	INORG	Perchlorate	14797-73-0	NC	2.55E-04			3.4E+03	LT	7.4E-08	7.7E+02	LT	3.3E-07
Landbay A	107TP1-20	INORG	Strontium	7440-24-6		1.15E+01	3.80E+01	3.0E-01	1.6E+07	EqP	7.0E-07	1.1E+03	EqP	1.1E-02
Landbay A	107TP1-20	INORG	Thallium	7440-28-0	ID	2.62E+00	4.50E+00	5.8E-01				1.1E+00	EqP	**2.3E+00**
Landbay A	107TP1-20	INORG	Vanadium	7440-62-2	ID	8.10E+01	2.83E+02	2.9E-01	1.5E+05	EqP	5.2E-04	4.0E+02	EqP	2.0E-01
Landbay A	107TP1-20	INORG	Zinc	7440-66-6	ID	3.35E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.1E-06	1.9E+02	EqP	1.8E-01
Landbay A	107TP1-30	INORG	Aluminum	7429-90-5	ID	2.72E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	107TP1-30	INORG	Arsenic	7440-38-2	A	1.70E+00	9.90E+00	1.7E-01	1.1E+03	EqP	1.6E-03	8.6E+01	EqP	2.0E-02
Landbay A	107TP1-30	INORG	Barium	7440-39-3	NC	6.55E+01	2.24E+02	2.9E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**2.0E+01**
Landbay A	107TP1-30	INORG	Beryllium	7440-41-7	B1	2.76E-01	1.20E+00	2.3E-01	6.8E+03	EqP	4.1E-05	1.0E+01	EqP	2.6E-02
Landbay A	107TP1-30	INORG	Cadmium	7440-43-9	B1	9.00E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.3E-04	2.1E+00	EqP	4.2E-01
Landbay A	107TP1-30	INORG	Chromium III	16065-83-1	D	5.70E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay A	107TP1-30	INORG	Cobalt	7440-48-4	LC	1.69E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.1E-01
Landbay A	107TP1-30	INORG	Copper	7440-50-8	D	2.99E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.6E-05	8.4E+00	EqP	**3.6E+00**
Landbay A	107TP1-30	INORG	Iron	7439-89-6	D	4.66E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay A	107TP1-30	INORG	Lead	7439-92-1	B2	1.87E+00						3.5E+02	EqP	5.3E-03
Landbay A	107TP1-30	INORG	Manganese	7439-96-5	D	1.36E+02	4.27E+03	3.2E-02	3.1E+05	EqP	4.4E-04	1.6E+02	EqP	8.7E-01
Landbay A	107TP1-30	INORG	Nickel	7440-02-0	A	2.41E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.1E-01
Landbay A	107TP1-30	INORG	Silver	7440-22-4	D	3.41E-01	2.30E+00	1.5E-01	3.8E+03	LT	9.1E-05	2.7E+00	LT	1.3E-01
Landbay A	107TP1-30	INORG	Strontium	7440-24-6		1.36E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.4E-07	1.1E+03	EqP	1.3E-02
Landbay A	107TP1-30	INORG	Thallium	7440-28-0	ID	1.71E+00	4.50E+00	3.8E-01				1.1E+00	EqP	**1.5E+00**
Landbay A	107TP1-30	INORG	Vanadium	7440-62-2	ID	7.87E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.1E-04	4.0E+02	EqP	2.0E-01
Landbay A	107TP1-30	INORG	Zinc	7440-66-6	ID	3.08E+01	1.02E+02	3.0E-01	5.5E+06	EqP	5.6E-06	1.9E+02	EqP	1.6E-01
Landbay A	107TP13-15	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay A	107TP13-15	INORG	Aluminum	7429-90-5	ID	1.14E+04	5.34E+04	2.1E-01	3.7E+08	EqP	3.1E-05	2.6E+03	EqP	**4.4E+00**
Landbay A	107TP13-15	INORG	Antimony	7440-36-0	ID	1.06E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02
Landbay A	107TP13-15	INORG	Arsenic	7440-38-2	A	1.51E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.8E-02
Landbay A	107TP13-15	INORG	Barium	7440-39-3	NC	4.85E+01	2.24E+02	2.2E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.5E+01**
Landbay A	107TP13-15	INORG	Beryllium	7440-41-7	B1	3.28E-01	1.20E+00	2.7E-01	6.8E+03	EqP	4.8E-05	1.0E+01	EqP	3.1E-02
Landbay A	107TP13-15	INORG	Cadmium	7440-43-9	B1	1.07E+00	2.70E+00	4.0E-01	1.1E+03	EqP	9.9E-04	2.1E+00	EqP	5.0E-01
Landbay A	107TP13-15	INORG	Chromium III	16065-83-1	D	3.61E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay A	107TP13-15	INORG	Cobalt	7440-48-4	LC	1.19E+01	8.60E+01	1.4E-01	1.4E+04	EqP	8.7E-04	2.1E+01	EqP	5.7E-01
Landbay A	107TP13-15	INORG	Copper	7440-50-8	D	1.67E+02	1.31E+02	**1.3E+00**	3.5E+05	EqP	4.8E-04	8.4E+00	EqP	**2.0E+01**
Landbay A	107TP13-15	INORG	Iron	7439-89-6	D	4.58E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	107TP13-15	INORG	Manganese	7439-96-5	D	1.29E+02	4.27E+03	3.0E-02	3.1E+05	EqP	4.1E-04	1.6E+02	EqP	8.2E-01
Landbay A	107TP13-15	INORG	Nickel	7440-02-0	A	1.47E+01	7.30E+01	2.0E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.3E-01
Landbay A	107TP13-15	INORG	Perchlorate	14797-73-0	NC	8.90E-03			3.4E+03	LT	2.6E-06	7.7E+02	LT	1.2E-05
Landbay A	107TP13-15	INORG	Silver	7440-22-4	D	1.82E-01	2.30E+00	7.9E-02	3.8E+03	LT	4.9E-05	2.7E+00	LT	6.8E-02
Landbay A	107TP13-15	INORG	Strontium	7440-24-6		9.43E+00	3.80E+01	2.5E-01	1.6E+07	EqP	5.8E-07	1.1E+03	EqP	8.9E-03
Landbay A	107TP13-15	INORG	Vanadium	7440-62-2	ID	5.57E+01	2.83E+02	2.0E-01	1.5E+05	EqP	3.6E-04	4.0E+02	EqP	1.4E-01
Landbay A	107TP13-15	INORG	Zinc	7440-66-6	ID	2.57E+00	1.02E+02	2.5E-02	5.5E+06	EqP	4.7E-07	1.9E+02	EqP	1.4E-02
Landbay A	107TP14-15	INORG	Aluminum	7429-90-5	ID	4.67E+04	5.34E+04	8.7E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	107TP14-15	INORG	Arsenic	7440-38-2	A	3.07E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	107TP14-15	INORG	Barium	7440-39-3	NC	1.47E+02	2.24E+02	6.6E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.5E+01**
Landbay A	107TP14-15	INORG	Beryllium	7440-41-7	B1	8.85E-01	1.20E+00	7.4E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.5E-02
Landbay A	107TP14-15	INORG	Cadmium	7440-43-9	B1	3.96E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay A	107TP14-15	INORG	Chromium III	16065-83-1	D	6.64E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay A	107TP14-15	INORG	Cobalt	7440-48-4	LC	3.24E+01	8.60E+01	3.8E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay A	107TP14-15	INORG	Copper	7440-50-8	D	2.60E+02	1.31E+02	**2.0E+00**	3.5E+05	EqP	7.5E-04	8.4E+00	EqP	**3.1E+01**
Landbay A	107TP14-15	INORG	Iron	7439-89-6	D	5.45E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	107TP14-15	INORG	Lead	7439-92-1	B2	3.11E+00						3.5E+02	EqP	8.9E-03
Landbay A	107TP14-15	INORG	Manganese	7439-96-5	D	3.81E+02	4.27E+03	8.9E-02	3.1E+05	EqP	1.2E-03	1.6E+02	EqP	**2.4E+00**
Landbay A	107TP14-15	INORG	Nickel	7440-02-0	A	3.37E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay A	107TP14-15	INORG	Perchlorate	14797-73-0	NC	7.10E-03			3.4E+03	LT	2.1E-06	7.7E+02	LT	9.2E-06
Landbay A	107TP14-15	INORG	Silver	7440-22-4	D	4.64E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay A	107TP14-15	INORG	Strontium	7440-24-6		1.09E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.7E-07	1.1E+03	EqP	1.0E-02
Landbay A	107TP14-15	INORG	Thallium	7440-28-0	ID	3.02E+00	4.50E+00	6.7E-01				1.1E+00	EqP	**2.6E+00**
Landbay A	107TP14-15	INORG	Vanadium	7440-62-2	ID	1.12E+02	2.83E+02	4.0E-01	1.5E+05	EqP	7.2E-04	4.0E+02	EqP	2.8E-01
Landbay A	107TP14-15	INORG	Zinc	7440-66-6	ID	4.47E+01	1.02E+02	4.4E-01	5.5E+06	EqP	8.2E-06	1.9E+02	EqP	2.4E-01
Landbay A	107TP18-(-10)	PCB	PCBs (total)	1336-36-3	B2	2.62E-02				NA		1.4E+00	EqP	1.9E-02
Landbay A	107TP18-(-10)	INORG	Aluminum	7429-90-5	ID	7.67E+04	5.34E+04	**1.4E+00**	3.7E+08	EqP	2.1E-04	2.6E+03	EqP	**2.9E+01**
Landbay A	107TP18-(-10)	INORG	Arsenic	7440-38-2	A	1.66E+00	9.90E+00	1.7E-01	1.1E+03	EqP	1.6E-03	8.6E+01	EqP	1.9E-02
Landbay A	107TP18-(-10)	INORG	Barium	7440-39-3	NC	3.01E+02	2.24E+02	**1.3E+00**	3.2E+05	EqP	9.3E-04	3.3E+00	EqP	**9.1E+01**
Landbay A	107TP18-(-10)	INORG	Beryllium	7440-41-7	B1	2.09E+00	1.20E+00	**1.7E+00**	6.8E+03	EqP	3.1E-04	1.0E+01	EqP	2.0E-01
Landbay A	107TP18-(-10)	INORG	Cadmium	7440-43-9	B1	1.25E+00	2.70E+00	4.6E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	5.8E-01
Landbay A	107TP18-(-10)	INORG	Chromium III	16065-83-1	D	9.00E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.7E-05
Landbay A	107TP18-(-10)	INORG	Chromium VI	18540-29-9	A	7.10E-01	4.97E+00	1.4E-01	6.6E+01	LT	1.1E-02	4.4E+00	LT	1.6E-01
Landbay A	107TP18-(-10)	INORG	Cobalt	7440-48-4	LC	5.25E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay A	107TP18-(-10)	INORG	Copper	7440-50-8	D	1.77E+02	1.31E+02	**1.4E+00**	3.5E+05	EqP	5.1E-04	8.4E+00	EqP	**2.1E+01**
Landbay A	107TP18-(-10)	INORG	Iron	7439-89-6	D	6.24E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	107TP18-(-10)	INORG	Lead	7439-92-1	B2	9.25E-01						3.5E+02	EqP	2.6E-03
Landbay A	107TP18-(-10)	INORG	Manganese	7439-96-5	D	3.34E+02	4.27E+03	7.8E-02	3.1E+05	EqP	1.1E-03	1.6E+02	EqP	**2.1E+00**
Landbay A	107TP18-(-10)	INORG	Nickel	7440-02-0	A	5.01E+01	7.30E+01	6.9E-01	1.2E+05	EqP	4.0E-04	3.4E+01	EqP	**1.5E+00**
Landbay A	107TP18-(-10)	INORG	Perchlorate	14797-73-0	NC	5.50E-03			3.4E+03	LT	1.6E-06	7.7E+02	LT	7.1E-06
Landbay A	107TP18-(-10)	INORG	Silver	7440-22-4	D	4.11E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay A	107TP18-(-10)	INORG	Strontium	7440-24-6		1.88E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.8E-02
Landbay A	107TP18-(-10)	INORG	Thallium	7440-28-0	ID	2.98E+00	4.50E+00	6.6E-01				1.1E+00	EqP	**2.6E+00**
Landbay A	107TP18-(-10)	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay A	107TP18-(-10)	INORG	Zinc	7440-66-6	ID	6.58E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay A	107TP2-10	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.70E-01				NA		9.6E+03	EqP	1.8E-05
Landbay A	107TP2-10	INORG	Aluminum	7429-90-5	ID	3.82E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	107TP2-10	INORG	Arsenic	7440-38-2	A	1.42E+00	9.90E+00	1.4E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay A	107TP2-10	INORG	Barium	7440-39-3	NC	8.04E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay A	107TP2-10	INORG	Beryllium	7440-41-7	B1	6.56E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay A	107TP2-10	INORG	Cadmium	7440-43-9	B1	1.60E+00	2.70E+00	5.9E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.5E-01
Landbay A	107TP2-10	INORG	Chromium III	16065-83-1	D	5.70E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay A	107TP2-10	INORG	Cobalt	7440-48-4	LC	1.59E+01	8.60E+01	1.8E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	7.6E-01
Landbay A	107TP2-10	INORG	Copper	7440-50-8	D	3.77E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay A	107TP2-10	INORG	Iron	7439-89-6	D	5.20E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay A	107TP2-10	INORG	Lead	7439-92-1	B2	5.90E+00						3.5E+02	EqP	1.7E-02
Landbay A	107TP2-10	INORG	Manganese	7439-96-5	D	1.55E+02	4.27E+03	3.6E-02	3.1E+05	EqP	5.0E-04	1.6E+02	EqP	9.9E-01
Landbay A	107TP2-10	INORG	Nickel	7440-02-0	A	2.27E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.7E-01
Landbay A	107TP2-10	INORG	Strontium	7440-24-6		7.35E+00	3.80E+01	1.9E-01	1.6E+07	EqP	4.5E-07	1.1E+03	EqP	7.0E-03
Landbay A	107TP2-10	INORG	Thallium	7440-28-0	ID	2.82E+00	4.50E+00	6.3E-01				1.1E+00	EqP	**2.5E+00**
Landbay A	107TP2-10	INORG	Vanadium	7440-62-2	ID	8.67E+01	2.83E+02	3.1E-01	1.5E+05	EqP	5.6E-04	4.0E+02	EqP	2.2E-01
Landbay A	107TP2-10	INORG	Zinc	7440-66-6	ID	3.19E+01	1.02E+02	3.1E-01	5.5E+06	EqP	5.8E-06	1.9E+02	EqP	1.7E-01
Landbay A	18B1	INORG	Perchlorate	14797-73-0	NC	2.00E-01			3.4E+03	LT	5.8E-05	7.7E+02	LT	2.6E-04
Landbay A	2700-3200	INORG	Aluminum	7429-90-5	ID	4.16E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	2700-3200	INORG	Arsenic	7440-38-2	A	8.06E+00	9.90E+00	8.1E-01	1.1E+03	EqP	7.7E-03	8.6E+01	EqP	9.4E-02
Landbay A	2700-3200	INORG	Barium	7440-39-3	NC	1.22E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay A	2700-3200	INORG	Beryllium	7440-41-7	B1	5.36E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay A	2700-3200	INORG	Chromium III	16065-83-1	D	7.75E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.3E-05
Landbay A	2700-3200	INORG	Chromium VI	18540-29-9	A	3.12E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	2700-3200	INORG	Cobalt	7440-48-4	LC	3.03E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.5E+00**
Landbay A	2700-3200	INORG	Copper	7440-50-8	D	2.75E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	2700-3200	INORG	Iron	7439-89-6	D	7.24E+04	9.52E+04	7.6E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay A	2700-3200	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay A	2700-3200	INORG	Manganese	7439-96-5	D	1.09E+03	4.27E+03	2.6E-01	3.1E+05	EqP	3.5E-03	1.6E+02	EqP	**7.0E+00**
Landbay A	2700-3200	INORG	Nickel	7440-02-0	A	1.76E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay A	2700-3200	INORG	Selenium	7782-49-2	D	2.45E+00	2.50E+00	9.8E-01	2.5E+04	LT	9.9E-05	2.0E+00	LT	**1.2E+00**
Landbay A	2700-3200	INORG	Silver	7440-22-4	D	4.12E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay A	2700-3200	INORG	Strontium	7440-24-6		1.71E+01	3.80E+01	4.5E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.6E-02
Landbay A	2700-3200	INORG	Thallium	7440-28-0	ID	1.75E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.5E+00**
Landbay A	2700-3200	INORG	Vanadium	7440-62-2	ID	2.67E+02	2.83E+02	9.4E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay A	2700-3200	INORG	Zinc	7440-66-6	ID	3.74E+01	1.02E+02	3.7E-01	5.5E+06	EqP	6.8E-06	1.9E+02	EqP	2.0E-01
Landbay A	2850-3050	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	2850-3050	INORG	Antimony	7440-36-0	ID	1.43E+00	1.70E+00	8.4E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.3E-02
Landbay A	2850-3050	INORG	Arsenic	7440-38-2	A	9.15E+00	9.90E+00	9.2E-01	1.1E+03	EqP	8.7E-03	8.6E+01	EqP	1.1E-01
Landbay A	2850-3050	INORG	Barium	7440-39-3	NC	2.00E+02	2.24E+02	8.9E-01	3.2E+05	EqP	6.2E-04	3.3E+00	EqP	**6.1E+01**
Landbay A	2850-3050	INORG	Beryllium	7440-41-7	B1	8.56E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay A	2850-3050	INORG	Cadmium	7440-43-9	B1	1.88E+00	2.70E+00	7.0E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.8E-01
Landbay A	2850-3050	INORG	Chromium III	16065-83-1	D	5.19E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay A	2850-3050	INORG	Chromium VI	18540-29-9	A	2.94E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay A	2850-3050	INORG	Cobalt	7440-48-4	LC	4.49E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay A	2850-3050	INORG	Copper	7440-50-8	D	3.95E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay A	2850-3050	INORG	Iron	7439-89-6	D	7.25E+04	9.52E+04	7.6E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay A	2850-3050	INORG	Lead	7439-92-1	B2	2.55E+01						3.5E+02	EqP	7.3E-02
Landbay A	2850-3050	INORG	Manganese	7439-96-5	D	2.67E+03	4.27E+03	6.3E-01	3.1E+05	EqP	8.6E-03	1.6E+02	EqP	**1.7E+01**
Landbay A	2850-3050	INORG	Mercury	7439-97-6	D	2.77E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay A	2850-3050	INORG	Nickel	7440-02-0	A	1.87E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.5E-01
Landbay A	2850-3050	INORG	Silver	7440-22-4	D	1.55E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay A	2850-3050	INORG	Strontium	7440-24-6		2.21E+01	3.80E+01	5.8E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay A	2850-3050	INORG	Vanadium	7440-62-2	ID	2.37E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	2850-3050	INORG	Zinc	7440-66-6	ID	6.45E+01	1.02E+02	6.3E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay A	2850-3200	INORG	Aluminum	7429-90-5	ID	2.17E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.3E+00**
Landbay A	2850-3200	INORG	Arsenic	7440-38-2	A	9.25E+00	9.90E+00	9.3E-01	1.1E+03	EqP	8.8E-03	8.6E+01	EqP	1.1E-01
Landbay A	2850-3200	INORG	Barium	7440-39-3	NC	9.29E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay A	2850-3200	INORG	Beryllium	7440-41-7	B1	3.36E-01	1.20E+00	2.8E-01	6.8E+03	EqP	5.0E-05	1.0E+01	EqP	3.2E-02
Landbay A	2850-3200	INORG	Chromium III	16065-83-1	D	7.12E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay A	2850-3200	INORG	Chromium VI	18540-29-9	A	3.08E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	7.0E-01
Landbay A	2850-3200	INORG	Cobalt	7440-48-4	LC	4.10E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay A	2850-3200	INORG	Copper	7440-50-8	D	2.30E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.6E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	2850-3200	INORG	Iron	7439-89-6	D	6.71E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay A	2850-3200	INORG	Lead	7439-92-1	B2	2.94E+01						3.5E+02	EqP	8.4E-02
Landbay A	2850-3200	INORG	Manganese	7439-96-5	D	2.75E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.8E+01**
Landbay A	2850-3200	INORG	Nickel	7440-02-0	A	9.93E+00	7.30E+01	1.4E-01	1.2E+05	EqP	8.0E-05	3.4E+01	EqP	2.9E-01
Landbay A	2850-3200	INORG	Selenium	7782-49-2	D	2.17E+00	2.50E+00	8.7E-01	2.5E+04	LT	8.8E-05	2.0E+00	LT	**1.1E+00**
Landbay A	2850-3200	INORG	Silver	7440-22-4	D	7.13E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay A	2850-3200	INORG	Strontium	7440-24-6		1.14E+01	3.80E+01	3.0E-01	1.6E+07	EqP	7.0E-07	1.1E+03	EqP	1.1E-02
Landbay A	2850-3200	INORG	Thallium	7440-28-0	ID	2.03E+00	4.50E+00	4.5E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	2850-3200	INORG	Vanadium	7440-62-2	ID	2.52E+02	2.83E+02	8.9E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay A	2850-3200	INORG	Zinc	7440-66-6	ID	3.64E+01	1.02E+02	3.6E-01	5.5E+06	EqP	6.7E-06	1.9E+02	EqP	1.9E-01
Landbay A	2850-3350	INORG	Aluminum	7429-90-5	ID	4.98E+04	5.34E+04	9.3E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.9E+01**
Landbay A	2850-3350	INORG	Antimony	7440-36-0	ID	1.36E+00	1.70E+00	8.0E-01	1.4E+03	EqP	9.9E-04	2.7E+01	EqP	5.0E-02
Landbay A	2850-3350	INORG	Arsenic	7440-38-2	A	7.02E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay A	2850-3350	INORG	Barium	7440-39-3	NC	1.57E+02	2.24E+02	7.0E-01	3.2E+05	EqP	4.9E-04	3.3E+00	EqP	**4.8E+01**
Landbay A	2850-3350	INORG	Beryllium	7440-41-7	B1	8.25E-01	1.20E+00	6.9E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay A	2850-3350	INORG	Chromium III	16065-83-1	D	1.77E+02	2.61E+02	6.8E-01	2.1E+10	EqP	8.3E-09	3.4E+06	EqP	5.3E-05
Landbay A	2850-3350	INORG	Chromium VI	18540-29-9	A	3.80E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.6E-01
Landbay A	2850-3350	INORG	Cobalt	7440-48-4	LC	4.44E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	2850-3350	INORG	Copper	7440-50-8	D	2.80E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	2850-3350	INORG	Iron	7439-89-6	D	7.56E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay A	2850-3350	INORG	Lead	7439-92-1	B2	1.70E+01						3.5E+02	EqP	4.9E-02
Landbay A	2850-3350	INORG	Manganese	7439-96-5	D	2.13E+03	4.27E+03	5.0E-01	3.1E+05	EqP	6.8E-03	1.6E+02	EqP	**1.4E+01**
Landbay A	2850-3350	INORG	Nickel	7440-02-0	A	3.27E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.7E-01
Landbay A	2850-3350	INORG	Selenium	7782-49-2	D	2.40E+00	2.50E+00	9.6E-01	2.5E+04	LT	9.7E-05	2.0E+00	LT	**1.2E+00**
Landbay A	2850-3350	INORG	Silver	7440-22-4	D	5.90E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.2E-01
Landbay A	2850-3350	INORG	Strontium	7440-24-6		1.46E+01	3.80E+01	3.8E-01	1.6E+07	EqP	9.0E-07	1.1E+03	EqP	1.4E-02
Landbay A	2850-3350	INORG	Thallium	7440-28-0	ID	2.74E+00	4.50E+00	6.1E-01				1.1E+00	EqP	**2.4E+00**
Landbay A	2850-3350	INORG	Vanadium	7440-62-2	ID	2.13E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay A	2850-3350	INORG	Zinc	7440-66-6	ID	4.88E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay A	2850-3500	INORG	Aluminum	7429-90-5	ID	2.44E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay A	2850-3500	INORG	Antimony	7440-36-0	ID	1.18E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.6E-04	2.7E+01	EqP	4.3E-02
Landbay A	2850-3500	INORG	Arsenic	7440-38-2	A	3.74E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay A	2850-3500	INORG	Barium	7440-39-3	NC	6.89E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay A	2850-3500	INORG	Beryllium	7440-41-7	B1	2.62E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.5E-02
Landbay A	2850-3500	INORG	Cadmium	7440-43-9	B1	1.90E+00	2.70E+00	7.0E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	8.9E-01
Landbay A	2850-3500	INORG	Chromium III	16065-83-1	D	5.58E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	2850-3500	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	2850-3500	INORG	Cobalt	7440-48-4	LC	3.02E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.5E+00**
Landbay A	2850-3500	INORG	Copper	7440-50-8	D	2.59E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay A	2850-3500	INORG	Iron	7439-89-6	D	5.04E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay A	2850-3500	INORG	Lead	7439-92-1	B2	1.97E+01						3.5E+02	EqP	5.6E-02
Landbay A	2850-3500	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay A	2850-3500	INORG	Mercury	7439-97-6	D	3.02E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay A	2850-3500	INORG	Nickel	7440-02-0	A	9.91E+00	7.30E+01	1.4E-01	1.2E+05	EqP	8.0E-05	3.4E+01	EqP	2.9E-01
Landbay A	2850-3500	INORG	Perchlorate	14797-73-0	NC	4.10E-04			3.4E+03	LT	1.2E-07	7.7E+02	LT	5.3E-07
Landbay A	2850-3500	INORG	Silver	7440-22-4	D	4.92E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay A	2850-3500	INORG	Thallium	7440-28-0	ID	2.10E+00	4.50E+00	4.7E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	2850-3500	INORG	Vanadium	7440-62-2	ID	1.83E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay A	2850-3500	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	3000-3050	INORG	Aluminum	7429-90-5	ID	2.76E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	3000-3050	INORG	Antimony	7440-36-0	ID	1.42E+00	1.70E+00	8.4E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.2E-02
Landbay A	3000-3050	INORG	Arsenic	7440-38-2	A	6.93E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay A	3000-3050	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay A	3000-3050	INORG	Beryllium	7440-41-7	B1	4.77E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay A	3000-3050	INORG	Cadmium	7440-43-9	B1	1.75E+00	2.70E+00	6.5E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.2E-01
Landbay A	3000-3050	INORG	Chromium III	16065-83-1	D	3.83E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay A	3000-3050	INORG	Chromium VI	18540-29-9	A	2.85E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay A	3000-3050	INORG	Cobalt	7440-48-4	LC	3.71E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay A	3000-3050	INORG	Copper	7440-50-8	D	7.98E+01	1.31E+02	6.1E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.5E+00**
Landbay A	3000-3050	INORG	Iron	7439-89-6	D	7.10E+04	9.52E+04	7.5E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	3000-3050	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay A	3000-3050	INORG	Manganese	7439-96-5	D	2.10E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay A	3000-3050	INORG	Mercury	7439-97-6	D	4.45E-02	7.10E-02	6.3E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3000-3050	INORG	Nickel	7440-02-0	A	9.68E+00	7.30E+01	1.3E-01	1.2E+05	EqP	7.8E-05	3.4E+01	EqP	2.9E-01
Landbay A	3000-3050	INORG	Selenium	7782-49-2	D	1.14E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.6E-05	2.0E+00	LT	5.7E-01
Landbay A	3000-3050	INORG	Silver	7440-22-4	D	1.87E+00	2.30E+00	8.1E-01	3.8E+03	LT	5.0E-04	2.7E+00	LT	7.0E-01
Landbay A	3000-3050	INORG	Strontium	7440-24-6		1.14E+01	3.80E+01	3.0E-01	1.6E+07	EqP	7.0E-07	1.1E+03	EqP	1.1E-02
Landbay A	3000-3050	INORG	Vanadium	7440-62-2	ID	2.27E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay A	3000-3050	INORG	Zinc	7440-66-6	ID	6.53E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay A	3000-3200	INORG	Aluminum	7429-90-5	ID	2.76E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	3000-3200	INORG	Antimony	7440-36-0	ID	1.42E+00	1.70E+00	8.4E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.2E-02
Landbay A	3000-3200	INORG	Arsenic	7440-38-2	A	6.93E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay A	3000-3200	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay A	3000-3200	INORG	Beryllium	7440-41-7	B1	4.77E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay A	3000-3200	INORG	Cadmium	7440-43-9	B1	1.75E+00	2.70E+00	6.5E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.2E-01
Landbay A	3000-3200	INORG	Chromium III	16065-83-1	D	3.83E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay A	3000-3200	INORG	Chromium VI	18540-29-9	A	2.85E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay A	3000-3200	INORG	Cobalt	7440-48-4	LC	3.71E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay A	3000-3200	INORG	Copper	7440-50-8	D	7.98E+01	1.31E+02	6.1E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.5E+00**
Landbay A	3000-3200	INORG	Iron	7439-89-6	D	7.10E+04	9.52E+04	7.5E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	3000-3200	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay A	3000-3200	INORG	Manganese	7439-96-5	D	2.10E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay A	3000-3200	INORG	Mercury	7439-97-6	D	4.45E-02	7.10E-02	6.3E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3000-3200	INORG	Nickel	7440-02-0	A	9.68E+00	7.30E+01	1.3E-01	1.2E+05	EqP	7.8E-05	3.4E+01	EqP	2.9E-01
Landbay A	3000-3200	INORG	Selenium	7782-49-2	D	1.14E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.6E-05	2.0E+00	LT	5.7E-01
Landbay A	3000-3200	INORG	Silver	7440-22-4	D	1.87E+00	2.30E+00	8.1E-01	3.8E+03	LT	5.0E-04	2.7E+00	LT	7.0E-01
Landbay A	3000-3200	INORG	Strontium	7440-24-6		1.14E+01	3.80E+01	3.0E-01	1.6E+07	EqP	7.0E-07	1.1E+03	EqP	1.1E-02
Landbay A	3000-3200	INORG	Vanadium	7440-62-2	ID	2.27E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay A	3000-3200	INORG	Zinc	7440-66-6	ID	6.53E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay A	3000-3350	INORG	Aluminum	7429-90-5	ID	2.44E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay A	3000-3350	INORG	Antimony	7440-36-0	ID	1.18E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.6E-04	2.7E+01	EqP	4.3E-02
Landbay A	3000-3350	INORG	Arsenic	7440-38-2	A	3.74E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay A	3000-3350	INORG	Barium	7440-39-3	NC	6.89E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay A	3000-3350	INORG	Beryllium	7440-41-7	B1	2.62E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.5E-02
Landbay A	3000-3350	INORG	Cadmium	7440-43-9	B1	1.90E+00	2.70E+00	7.0E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	8.9E-01
Landbay A	3000-3350	INORG	Chromium III	16065-83-1	D	5.58E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	3000-3350	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	3000-3350	INORG	Cobalt	7440-48-4	LC	3.02E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.5E+00**
Landbay A	3000-3350	INORG	Copper	7440-50-8	D	2.59E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay A	3000-3350	INORG	Iron	7439-89-6	D	5.04E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay A	3000-3350	INORG	Lead	7439-92-1	B2	1.97E+01						3.5E+02	EqP	5.6E-02
Landbay A	3000-3350	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay A	3000-3350	INORG	Mercury	7439-97-6	D	3.02E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay A	3000-3350	INORG	Nickel	7440-02-0	A	9.91E+00	7.30E+01	1.4E-01	1.2E+05	EqP	8.0E-05	3.4E+01	EqP	2.9E-01
Landbay A	3000-3350	INORG	Perchlorate	14797-73-0	NC	4.10E-04			3.4E+03	LT	1.2E-07	7.7E+02	LT	5.3E-07
Landbay A	3000-3350	INORG	Silver	7440-22-4	D	4.92E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay A	3000-3350	INORG	Thallium	7440-28-0	ID	2.10E+00	4.50E+00	4.7E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	3000-3350	INORG	Vanadium	7440-62-2	ID	1.83E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay A	3000-3350	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	3000-3500	INORG	Aluminum	7429-90-5	ID	2.44E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay A	3000-3500	INORG	Antimony	7440-36-0	ID	1.18E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.6E-04	2.7E+01	EqP	4.3E-02
Landbay A	3000-3500	INORG	Arsenic	7440-38-2	A	3.74E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay A	3000-3500	INORG	Barium	7440-39-3	NC	6.89E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay A	3000-3500	INORG	Beryllium	7440-41-7	B1	2.62E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.5E-02
Landbay A	3000-3500	INORG	Cadmium	7440-43-9	B1	1.90E+00	2.70E+00	7.0E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	8.9E-01
Landbay A	3000-3500	INORG	Chromium III	16065-83-1	D	5.58E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	3000-3500	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	3000-3500	INORG	Cobalt	7440-48-4	LC	3.02E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.5E+00**
Landbay A	3000-3500	INORG	Copper	7440-50-8	D	2.59E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay A	3000-3500	INORG	Iron	7439-89-6	D	5.04E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay A	3000-3500	INORG	Lead	7439-92-1	B2	1.97E+01						3.5E+02	EqP	5.6E-02
Landbay A	3000-3500	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay A	3000-3500	INORG	Mercury	7439-97-6	D	3.02E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay A	3000-3500	INORG	Nickel	7440-02-0	A	9.91E+00	7.30E+01	1.4E-01	1.2E+05	EqP	8.0E-05	3.4E+01	EqP	2.9E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	3000-3500	INORG	Perchlorate	14797-73-0	NC	4.10E-04			3.4E+03	LT	1.2E-07	7.7E+02	LT	5.3E-07
Landbay A	3000-3500	INORG	Silver	7440-22-4	D	4.92E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay A	3000-3500	INORG	Thallium	7440-28-0	ID	2.10E+00	4.50E+00	4.7E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	3000-3500	INORG	Vanadium	7440-62-2	ID	1.83E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay A	3000-3500	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	3150-3050	INORG	Aluminum	7429-90-5	ID	3.66E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	3150-3050	INORG	Arsenic	7440-38-2	A	8.32E+00	9.90E+00	8.4E-01	1.1E+03	EqP	7.9E-03	8.6E+01	EqP	9.7E-02
Landbay A	3150-3050	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay A	3150-3050	INORG	Beryllium	7440-41-7	B1	5.84E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay A	3150-3050	INORG	Chromium III	16065-83-1	D	5.65E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay A	3150-3050	INORG	Chromium VI	18540-29-9	A	2.98E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	3150-3050	INORG	Cobalt	7440-48-4	LC	3.61E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	3150-3050	INORG	Copper	7440-50-8	D	5.56E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay A	3150-3050	INORG	Iron	7439-89-6	D	7.75E+04	9.52E+04	8.1E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay A	3150-3050	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay A	3150-3050	INORG	Manganese	7439-96-5	D	1.37E+03	4.27E+03	3.2E-01	3.1E+05	EqP	4.4E-03	1.6E+02	EqP	**8.7E+00**
Landbay A	3150-3050	INORG	Nickel	7440-02-0	A	2.13E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.3E-01
Landbay A	3150-3050	INORG	Selenium	7782-49-2	D	1.68E+00	2.50E+00	6.7E-01	2.5E+04	LT	6.8E-05	2.0E+00	LT	8.4E-01
Landbay A	3150-3050	INORG	Silver	7440-22-4	D	4.31E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay A	3150-3050	INORG	Strontium	7440-24-6		1.95E+01	3.80E+01	5.1E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.8E-02
Landbay A	3150-3050	INORG	Thallium	7440-28-0	ID	2.77E+00	4.50E+00	6.2E-01				1.1E+00	EqP	**2.4E+00**
Landbay A	3150-3050	INORG	Vanadium	7440-62-2	ID	2.66E+02	2.83E+02	9.4E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.6E-01
Landbay A	3150-3050	INORG	Zinc	7440-66-6	ID	5.02E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.2E-06	1.9E+02	EqP	2.6E-01
Landbay A	3150-3200	INORG	Aluminum	7429-90-5	ID	2.76E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	3150-3200	INORG	Antimony	7440-36-0	ID	1.42E+00	1.70E+00	8.4E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.2E-02
Landbay A	3150-3200	INORG	Arsenic	7440-38-2	A	6.93E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay A	3150-3200	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay A	3150-3200	INORG	Beryllium	7440-41-7	B1	4.77E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay A	3150-3200	INORG	Cadmium	7440-43-9	B1	1.75E+00	2.70E+00	6.5E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.2E-01
Landbay A	3150-3200	INORG	Chromium III	16065-83-1	D	3.83E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay A	3150-3200	INORG	Chromium VI	18540-29-9	A	2.85E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay A	3150-3200	INORG	Cobalt	7440-48-4	LC	3.71E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay A	3150-3200	INORG	Copper	7440-50-8	D	7.98E+01	1.31E+02	6.1E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.5E+00**
Landbay A	3150-3200	INORG	Iron	7439-89-6	D	7.10E+04	9.52E+04	7.5E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	3150-3200	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay A	3150-3200	INORG	Manganese	7439-96-5	D	2.10E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay A	3150-3200	INORG	Mercury	7439-97-6	D	4.45E-02	7.10E-02	6.3E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3150-3200	INORG	Nickel	7440-02-0	A	9.68E+00	7.30E+01	1.3E-01	1.2E+05	EqP	7.8E-05	3.4E+01	EqP	2.9E-01
Landbay A	3150-3200	INORG	Selenium	7782-49-2	D	1.14E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.6E-05	2.0E+00	LT	5.7E-01
Landbay A	3150-3200	INORG	Silver	7440-22-4	D	1.87E+00	2.30E+00	8.1E-01	3.8E+03	LT	5.0E-04	2.7E+00	LT	7.0E-01
Landbay A	3150-3200	INORG	Strontium	7440-24-6		1.14E+01	3.80E+01	3.0E-01	1.6E+07	EqP	7.0E-07	1.1E+03	EqP	1.1E-02
Landbay A	3150-3200	INORG	Vanadium	7440-62-2	ID	2.27E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay A	3150-3200	INORG	Zinc	7440-66-6	ID	6.53E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay A	3150-3350	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay A	3150-3350	INORG	Arsenic	7440-38-2	A	7.72E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay A	3150-3350	INORG	Barium	7440-39-3	NC	1.56E+02	2.24E+02	7.0E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	3150-3350	INORG	Beryllium	7440-41-7	B1	7.85E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.5E-02
Landbay A	3150-3350	INORG	Chromium III	16065-83-1	D	4.77E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay A	3150-3350	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	3150-3350	INORG	Cobalt	7440-48-4	LC	4.78E+01	8.60E+01	5.6E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay A	3150-3350	INORG	Copper	7440-50-8	D	2.28E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.6E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	3150-3350	INORG	Iron	7439-89-6	D	6.03E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay A	3150-3350	INORG	Lead	7439-92-1	B2	3.32E+01						3.5E+02	EqP	9.5E-02
Landbay A	3150-3350	INORG	Manganese	7439-96-5	D	3.28E+03	4.27E+03	7.7E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay A	3150-3350	INORG	Mercury	7439-97-6	D	4.96E-02	7.10E-02	7.0E-01		NA		3.7E-01	EqP	1.3E-01
Landbay A	3150-3350	INORG	Nickel	7440-02-0	A	1.26E+01	7.30E+01	1.7E-01	1.2E+05	EqP	1.0E-04	3.4E+01	EqP	3.7E-01
Landbay A	3150-3350	INORG	Selenium	7782-49-2	D	3.11E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.6E+00**
Landbay A	3150-3350	INORG	Strontium	7440-24-6		1.10E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	3150-3350	INORG	Thallium	7440-28-0	ID	6.20E+00	4.50E+00	**1.4E+00**				1.1E+00	EqP	**5.4E+00**
Landbay A	3150-3350	INORG	Vanadium	7440-62-2	ID	2.36E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay A	3150-3350	INORG	Zinc	7440-66-6	ID	6.70E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay A	3150-3500	INORG	Aluminum	7429-90-5	ID	2.44E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay A	3150-3500	INORG	Antimony	7440-36-0	ID	1.18E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.6E-04	2.7E+01	EqP	4.3E-02
Landbay A	3150-3500	INORG	Arsenic	7440-38-2	A	3.74E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay A	3150-3500	INORG	Barium	7440-39-3	NC	6.89E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay A	3150-3500	INORG	Beryllium	7440-41-7	B1	2.62E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.5E-02
Landbay A	3150-3500	INORG	Cadmium	7440-43-9	B1	1.90E+00	2.70E+00	7.0E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	8.9E-01
Landbay A	3150-3500	INORG	Chromium III	16065-83-1	D	5.58E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	3150-3500	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	3150-3500	INORG	Cobalt	7440-48-4	LC	3.02E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.5E+00**
Landbay A	3150-3500	INORG	Copper	7440-50-8	D	2.59E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay A	3150-3500	INORG	Iron	7439-89-6	D	5.04E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay A	3150-3500	INORG	Lead	7439-92-1	B2	1.97E+01						3.5E+02	EqP	5.6E-02
Landbay A	3150-3500	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay A	3150-3500	INORG	Mercury	7439-97-6	D	3.02E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay A	3150-3500	INORG	Nickel	7440-02-0	A	9.91E+00	7.30E+01	1.4E-01	1.2E+05	EqP	8.0E-05	3.4E+01	EqP	2.9E-01
Landbay A	3150-3500	INORG	Perchlorate	14797-73-0	NC	4.10E-04			3.4E+03	LT	1.2E-07	7.7E+02	LT	5.3E-07
Landbay A	3150-3500	INORG	Silver	7440-22-4	D	4.92E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay A	3150-3500	INORG	Thallium	7440-28-0	ID	2.10E+00	4.50E+00	4.7E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	3150-3500	INORG	Vanadium	7440-62-2	ID	1.83E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay A	3150-3500	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	3300-2900	INORG	Aluminum	7429-90-5	ID	3.74E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	3300-2900	INORG	Antimony	7440-36-0	ID	2.40E+00	1.70E+00	**1.4E+00**	1.4E+03	EqP	1.8E-03	2.7E+01	EqP	8.8E-02
Landbay A	3300-2900	INORG	Arsenic	7440-38-2	A	7.80E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay A	3300-2900	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay A	3300-2900	INORG	Beryllium	7440-41-7	B1	5.30E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay A	3300-2900	INORG	Cadmium	7440-43-9	B1	2.38E+00	2.70E+00	8.8E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	3300-2900	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	3300-2900	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	3300-2900	INORG	Cobalt	7440-48-4	LC	5.63E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	3300-2900	INORG	Copper	7440-50-8	D	5.59E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay A	3300-2900	INORG	Iron	7439-89-6	D	7.55E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay A	3300-2900	INORG	Lead	7439-92-1	B2	1.87E+01						3.5E+02	EqP	5.3E-02
Landbay A	3300-2900	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay A	3300-2900	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay A	3300-2900	INORG	Nickel	7440-02-0	A	3.42E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	3300-2900	INORG	Silver	7440-22-4	D	1.53E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay A	3300-2900	INORG	Strontium	7440-24-6		2.15E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay A	3300-2900	INORG	Vanadium	7440-62-2	ID	2.56E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay A	3300-2900	INORG	Zinc	7440-66-6	ID	6.91E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.6E-01
Landbay A	3300-3050	VOC	Acetone	67-64-1	ID	1.70E-02			2.0E+06	LT	8.3E-09	6.0E+02	LT	2.8E-05
Landbay A	3300-3050	VOC	p-Cymene	99-87-6		4.30E-03						3.4E+01	LT	1.3E-04
Landbay A	3300-3050	INORG	Aluminum	7429-90-5	ID	3.61E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.8E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	3300-3050	INORG	Arsenic	7440-38-2	A	1.33E+01	9.90E+00	**1.3E+00**	1.1E+03	EqP	1.3E-02	8.6E+01	EqP	1.6E-01
Landbay A	3300-3050	INORG	Barium	7440-39-3	NC	8.46E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay A	3300-3050	INORG	Beryllium	7440-41-7	B1	5.23E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.7E-05	1.0E+01	EqP	5.0E-02
Landbay A	3300-3050	INORG	Chromium III	16065-83-1	D	4.69E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay A	3300-3050	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	3300-3050	INORG	Cobalt	7440-48-4	LC	1.24E+02	8.60E+01	**1.4E+00**	1.4E+04	EqP	9.0E-03	2.1E+01	EqP	**6.0E+00**
Landbay A	3300-3050	INORG	Copper	7440-50-8	D	3.01E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.7E-05	8.4E+00	EqP	**3.6E+00**
Landbay A	3300-3050	INORG	Iron	7439-89-6	D	1.30E+05	9.52E+04	**1.4E+00**	4.4E+06	EqP	3.0E-02	1.5E+02	EqP	**8.6E+02**
Landbay A	3300-3050	INORG	Lead	7439-92-1	B2	3.71E+01						3.5E+02	EqP	1.1E-01
Landbay A	3300-3050	INORG	Manganese	7439-96-5	D	4.34E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.8E+01**
Landbay A	3300-3050	INORG	Nickel	7440-02-0	A	1.28E+01	7.30E+01	1.8E-01	1.2E+05	EqP	1.0E-04	3.4E+01	EqP	3.8E-01
Landbay A	3300-3050	INORG	Selenium	7782-49-2	D	4.78E+00	2.50E+00	**1.9E+00**	2.5E+04	LT	1.9E-04	2.0E+00	LT	**2.4E+00**
Landbay A	3300-3050	INORG	Silver	7440-22-4	D	9.62E-01	2.30E+00	4.2E-01	3.8E+03	LT	2.6E-04	2.7E+00	LT	3.6E-01
Landbay A	3300-3050	INORG	Strontium	7440-24-6		1.02E+01	3.80E+01	2.7E-01	1.6E+07	EqP	6.3E-07	1.1E+03	EqP	9.6E-03
Landbay A	3300-3050	INORG	Thallium	7440-28-0	ID	3.78E+00	4.50E+00	8.4E-01				1.1E+00	EqP	**3.3E+00**
Landbay A	3300-3050	INORG	Vanadium	7440-62-2	ID	4.34E+02	2.83E+02	**1.5E+00**	1.5E+05	EqP	2.8E-03	4.0E+02	EqP	**1.1E+00**
Landbay A	3300-3050	INORG	Zinc	7440-66-6	ID	2.79E+01	1.02E+02	2.7E-01	5.5E+06	EqP	5.1E-06	1.9E+02	EqP	1.5E-01
Landbay A	3300-3200	INORG	Aluminum	7429-90-5	ID	5.97E+04	5.34E+04	**1.1E+00**	3.7E+08	EqP	1.6E-04	2.6E+03	EqP	**2.3E+01**
Landbay A	3300-3200	INORG	Arsenic	7440-38-2	A	8.49E+00	9.90E+00	8.6E-01	1.1E+03	EqP	8.1E-03	8.6E+01	EqP	9.9E-02
Landbay A	3300-3200	INORG	Barium	7440-39-3	NC	1.64E+02	2.24E+02	7.3E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay A	3300-3200	INORG	Beryllium	7440-41-7	B1	6.78E-01	1.20E+00	5.7E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay A	3300-3200	INORG	Chromium III	16065-83-1	D	4.45E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay A	3300-3200	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	3300-3200	INORG	Cobalt	7440-48-4	LC	4.23E+01	8.60E+01	4.9E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.0E+00**
Landbay A	3300-3200	INORG	Copper	7440-50-8	D	7.24E+01	1.31E+02	5.5E-01	3.5E+05	EqP	2.1E-04	8.4E+00	EqP	**8.6E+00**
Landbay A	3300-3200	INORG	Iron	7439-89-6	D	8.14E+04	9.52E+04	8.6E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.4E+02**
Landbay A	3300-3200	INORG	Lead	7439-92-1	B2	2.09E+01						3.5E+02	EqP	6.0E-02
Landbay A	3300-3200	INORG	Manganese	7439-96-5	D	1.66E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.3E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3300-3200	INORG	Nickel	7440-02-0	A	2.77E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.2E-01
Landbay A	3300-3200	INORG	Selenium	7782-49-2	D	2.96E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.2E-04	2.0E+00	LT	**1.5E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	3300-3200	INORG	Silver	7440-22-4	D	5.26E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay A	3300-3200	INORG	Strontium	7440-24-6		1.48E+01	3.80E+01	3.9E-01	1.6E+07	EqP	9.1E-07	1.1E+03	EqP	1.4E-02
Landbay A	3300-3200	INORG	Thallium	7440-28-0	ID	3.02E+00	4.50E+00	6.7E-01				1.1E+00	EqP	**2.6E+00**
Landbay A	3300-3200	INORG	Vanadium	7440-62-2	ID	2.70E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay A	3300-3200	INORG	Zinc	7440-66-6	ID	6.24E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay A	3300-3350	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay A	3300-3350	INORG	Arsenic	7440-38-2	A	7.72E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay A	3300-3350	INORG	Barium	7440-39-3	NC	1.56E+02	2.24E+02	7.0E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	3300-3350	INORG	Beryllium	7440-41-7	B1	7.85E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.5E-02
Landbay A	3300-3350	INORG	Chromium III	16065-83-1	D	4.77E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay A	3300-3350	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	3300-3350	INORG	Cobalt	7440-48-4	LC	4.78E+01	8.60E+01	5.6E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay A	3300-3350	INORG	Copper	7440-50-8	D	2.28E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.6E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	3300-3350	INORG	Iron	7439-89-6	D	6.03E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay A	3300-3350	INORG	Lead	7439-92-1	B2	3.32E+01						3.5E+02	EqP	9.5E-02
Landbay A	3300-3350	INORG	Manganese	7439-96-5	D	3.28E+03	4.27E+03	7.7E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay A	3300-3350	INORG	Mercury	7439-97-6	D	4.96E-02	7.10E-02	7.0E-01		NA		3.7E-01	EqP	1.3E-01
Landbay A	3300-3350	INORG	Nickel	7440-02-0	A	1.26E+01	7.30E+01	1.7E-01	1.2E+05	EqP	1.0E-04	3.4E+01	EqP	3.7E-01
Landbay A	3300-3350	INORG	Selenium	7782-49-2	D	3.11E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.6E+00**
Landbay A	3300-3350	INORG	Strontium	7440-24-6		1.10E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	3300-3350	INORG	Thallium	7440-28-0	ID	6.20E+00	4.50E+00	**1.4E+00**				1.1E+00	EqP	**5.4E+00**
Landbay A	3300-3350	INORG	Vanadium	7440-62-2	ID	2.36E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay A	3300-3350	INORG	Zinc	7440-66-6	ID	6.70E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay A	3300-3500	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay A	3300-3500	INORG	Arsenic	7440-38-2	A	7.72E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay A	3300-3500	INORG	Barium	7440-39-3	NC	1.56E+02	2.24E+02	7.0E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	3300-3500	INORG	Beryllium	7440-41-7	B1	7.85E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.5E-02
Landbay A	3300-3500	INORG	Chromium III	16065-83-1	D	4.77E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay A	3300-3500	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	3300-3500	INORG	Cobalt	7440-48-4	LC	4.78E+01	8.60E+01	5.6E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay A	3300-3500	INORG	Copper	7440-50-8	D	2.28E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.6E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	3300-3500	INORG	Iron	7439-89-6	D	6.03E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay A	3300-3500	INORG	Lead	7439-92-1	B2	3.32E+01						3.5E+02	EqP	9.5E-02
Landbay A	3300-3500	INORG	Manganese	7439-96-5	D	3.28E+03	4.27E+03	7.7E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay A	3300-3500	INORG	Mercury	7439-97-6	D	4.96E-02	7.10E-02	7.0E-01		NA		3.7E-01	EqP	1.3E-01
Landbay A	3300-3500	INORG	Nickel	7440-02-0	A	1.26E+01	7.30E+01	1.7E-01	1.2E+05	EqP	1.0E-04	3.4E+01	EqP	3.7E-01
Landbay A	3300-3500	INORG	Selenium	7782-49-2	D	3.11E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.6E+00**
Landbay A	3300-3500	INORG	Strontium	7440-24-6		1.10E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	3300-3500	INORG	Thallium	7440-28-0	ID	6.20E+00	4.50E+00	**1.4E+00**				1.1E+00	EqP	**5.4E+00**
Landbay A	3300-3500	INORG	Vanadium	7440-62-2	ID	2.36E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay A	3300-3500	INORG	Zinc	7440-66-6	ID	6.70E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay A	3450-2900	INORG	Aluminum	7429-90-5	ID	3.74E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	3450-2900	INORG	Antimony	7440-36-0	ID	2.40E+00	1.70E+00	**1.4E+00**	1.4E+03	EqP	1.8E-03	2.7E+01	EqP	8.8E-02
Landbay A	3450-2900	INORG	Arsenic	7440-38-2	A	7.80E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay A	3450-2900	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay A	3450-2900	INORG	Beryllium	7440-41-7	B1	5.30E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay A	3450-2900	INORG	Cadmium	7440-43-9	B1	2.38E+00	2.70E+00	8.8E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	3450-2900	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	3450-2900	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	3450-2900	INORG	Cobalt	7440-48-4	LC	5.63E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	3450-2900	INORG	Copper	7440-50-8	D	5.59E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay A	3450-2900	INORG	Iron	7439-89-6	D	7.55E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay A	3450-2900	INORG	Lead	7439-92-1	B2	1.87E+01						3.5E+02	EqP	5.3E-02
Landbay A	3450-2900	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay A	3450-2900	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay A	3450-2900	INORG	Nickel	7440-02-0	A	3.42E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	3450-2900	INORG	Silver	7440-22-4	D	1.53E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay A	3450-2900	INORG	Strontium	7440-24-6		2.15E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay A	3450-2900	INORG	Vanadium	7440-62-2	ID	2.56E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay A	3450-2900	INORG	Zinc	7440-66-6	ID	6.91E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.6E-01
Landbay A	3450-3050	INORG	Aluminum	7429-90-5	ID	3.32E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3450-3050	INORG	Antimony	7440-36-0	ID	1.17E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.5E-04	2.7E+01	EqP	4.3E-02
Landbay A	3450-3050	INORG	Arsenic	7440-38-2	A	4.43E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay A	3450-3050	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	3450-3050	INORG	Beryllium	7440-41-7	B1	5.34E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay A	3450-3050	INORG	Chromium III	16065-83-1	D	8.74E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay A	3450-3050	INORG	Chromium VI	18540-29-9	A	3.19E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	3450-3050	INORG	Cobalt	7440-48-4	LC	4.29E+01	8.60E+01	5.0E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	3450-3050	INORG	Copper	7440-50-8	D	4.92E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.9E+00**
Landbay A	3450-3050	INORG	Iron	7439-89-6	D	5.64E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay A	3450-3050	INORG	Lead	7439-92-1	B2	1.73E+01						3.5E+02	EqP	4.9E-02
Landbay A	3450-3050	INORG	Manganese	7439-96-5	D	1.69E+03	4.27E+03	4.0E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3450-3050	INORG	Mercury	7439-97-6	D	2.77E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay A	3450-3050	INORG	Nickel	7440-02-0	A	2.23E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.6E-01
Landbay A	3450-3050	INORG	Silver	7440-22-4	D	1.47E+00	2.30E+00	6.4E-01	3.8E+03	LT	3.9E-04	2.7E+00	LT	5.5E-01
Landbay A	3450-3050	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	3450-3050	INORG	Vanadium	7440-62-2	ID	2.07E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	3450-3050	INORG	Zinc	7440-66-6	ID	5.72E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay A	3450-3200	INORG	Aluminum	7429-90-5	ID	4.61E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	3450-3200	INORG	Arsenic	7440-38-2	A	6.74E+00	9.90E+00	6.8E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.9E-02
Landbay A	3450-3200	INORG	Barium	7440-39-3	NC	1.33E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay A	3450-3200	INORG	Beryllium	7440-41-7	B1	6.90E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.6E-02
Landbay A	3450-3200	INORG	Chromium III	16065-83-1	D	6.68E+01	2.61E+02	2.6E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay A	3450-3200	INORG	Chromium VI	18540-29-9	A	3.05E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay A	3450-3200	INORG	Cobalt	7440-48-4	LC	5.66E+01	8.60E+01	6.6E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	3450-3200	INORG	Copper	7440-50-8	D	4.70E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.6E+00**
Landbay A	3450-3200	INORG	Iron	7439-89-6	D	7.03E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay A	3450-3200	INORG	Lead	7439-92-1	B2	1.65E+01						3.5E+02	EqP	4.7E-02
Landbay A	3450-3200	INORG	Manganese	7439-96-5	D	1.91E+03	4.27E+03	4.5E-01	3.1E+05	EqP	6.1E-03	1.6E+02	EqP	**1.2E+01**
Landbay A	3450-3200	INORG	Nickel	7440-02-0	A	2.70E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.0E-01
Landbay A	3450-3200	INORG	Selenium	7782-49-2	D	1.44E+00	2.50E+00	5.8E-01	2.5E+04	LT	5.8E-05	2.0E+00	LT	7.2E-01
Landbay A	3450-3200	INORG	Silver	7440-22-4	D	5.77E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.2E-01
Landbay A	3450-3200	INORG	Strontium	7440-24-6		2.61E+01	3.80E+01	6.9E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.5E-02
Landbay A	3450-3200	INORG	Thallium	7440-28-0	ID	2.62E+00	4.50E+00	5.8E-01				1.1E+00	EqP	**2.3E+00**
Landbay A	3450-3200	INORG	Vanadium	7440-62-2	ID	2.55E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.4E-01
Landbay A	3450-3200	INORG	Zinc	7440-66-6	ID	4.39E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.0E-06	1.9E+02	EqP	2.3E-01
Landbay A	3450-3350	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay A	3450-3350	INORG	Arsenic	7440-38-2	A	7.72E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay A	3450-3350	INORG	Barium	7440-39-3	NC	1.56E+02	2.24E+02	7.0E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	3450-3350	INORG	Beryllium	7440-41-7	B1	7.85E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.5E-02
Landbay A	3450-3350	INORG	Chromium III	16065-83-1	D	4.77E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay A	3450-3350	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	3450-3350	INORG	Cobalt	7440-48-4	LC	4.78E+01	8.60E+01	5.6E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay A	3450-3350	INORG	Copper	7440-50-8	D	2.28E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.6E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	3450-3350	INORG	Iron	7439-89-6	D	6.03E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay A	3450-3350	INORG	Lead	7439-92-1	B2	3.32E+01						3.5E+02	EqP	9.5E-02
Landbay A	3450-3350	INORG	Manganese	7439-96-5	D	3.28E+03	4.27E+03	7.7E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay A	3450-3350	INORG	Mercury	7439-97-6	D	4.96E-02	7.10E-02	7.0E-01		NA		3.7E-01	EqP	1.3E-01
Landbay A	3450-3350	INORG	Nickel	7440-02-0	A	1.26E+01	7.30E+01	1.7E-01	1.2E+05	EqP	1.0E-04	3.4E+01	EqP	3.7E-01
Landbay A	3450-3350	INORG	Selenium	7782-49-2	D	3.11E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.6E+00**
Landbay A	3450-3350	INORG	Strontium	7440-24-6		1.10E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	3450-3350	INORG	Thallium	7440-28-0	ID	6.20E+00	4.50E+00	**1.4E+00**				1.1E+00	EqP	**5.4E+00**
Landbay A	3450-3350	INORG	Vanadium	7440-62-2	ID	2.36E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay A	3450-3350	INORG	Zinc	7440-66-6	ID	6.70E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay A	3450-3500	INORG	Aluminum	7429-90-5	ID	3.70E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	3450-3500	INORG	Arsenic	7440-38-2	A	6.76E+00	9.90E+00	6.8E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.9E-02
Landbay A	3450-3500	INORG	Barium	7440-39-3	NC	2.23E+02	2.24E+02	1.0E+00	3.2E+05	EqP	6.9E-04	3.3E+00	EqP	**6.8E+01**
Landbay A	3450-3500	INORG	Beryllium	7440-41-7	B1	9.28E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay A	3450-3500	INORG	Chromium III	16065-83-1	D	9.53E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay A	3450-3500	INORG	Chromium VI	18540-29-9	A	3.24E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay A	3450-3500	INORG	Cobalt	7440-48-4	LC	5.29E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.5E+00**
Landbay A	3450-3500	INORG	Copper	7440-50-8	D	4.33E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.2E+00**
Landbay A	3450-3500	INORG	Iron	7439-89-6	D	7.09E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	3450-3500	INORG	Lead	7439-92-1	B2	1.90E+01						3.5E+02	EqP	5.4E-02
Landbay A	3450-3500	INORG	Manganese	7439-96-5	D	3.16E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3450-3500	INORG	Mercury	7439-97-6	D	3.62E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.8E-02
Landbay A	3450-3500	INORG	Nickel	7440-02-0	A	3.08E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay A	3450-3500	INORG	Selenium	7782-49-2	D	3.52E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.8E+00**
Landbay A	3450-3500	INORG	Strontium	7440-24-6		2.46E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	3450-3500	INORG	Thallium	7440-28-0	ID	6.87E+00	4.50E+00	**1.5E+00**				1.1E+00	EqP	**6.0E+00**
Landbay A	3450-3500	INORG	Vanadium	7440-62-2	ID	2.34E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay A	3450-3500	INORG	Zinc	7440-66-6	ID	7.67E+01	1.02E+02	7.5E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.0E-01
Landbay A	3450-3650	INORG	Aluminum	7429-90-5	ID	2.27E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.7E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	3450-3650	INORG	Arsenic	7440-38-2	A	8.86E+00	9.90E+00	8.9E-01	1.1E+03	EqP	8.4E-03	8.6E+01	EqP	1.0E-01
Landbay A	3450-3650	INORG	Barium	7440-39-3	NC	1.41E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay A	3450-3650	INORG	Beryllium	7440-41-7	B1	7.54E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay A	3450-3650	INORG	Chromium III	16065-83-1	D	5.31E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay A	3450-3650	INORG	Chromium VI	18540-29-9	A	2.95E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay A	3450-3650	INORG	Cobalt	7440-48-4	LC	2.01E+01	8.60E+01	2.3E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.7E-01
Landbay A	3450-3650	INORG	Copper	7440-50-8	D	1.94E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.6E-05	8.4E+00	EqP	**2.3E+00**
Landbay A	3450-3650	INORG	Iron	7439-89-6	D	6.20E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	3450-3650	INORG	Lead	7439-92-1	B2	2.38E+01						3.5E+02	EqP	6.8E-02
Landbay A	3450-3650	INORG	Manganese	7439-96-5	D	4.34E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.8E+01**
Landbay A	3450-3650	INORG	Nickel	7440-02-0	A	1.33E+01	7.30E+01	1.8E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	3.9E-01
Landbay A	3450-3650	INORG	Selenium	7782-49-2	D	1.99E+00	2.50E+00	8.0E-01	2.5E+04	LT	8.1E-05	2.0E+00	LT	1.0E+00
Landbay A	3450-3650	INORG	Silver	7440-22-4	D	9.11E-01	2.30E+00	4.0E-01	3.8E+03	LT	2.4E-04	2.7E+00	LT	3.4E-01
Landbay A	3450-3650	INORG	Strontium	7440-24-6		9.88E+00	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.3E-03
Landbay A	3450-3650	INORG	Thallium	7440-28-0	ID	2.84E+00	4.50E+00	6.3E-01				1.1E+00	EqP	**2.5E+00**
Landbay A	3450-3650	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay A	3450-3650	INORG	Zinc	7440-66-6	ID	4.92E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3450-3800	INORG	Aluminum	7429-90-5	ID	2.16E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.3E+00**
Landbay A	3450-3800	INORG	Arsenic	7440-38-2	A	5.27E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay A	3450-3800	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay A	3450-3800	INORG	Beryllium	7440-41-7	B1	4.36E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.4E-05	1.0E+01	EqP	4.2E-02
Landbay A	3450-3800	INORG	Chromium III	16065-83-1	D	4.39E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay A	3450-3800	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay A	3450-3800	INORG	Cobalt	7440-48-4	LC	1.98E+01	8.60E+01	2.3E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.5E-01
Landbay A	3450-3800	INORG	Copper	7440-50-8	D	2.52E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.3E-05	8.4E+00	EqP	**3.0E+00**
Landbay A	3450-3800	INORG	Iron	7439-89-6	D	3.38E+04	9.52E+04	3.6E-01	4.4E+06	EqP	7.8E-03	1.5E+02	EqP	**2.2E+02**
Landbay A	3450-3800	INORG	Lead	7439-92-1	B2	2.67E+01						3.5E+02	EqP	7.6E-02
Landbay A	3450-3800	INORG	Manganese	7439-96-5	D	1.50E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.6E+00**
Landbay A	3450-3800	INORG	Nickel	7440-02-0	A	1.46E+01	7.30E+01	2.0E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.3E-01
Landbay A	3450-3800	INORG	Silver	7440-22-4	D	3.41E-01	2.30E+00	1.5E-01	3.8E+03	LT	9.1E-05	2.7E+00	LT	1.3E-01
Landbay A	3450-3800	INORG	Strontium	7440-24-6		1.83E+01	3.80E+01	4.8E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay A	3450-3800	INORG	Vanadium	7440-62-2	ID	1.20E+02	2.83E+02	4.2E-01	1.5E+05	EqP	7.7E-04	4.0E+02	EqP	3.0E-01
Landbay A	3450-3800	INORG	Zinc	7440-66-6	ID	6.36E+01	1.02E+02	6.2E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.3E-01
Landbay A	3450-3950	INORG	Aluminum	7429-90-5	ID	2.19E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay A	3450-3950	INORG	Arsenic	7440-38-2	A	7.26E+00	9.90E+00	7.3E-01	1.1E+03	EqP	6.9E-03	8.6E+01	EqP	8.5E-02
Landbay A	3450-3950	INORG	Barium	7440-39-3	NC	6.74E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay A	3450-3950	INORG	Beryllium	7440-41-7	B1	4.46E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.6E-05	1.0E+01	EqP	4.3E-02
Landbay A	3450-3950	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay A	3450-3950	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	3450-3950	INORG	Cobalt	7440-48-4	LC	3.93E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay A	3450-3950	INORG	Copper	7440-50-8	D	1.51E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.3E-05	8.4E+00	EqP	**1.8E+00**
Landbay A	3450-3950	INORG	Iron	7439-89-6	D	6.15E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	3450-3950	INORG	Lead	7439-92-1	B2	2.09E+01						3.5E+02	EqP	6.0E-02
Landbay A	3450-3950	INORG	Manganese	7439-96-5	D	2.10E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay A	3450-3950	INORG	Nickel	7440-02-0	A	1.36E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.0E-01
Landbay A	3450-3950	INORG	Selenium	7782-49-2	D	2.04E+00	2.50E+00	8.2E-01	2.5E+04	LT	8.3E-05	2.0E+00	LT	1.0E+00
Landbay A	3450-3950	INORG	Silver	7440-22-4	D	5.38E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay A	3450-3950	INORG	Strontium	7440-24-6		9.00E+00	3.80E+01	2.4E-01	1.6E+07	EqP	5.5E-07	1.1E+03	EqP	8.5E-03
Landbay A	3450-3950	INORG	Thallium	7440-28-0	ID	1.76E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.5E+00**
Landbay A	3450-3950	INORG	Vanadium	7440-62-2	ID	2.29E+02	2.83E+02	8.1E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay A	3450-3950	INORG	Zinc	7440-66-6	ID	3.90E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.1E-06	1.9E+02	EqP	2.1E-01
Landbay A	34B1	INORG	Aluminum	7429-90-5	ID	4.04E+04	5.34E+04	7.6E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	34B1	INORG	Arsenic	7440-38-2	A	6.56E+00	9.90E+00	6.6E-01	1.1E+03	EqP	6.2E-03	8.6E+01	EqP	7.6E-02
Landbay A	34B1	INORG	Barium	7440-39-3	NC	6.34E+01	2.24E+02	2.8E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**1.9E+01**
Landbay A	34B1	INORG	Cadmium	7440-43-9	B1	1.26E+00	2.70E+00	4.7E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	5.9E-01
Landbay A	34B1	INORG	Chromium III	16065-83-1	D	8.14E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay A	34B1	INORG	Chromium VI	18540-29-9	A	3.14E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	34B1	INORG	Copper	7440-50-8	D	6.36E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay A	34B1	INORG	Lead	7439-92-1	B2	2.90E+01						3.5E+02	EqP	8.3E-02
Landbay A	34B1	INORG	Perchlorate	14797-73-0	NC	9.20E-02			3.4E+03	LT	2.7E-05	7.7E+02	LT	1.2E-04
Landbay A	34B1	INORG	Silver	7440-22-4	D	2.70E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.2E-04	2.7E+00	LT	1.0E+00
Landbay A	34B1	INORG	Strontium	7440-24-6		6.69E+01	3.80E+01	**1.8E+00**	1.6E+07	EqP	4.1E-06	1.1E+03	EqP	6.3E-02
Landbay A	34B2	INORG	Aluminum	7429-90-5	ID	4.04E+04	5.34E+04	7.6E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	34B2	INORG	Arsenic	7440-38-2	A	6.56E+00	9.90E+00	6.6E-01	1.1E+03	EqP	6.2E-03	8.6E+01	EqP	7.6E-02
Landbay A	34B2	INORG	Barium	7440-39-3	NC	6.34E+01	2.24E+02	2.8E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**1.9E+01**
Landbay A	34B2	INORG	Cadmium	7440-43-9	B1	1.26E+00	2.70E+00	4.7E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	5.9E-01
Landbay A	34B2	INORG	Chromium III	16065-83-1	D	8.14E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay A	34B2	INORG	Chromium VI	18540-29-9	A	3.14E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	34B2	INORG	Copper	7440-50-8	D	6.36E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay A	34B2	INORG	Lead	7439-92-1	B2	2.90E+01						3.5E+02	EqP	8.3E-02
Landbay A	34B2	INORG	Perchlorate	14797-73-0	NC	2.90E-03			3.4E+03	LT	8.4E-07	7.7E+02	LT	3.7E-06
Landbay A	34B2	INORG	Silver	7440-22-4	D	2.70E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.2E-04	2.7E+00	LT	1.0E+00
Landbay A	34B2	INORG	Strontium	7440-24-6		6.69E+01	3.80E+01	**1.8E+00**	1.6E+07	EqP	4.1E-06	1.1E+03	EqP	6.3E-02
Landbay A	34G3	INORG	Perchlorate	14797-73-0	NC	7.70E-03			3.4E+03	LT	2.2E-06	7.7E+02	LT	1.0E-05
Landbay A	34G4	INORG	Perchlorate	14797-73-0	NC	3.40E-03			3.4E+03	LT	9.9E-07	7.7E+02	LT	4.4E-06
Landbay A	34G5	INORG	Perchlorate	14797-73-0	NC	1.60E-02			3.4E+03	LT	4.6E-06	7.7E+02	LT	2.1E-05
Landbay A	3600-2900	INORG	Aluminum	7429-90-5	ID	3.32E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3600-2900	INORG	Antimony	7440-36-0	ID	1.17E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.5E-04	2.7E+01	EqP	4.3E-02
Landbay A	3600-2900	INORG	Arsenic	7440-38-2	A	4.43E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay A	3600-2900	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	3600-2900	INORG	Beryllium	7440-41-7	B1	5.34E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay A	3600-2900	INORG	Chromium III	16065-83-1	D	8.74E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay A	3600-2900	INORG	Chromium VI	18540-29-9	A	3.19E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	3600-2900	INORG	Cobalt	7440-48-4	LC	4.29E+01	8.60E+01	5.0E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	3600-2900	INORG	Copper	7440-50-8	D	4.92E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.9E+00**
Landbay A	3600-2900	INORG	Iron	7439-89-6	D	5.64E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay A	3600-2900	INORG	Lead	7439-92-1	B2	1.73E+01						3.5E+02	EqP	4.9E-02
Landbay A	3600-2900	INORG	Manganese	7439-96-5	D	1.69E+03	4.27E+03	4.0E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3600-2900	INORG	Mercury	7439-97-6	D	2.77E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay A	3600-2900	INORG	Nickel	7440-02-0	A	2.23E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.6E-01
Landbay A	3600-2900	INORG	Silver	7440-22-4	D	1.47E+00	2.30E+00	6.4E-01	3.8E+03	LT	3.9E-04	2.7E+00	LT	5.5E-01
Landbay A	3600-2900	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	3600-2900	INORG	Vanadium	7440-62-2	ID	2.07E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	3600-2900	INORG	Zinc	7440-66-6	ID	5.72E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay A	3600-3050	INORG	Aluminum	7429-90-5	ID	3.32E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3600-3050	INORG	Antimony	7440-36-0	ID	1.17E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.5E-04	2.7E+01	EqP	4.3E-02
Landbay A	3600-3050	INORG	Arsenic	7440-38-2	A	4.43E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay A	3600-3050	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	3600-3050	INORG	Beryllium	7440-41-7	B1	5.34E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay A	3600-3050	INORG	Chromium III	16065-83-1	D	8.74E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay A	3600-3050	INORG	Chromium VI	18540-29-9	A	3.19E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	3600-3050	INORG	Cobalt	7440-48-4	LC	4.29E+01	8.60E+01	5.0E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	3600-3050	INORG	Copper	7440-50-8	D	4.92E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.9E+00**
Landbay A	3600-3050	INORG	Iron	7439-89-6	D	5.64E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay A	3600-3050	INORG	Lead	7439-92-1	B2	1.73E+01						3.5E+02	EqP	4.9E-02
Landbay A	3600-3050	INORG	Manganese	7439-96-5	D	1.69E+03	4.27E+03	4.0E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3600-3050	INORG	Mercury	7439-97-6	D	2.77E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay A	3600-3050	INORG	Nickel	7440-02-0	A	2.23E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.6E-01
Landbay A	3600-3050	INORG	Silver	7440-22-4	D	1.47E+00	2.30E+00	6.4E-01	3.8E+03	LT	3.9E-04	2.7E+00	LT	5.5E-01
Landbay A	3600-3050	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	3600-3050	INORG	Vanadium	7440-62-2	ID	2.07E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	3600-3050	INORG	Zinc	7440-66-6	ID	5.72E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay A	3600-31	INORG	Aluminum	7429-90-5	ID	2.93E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	3600-31	INORG	Antimony	7440-36-0	ID	1.29E+00	1.70E+00	7.6E-01	1.4E+03	EqP	9.4E-04	2.7E+01	EqP	4.8E-02
Landbay A	3600-31	INORG	Arsenic	7440-38-2	A	1.20E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.1E-02	8.6E+01	EqP	1.4E-01
Landbay A	3600-31	INORG	Barium	7440-39-3	NC	9.69E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	3600-31	INORG	Beryllium	7440-41-7	B1	6.83E-01	1.20E+00	5.7E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay A	3600-31	INORG	Boron	7440-42-8	ID	4.63E+00	1.34E+01	3.5E-01	9.9E+05	LT	4.7E-06	6.4E-01	LT	**7.2E+00**
Landbay A	3600-31	INORG	Cadmium	7440-43-9	B1	3.31E-01	2.70E+00	1.2E-01	1.1E+03	EqP	3.1E-04	2.1E+00	EqP	1.5E-01
Landbay A	3600-31	INORG	Chromium III	16065-83-1	D	1.05E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.9E-09	3.4E+06	EqP	3.1E-05
Landbay A	3600-31	INORG	Chromium VI	18540-29-9	A	3.30E+00	4.97E+00	6.6E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay A	3600-31	INORG	Cobalt	7440-48-4	LC	8.58E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay A	3600-31	INORG	Copper	7440-50-8	D	3.00E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.6E-05	8.4E+00	EqP	**3.6E+00**
Landbay A	3600-31	INORG	Iron	7439-89-6	D	7.51E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay A	3600-31	INORG	Lead	7439-92-1	B2	3.03E+01						3.5E+02	EqP	8.6E-02
Landbay A	3600-31	INORG	Manganese	7439-96-5	D	2.97E+03	4.27E+03	7.0E-01	3.1E+05	EqP	9.5E-03	1.6E+02	EqP	**1.9E+01**
Landbay A	3600-31	INORG	Mercury	7439-97-6	D	3.50E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.5E-02
Landbay A	3600-31	INORG	Nickel	7440-02-0	A	2.02E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay A	3600-31	INORG	Silver	7440-22-4	D	4.32E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.6E-01
Landbay A	3600-31	INORG	Strontium	7440-24-6		1.20E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay A	3600-31	INORG	Thallium	7440-28-0	ID	1.69E+00	4.50E+00	3.8E-01				1.1E+00	EqP	**1.5E+00**
Landbay A	3600-31	INORG	Vanadium	7440-62-2	ID	2.99E+02	2.83E+02	**1.1E+00**	1.5E+05	EqP	1.9E-03	4.0E+02	EqP	7.5E-01
Landbay A	3600-31	INORG	Zinc	7440-66-6	ID	5.33E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.7E-06	1.9E+02	EqP	2.8E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	3600-3200	INORG	Aluminum	7429-90-5	ID	3.32E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3600-3200	INORG	Antimony	7440-36-0	ID	1.17E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.5E-04	2.7E+01	EqP	4.3E-02
Landbay A	3600-3200	INORG	Arsenic	7440-38-2	A	4.43E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay A	3600-3200	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	3600-3200	INORG	Beryllium	7440-41-7	B1	5.34E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay A	3600-3200	INORG	Chromium III	16065-83-1	D	8.74E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay A	3600-3200	INORG	Chromium VI	18540-29-9	A	3.19E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	3600-3200	INORG	Cobalt	7440-48-4	LC	4.29E+01	8.60E+01	5.0E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	3600-3200	INORG	Copper	7440-50-8	D	4.92E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.9E+00**
Landbay A	3600-3200	INORG	Iron	7439-89-6	D	5.64E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay A	3600-3200	INORG	Lead	7439-92-1	B2	1.73E+01						3.5E+02	EqP	4.9E-02
Landbay A	3600-3200	INORG	Manganese	7439-96-5	D	1.69E+03	4.27E+03	4.0E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3600-3200	INORG	Mercury	7439-97-6	D	2.77E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay A	3600-3200	INORG	Nickel	7440-02-0	A	2.23E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.6E-01
Landbay A	3600-3200	INORG	Silver	7440-22-4	D	1.47E+00	2.30E+00	6.4E-01	3.8E+03	LT	3.9E-04	2.7E+00	LT	5.5E-01
Landbay A	3600-3200	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	3600-3200	INORG	Vanadium	7440-62-2	ID	2.07E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	3600-3200	INORG	Zinc	7440-66-6	ID	5.72E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay A	3600-3350	INORG	Aluminum	7429-90-5	ID	3.70E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	3600-3350	INORG	Arsenic	7440-38-2	A	6.76E+00	9.90E+00	6.8E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.9E-02
Landbay A	3600-3350	INORG	Barium	7440-39-3	NC	2.23E+02	2.24E+02	1.0E+00	3.2E+05	EqP	6.9E-04	3.3E+00	EqP	**6.8E+01**
Landbay A	3600-3350	INORG	Beryllium	7440-41-7	B1	9.28E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay A	3600-3350	INORG	Chromium III	16065-83-1	D	9.53E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay A	3600-3350	INORG	Chromium VI	18540-29-9	A	3.24E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay A	3600-3350	INORG	Cobalt	7440-48-4	LC	5.29E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.5E+00**
Landbay A	3600-3350	INORG	Copper	7440-50-8	D	4.33E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.2E+00**
Landbay A	3600-3350	INORG	Iron	7439-89-6	D	7.09E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	3600-3350	INORG	Lead	7439-92-1	B2	1.90E+01						3.5E+02	EqP	5.4E-02
Landbay A	3600-3350	INORG	Manganese	7439-96-5	D	3.16E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3600-3350	INORG	Mercury	7439-97-6	D	3.62E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.8E-02
Landbay A	3600-3350	INORG	Nickel	7440-02-0	A	3.08E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay A	3600-3350	INORG	Selenium	7782-49-2	D	3.52E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.8E+00**
Landbay A	3600-3350	INORG	Strontium	7440-24-6		2.46E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	3600-3350	INORG	Thallium	7440-28-0	ID	6.87E+00	4.50E+00	**1.5E+00**				1.1E+00	EqP	**6.0E+00**
Landbay A	3600-3350	INORG	Vanadium	7440-62-2	ID	2.34E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay A	3600-3350	INORG	Zinc	7440-66-6	ID	7.67E+01	1.02E+02	7.5E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.0E-01
Landbay A	3600-3500	INORG	Aluminum	7429-90-5	ID	3.70E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	3600-3500	INORG	Arsenic	7440-38-2	A	6.76E+00	9.90E+00	6.8E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.9E-02
Landbay A	3600-3500	INORG	Barium	7440-39-3	NC	2.23E+02	2.24E+02	1.0E+00	3.2E+05	EqP	6.9E-04	3.3E+00	EqP	**6.8E+01**
Landbay A	3600-3500	INORG	Beryllium	7440-41-7	B1	9.28E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay A	3600-3500	INORG	Chromium III	16065-83-1	D	9.53E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay A	3600-3500	INORG	Chromium VI	18540-29-9	A	3.24E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay A	3600-3500	INORG	Cobalt	7440-48-4	LC	5.29E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.5E+00**
Landbay A	3600-3500	INORG	Copper	7440-50-8	D	4.33E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.2E+00**
Landbay A	3600-3500	INORG	Iron	7439-89-6	D	7.09E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	3600-3500	INORG	Lead	7439-92-1	B2	1.90E+01						3.5E+02	EqP	5.4E-02
Landbay A	3600-3500	INORG	Manganese	7439-96-5	D	3.16E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3600-3500	INORG	Mercury	7439-97-6	D	3.62E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.8E-02
Landbay A	3600-3500	INORG	Nickel	7440-02-0	A	3.08E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay A	3600-3500	INORG	Selenium	7782-49-2	D	3.52E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.8E+00**
Landbay A	3600-3500	INORG	Strontium	7440-24-6		2.46E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	3600-3500	INORG	Thallium	7440-28-0	ID	6.87E+00	4.50E+00	**1.5E+00**				1.1E+00	EqP	**6.0E+00**
Landbay A	3600-3500	INORG	Vanadium	7440-62-2	ID	2.34E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay A	3600-3500	INORG	Zinc	7440-66-6	ID	7.67E+01	1.02E+02	7.5E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.0E-01
Landbay A	3600-3650	INORG	Aluminum	7429-90-5	ID	3.70E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	3600-3650	INORG	Arsenic	7440-38-2	A	6.76E+00	9.90E+00	6.8E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.9E-02
Landbay A	3600-3650	INORG	Barium	7440-39-3	NC	2.23E+02	2.24E+02	1.0E+00	3.2E+05	EqP	6.9E-04	3.3E+00	EqP	**6.8E+01**
Landbay A	3600-3650	INORG	Beryllium	7440-41-7	B1	9.28E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay A	3600-3650	INORG	Chromium III	16065-83-1	D	9.53E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay A	3600-3650	INORG	Chromium VI	18540-29-9	A	3.24E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay A	3600-3650	INORG	Cobalt	7440-48-4	LC	5.29E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.5E+00**
Landbay A	3600-3650	INORG	Copper	7440-50-8	D	4.33E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.2E+00**
Landbay A	3600-3650	INORG	Iron	7439-89-6	D	7.09E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	3600-3650	INORG	Lead	7439-92-1	B2	1.90E+01						3.5E+02	EqP	5.4E-02
Landbay A	3600-3650	INORG	Manganese	7439-96-5	D	3.16E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3600-3650	INORG	Mercury	7439-97-6	D	3.62E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.8E-02
Landbay A	3600-3650	INORG	Nickel	7440-02-0	A	3.08E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay A	3600-3650	INORG	Selenium	7782-49-2	D	3.52E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.8E+00**
Landbay A	3600-3650	INORG	Strontium	7440-24-6		2.46E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	3600-3650	INORG	Thallium	7440-28-0	ID	6.87E+00	4.50E+00	**1.5E+00**				1.1E+00	EqP	**6.0E+00**
Landbay A	3600-3650	INORG	Vanadium	7440-62-2	ID	2.34E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay A	3600-3650	INORG	Zinc	7440-66-6	ID	7.67E+01	1.02E+02	7.5E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.0E-01
Landbay A	3600-3800	INORG	Aluminum	7429-90-5	ID	2.84E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	3600-3800	INORG	Arsenic	7440-38-2	A	1.22E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.2E-02	8.6E+01	EqP	1.4E-01
Landbay A	3600-3800	INORG	Barium	7440-39-3	NC	1.41E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay A	3600-3800	INORG	Beryllium	7440-41-7	B1	8.42E-01	1.20E+00	7.0E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	8.1E-02
Landbay A	3600-3800	INORG	Chromium III	16065-83-1	D	3.26E+02	2.61E+02	**1.2E+00**	2.1E+10	EqP	1.5E-08	3.4E+06	EqP	9.7E-05
Landbay A	3600-3800	INORG	Chromium VI	18540-29-9	A	3.30E+00	4.97E+00	6.6E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay A	3600-3800	INORG	Cobalt	7440-48-4	LC	1.57E+02	8.60E+01	**1.8E+00**	1.4E+04	EqP	1.1E-02	2.1E+01	EqP	**7.5E+00**
Landbay A	3600-3800	INORG	Copper	7440-50-8	D	2.52E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.3E-05	8.4E+00	EqP	**3.0E+00**
Landbay A	3600-3800	INORG	Iron	7439-89-6	D	1.32E+05	9.52E+04	**1.4E+00**	4.4E+06	EqP	3.0E-02	1.5E+02	EqP	**8.7E+02**
Landbay A	3600-3800	INORG	Lead	7439-92-1	B2	2.64E+01						3.5E+02	EqP	7.5E-02
Landbay A	3600-3800	INORG	Manganese	7439-96-5	D	6.14E+03	4.27E+03	**1.4E+00**	3.1E+05	EqP	2.0E-02	1.6E+02	EqP	**3.9E+01**
Landbay A	3600-3800	INORG	Nickel	7440-02-0	A	3.49E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	3600-3800	INORG	Selenium	7782-49-2	D	6.52E+00	2.50E+00	**2.6E+00**	2.5E+04	LT	2.6E-04	2.0E+00	LT	**3.3E+00**
Landbay A	3600-3800	INORG	Silver	7440-22-4	D	1.49E+00	2.30E+00	6.5E-01	3.8E+03	LT	4.0E-04	2.7E+00	LT	5.6E-01
Landbay A	3600-3800	INORG	Strontium	7440-24-6		8.56E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.3E-07	1.1E+03	EqP	8.1E-03
Landbay A	3600-3800	INORG	Thallium	7440-28-0	ID	4.03E+00	4.50E+00	9.0E-01				1.1E+00	EqP	**3.5E+00**
Landbay A	3600-3800	INORG	Vanadium	7440-62-2	ID	5.09E+02	2.83E+02	**1.8E+00**	1.5E+05	EqP	3.3E-03	4.0E+02	EqP	**1.3E+00**
Landbay A	3600-3800	INORG	Zinc	7440-66-6	ID	3.87E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.1E-06	1.9E+02	EqP	2.0E-01
Landbay A	3600-3950	INORG	Aluminum	7429-90-5	ID	2.46E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.4E+00**
Landbay A	3600-3950	INORG	Arsenic	7440-38-2	A	6.65E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.8E-02
Landbay A	3600-3950	INORG	Barium	7440-39-3	NC	9.61E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	3600-3950	INORG	Beryllium	7440-41-7	B1	8.05E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay A	3600-3950	INORG	Chromium III	16065-83-1	D	1.96E+02	2.61E+02	7.5E-01	2.1E+10	EqP	9.2E-09	3.4E+06	EqP	5.8E-05
Landbay A	3600-3950	INORG	Chromium VI	18540-29-9	A	3.93E+00	4.97E+00	7.9E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.9E-01
Landbay A	3600-3950	INORG	Cobalt	7440-48-4	LC	7.49E+01	8.60E+01	8.7E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.6E+00**
Landbay A	3600-3950	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	3600-3950	INORG	Iron	7439-89-6	D	7.47E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay A	3600-3950	INORG	Lead	7439-92-1	B2	2.70E+01						3.5E+02	EqP	7.7E-02
Landbay A	3600-3950	INORG	Manganese	7439-96-5	D	3.20E+03	4.27E+03	7.5E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3600-3950	INORG	Mercury	7439-97-6	D	4.32E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3600-3950	INORG	Nickel	7440-02-0	A	2.37E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3600-3950	INORG	Selenium	7782-49-2	D	3.71E+00	2.50E+00	**1.5E+00**	2.5E+04	LT	1.5E-04	2.0E+00	LT	**1.9E+00**
Landbay A	3600-3950	INORG	Strontium	7440-24-6		8.10E+00	3.80E+01	2.1E-01	1.6E+07	EqP	5.0E-07	1.1E+03	EqP	7.7E-03
Landbay A	3600-3950	INORG	Thallium	7440-28-0	ID	6.76E+00	4.50E+00	**1.5E+00**				1.1E+00	EqP	**5.9E+00**
Landbay A	3600-3950	INORG	Vanadium	7440-62-2	ID	2.74E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay A	3600-3950	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3600-4100	INORG	Aluminum	7429-90-5	ID	2.46E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.4E+00**
Landbay A	3600-4100	INORG	Arsenic	7440-38-2	A	6.65E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.8E-02
Landbay A	3600-4100	INORG	Barium	7440-39-3	NC	9.61E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	3600-4100	INORG	Beryllium	7440-41-7	B1	8.05E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay A	3600-4100	INORG	Chromium III	16065-83-1	D	1.96E+02	2.61E+02	7.5E-01	2.1E+10	EqP	9.2E-09	3.4E+06	EqP	5.8E-05
Landbay A	3600-4100	INORG	Chromium VI	18540-29-9	A	3.93E+00	4.97E+00	7.9E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.9E-01
Landbay A	3600-4100	INORG	Cobalt	7440-48-4	LC	7.49E+01	8.60E+01	8.7E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.6E+00**
Landbay A	3600-4100	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	3600-4100	INORG	Iron	7439-89-6	D	7.47E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay A	3600-4100	INORG	Lead	7439-92-1	B2	2.70E+01						3.5E+02	EqP	7.7E-02
Landbay A	3600-4100	INORG	Manganese	7439-96-5	D	3.20E+03	4.27E+03	7.5E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3600-4100	INORG	Mercury	7439-97-6	D	4.32E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3600-4100	INORG	Nickel	7440-02-0	A	2.37E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3600-4100	INORG	Selenium	7782-49-2	D	3.71E+00	2.50E+00	**1.5E+00**	2.5E+04	LT	1.5E-04	2.0E+00	LT	**1.9E+00**
Landbay A	3600-4100	INORG	Strontium	7440-24-6		8.10E+00	3.80E+01	2.1E-01	1.6E+07	EqP	5.0E-07	1.1E+03	EqP	7.7E-03
Landbay A	3600-4100	INORG	Thallium	7440-28-0	ID	6.76E+00	4.50E+00	**1.5E+00**				1.1E+00	EqP	**5.9E+00**
Landbay A	3600-4100	INORG	Vanadium	7440-62-2	ID	2.74E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay A	3600-4100	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3600-4250	INORG	Aluminum	7429-90-5	ID	2.24E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.6E+00**
Landbay A	3600-4250	INORG	Arsenic	7440-38-2	A	8.47E+00	9.90E+00	8.6E-01	1.1E+03	EqP	8.1E-03	8.6E+01	EqP	9.9E-02
Landbay A	3600-4250	INORG	Barium	7440-39-3	NC	5.62E+01	2.24E+02	2.5E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.7E+01**
Landbay A	3600-4250	INORG	Beryllium	7440-41-7	B1	5.47E-01	1.20E+00	4.6E-01	6.8E+03	EqP	8.1E-05	1.0E+01	EqP	5.2E-02
Landbay A	3600-4250	INORG	Chromium III	16065-83-1	D	1.06E+02	2.61E+02	4.1E-01	2.1E+10	EqP	5.0E-09	3.4E+06	EqP	3.1E-05
Landbay A	3600-4250	INORG	Chromium VI	18540-29-9	A	3.31E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay A	3600-4250	INORG	Cobalt	7440-48-4	LC	1.93E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.3E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	3600-4250	INORG	Copper	7440-50-8	D	1.70E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.9E-05	8.4E+00	EqP	**2.0E+00**
Landbay A	3600-4250	INORG	Iron	7439-89-6	D	6.08E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay A	3600-4250	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02
Landbay A	3600-4250	INORG	Manganese	7439-96-5	D	8.97E+02	4.27E+03	2.1E-01	3.1E+05	EqP	2.9E-03	1.6E+02	EqP	**5.7E+00**
Landbay A	3600-4250	INORG	Mercury	7439-97-6	D	2.15E-02	7.10E-02	3.0E-01		NA		3.7E-01	EqP	5.8E-02
Landbay A	3600-4250	INORG	Nickel	7440-02-0	A	1.24E+01	7.30E+01	1.7E-01	1.2E+05	EqP	1.0E-04	3.4E+01	EqP	3.7E-01
Landbay A	3600-4250	INORG	Strontium	7440-24-6		5.99E+00	3.80E+01	1.6E-01	1.6E+07	EqP	3.7E-07	1.1E+03	EqP	5.7E-03
Landbay A	3600-4250	INORG	Thallium	7440-28-0	ID	1.73E+00	4.50E+00	3.8E-01				1.1E+00	EqP	**1.5E+00**
Landbay A	3600-4250	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	3600-4250	INORG	Zinc	7440-66-6	ID	3.79E+01	1.02E+02	3.7E-01	5.5E+06	EqP	6.9E-06	1.9E+02	EqP	2.0E-01
Landbay A	3700-32	INORG	Aluminum	7429-90-5	ID	4.40E+04	5.34E+04	8.2E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	3700-32	INORG	Antimony	7440-36-0	ID	1.58E+00	1.70E+00	9.3E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	5.8E-02
Landbay A	3700-32	INORG	Arsenic	7440-38-2	A	1.37E+01	9.90E+00	**1.4E+00**	1.1E+03	EqP	1.3E-02	8.6E+01	EqP	1.6E-01
Landbay A	3700-32	INORG	Barium	7440-39-3	NC	1.82E+02	2.24E+02	8.1E-01	3.2E+05	EqP	5.6E-04	3.3E+00	EqP	**5.5E+01**
Landbay A	3700-32	INORG	Beryllium	7440-41-7	B1	1.13E+00	1.20E+00	9.4E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay A	3700-32	INORG	Boron	7440-42-8	ID	5.57E+00	1.34E+01	4.2E-01	9.9E+05	LT	5.7E-06	6.4E-01	LT	**8.7E+00**
Landbay A	3700-32	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	3700-32	INORG	Chromium VI	18540-29-9	A	3.41E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	3700-32	INORG	Cobalt	7440-48-4	LC	5.72E+01	8.60E+01	6.7E-01	1.4E+04	EqP	4.2E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	3700-32	INORG	Copper	7440-50-8	D	3.83E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay A	3700-32	INORG	Iron	7439-89-6	D	7.43E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay A	3700-32	INORG	Lead	7439-92-1	B2	2.12E+01						3.5E+02	EqP	6.1E-02
Landbay A	3700-32	INORG	Manganese	7439-96-5	D	3.36E+03	4.27E+03	7.9E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay A	3700-32	INORG	Mercury	7439-97-6	D	8.60E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay A	3700-32	INORG	Nickel	7440-02-0	A	2.97E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.8E-01
Landbay A	3700-32	INORG	Strontium	7440-24-6		2.11E+01	3.80E+01	5.6E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay A	3700-32	INORG	Thallium	7440-28-0	ID	2.80E+00	4.50E+00	6.2E-01				1.1E+00	EqP	**2.5E+00**
Landbay A	3700-32	INORG	Vanadium	7440-62-2	ID	2.19E+02	2.83E+02	7.7E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay A	3700-32	INORG	Zinc	7440-66-6	ID	8.17E+01	1.02E+02	8.0E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.3E-01
Landbay A	3750-3050	PCB	PCBs (total)	1336-36-3	B2	2.36E-02				NA		1.4E+00	EqP	1.7E-02
Landbay A	3750-3050	INORG	Aluminum	7429-90-5	ID	3.03E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.2E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	3750-3050	INORG	Antimony	7440-36-0	ID	1.01E+00	1.70E+00	5.9E-01	1.4E+03	EqP	7.4E-04	2.7E+01	EqP	3.7E-02
Landbay A	3750-3050	INORG	Arsenic	7440-38-2	A	4.01E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay A	3750-3050	INORG	Barium	7440-39-3	NC	1.42E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay A	3750-3050	INORG	Beryllium	7440-41-7	B1	4.45E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.6E-05	1.0E+01	EqP	4.3E-02
Landbay A	3750-3050	INORG	Cadmium	7440-43-9	B1	1.31E+00	2.70E+00	4.9E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.1E-01
Landbay A	3750-3050	INORG	Chromium III	16065-83-1	D	7.93E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay A	3750-3050	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	3750-3050	INORG	Cobalt	7440-48-4	LC	3.98E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay A	3750-3050	INORG	Copper	7440-50-8	D	3.56E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay A	3750-3050	INORG	Iron	7439-89-6	D	4.45E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay A	3750-3050	INORG	Lead	7439-92-1	B2	2.23E+01						3.5E+02	EqP	6.4E-02
Landbay A	3750-3050	INORG	Manganese	7439-96-5	D	2.33E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.5E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	3750-3050	INORG	Mercury	7439-97-6	D	5.30E-02	7.10E-02	7.5E-01		NA		3.7E-01	EqP	1.4E-01
Landbay A	3750-3050	INORG	Nickel	7440-02-0	A	2.35E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3750-3050	INORG	Silver	7440-22-4	D	1.36E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay A	3750-3050	INORG	Strontium	7440-24-6		2.26E+01	3.80E+01	5.9E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay A	3750-3050	INORG	Vanadium	7440-62-2	ID	1.56E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	3750-3050	INORG	Zinc	7440-66-6	ID	7.25E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay A	3750-3200	PCB	PCBs (total)	1336-36-3	B2	2.36E-02				NA		1.4E+00	EqP	1.7E-02
Landbay A	3750-3200	INORG	Aluminum	7429-90-5	ID	3.03E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.2E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	3750-3200	INORG	Antimony	7440-36-0	ID	1.01E+00	1.70E+00	5.9E-01	1.4E+03	EqP	7.4E-04	2.7E+01	EqP	3.7E-02
Landbay A	3750-3200	INORG	Arsenic	7440-38-2	A	4.01E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay A	3750-3200	INORG	Barium	7440-39-3	NC	1.42E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay A	3750-3200	INORG	Beryllium	7440-41-7	B1	4.45E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.6E-05	1.0E+01	EqP	4.3E-02
Landbay A	3750-3200	INORG	Cadmium	7440-43-9	B1	1.31E+00	2.70E+00	4.9E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.1E-01
Landbay A	3750-3200	INORG	Chromium III	16065-83-1	D	7.93E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay A	3750-3200	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	3750-3200	INORG	Cobalt	7440-48-4	LC	3.98E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay A	3750-3200	INORG	Copper	7440-50-8	D	3.56E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay A	3750-3200	INORG	Iron	7439-89-6	D	4.45E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay A	3750-3200	INORG	Lead	7439-92-1	B2	2.23E+01						3.5E+02	EqP	6.4E-02
Landbay A	3750-3200	INORG	Manganese	7439-96-5	D	2.33E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.5E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	3750-3200	INORG	Mercury	7439-97-6	D	5.30E-02	7.10E-02	7.5E-01		NA		3.7E-01	EqP	1.4E-01
Landbay A	3750-3200	INORG	Nickel	7440-02-0	A	2.35E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3750-3200	INORG	Silver	7440-22-4	D	1.36E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay A	3750-3200	INORG	Strontium	7440-24-6		2.26E+01	3.80E+01	5.9E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay A	3750-3200	INORG	Vanadium	7440-62-2	ID	1.56E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	3750-3200	INORG	Zinc	7440-66-6	ID	7.25E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay A	3750-3350	INORG	Aluminum	7429-90-5	ID	3.37E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3750-3350	INORG	Arsenic	7440-38-2	A	2.46E+00	9.90E+00	2.5E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.9E-02
Landbay A	3750-3350	INORG	Barium	7440-39-3	NC	1.08E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.3E+01**
Landbay A	3750-3350	INORG	Beryllium	7440-41-7	B1	5.21E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.7E-05	1.0E+01	EqP	5.0E-02
Landbay A	3750-3350	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	3750-3350	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	3750-3350	INORG	Cobalt	7440-48-4	LC	4.40E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	3750-3350	INORG	Copper	7440-50-8	D	3.90E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay A	3750-3350	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	3750-3350	INORG	Lead	7439-92-1	B2	1.36E+01						3.5E+02	EqP	3.9E-02
Landbay A	3750-3350	INORG	Manganese	7439-96-5	D	1.73E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3750-3350	INORG	Mercury	7439-97-6	D	4.18E-02	7.10E-02	5.9E-01		NA		3.7E-01	EqP	1.1E-01
Landbay A	3750-3350	INORG	Nickel	7440-02-0	A	3.49E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	3750-3350	INORG	Selenium	7782-49-2	D	1.70E+00	2.50E+00	6.8E-01	2.5E+04	LT	6.9E-05	2.0E+00	LT	8.5E-01
Landbay A	3750-3350	INORG	Strontium	7440-24-6		2.53E+01	3.80E+01	6.7E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay A	3750-3350	INORG	Thallium	7440-28-0	ID	4.13E+00	4.50E+00	9.2E-01				1.1E+00	EqP	**3.6E+00**
Landbay A	3750-3350	INORG	Vanadium	7440-62-2	ID	1.72E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay A	3750-3350	INORG	Zinc	7440-66-6	ID	5.21E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay A	3750-3500	INORG	Aluminum	7429-90-5	ID	3.37E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3750-3500	INORG	Arsenic	7440-38-2	A	2.46E+00	9.90E+00	2.5E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.9E-02
Landbay A	3750-3500	INORG	Barium	7440-39-3	NC	1.08E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.3E+01**
Landbay A	3750-3500	INORG	Beryllium	7440-41-7	B1	5.21E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.7E-05	1.0E+01	EqP	5.0E-02
Landbay A	3750-3500	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	3750-3500	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	3750-3500	INORG	Cobalt	7440-48-4	LC	4.40E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	3750-3500	INORG	Copper	7440-50-8	D	3.90E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay A	3750-3500	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	3750-3500	INORG	Lead	7439-92-1	B2	1.36E+01						3.5E+02	EqP	3.9E-02
Landbay A	3750-3500	INORG	Manganese	7439-96-5	D	1.73E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3750-3500	INORG	Mercury	7439-97-6	D	4.18E-02	7.10E-02	5.9E-01		NA		3.7E-01	EqP	1.1E-01
Landbay A	3750-3500	INORG	Nickel	7440-02-0	A	3.49E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	3750-3500	INORG	Selenium	7782-49-2	D	1.70E+00	2.50E+00	6.8E-01	2.5E+04	LT	6.9E-05	2.0E+00	LT	8.5E-01
Landbay A	3750-3500	INORG	Strontium	7440-24-6		2.53E+01	3.80E+01	6.7E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay A	3750-3500	INORG	Thallium	7440-28-0	ID	4.13E+00	4.50E+00	9.2E-01				1.1E+00	EqP	**3.6E+00**
Landbay A	3750-3500	INORG	Vanadium	7440-62-2	ID	1.72E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay A	3750-3500	INORG	Zinc	7440-66-6	ID	5.21E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay A	3750-3650	PCB	PCBs (total)	1336-36-3	B2	1.81E-02				NA		1.4E+00	EqP	1.3E-02
Landbay A	3750-3650	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	3750-3650	INORG	Arsenic	7440-38-2	A	4.24E+00	9.90E+00	4.3E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	4.9E-02
Landbay A	3750-3650	INORG	Barium	7440-39-3	NC	7.81E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay A	3750-3650	INORG	Beryllium	7440-41-7	B1	7.03E-01	1.20E+00	5.9E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay A	3750-3650	INORG	Chromium III	16065-83-1	D	1.69E+02	2.61E+02	6.5E-01	2.1E+10	EqP	7.9E-09	3.4E+06	EqP	5.0E-05
Landbay A	3750-3650	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay A	3750-3650	INORG	Cobalt	7440-48-4	LC	5.42E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay A	3750-3650	INORG	Copper	7440-50-8	D	2.41E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.9E+00**
Landbay A	3750-3650	INORG	Iron	7439-89-6	D	5.80E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay A	3750-3650	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay A	3750-3650	INORG	Manganese	7439-96-5	D	1.78E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3750-3650	INORG	Mercury	7439-97-6	D	3.50E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.5E-02
Landbay A	3750-3650	INORG	Nickel	7440-02-0	A	2.69E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.0E-01
Landbay A	3750-3650	INORG	Selenium	7782-49-2	D	2.92E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.2E-04	2.0E+00	LT	**1.5E+00**
Landbay A	3750-3650	INORG	Strontium	7440-24-6		8.82E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.4E-07	1.1E+03	EqP	8.3E-03
Landbay A	3750-3650	INORG	Thallium	7440-28-0	ID	4.62E+00	4.50E+00	1.0E+00				1.1E+00	EqP	**4.1E+00**
Landbay A	3750-3650	INORG	Vanadium	7440-62-2	ID	1.99E+02	2.83E+02	7.0E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay A	3750-3650	INORG	Zinc	7440-66-6	ID	4.91E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3750-3800	PCB	PCBs (total)	1336-36-3	B2	1.81E-02				NA		1.4E+00	EqP	1.3E-02
Landbay A	3750-3800	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	3750-3800	INORG	Arsenic	7440-38-2	A	4.24E+00	9.90E+00	4.3E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	4.9E-02
Landbay A	3750-3800	INORG	Barium	7440-39-3	NC	7.81E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay A	3750-3800	INORG	Beryllium	7440-41-7	B1	7.03E-01	1.20E+00	5.9E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay A	3750-3800	INORG	Chromium III	16065-83-1	D	1.69E+02	2.61E+02	6.5E-01	2.1E+10	EqP	7.9E-09	3.4E+06	EqP	5.0E-05
Landbay A	3750-3800	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay A	3750-3800	INORG	Cobalt	7440-48-4	LC	5.42E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay A	3750-3800	INORG	Copper	7440-50-8	D	2.41E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.9E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	3750-3800	INORG	Iron	7439-89-6	D	5.80E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay A	3750-3800	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay A	3750-3800	INORG	Manganese	7439-96-5	D	1.78E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3750-3800	INORG	Mercury	7439-97-6	D	3.50E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.5E-02
Landbay A	3750-3800	INORG	Nickel	7440-02-0	A	2.69E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.0E-01
Landbay A	3750-3800	INORG	Selenium	7782-49-2	D	2.92E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.2E-04	2.0E+00	LT	**1.5E+00**
Landbay A	3750-3800	INORG	Strontium	7440-24-6		8.82E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.4E-07	1.1E+03	EqP	8.3E-03
Landbay A	3750-3800	INORG	Thallium	7440-28-0	ID	4.62E+00	4.50E+00	1.0E+00				1.1E+00	EqP	**4.1E+00**
Landbay A	3750-3800	INORG	Vanadium	7440-62-2	ID	1.99E+02	2.83E+02	7.0E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay A	3750-3800	INORG	Zinc	7440-66-6	ID	4.91E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3750-3950	INORG	Aluminum	7429-90-5	ID	2.46E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.4E+00**
Landbay A	3750-3950	INORG	Arsenic	7440-38-2	A	6.65E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.8E-02
Landbay A	3750-3950	INORG	Barium	7440-39-3	NC	9.61E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	3750-3950	INORG	Beryllium	7440-41-7	B1	8.05E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay A	3750-3950	INORG	Chromium III	16065-83-1	D	1.96E+02	2.61E+02	7.5E-01	2.1E+10	EqP	9.2E-09	3.4E+06	EqP	5.8E-05
Landbay A	3750-3950	INORG	Chromium VI	18540-29-9	A	3.93E+00	4.97E+00	7.9E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.9E-01
Landbay A	3750-3950	INORG	Cobalt	7440-48-4	LC	7.49E+01	8.60E+01	8.7E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.6E+00**
Landbay A	3750-3950	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	3750-3950	INORG	Iron	7439-89-6	D	7.47E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay A	3750-3950	INORG	Lead	7439-92-1	B2	2.70E+01						3.5E+02	EqP	7.7E-02
Landbay A	3750-3950	INORG	Manganese	7439-96-5	D	3.20E+03	4.27E+03	7.5E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3750-3950	INORG	Mercury	7439-97-6	D	4.32E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3750-3950	INORG	Nickel	7440-02-0	A	2.37E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3750-3950	INORG	Selenium	7782-49-2	D	3.71E+00	2.50E+00	**1.5E+00**	2.5E+04	LT	1.5E-04	2.0E+00	LT	**1.9E+00**
Landbay A	3750-3950	INORG	Strontium	7440-24-6		8.10E+00	3.80E+01	2.1E-01	1.6E+07	EqP	5.0E-07	1.1E+03	EqP	7.7E-03
Landbay A	3750-3950	INORG	Thallium	7440-28-0	ID	6.76E+00	4.50E+00	**1.5E+00**				1.1E+00	EqP	**5.9E+00**
Landbay A	3750-3950	INORG	Vanadium	7440-62-2	ID	2.74E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay A	3750-3950	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3750-4100	INORG	Aluminum	7429-90-5	ID	2.46E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.4E+00**
Landbay A	3750-4100	INORG	Arsenic	7440-38-2	A	6.65E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.8E-02
Landbay A	3750-4100	INORG	Barium	7440-39-3	NC	9.61E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	3750-4100	INORG	Beryllium	7440-41-7	B1	8.05E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay A	3750-4100	INORG	Chromium III	16065-83-1	D	1.96E+02	2.61E+02	7.5E-01	2.1E+10	EqP	9.2E-09	3.4E+06	EqP	5.8E-05
Landbay A	3750-4100	INORG	Chromium VI	18540-29-9	A	3.93E+00	4.97E+00	7.9E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.9E-01
Landbay A	3750-4100	INORG	Cobalt	7440-48-4	LC	7.49E+01	8.60E+01	8.7E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.6E+00**
Landbay A	3750-4100	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	3750-4100	INORG	Iron	7439-89-6	D	7.47E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay A	3750-4100	INORG	Lead	7439-92-1	B2	2.70E+01						3.5E+02	EqP	7.7E-02
Landbay A	3750-4100	INORG	Manganese	7439-96-5	D	3.20E+03	4.27E+03	7.5E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3750-4100	INORG	Mercury	7439-97-6	D	4.32E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3750-4100	INORG	Nickel	7440-02-0	A	2.37E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3750-4100	INORG	Selenium	7782-49-2	D	3.71E+00	2.50E+00	**1.5E+00**	2.5E+04	LT	1.5E-04	2.0E+00	LT	**1.9E+00**
Landbay A	3750-4100	INORG	Strontium	7440-24-6		8.10E+00	3.80E+01	2.1E-01	1.6E+07	EqP	5.0E-07	1.1E+03	EqP	7.7E-03
Landbay A	3750-4100	INORG	Thallium	7440-28-0	ID	6.76E+00	4.50E+00	**1.5E+00**				1.1E+00	EqP	**5.9E+00**
Landbay A	3750-4100	INORG	Vanadium	7440-62-2	ID	2.74E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay A	3750-4100	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3750-4250	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.40E-01				NA		9.6E+03	EqP	2.5E-05
Landbay A	3750-4250	INORG	Aluminum	7429-90-5	ID	2.78E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	3750-4250	INORG	Arsenic	7440-38-2	A	5.34E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.2E-02
Landbay A	3750-4250	INORG	Barium	7440-39-3	NC	9.69E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	3750-4250	INORG	Beryllium	7440-41-7	B1	4.71E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.9E-05	1.0E+01	EqP	4.5E-02
Landbay A	3750-4250	INORG	Chromium III	16065-83-1	D	2.09E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay A	3750-4250	INORG	Chromium VI	18540-29-9	A	4.02E+00	4.97E+00	8.1E-01	6.6E+01	LT	6.0E-02	4.4E+00	LT	9.1E-01
Landbay A	3750-4250	INORG	Cobalt	7440-48-4	LC	5.01E+01	8.60E+01	5.8E-01	1.4E+04	EqP	3.7E-03	2.1E+01	EqP	**2.4E+00**
Landbay A	3750-4250	INORG	Copper	7440-50-8	D	2.47E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.1E-05	8.4E+00	EqP	**2.9E+00**
Landbay A	3750-4250	INORG	Iron	7439-89-6	D	6.44E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay A	3750-4250	INORG	Lead	7439-92-1	B2	1.83E+01						3.5E+02	EqP	5.2E-02
Landbay A	3750-4250	INORG	Manganese	7439-96-5	D	1.32E+03	4.27E+03	3.1E-01	3.1E+05	EqP	4.2E-03	1.6E+02	EqP	**8.4E+00**
Landbay A	3750-4250	INORG	Nickel	7440-02-0	A	3.18E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.4E-01
Landbay A	3750-4250	INORG	Selenium	7782-49-2	D	1.56E+00	2.50E+00	6.2E-01	2.5E+04	LT	6.3E-05	2.0E+00	LT	7.8E-01
Landbay A	3750-4250	INORG	Silver	7440-22-4	D	3.82E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay A	3750-4250	INORG	Strontium	7440-24-6		7.44E+00	3.80E+01	2.0E-01	1.6E+07	EqP	4.6E-07	1.1E+03	EqP	7.0E-03
Landbay A	3750-4250	INORG	Thallium	7440-28-0	ID	1.58E+00	4.50E+00	3.5E-01				1.1E+00	EqP	**1.4E+00**
Landbay A	3750-4250	INORG	Vanadium	7440-62-2	ID	2.22E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay A	3750-4250	INORG	Zinc	7440-66-6	ID	4.67E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.5E-06	1.9E+02	EqP	2.5E-01
Landbay A	3750-4400	PCB	PCBs (total)	1336-36-3	B2	1.59E-02				NA		1.4E+00	EqP	1.2E-02
Landbay A	3750-4400	INORG	Aluminum	7429-90-5	ID	2.69E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	3750-4400	INORG	Arsenic	7440-38-2	A	5.21E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay A	3750-4400	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	3750-4400	INORG	Beryllium	7440-41-7	B1	9.05E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay A	3750-4400	INORG	Chromium III	16065-83-1	D	1.26E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay A	3750-4400	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay A	3750-4400	INORG	Cobalt	7440-48-4	LC	5.57E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	3750-4400	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	3750-4400	INORG	Iron	7439-89-6	D	6.24E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	3750-4400	INORG	Lead	7439-92-1	B2	3.50E+01						3.5E+02	EqP	1.0E-01
Landbay A	3750-4400	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay A	3750-4400	INORG	Mercury	7439-97-6	D	4.38E-02	7.10E-02	6.2E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3750-4400	INORG	Nickel	7440-02-0	A	2.38E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3750-4400	INORG	Selenium	7782-49-2	D	3.32E+00	2.50E+00	**1.3E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.7E+00**
Landbay A	3750-4400	INORG	Strontium	7440-24-6		1.22E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.5E-07	1.1E+03	EqP	1.2E-02
Landbay A	3750-4400	INORG	Thallium	7440-28-0	ID	5.67E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.0E+00**
Landbay A	3750-4400	INORG	Vanadium	7440-62-2	ID	2.06E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay A	3750-4400	INORG	Zinc	7440-66-6	ID	7.83E+01	1.02E+02	7.7E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay A	3750-4550	PCB	PCBs (total)	1336-36-3	B2	1.59E-02				NA		1.4E+00	EqP	1.2E-02
Landbay A	3750-4550	INORG	Aluminum	7429-90-5	ID	2.69E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	3750-4550	INORG	Arsenic	7440-38-2	A	5.21E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay A	3750-4550	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	3750-4550	INORG	Beryllium	7440-41-7	B1	9.05E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay A	3750-4550	INORG	Chromium III	16065-83-1	D	1.26E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay A	3750-4550	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay A	3750-4550	INORG	Cobalt	7440-48-4	LC	5.57E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	3750-4550	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	3750-4550	INORG	Iron	7439-89-6	D	6.24E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	3750-4550	INORG	Lead	7439-92-1	B2	3.50E+01						3.5E+02	EqP	1.0E-01
Landbay A	3750-4550	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay A	3750-4550	INORG	Mercury	7439-97-6	D	4.38E-02	7.10E-02	6.2E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3750-4550	INORG	Nickel	7440-02-0	A	2.38E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3750-4550	INORG	Selenium	7782-49-2	D	3.32E+00	2.50E+00	**1.3E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.7E+00**
Landbay A	3750-4550	INORG	Strontium	7440-24-6		1.22E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.5E-07	1.1E+03	EqP	1.2E-02
Landbay A	3750-4550	INORG	Thallium	7440-28-0	ID	5.67E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.0E+00**
Landbay A	3750-4550	INORG	Vanadium	7440-62-2	ID	2.06E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay A	3750-4550	INORG	Zinc	7440-66-6	ID	7.83E+01	1.02E+02	7.7E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay A	3800-19	INORG	Perchlorate	14797-73-0	NC	6.70E-03			3.4E+03	LT	1.9E-06	7.7E+02	LT	8.7E-06
Landbay A	3800-41	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.20E-01				NA		9.6E+03	EqP	1.2E-05
Landbay A	3800-41	PCB	PCBs (total)	1336-36-3	B2	2.65E-02				NA		1.4E+00	EqP	1.9E-02
Landbay A	3800-41	INORG	Aluminum	7429-90-5	ID	3.29E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3800-41	INORG	Arsenic	7440-38-2	A	1.25E+01	9.90E+00	**1.3E+00**	1.1E+03	EqP	1.2E-02	8.6E+01	EqP	1.5E-01
Landbay A	3800-41	INORG	Barium	7440-39-3	NC	2.08E+02	2.24E+02	9.3E-01	3.2E+05	EqP	6.4E-04	3.3E+00	EqP	**6.3E+01**
Landbay A	3800-41	INORG	Beryllium	7440-41-7	B1	9.11E-01	1.20E+00	7.6E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay A	3800-41	INORG	Boron	7440-42-8	ID	4.69E+00	1.34E+01	3.5E-01	9.9E+05	LT	4.8E-06	6.4E-01	LT	**7.3E+00**
Landbay A	3800-41	INORG	Cadmium	7440-43-9	B1	4.25E-01	2.70E+00	1.6E-01	1.1E+03	EqP	3.9E-04	2.1E+00	EqP	2.0E-01
Landbay A	3800-41	INORG	Chromium III	16065-83-1	D	1.55E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.3E-09	3.4E+06	EqP	4.6E-05
Landbay A	3800-41	INORG	Chromium VI	18540-29-9	A	3.65E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay A	3800-41	INORG	Cobalt	7440-48-4	LC	1.21E+02	8.60E+01	**1.4E+00**	1.4E+04	EqP	8.8E-03	2.1E+01	EqP	**5.8E+00**
Landbay A	3800-41	INORG	Copper	7440-50-8	D	3.55E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay A	3800-41	INORG	Iron	7439-89-6	D	7.56E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay A	3800-41	INORG	Lead	7439-92-1	B2	3.05E+01						3.5E+02	EqP	8.7E-02
Landbay A	3800-41	INORG	Manganese	7439-96-5	D	5.23E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.7E-02	1.6E+02	EqP	**3.3E+01**
Landbay A	3800-41	INORG	Mercury	7439-97-6	D	3.32E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.0E-02
Landbay A	3800-41	INORG	Nickel	7440-02-0	A	3.61E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay A	3800-41	INORG	Silver	7440-22-4	D	6.27E-01	2.30E+00	2.7E-01	3.8E+03	LT	1.7E-04	2.7E+00	LT	2.4E-01
Landbay A	3800-41	INORG	Strontium	7440-24-6		1.69E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay A	3800-41	INORG	Thallium	7440-28-0	ID	1.54E+00	4.50E+00	3.4E-01				1.1E+00	EqP	**1.4E+00**
Landbay A	3800-41	INORG	Vanadium	7440-62-2	ID	2.66E+02	2.83E+02	9.4E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.6E-01
Landbay A	3800-41	INORG	Zinc	7440-66-6	ID	6.95E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01
Landbay A	3900-3050	INORG	Aluminum	7429-90-5	ID	2.87E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	3900-3050	INORG	Arsenic	7440-38-2	A	6.99E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.1E-02
Landbay A	3900-3050	INORG	Barium	7440-39-3	NC	1.28E+02	2.24E+02	5.7E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay A	3900-3050	INORG	Beryllium	7440-41-7	B1	7.30E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay A	3900-3050	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay A	3900-3050	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay A	3900-3050	INORG	Cobalt	7440-48-4	LC	7.92E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	3900-3050	INORG	Copper	7440-50-8	D	2.13E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.1E-05	8.4E+00	EqP	**2.5E+00**
Landbay A	3900-3050	INORG	Iron	7439-89-6	D	6.78E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	3900-3050	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02
Landbay A	3900-3050	INORG	Manganese	7439-96-5	D	3.34E+03	4.27E+03	7.8E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay A	3900-3050	INORG	Mercury	7439-97-6	D	2.89E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.8E-02
Landbay A	3900-3050	INORG	Nickel	7440-02-0	A	2.80E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay A	3900-3050	INORG	Selenium	7782-49-2	D	3.55E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.8E+00**
Landbay A	3900-3050	INORG	Strontium	7440-24-6		1.26E+01	3.80E+01	3.3E-01	1.6E+07	EqP	7.7E-07	1.1E+03	EqP	1.2E-02
Landbay A	3900-3050	INORG	Thallium	7440-28-0	ID	5.70E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.0E+00**
Landbay A	3900-3050	INORG	Vanadium	7440-62-2	ID	2.55E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.4E-01
Landbay A	3900-3050	INORG	Zinc	7440-66-6	ID	5.26E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay A	3900-3200	INORG	Aluminum	7429-90-5	ID	2.87E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	3900-3200	INORG	Arsenic	7440-38-2	A	6.99E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.1E-02
Landbay A	3900-3200	INORG	Barium	7440-39-3	NC	1.28E+02	2.24E+02	5.7E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay A	3900-3200	INORG	Beryllium	7440-41-7	B1	7.30E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay A	3900-3200	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay A	3900-3200	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay A	3900-3200	INORG	Cobalt	7440-48-4	LC	7.92E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay A	3900-3200	INORG	Copper	7440-50-8	D	2.13E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.1E-05	8.4E+00	EqP	**2.5E+00**
Landbay A	3900-3200	INORG	Iron	7439-89-6	D	6.78E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	3900-3200	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02
Landbay A	3900-3200	INORG	Manganese	7439-96-5	D	3.34E+03	4.27E+03	7.8E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay A	3900-3200	INORG	Mercury	7439-97-6	D	2.89E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.8E-02
Landbay A	3900-3200	INORG	Nickel	7440-02-0	A	2.80E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay A	3900-3200	INORG	Selenium	7782-49-2	D	3.55E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.8E+00**
Landbay A	3900-3200	INORG	Strontium	7440-24-6		1.26E+01	3.80E+01	3.3E-01	1.6E+07	EqP	7.7E-07	1.1E+03	EqP	1.2E-02
Landbay A	3900-3200	INORG	Thallium	7440-28-0	ID	5.70E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.0E+00**
Landbay A	3900-3200	INORG	Vanadium	7440-62-2	ID	2.55E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.4E-01
Landbay A	3900-3200	INORG	Zinc	7440-66-6	ID	5.26E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay A	3900-3350	INORG	Aluminum	7429-90-5	ID	3.37E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3900-3350	INORG	Arsenic	7440-38-2	A	2.46E+00	9.90E+00	2.5E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.9E-02
Landbay A	3900-3350	INORG	Barium	7440-39-3	NC	1.08E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.3E+01**
Landbay A	3900-3350	INORG	Beryllium	7440-41-7	B1	5.21E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.7E-05	1.0E+01	EqP	5.0E-02
Landbay A	3900-3350	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	3900-3350	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	3900-3350	INORG	Cobalt	7440-48-4	LC	4.40E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	3900-3350	INORG	Copper	7440-50-8	D	3.90E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay A	3900-3350	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	3900-3350	INORG	Lead	7439-92-1	B2	1.36E+01						3.5E+02	EqP	3.9E-02
Landbay A	3900-3350	INORG	Manganese	7439-96-5	D	1.73E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3900-3350	INORG	Mercury	7439-97-6	D	4.18E-02	7.10E-02	5.9E-01		NA		3.7E-01	EqP	1.1E-01
Landbay A	3900-3350	INORG	Nickel	7440-02-0	A	3.49E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	3900-3350	INORG	Selenium	7782-49-2	D	1.70E+00	2.50E+00	6.8E-01	2.5E+04	LT	6.9E-05	2.0E+00	LT	8.5E-01
Landbay A	3900-3350	INORG	Strontium	7440-24-6		2.53E+01	3.80E+01	6.7E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay A	3900-3350	INORG	Thallium	7440-28-0	ID	4.13E+00	4.50E+00	9.2E-01				1.1E+00	EqP	**3.6E+00**
Landbay A	3900-3350	INORG	Vanadium	7440-62-2	ID	1.72E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay A	3900-3350	INORG	Zinc	7440-66-6	ID	5.21E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay A	3900-3500	INORG	Aluminum	7429-90-5	ID	3.37E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3900-3500	INORG	Arsenic	7440-38-2	A	2.46E+00	9.90E+00	2.5E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.9E-02
Landbay A	3900-3500	INORG	Barium	7440-39-3	NC	1.08E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.3E+01**
Landbay A	3900-3500	INORG	Beryllium	7440-41-7	B1	5.21E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.7E-05	1.0E+01	EqP	5.0E-02
Landbay A	3900-3500	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	3900-3500	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	3900-3500	INORG	Cobalt	7440-48-4	LC	4.40E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	3900-3500	INORG	Copper	7440-50-8	D	3.90E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay A	3900-3500	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	3900-3500	INORG	Lead	7439-92-1	B2	1.36E+01						3.5E+02	EqP	3.9E-02
Landbay A	3900-3500	INORG	Manganese	7439-96-5	D	1.73E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3900-3500	INORG	Mercury	7439-97-6	D	4.18E-02	7.10E-02	5.9E-01		NA		3.7E-01	EqP	1.1E-01
Landbay A	3900-3500	INORG	Nickel	7440-02-0	A	3.49E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	3900-3500	INORG	Selenium	7782-49-2	D	1.70E+00	2.50E+00	6.8E-01	2.5E+04	LT	6.9E-05	2.0E+00	LT	8.5E-01
Landbay A	3900-3500	INORG	Strontium	7440-24-6		2.53E+01	3.80E+01	6.7E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay A	3900-3500	INORG	Thallium	7440-28-0	ID	4.13E+00	4.50E+00	9.2E-01				1.1E+00	EqP	**3.6E+00**
Landbay A	3900-3500	INORG	Vanadium	7440-62-2	ID	1.72E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay A	3900-3500	INORG	Zinc	7440-66-6	ID	5.21E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay A	3900-3650	PCB	PCBs (total)	1336-36-3	B2	1.81E-02				NA		1.4E+00	EqP	1.3E-02
Landbay A	3900-3650	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	3900-3650	INORG	Arsenic	7440-38-2	A	4.24E+00	9.90E+00	4.3E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	4.9E-02
Landbay A	3900-3650	INORG	Barium	7440-39-3	NC	7.81E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay A	3900-3650	INORG	Beryllium	7440-41-7	B1	7.03E-01	1.20E+00	5.9E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay A	3900-3650	INORG	Chromium III	16065-83-1	D	1.69E+02	2.61E+02	6.5E-01	2.1E+10	EqP	7.9E-09	3.4E+06	EqP	5.0E-05
Landbay A	3900-3650	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay A	3900-3650	INORG	Cobalt	7440-48-4	LC	5.42E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay A	3900-3650	INORG	Copper	7440-50-8	D	2.41E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.9E+00**
Landbay A	3900-3650	INORG	Iron	7439-89-6	D	5.80E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay A	3900-3650	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay A	3900-3650	INORG	Manganese	7439-96-5	D	1.78E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3900-3650	INORG	Mercury	7439-97-6	D	3.50E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.5E-02
Landbay A	3900-3650	INORG	Nickel	7440-02-0	A	2.69E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.0E-01
Landbay A	3900-3650	INORG	Selenium	7782-49-2	D	2.92E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.2E-04	2.0E+00	LT	**1.5E+00**
Landbay A	3900-3650	INORG	Strontium	7440-24-6		8.82E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.4E-07	1.1E+03	EqP	8.3E-03
Landbay A	3900-3650	INORG	Thallium	7440-28-0	ID	4.62E+00	4.50E+00	1.0E+00				1.1E+00	EqP	**4.1E+00**
Landbay A	3900-3650	INORG	Vanadium	7440-62-2	ID	1.99E+02	2.83E+02	7.0E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay A	3900-3650	INORG	Zinc	7440-66-6	ID	4.91E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3900-3800	PCB	PCBs (total)	1336-36-3	B2	1.81E-02				NA		1.4E+00	EqP	1.3E-02
Landbay A	3900-3800	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	3900-3800	INORG	Arsenic	7440-38-2	A	4.24E+00	9.90E+00	4.3E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	4.9E-02
Landbay A	3900-3800	INORG	Barium	7440-39-3	NC	7.81E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay A	3900-3800	INORG	Beryllium	7440-41-7	B1	7.03E-01	1.20E+00	5.9E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay A	3900-3800	INORG	Chromium III	16065-83-1	D	1.69E+02	2.61E+02	6.5E-01	2.1E+10	EqP	7.9E-09	3.4E+06	EqP	5.0E-05
Landbay A	3900-3800	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay A	3900-3800	INORG	Cobalt	7440-48-4	LC	5.42E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay A	3900-3800	INORG	Copper	7440-50-8	D	2.41E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.9E+00**
Landbay A	3900-3800	INORG	Iron	7439-89-6	D	5.80E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay A	3900-3800	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay A	3900-3800	INORG	Manganese	7439-96-5	D	1.78E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	3900-3800	INORG	Mercury	7439-97-6	D	3.50E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.5E-02
Landbay A	3900-3800	INORG	Nickel	7440-02-0	A	2.69E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.0E-01
Landbay A	3900-3800	INORG	Selenium	7782-49-2	D	2.92E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.2E-04	2.0E+00	LT	**1.5E+00**
Landbay A	3900-3800	INORG	Strontium	7440-24-6		8.82E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.4E-07	1.1E+03	EqP	8.3E-03
Landbay A	3900-3800	INORG	Thallium	7440-28-0	ID	4.62E+00	4.50E+00	1.0E+00				1.1E+00	EqP	**4.1E+00**
Landbay A	3900-3800	INORG	Vanadium	7440-62-2	ID	1.99E+02	2.83E+02	7.0E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay A	3900-3800	INORG	Zinc	7440-66-6	ID	4.91E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3900-3950	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.40E-01				NA		9.6E+03	EqP	2.5E-05
Landbay A	3900-3950	INORG	Aluminum	7429-90-5	ID	3.28E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	3900-3950	INORG	Antimony	7440-36-0	ID	1.19E+00	1.70E+00	7.0E-01	1.4E+03	EqP	8.7E-04	2.7E+01	EqP	4.4E-02
Landbay A	3900-3950	INORG	Arsenic	7440-38-2	A	5.04E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay A	3900-3950	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay A	3900-3950	INORG	Beryllium	7440-41-7	B1	4.93E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.3E-05	1.0E+01	EqP	4.7E-02
Landbay A	3900-3950	INORG	Chromium III	16065-83-1	D	2.26E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.7E-05
Landbay A	3900-3950	INORG	Chromium VI	18540-29-9	A	4.14E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay A	3900-3950	INORG	Cobalt	7440-48-4	LC	5.73E+01	8.60E+01	6.7E-01	1.4E+04	EqP	4.2E-03	2.1E+01	EqP	**2.8E+00**
Landbay A	3900-3950	INORG	Copper	7440-50-8	D	3.32E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay A	3900-3950	INORG	Iron	7439-89-6	D	6.73E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay A	3900-3950	INORG	Lead	7439-92-1	B2	1.82E+01						3.5E+02	EqP	5.2E-02
Landbay A	3900-3950	INORG	Manganese	7439-96-5	D	2.31E+03	4.27E+03	5.4E-01	3.1E+05	EqP	7.4E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	3900-3950	INORG	Nickel	7440-02-0	A	3.88E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay A	3900-3950	INORG	Selenium	7782-49-2	D	2.11E+00	2.50E+00	8.4E-01	2.5E+04	LT	8.6E-05	2.0E+00	LT	**1.1E+00**
Landbay A	3900-3950	INORG	Silver	7440-22-4	D	6.40E-01	2.30E+00	2.8E-01	3.8E+03	LT	1.7E-04	2.7E+00	LT	2.4E-01
Landbay A	3900-3950	INORG	Strontium	7440-24-6		1.37E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.4E-07	1.1E+03	EqP	1.3E-02
Landbay A	3900-3950	INORG	Thallium	7440-28-0	ID	1.89E+00	4.50E+00	4.2E-01				1.1E+00	EqP	**1.7E+00**
Landbay A	3900-3950	INORG	Vanadium	7440-62-2	ID	2.38E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay A	3900-3950	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	3900-4100	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.40E-01				NA		9.6E+03	EqP	2.5E-05
Landbay A	3900-4100	INORG	Aluminum	7429-90-5	ID	2.19E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay A	3900-4100	INORG	Arsenic	7440-38-2	A	6.57E+00	9.90E+00	6.6E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay A	3900-4100	INORG	Barium	7440-39-3	NC	1.17E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay A	3900-4100	INORG	Beryllium	7440-41-7	B1	5.68E-01	1.20E+00	4.7E-01	6.8E+03	EqP	8.4E-05	1.0E+01	EqP	5.4E-02
Landbay A	3900-4100	INORG	Chromium III	16065-83-1	D	9.87E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.6E-09	3.4E+06	EqP	2.9E-05
Landbay A	3900-4100	INORG	Chromium VI	18540-29-9	A	3.26E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay A	3900-4100	INORG	Cobalt	7440-48-4	LC	4.00E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay A	3900-4100	INORG	Copper	7440-50-8	D	1.57E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.5E-05	8.4E+00	EqP	**1.9E+00**
Landbay A	3900-4100	INORG	Iron	7439-89-6	D	5.74E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	3900-4100	INORG	Lead	7439-92-1	B2	2.13E+01						3.5E+02	EqP	6.1E-02
Landbay A	3900-4100	INORG	Manganese	7439-96-5	D	3.15E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay A	3900-4100	INORG	Nickel	7440-02-0	A	1.90E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.6E-01
Landbay A	3900-4100	INORG	Selenium	7782-49-2	D	1.21E+00	2.50E+00	4.8E-01	2.5E+04	LT	4.9E-05	2.0E+00	LT	6.1E-01
Landbay A	3900-4100	INORG	Silver	7440-22-4	D	5.93E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.2E-01
Landbay A	3900-4100	INORG	Strontium	7440-24-6		1.04E+01	3.80E+01	2.7E-01	1.6E+07	EqP	6.4E-07	1.1E+03	EqP	9.8E-03
Landbay A	3900-4100	INORG	Thallium	7440-28-0	ID	1.63E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay A	3900-4100	INORG	Vanadium	7440-62-2	ID	1.65E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay A	3900-4100	INORG	Zinc	7440-66-6	ID	4.46E+01	1.02E+02	4.4E-01	5.5E+06	EqP	8.2E-06	1.9E+02	EqP	2.3E-01
Landbay A	3900-4250	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.40E-01				NA		9.6E+03	EqP	2.5E-05
Landbay A	3900-4250	INORG	Aluminum	7429-90-5	ID	2.50E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay A	3900-4250	INORG	Arsenic	7440-38-2	A	5.06E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay A	3900-4250	INORG	Barium	7440-39-3	NC	1.37E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.2E+01**
Landbay A	3900-4250	INORG	Beryllium	7440-41-7	B1	6.97E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay A	3900-4250	INORG	Chromium III	16065-83-1	D	7.64E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.3E-05
Landbay A	3900-4250	INORG	Chromium VI	18540-29-9	A	3.11E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	3900-4250	INORG	Cobalt	7440-48-4	LC	3.97E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay A	3900-4250	INORG	Copper	7440-50-8	D	1.96E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.6E-05	8.4E+00	EqP	**2.3E+00**
Landbay A	3900-4250	INORG	Iron	7439-89-6	D	5.98E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay A	3900-4250	INORG	Lead	7439-92-1	B2	1.59E+01						3.5E+02	EqP	4.5E-02
Landbay A	3900-4250	INORG	Manganese	7439-96-5	D	3.25E+03	4.27E+03	7.6E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.1E+01**
Landbay A	3900-4250	INORG	Nickel	7440-02-0	A	2.85E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay A	3900-4250	INORG	Selenium	7782-49-2	D	1.40E+00	2.50E+00	5.6E-01	2.5E+04	LT	5.7E-05	2.0E+00	LT	7.0E-01
Landbay A	3900-4250	INORG	Silver	7440-22-4	D	6.05E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.3E-01
Landbay A	3900-4250	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	3900-4250	INORG	Thallium	7440-28-0	ID	1.42E+00	4.50E+00	3.2E-01				1.1E+00	EqP	**1.2E+00**
Landbay A	3900-4250	INORG	Vanadium	7440-62-2	ID	1.57E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	3900-4250	INORG	Zinc	7440-66-6	ID	4.16E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.6E-06	1.9E+02	EqP	2.2E-01
Landbay A	3900-4400	PCB	PCBs (total)	1336-36-3	B2	1.59E-02				NA		1.4E+00	EqP	1.2E-02
Landbay A	3900-4400	INORG	Aluminum	7429-90-5	ID	2.69E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	3900-4400	INORG	Arsenic	7440-38-2	A	5.21E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay A	3900-4400	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	3900-4400	INORG	Beryllium	7440-41-7	B1	9.05E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay A	3900-4400	INORG	Chromium III	16065-83-1	D	1.26E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay A	3900-4400	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay A	3900-4400	INORG	Cobalt	7440-48-4	LC	5.57E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	3900-4400	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	3900-4400	INORG	Iron	7439-89-6	D	6.24E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	3900-4400	INORG	Lead	7439-92-1	B2	3.50E+01						3.5E+02	EqP	1.0E-01
Landbay A	3900-4400	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay A	3900-4400	INORG	Mercury	7439-97-6	D	4.38E-02	7.10E-02	6.2E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3900-4400	INORG	Nickel	7440-02-0	A	2.38E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3900-4400	INORG	Selenium	7782-49-2	D	3.32E+00	2.50E+00	**1.3E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.7E+00**
Landbay A	3900-4400	INORG	Strontium	7440-24-6		1.22E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.5E-07	1.1E+03	EqP	1.2E-02
Landbay A	3900-4400	INORG	Thallium	7440-28-0	ID	5.67E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.0E+00**
Landbay A	3900-4400	INORG	Vanadium	7440-62-2	ID	2.06E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay A	3900-4400	INORG	Zinc	7440-66-6	ID	7.83E+01	1.02E+02	7.7E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay A	3900-4550	PCB	PCBs (total)	1336-36-3	B2	1.59E-02				NA		1.4E+00	EqP	1.2E-02
Landbay A	3900-4550	INORG	Aluminum	7429-90-5	ID	2.69E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	3900-4550	INORG	Arsenic	7440-38-2	A	5.21E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay A	3900-4550	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	3900-4550	INORG	Beryllium	7440-41-7	B1	9.05E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay A	3900-4550	INORG	Chromium III	16065-83-1	D	1.26E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay A	3900-4550	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay A	3900-4550	INORG	Cobalt	7440-48-4	LC	5.57E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	3900-4550	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	3900-4550	INORG	Iron	7439-89-6	D	6.24E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	3900-4550	INORG	Lead	7439-92-1	B2	3.50E+01						3.5E+02	EqP	1.0E-01
Landbay A	3900-4550	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay A	3900-4550	INORG	Mercury	7439-97-6	D	4.38E-02	7.10E-02	6.2E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	3900-4550	INORG	Nickel	7440-02-0	A	2.38E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	3900-4550	INORG	Selenium	7782-49-2	D	3.32E+00	2.50E+00	**1.3E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.7E+00**
Landbay A	3900-4550	INORG	Strontium	7440-24-6		1.22E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.5E-07	1.1E+03	EqP	1.2E-02
Landbay A	3900-4550	INORG	Thallium	7440-28-0	ID	5.67E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.0E+00**
Landbay A	3900-4550	INORG	Vanadium	7440-62-2	ID	2.06E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay A	3900-4550	INORG	Zinc	7440-66-6	ID	7.83E+01	1.02E+02	7.7E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay A	39B1	INORG	Perchlorate	14797-73-0	NC	1.70E-01			3.4E+03	LT	4.9E-05	7.7E+02	LT	2.2E-04
Landbay A	4000-36	INORG	Aluminum	7429-90-5	ID	3.89E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	4000-36	INORG	Arsenic	7440-38-2	A	1.83E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay A	4000-36	INORG	Barium	7440-39-3	NC	9.09E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay A	4000-36	INORG	Beryllium	7440-41-7	B1	3.63E-01	1.20E+00	3.0E-01	6.8E+03	EqP	5.4E-05	1.0E+01	EqP	3.5E-02
Landbay A	4000-36	INORG	Chromium III	16065-83-1	D	9.22E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.3E-09	3.4E+06	EqP	2.7E-05
Landbay A	4000-36	INORG	Chromium VI	18540-29-9	A	3.22E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay A	4000-36	INORG	Cobalt	7440-48-4	LC	2.29E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay A	4000-36	INORG	Copper	7440-50-8	D	3.93E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay A	4000-36	INORG	Iron	7439-89-6	D	3.41E+04	9.52E+04	3.6E-01	4.4E+06	EqP	7.8E-03	1.5E+02	EqP	**2.3E+02**
Landbay A	4000-36	INORG	Lead	7439-92-1	B2	8.32E+00						3.5E+02	EqP	2.4E-02
Landbay A	4000-36	INORG	Manganese	7439-96-5	D	6.25E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.0E-03	1.6E+02	EqP	**4.0E+00**
Landbay A	4000-36	INORG	Mercury	7439-97-6	D	1.25E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.4E-02
Landbay A	4000-36	INORG	Nickel	7440-02-0	A	3.48E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	4000-36	INORG	Selenium	7782-49-2	D	1.59E+00	2.50E+00	6.4E-01	2.5E+04	LT	6.5E-05	2.0E+00	LT	8.0E-01
Landbay A	4000-36	INORG	Strontium	7440-24-6		3.70E+01	3.80E+01	9.7E-01	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.5E-02
Landbay A	4000-36	INORG	Thallium	7440-28-0	ID	1.76E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.5E+00**
Landbay A	4000-36	INORG	Vanadium	7440-62-2	ID	1.08E+02	2.83E+02	3.8E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay A	4000-36	INORG	Zinc	7440-66-6	ID	3.18E+01	1.02E+02	3.1E-01	5.5E+06	EqP	5.8E-06	1.9E+02	EqP	1.7E-01
Landbay A	4000-37-1	INORG	Aluminum	7429-90-5	ID	5.37E+04	5.34E+04	1.0E+00	3.7E+08	EqP	1.5E-04	2.6E+03	EqP	**2.1E+01**
Landbay A	4000-37-1	INORG	Arsenic	7440-38-2	A	1.00E+01	9.90E+00	1.0E+00	1.1E+03	EqP	9.5E-03	8.6E+01	EqP	1.2E-01
Landbay A	4000-37-1	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay A	4000-37-1	INORG	Beryllium	7440-41-7	B1	6.33E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.1E-02
Landbay A	4000-37-1	INORG	Boron	7440-42-8	ID	4.04E+00	1.34E+01	3.0E-01	9.9E+05	LT	4.1E-06	6.4E-01	LT	**6.3E+00**
Landbay A	4000-37-1	INORG	Chromium III	16065-83-1	D	2.08E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay A	4000-37-1	INORG	Chromium VI	18540-29-9	A	4.01E+00	4.97E+00	8.1E-01	6.6E+01	LT	6.0E-02	4.4E+00	LT	9.1E-01
Landbay A	4000-37-1	INORG	Cobalt	7440-48-4	LC	3.91E+01	8.60E+01	4.5E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay A	4000-37-1	INORG	Copper	7440-50-8	D	4.71E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.6E+00**
Landbay A	4000-37-1	INORG	Iron	7439-89-6	D	6.61E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay A	4000-37-1	INORG	Lead	7439-92-1	B2	1.05E+01						3.5E+02	EqP	3.0E-02
Landbay A	4000-37-1	INORG	Manganese	7439-96-5	D	1.34E+03	4.27E+03	3.1E-01	3.1E+05	EqP	4.3E-03	1.6E+02	EqP	**8.6E+00**
Landbay A	4000-37-1	INORG	Mercury	7439-97-6	D	1.97E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.3E-02
Landbay A	4000-37-1	INORG	Nickel	7440-02-0	A	4.55E+01	7.30E+01	6.2E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.3E+00**
Landbay A	4000-37-1	INORG	Silver	7440-22-4	D	3.44E-01	2.30E+00	1.5E-01	3.8E+03	LT	9.2E-05	2.7E+00	LT	1.3E-01
Landbay A	4000-37-1	INORG	Strontium	7440-24-6		2.41E+01	3.80E+01	6.3E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay A	4000-37-1	INORG	Thallium	7440-28-0	ID	3.11E+00	4.50E+00	6.9E-01				1.1E+00	EqP	**2.7E+00**
Landbay A	4000-37-1	INORG	Vanadium	7440-62-2	ID	2.07E+02	2.83E+02	7.3E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	4000-37-1	INORG	Zinc	7440-66-6	ID	5.02E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.2E-06	1.9E+02	EqP	2.6E-01
Landbay A	4000-37-2	INORG	Aluminum	7429-90-5	ID	2.58E+04	5.34E+04	4.8E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**9.9E+00**
Landbay A	4000-37-2	INORG	Arsenic	7440-38-2	A	5.71E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.7E-02
Landbay A	4000-37-2	INORG	Barium	7440-39-3	NC	1.11E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.4E+01**
Landbay A	4000-37-2	INORG	Beryllium	7440-41-7	B1	6.69E-01	1.20E+00	5.6E-01	6.8E+03	EqP	9.9E-05	1.0E+01	EqP	6.4E-02
Landbay A	4000-37-2	INORG	Chromium III	16065-83-1	D	1.86E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay A	4000-37-2	INORG	Chromium VI	18540-29-9	A	3.86E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay A	4000-37-2	INORG	Cobalt	7440-48-4	LC	7.98E+01	8.60E+01	9.3E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay A	4000-37-2	INORG	Copper	7440-50-8	D	2.61E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay A	4000-37-2	INORG	Iron	7439-89-6	D	6.21E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	4000-37-2	INORG	Lead	7439-92-1	B2	3.07E+01						3.5E+02	EqP	8.8E-02
Landbay A	4000-37-2	INORG	Manganese	7439-96-5	D	3.05E+03	4.27E+03	7.1E-01	3.1E+05	EqP	9.8E-03	1.6E+02	EqP	**1.9E+01**
Landbay A	4000-37-2	INORG	Mercury	7439-97-6	D	4.51E-02	7.10E-02	6.4E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	4000-37-2	INORG	Nickel	7440-02-0	A	3.05E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.0E-01
Landbay A	4000-37-2	INORG	Selenium	7782-49-2	D	3.39E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.7E+00**
Landbay A	4000-37-2	INORG	Strontium	7440-24-6		1.52E+01	3.80E+01	4.0E-01	1.6E+07	EqP	9.3E-07	1.1E+03	EqP	1.4E-02
Landbay A	4000-37-2	INORG	Thallium	7440-28-0	ID	6.02E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.3E+00**
Landbay A	4000-37-2	INORG	Vanadium	7440-62-2	ID	2.37E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay A	4000-37-2	INORG	Zinc	7440-66-6	ID	6.48E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay A	4050-3200	INORG	Aluminum	7429-90-5	ID	5.34E+04	5.34E+04	1.0E+00	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay A	4050-3200	INORG	Arsenic	7440-38-2	A	2.24E+00	9.90E+00	2.3E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.6E-02
Landbay A	4050-3200	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	4050-3200	INORG	Beryllium	7440-41-7	B1	3.66E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.4E-05	1.0E+01	EqP	3.5E-02
Landbay A	4050-3200	INORG	Chromium III	16065-83-1	D	8.92E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.6E-05
Landbay A	4050-3200	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay A	4050-3200	INORG	Cobalt	7440-48-4	LC	1.90E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.1E-01
Landbay A	4050-3200	INORG	Copper	7440-50-8	D	3.86E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay A	4050-3200	INORG	Iron	7439-89-6	D	3.60E+04	9.52E+04	3.8E-01	4.4E+06	EqP	8.3E-03	1.5E+02	EqP	**2.4E+02**
Landbay A	4050-3200	INORG	Lead	7439-92-1	B2	5.36E+00						3.5E+02	EqP	1.5E-02
Landbay A	4050-3200	INORG	Manganese	7439-96-5	D	5.36E+02	4.27E+03	1.3E-01	3.1E+05	EqP	1.7E-03	1.6E+02	EqP	**3.4E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	4050-3200	INORG	Nickel	7440-02-0	A	4.15E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.3E-04	3.4E+01	EqP	**1.2E+00**
Landbay A	4050-3200	INORG	Strontium	7440-24-6		3.79E+01	3.80E+01	1.0E+00	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.6E-02
Landbay A	4050-3200	INORG	Vanadium	7440-62-2	ID	9.73E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.4E-01
Landbay A	4050-3200	INORG	Zinc	7440-66-6	ID	2.84E+01	1.02E+02	2.8E-01	5.5E+06	EqP	5.2E-06	1.9E+02	EqP	1.5E-01
Landbay A	4050-3350	INORG	Aluminum	7429-90-5	ID	4.15E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	4050-3350	INORG	Antimony	7440-36-0	ID	1.08E+00	1.70E+00	6.4E-01	1.4E+03	EqP	7.9E-04	2.7E+01	EqP	4.0E-02
Landbay A	4050-3350	INORG	Arsenic	7440-38-2	A	5.70E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay A	4050-3350	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay A	4050-3350	INORG	Beryllium	7440-41-7	B1	4.71E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.9E-05	1.0E+01	EqP	4.5E-02
Landbay A	4050-3350	INORG	Chromium III	16065-83-1	D	2.40E+02	2.61E+02	9.2E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.1E-05
Landbay A	4050-3350	INORG	Chromium VI	18540-29-9	A	4.24E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.4E-02	4.4E+00	LT	9.6E-01
Landbay A	4050-3350	INORG	Cobalt	7440-48-4	LC	6.75E+01	8.60E+01	7.8E-01	1.4E+04	EqP	4.9E-03	2.1E+01	EqP	**3.2E+00**
Landbay A	4050-3350	INORG	Copper	7440-50-8	D	3.32E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay A	4050-3350	INORG	Iron	7439-89-6	D	7.37E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay A	4050-3350	INORG	Lead	7439-92-1	B2	1.97E+01						3.5E+02	EqP	5.6E-02
Landbay A	4050-3350	INORG	Manganese	7439-96-5	D	2.79E+03	4.27E+03	6.5E-01	3.1E+05	EqP	9.0E-03	1.6E+02	EqP	**1.8E+01**
Landbay A	4050-3350	INORG	Nickel	7440-02-0	A	4.60E+01	7.30E+01	6.3E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.4E+00**
Landbay A	4050-3350	INORG	Selenium	7782-49-2	D	1.76E+00	2.50E+00	7.0E-01	2.5E+04	LT	7.1E-05	2.0E+00	LT	8.8E-01
Landbay A	4050-3350	INORG	Silver	7440-22-4	D	6.57E-01	2.30E+00	2.9E-01	3.8E+03	LT	1.8E-04	2.7E+00	LT	2.5E-01
Landbay A	4050-3350	INORG	Strontium	7440-24-6		1.55E+01	3.80E+01	4.1E-01	1.6E+07	EqP	9.5E-07	1.1E+03	EqP	1.5E-02
Landbay A	4050-3350	INORG	Thallium	7440-28-0	ID	1.44E+00	4.50E+00	3.2E-01				1.1E+00	EqP	**1.3E+00**
Landbay A	4050-3350	INORG	Vanadium	7440-62-2	ID	2.28E+02	2.83E+02	8.1E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay A	4050-3350	INORG	Zinc	7440-66-6	ID	4.70E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay A	4050-3500	INORG	Aluminum	7429-90-5	ID	2.81E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.6E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	4050-3500	INORG	Arsenic	7440-38-2	A	4.68E+00	9.90E+00	4.7E-01	1.1E+03	EqP	4.5E-03	8.6E+01	EqP	5.5E-02
Landbay A	4050-3500	INORG	Barium	7440-39-3	NC	8.55E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay A	4050-3500	INORG	Beryllium	7440-41-7	B1	4.90E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.2E-05	1.0E+01	EqP	4.7E-02
Landbay A	4050-3500	INORG	Chromium III	16065-83-1	D	5.76E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay A	4050-3500	INORG	Chromium VI	18540-29-9	A	2.98E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	4050-3500	INORG	Cobalt	7440-48-4	LC	3.35E+01	8.60E+01	3.9E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay A	4050-3500	INORG	Copper	7440-50-8	D	3.87E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay A	4050-3500	INORG	Iron	7439-89-6	D	5.61E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay A	4050-3500	INORG	Lead	7439-92-1	B2	1.48E+01						3.5E+02	EqP	4.2E-02
Landbay A	4050-3500	INORG	Manganese	7439-96-5	D	7.96E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.1E+00**
Landbay A	4050-3500	INORG	Nickel	7440-02-0	A	2.96E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.8E-01
Landbay A	4050-3500	INORG	Selenium	7782-49-2	D	1.15E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.7E-05	2.0E+00	LT	5.8E-01
Landbay A	4050-3500	INORG	Silver	7440-22-4	D	3.03E-01	2.30E+00	1.3E-01	3.8E+03	LT	8.1E-05	2.7E+00	LT	1.1E-01
Landbay A	4050-3500	INORG	Strontium	7440-24-6		1.53E+01	3.80E+01	4.0E-01	1.6E+07	EqP	9.4E-07	1.1E+03	EqP	1.4E-02
Landbay A	4050-3500	INORG	Vanadium	7440-62-2	ID	1.71E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay A	4050-3500	INORG	Zinc	7440-66-6	ID	3.30E+01	1.02E+02	3.2E-01	5.5E+06	EqP	6.0E-06	1.9E+02	EqP	1.7E-01
Landbay A	4050-4250	INORG	Aluminum	7429-90-5	ID	3.27E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	4050-4250	INORG	Antimony	7440-36-0	ID	1.12E+00	1.70E+00	6.6E-01	1.4E+03	EqP	8.2E-04	2.7E+01	EqP	4.1E-02
Landbay A	4050-4250	INORG	Arsenic	7440-38-2	A	3.05E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	4050-4250	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay A	4050-4250	INORG	Beryllium	7440-41-7	B1	6.34E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay A	4050-4250	INORG	Cadmium	7440-43-9	B1	1.95E+00	2.70E+00	7.2E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.1E-01
Landbay A	4050-4250	INORG	Chromium III	16065-83-1	D	8.43E+01	2.61E+02	3.2E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay A	4050-4250	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	4050-4250	INORG	Cobalt	7440-48-4	LC	3.67E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay A	4050-4250	INORG	Copper	7440-50-8	D	3.77E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay A	4050-4250	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay A	4050-4250	INORG	Lead	7439-92-1	B2	1.82E+01						3.5E+02	EqP	5.2E-02
Landbay A	4050-4250	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	4050-4250	INORG	Mercury	7439-97-6	D	1.58E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.3E-02
Landbay A	4050-4250	INORG	Nickel	7440-02-0	A	2.84E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay A	4050-4250	INORG	Silver	7440-22-4	D	5.11E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay A	4050-4250	INORG	Thallium	7440-28-0	ID	2.01E+00	4.50E+00	4.5E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	4050-4250	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	4050-4250	INORG	Zinc	7440-66-6	ID	5.50E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay A	4050-4400	INORG	Aluminum	7429-90-5	ID	3.27E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	4050-4400	INORG	Antimony	7440-36-0	ID	1.12E+00	1.70E+00	6.6E-01	1.4E+03	EqP	8.2E-04	2.7E+01	EqP	4.1E-02
Landbay A	4050-4400	INORG	Arsenic	7440-38-2	A	3.05E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	4050-4400	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay A	4050-4400	INORG	Beryllium	7440-41-7	B1	6.34E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay A	4050-4400	INORG	Cadmium	7440-43-9	B1	1.95E+00	2.70E+00	7.2E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.1E-01
Landbay A	4050-4400	INORG	Chromium III	16065-83-1	D	8.43E+01	2.61E+02	3.2E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay A	4050-4400	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	4050-4400	INORG	Cobalt	7440-48-4	LC	3.67E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay A	4050-4400	INORG	Copper	7440-50-8	D	3.77E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay A	4050-4400	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay A	4050-4400	INORG	Lead	7439-92-1	B2	1.82E+01						3.5E+02	EqP	5.2E-02
Landbay A	4050-4400	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	4050-4400	INORG	Mercury	7439-97-6	D	1.58E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.3E-02
Landbay A	4050-4400	INORG	Nickel	7440-02-0	A	2.84E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay A	4050-4400	INORG	Silver	7440-22-4	D	5.11E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay A	4050-4400	INORG	Thallium	7440-28-0	ID	2.01E+00	4.50E+00	4.5E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	4050-4400	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	4050-4400	INORG	Zinc	7440-66-6	ID	5.50E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay A	4050-4550	INORG	Aluminum	7429-90-5	ID	4.04E+04	5.34E+04	7.6E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	4050-4550	INORG	Barium	7440-39-3	NC	3.49E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay A	4050-4550	INORG	Beryllium	7440-41-7	B1	3.96E-01	1.20E+00	3.3E-01	6.8E+03	EqP	5.8E-05	1.0E+01	EqP	3.8E-02
Landbay A	4050-4550	INORG	Chromium III	16065-83-1	D	6.04E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.8E-05
Landbay A	4050-4550	INORG	Chromium VI	18540-29-9	A	9.60E-01	4.97E+00	1.9E-01	6.6E+01	LT	1.4E-02	4.4E+00	LT	2.2E-01
Landbay A	4050-4550	INORG	Cobalt	7440-48-4	LC	8.39E+01	8.60E+01	9.8E-01	1.4E+04	EqP	6.1E-03	2.1E+01	EqP	**4.0E+00**
Landbay A	4050-4550	INORG	Copper	7440-50-8	D	7.31E+01	1.31E+02	5.6E-01	3.5E+05	EqP	2.1E-04	8.4E+00	EqP	**8.7E+00**
Landbay A	4050-4550	INORG	Iron	7439-89-6	D	7.13E+04	9.52E+04	7.5E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	4050-4550	INORG	Lead	7439-92-1	B2	2.06E+00						3.5E+02	EqP	5.9E-03
Landbay A	4050-4550	INORG	Manganese	7439-96-5	D	6.35E+03	4.27E+03	**1.5E+00**	3.1E+05	EqP	2.0E-02	1.6E+02	EqP	**4.1E+01**
Landbay A	4050-4550	INORG	Nickel	7440-02-0	A	3.95E+01	7.30E+01	5.4E-01	1.2E+05	EqP	3.2E-04	3.4E+01	EqP	**1.2E+00**
Landbay A	4050-4550	INORG	Perchlorate	14797-73-0	NC	2.40E-04			3.4E+03	LT	7.0E-08	7.7E+02	LT	3.1E-07
Landbay A	4050-4550	INORG	Strontium	7440-24-6		2.65E+01	3.80E+01	7.0E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.5E-02
Landbay A	4050-4550	INORG	Thallium	7440-28-0	ID	3.95E+00	4.50E+00	8.8E-01				1.1E+00	EqP	**3.5E+00**
Landbay A	4050-4550	INORG	Vanadium	7440-62-2	ID	2.27E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay A	4050-4550	INORG	Zinc	7440-66-6	ID	2.63E+02	1.02E+02	**2.6E+00**	5.5E+06	EqP	4.8E-05	1.9E+02	EqP	**1.4E+00**
Landbay A	4050-4550SE	INORG	Aluminum	7429-90-5	ID	4.39E+04	5.34E+04	8.2E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	4050-4550SE	INORG	Barium	7440-39-3	NC	5.81E+01	2.24E+02	2.6E-01	3.2E+05	EqP	1.8E-04	3.3E+00	EqP	**1.8E+01**
Landbay A	4050-4550SE	INORG	Beryllium	7440-41-7	B1	2.53E-01	1.20E+00	2.1E-01	6.8E+03	EqP	3.7E-05	1.0E+01	EqP	2.4E-02
Landbay A	4050-4550SE	INORG	Chromium III	16065-83-1	D	5.70E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay A	4050-4550SE	INORG	Copper	7440-50-8	D	6.09E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.2E+00**
Landbay A	4050-4550SE	INORG	Lead	7439-92-1	B2	1.15E+00						3.5E+02	EqP	3.3E-03
Landbay A	4050-4550SE	INORG	Strontium	7440-24-6		3.58E+01	3.80E+01	9.4E-01	1.6E+07	EqP	2.2E-06	1.1E+03	EqP	3.4E-02
Landbay A	4050-4550SW	INORG	Aluminum	7429-90-5	ID	3.75E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	4050-4550SW	INORG	Barium	7440-39-3	NC	3.85E+01	2.24E+02	1.7E-01	3.2E+05	EqP	1.2E-04	3.3E+00	EqP	**1.2E+01**
Landbay A	4050-4550SW	INORG	Beryllium	7440-41-7	B1	3.21E-01	1.20E+00	2.7E-01	6.8E+03	EqP	4.7E-05	1.0E+01	EqP	3.1E-02
Landbay A	4050-4550SW	INORG	Chromium III	16065-83-1	D	4.01E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay A	4050-4550SW	INORG	Chromium VI	18540-29-9	A	9.00E-01	4.97E+00	1.8E-01	6.6E+01	LT	1.4E-02	4.4E+00	LT	2.0E-01
Landbay A	4050-4550SW	INORG	Copper	7440-50-8	D	6.39E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay A	4050-4550SW	INORG	Lead	7439-92-1	B2	2.08E+00						3.5E+02	EqP	5.9E-03
Landbay A	4050-4550SW	INORG	Strontium	7440-24-6		2.96E+01	3.80E+01	7.8E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay A	4100-38	INORG	Perchlorate	14797-73-0	NC	2.70E-03			3.4E+03	LT	7.8E-07	7.7E+02	LT	3.5E-06
Landbay A	4100-45	INORG	Aluminum	7429-90-5	ID	2.02E+04	5.34E+04	3.8E-01	3.7E+08	EqP	5.5E-05	2.6E+03	EqP	**7.7E+00**
Landbay A	4100-45	INORG	Arsenic	7440-38-2	A	9.51E+00	9.90E+00	9.6E-01	1.1E+03	EqP	9.1E-03	8.6E+01	EqP	1.1E-01
Landbay A	4100-45	INORG	Barium	7440-39-3	NC	7.42E+01	2.24E+02	3.3E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.2E+01**
Landbay A	4100-45	INORG	Beryllium	7440-41-7	B1	7.00E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay A	4100-45	INORG	Cadmium	7440-43-9	B1	2.32E+00	2.70E+00	8.6E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	4100-45	INORG	Chromium III	16065-83-1	D	1.05E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.9E-09	3.4E+06	EqP	3.1E-05
Landbay A	4100-45	INORG	Chromium VI	18540-29-9	A	3.30E+00	4.97E+00	6.6E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay A	4100-45	INORG	Copper	7440-50-8	D	1.66E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay A	4100-45	INORG	Lead	7439-92-1	B2	2.65E+01						3.5E+02	EqP	7.6E-02
Landbay A	4100-45	INORG	Mercury	7439-97-6	D	2.13E-02	7.10E-02	3.0E-01		NA		3.7E-01	EqP	5.8E-02
Landbay A	4100-45	INORG	Silver	7440-22-4	D	6.83E-01	2.30E+00	3.0E-01	3.8E+03	LT	1.8E-04	2.7E+00	LT	2.6E-01
Landbay A	4100-45	INORG	Strontium	7440-24-6		5.92E+00	3.80E+01	1.6E-01	1.6E+07	EqP	3.6E-07	1.1E+03	EqP	5.6E-03
Landbay A	4200-3500	INORG	Aluminum	7429-90-5	ID	4.90E+04	5.34E+04	9.2E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.9E+01**
Landbay A	4200-3500	INORG	Arsenic	7440-38-2	A	5.02E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay A	4200-3500	INORG	Barium	7440-39-3	NC	1.46E+02	2.24E+02	6.5E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay A	4200-3500	INORG	Beryllium	7440-41-7	B1	4.59E-01	1.20E+00	3.8E-01	6.8E+03	EqP	6.8E-05	1.0E+01	EqP	4.4E-02
Landbay A	4200-3500	INORG	Chromium III	16065-83-1	D	1.70E+02	2.61E+02	6.5E-01	2.1E+10	EqP	8.0E-09	3.4E+06	EqP	5.0E-05
Landbay A	4200-3500	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay A	4200-3500	INORG	Cobalt	7440-48-4	LC	3.64E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	4200-3500	INORG	Copper	7440-50-8	D	4.86E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay A	4200-3500	INORG	Iron	7439-89-6	D	6.77E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	4200-3500	INORG	Lead	7439-92-1	B2	1.85E+01						3.5E+02	EqP	5.3E-02
Landbay A	4200-3500	INORG	Manganese	7439-96-5	D	1.39E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**8.9E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	4200-3500	INORG	Nickel	7440-02-0	A	5.73E+01	7.30E+01	7.8E-01	1.2E+05	EqP	4.6E-04	3.4E+01	EqP	**1.7E+00**
Landbay A	4200-3500	INORG	Selenium	7782-49-2	D	1.21E+00	2.50E+00	4.8E-01	2.5E+04	LT	4.9E-05	2.0E+00	LT	6.1E-01
Landbay A	4200-3500	INORG	Silver	7440-22-4	D	3.66E-01	2.30E+00	1.6E-01	3.8E+03	LT	9.8E-05	2.7E+00	LT	1.4E-01
Landbay A	4200-3500	INORG	Strontium	7440-24-6		1.98E+01	3.80E+01	5.2E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay A	4200-3500	INORG	Thallium	7440-28-0	ID	1.38E+00	4.50E+00	3.1E-01				1.1E+00	EqP	**1.2E+00**
Landbay A	4200-3500	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay A	4200-3500	INORG	Zinc	7440-66-6	ID	8.64E+01	1.02E+02	8.5E-01	5.5E+06	EqP	1.6E-05	1.9E+02	EqP	4.5E-01
Landbay A	4200-4250	INORG	Aluminum	7429-90-5	ID	3.27E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	4200-4250	INORG	Antimony	7440-36-0	ID	1.12E+00	1.70E+00	6.6E-01	1.4E+03	EqP	8.2E-04	2.7E+01	EqP	4.1E-02
Landbay A	4200-4250	INORG	Arsenic	7440-38-2	A	3.05E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	4200-4250	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay A	4200-4250	INORG	Beryllium	7440-41-7	B1	6.34E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay A	4200-4250	INORG	Cadmium	7440-43-9	B1	1.95E+00	2.70E+00	7.2E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.1E-01
Landbay A	4200-4250	INORG	Chromium III	16065-83-1	D	8.43E+01	2.61E+02	3.2E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay A	4200-4250	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	4200-4250	INORG	Cobalt	7440-48-4	LC	3.67E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay A	4200-4250	INORG	Copper	7440-50-8	D	3.77E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay A	4200-4250	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay A	4200-4250	INORG	Lead	7439-92-1	B2	1.82E+01						3.5E+02	EqP	5.2E-02
Landbay A	4200-4250	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	4200-4250	INORG	Mercury	7439-97-6	D	1.58E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.3E-02
Landbay A	4200-4250	INORG	Nickel	7440-02-0	A	2.84E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay A	4200-4250	INORG	Silver	7440-22-4	D	5.11E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay A	4200-4250	INORG	Thallium	7440-28-0	ID	2.01E+00	4.50E+00	4.5E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	4200-4250	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	4200-4250	INORG	Zinc	7440-66-6	ID	5.50E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay A	4200-4400	INORG	Aluminum	7429-90-5	ID	3.27E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	4200-4400	INORG	Antimony	7440-36-0	ID	1.12E+00	1.70E+00	6.6E-01	1.4E+03	EqP	8.2E-04	2.7E+01	EqP	4.1E-02
Landbay A	4200-4400	INORG	Arsenic	7440-38-2	A	3.05E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	4200-4400	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay A	4200-4400	INORG	Beryllium	7440-41-7	B1	6.34E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay A	4200-4400	INORG	Cadmium	7440-43-9	B1	1.95E+00	2.70E+00	7.2E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.1E-01
Landbay A	4200-4400	INORG	Chromium III	16065-83-1	D	8.43E+01	2.61E+02	3.2E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay A	4200-4400	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	4200-4400	INORG	Cobalt	7440-48-4	LC	3.67E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay A	4200-4400	INORG	Copper	7440-50-8	D	3.77E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay A	4200-4400	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay A	4200-4400	INORG	Lead	7439-92-1	B2	1.82E+01						3.5E+02	EqP	5.2E-02
Landbay A	4200-4400	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	4200-4400	INORG	Mercury	7439-97-6	D	1.58E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.3E-02
Landbay A	4200-4400	INORG	Nickel	7440-02-0	A	2.84E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay A	4200-4400	INORG	Silver	7440-22-4	D	5.11E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay A	4200-4400	INORG	Thallium	7440-28-0	ID	2.01E+00	4.50E+00	4.5E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	4200-4400	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	4200-4400	INORG	Zinc	7440-66-6	ID	5.50E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay A	4350-2900	PCB	PCBs (total)	1336-36-3	B2	2.22E-02				NA		1.4E+00	EqP	1.6E-02
Landbay A	4350-2900	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	4350-2900	INORG	Antimony	7440-36-0	ID	1.07E+00	1.70E+00	6.3E-01	1.4E+03	EqP	7.8E-04	2.7E+01	EqP	3.9E-02
Landbay A	4350-2900	INORG	Arsenic	7440-38-2	A	4.02E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay A	4350-2900	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay A	4350-2900	INORG	Beryllium	7440-41-7	B1	2.61E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.8E-05	1.0E+01	EqP	2.5E-02
Landbay A	4350-2900	INORG	Boron	7440-42-8	ID	1.39E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay A	4350-2900	INORG	Cadmium	7440-43-9	B1	2.09E+00	2.70E+00	7.7E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.8E-01
Landbay A	4350-2900	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.6E-05
Landbay A	4350-2900	INORG	Chromium VI	18540-29-9	A	2.20E+00	4.97E+00	4.4E-01	6.6E+01	LT	3.3E-02	4.4E+00	LT	5.0E-01
Landbay A	4350-2900	INORG	Cobalt	7440-48-4	LC	3.58E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	4350-2900	INORG	Copper	7440-50-8	D	5.88E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay A	4350-2900	INORG	Iron	7439-89-6	D	5.39E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	4350-2900	INORG	Lead	7439-92-1	B2	1.12E+01						3.5E+02	EqP	3.2E-02
Landbay A	4350-2900	INORG	Manganese	7439-96-5	D	9.72E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay A	4350-2900	INORG	Mercury	7439-97-6	D	2.26E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.1E-02
Landbay A	4350-2900	INORG	Nickel	7440-02-0	A	5.49E+01	7.30E+01	7.5E-01	1.2E+05	EqP	4.4E-04	3.4E+01	EqP	**1.6E+00**
Landbay A	4350-2900	INORG	Silver	7440-22-4	D	2.15E+00	2.30E+00	9.3E-01	3.8E+03	LT	5.7E-04	2.7E+00	LT	8.1E-01
Landbay A	4350-2900	INORG	Strontium	7440-24-6		4.03E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay A	4350-2900	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	4350-2900	INORG	Zinc	7440-66-6	ID	5.94E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay A	4350-3050	INORG	Aluminum	7429-90-5	ID	3.12E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	4350-3050	INORG	Antimony	7440-36-0	ID	1.12E+00	1.70E+00	6.6E-01	1.4E+03	EqP	8.2E-04	2.7E+01	EqP	4.1E-02
Landbay A	4350-3050	INORG	Arsenic	7440-38-2	A	4.02E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay A	4350-3050	INORG	Barium	7440-39-3	NC	9.55E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	4350-3050	INORG	Beryllium	7440-41-7	B1	5.55E-01	1.20E+00	4.6E-01	6.8E+03	EqP	8.2E-05	1.0E+01	EqP	5.3E-02
Landbay A	4350-3050	INORG	Cadmium	7440-43-9	B1	2.34E+00	2.70E+00	8.7E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	4350-3050	INORG	Chromium III	16065-83-1	D	4.97E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.5E-05
Landbay A	4350-3050	INORG	Chromium VI	18540-29-9	A	2.93E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay A	4350-3050	INORG	Cobalt	7440-48-4	LC	4.10E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay A	4350-3050	INORG	Copper	7440-50-8	D	4.00E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay A	4350-3050	INORG	Iron	7439-89-6	D	5.45E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	4350-3050	INORG	Lead	7439-92-1	B2	1.91E+01						3.5E+02	EqP	5.5E-02
Landbay A	4350-3050	INORG	Manganese	7439-96-5	D	1.38E+03	4.27E+03	3.2E-01	3.1E+05	EqP	4.4E-03	1.6E+02	EqP	**8.8E+00**
Landbay A	4350-3050	INORG	Mercury	7439-97-6	D	2.68E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.3E-02
Landbay A	4350-3050	INORG	Nickel	7440-02-0	A	1.92E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.7E-01
Landbay A	4350-3050	INORG	Silver	7440-22-4	D	1.87E-01	2.30E+00	8.1E-02	3.8E+03	LT	5.0E-05	2.7E+00	LT	7.0E-02
Landbay A	4350-3050	INORG	Thallium	7440-28-0	ID	1.63E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay A	4350-3050	INORG	Vanadium	7440-62-2	ID	1.58E+02	2.83E+02	5.6E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	4350-3050	INORG	Zinc	7440-66-6	ID	4.93E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	4350-3500	INORG	Aluminum	7429-90-5	ID	4.54E+04	5.34E+04	8.5E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	4350-3500	INORG	Arsenic	7440-38-2	A	4.39E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay A	4350-3500	INORG	Barium	7440-39-3	NC	1.02E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	4350-3500	INORG	Beryllium	7440-41-7	B1	5.20E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.7E-05	1.0E+01	EqP	5.0E-02
Landbay A	4350-3500	INORG	Chromium III	16065-83-1	D	1.64E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.7E-09	3.4E+06	EqP	4.9E-05
Landbay A	4350-3500	INORG	Chromium VI	18540-29-9	A	3.71E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.4E-01
Landbay A	4350-3500	INORG	Cobalt	7440-48-4	LC	4.65E+01	8.60E+01	5.4E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.2E+00**
Landbay A	4350-3500	INORG	Copper	7440-50-8	D	5.11E+01	1.31E+02	3.9E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.1E+00**
Landbay A	4350-3500	INORG	Iron	7439-89-6	D	5.87E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.9E+02**
Landbay A	4350-3500	INORG	Lead	7439-92-1	B2	1.60E+01						3.5E+02	EqP	4.6E-02
Landbay A	4350-3500	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	4350-3500	INORG	Mercury	7439-97-6	D	1.80E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.9E-02
Landbay A	4350-3500	INORG	Nickel	7440-02-0	A	5.88E+01	7.30E+01	8.1E-01	1.2E+05	EqP	4.7E-04	3.4E+01	EqP	**1.7E+00**
Landbay A	4350-3500	INORG	Strontium	7440-24-6		2.99E+01	3.80E+01	7.9E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay A	4350-3500	INORG	Thallium	7440-28-0	ID	2.06E+00	4.50E+00	4.6E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	4350-3500	INORG	Vanadium	7440-62-2	ID	1.34E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay A	4350-3500	INORG	Zinc	7440-66-6	ID	9.16E+01	1.02E+02	9.0E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.8E-01
Landbay A	4350-4250	INORG	Aluminum	7429-90-5	ID	2.92E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	4350-4250	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay A	4350-4250	INORG	Arsenic	7440-38-2	A	7.24E+00	9.90E+00	7.3E-01	1.1E+03	EqP	6.9E-03	8.6E+01	EqP	8.4E-02
Landbay A	4350-4250	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	4350-4250	INORG	Beryllium	7440-41-7	B1	9.00E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay A	4350-4250	INORG	Cadmium	7440-43-9	B1	1.43E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.7E-01
Landbay A	4350-4250	INORG	Chromium III	16065-83-1	D	7.95E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.4E-05
Landbay A	4350-4250	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	4350-4250	INORG	Cobalt	7440-48-4	LC	8.58E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay A	4350-4250	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	4350-4250	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay A	4350-4250	INORG	Lead	7439-92-1	B2	2.89E+01						3.5E+02	EqP	8.2E-02
Landbay A	4350-4250	INORG	Manganese	7439-96-5	D	2.52E+03	4.27E+03	5.9E-01	3.1E+05	EqP	8.1E-03	1.6E+02	EqP	**1.6E+01**
Landbay A	4350-4250	INORG	Mercury	7439-97-6	D	3.66E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	9.9E-02
Landbay A	4350-4250	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay A	4350-4250	INORG	Silver	7440-22-4	D	1.59E+00	2.30E+00	6.9E-01	3.8E+03	LT	4.2E-04	2.7E+00	LT	6.0E-01
Landbay A	4350-4250	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	4350-4250	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	4350-4250	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	4350-4400	INORG	Aluminum	7429-90-5	ID	2.92E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	4350-4400	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay A	4350-4400	INORG	Arsenic	7440-38-2	A	7.24E+00	9.90E+00	7.3E-01	1.1E+03	EqP	6.9E-03	8.6E+01	EqP	8.4E-02
Landbay A	4350-4400	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	4350-4400	INORG	Beryllium	7440-41-7	B1	9.00E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay A	4350-4400	INORG	Cadmium	7440-43-9	B1	1.43E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.7E-01
Landbay A	4350-4400	INORG	Chromium III	16065-83-1	D	7.95E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.4E-05
Landbay A	4350-4400	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	4350-4400	INORG	Cobalt	7440-48-4	LC	8.58E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay A	4350-4400	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	4350-4400	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay A	4350-4400	INORG	Lead	7439-92-1	B2	2.89E+01						3.5E+02	EqP	8.2E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	4350-4400	INORG	Manganese	7439-96-5	D	2.52E+03	4.27E+03	5.9E-01	3.1E+05	EqP	8.1E-03	1.6E+02	EqP	**1.6E+01**
Landbay A	4350-4400	INORG	Mercury	7439-97-6	D	3.66E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	9.9E-02
Landbay A	4350-4400	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay A	4350-4400	INORG	Silver	7440-22-4	D	1.59E+00	2.30E+00	6.9E-01	3.8E+03	LT	4.2E-04	2.7E+00	LT	6.0E-01
Landbay A	4350-4400	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	4350-4400	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	4350-4400	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	4400-52	PCB	PCBs (total)	1336-36-3	B2	1.87E-02				NA		1.4E+00	EqP	1.4E-02
Landbay A	4400-52	INORG	Aluminum	7429-90-5	ID	3.83E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	4400-52	INORG	Arsenic	7440-38-2	A	1.18E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.1E-02	8.6E+01	EqP	1.4E-01
Landbay A	4400-52	INORG	Barium	7440-39-3	NC	1.01E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	4400-52	INORG	Beryllium	7440-41-7	B1	6.55E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay A	4400-52	INORG	Boron	7440-42-8	ID	6.17E+00	1.34E+01	4.6E-01	9.9E+05	LT	6.3E-06	6.4E-01	LT	**9.6E+00**
Landbay A	4400-52	INORG	Chromium III	16065-83-1	D	1.32E+02	2.61E+02	5.0E-01	2.1E+10	EqP	6.2E-09	3.4E+06	EqP	3.9E-05
Landbay A	4400-52	INORG	Chromium VI	18540-29-9	A	3.49E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay A	4400-52	INORG	Cobalt	7440-48-4	LC	4.27E+01	8.60E+01	5.0E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	4400-52	INORG	Copper	7440-50-8	D	4.64E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.5E+00**
Landbay A	4400-52	INORG	Iron	7439-89-6	D	5.73E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay A	4400-52	INORG	Lead	7439-92-1	B2	8.90E+01						3.5E+02	EqP	2.5E-01
Landbay A	4400-52	INORG	Manganese	7439-96-5	D	1.02E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.5E+00**
Landbay A	4400-52	INORG	Mercury	7439-97-6	D	2.56E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay A	4400-52	INORG	Nickel	7440-02-0	A	3.49E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay A	4400-52	INORG	Silver	7440-22-4	D	2.71E-01	2.30E+00	1.2E-01	3.8E+03	LT	7.2E-05	2.7E+00	LT	1.0E-01
Landbay A	4400-52	INORG	Strontium	7440-24-6		2.56E+01	3.80E+01	6.7E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay A	4400-52	INORG	Thallium	7440-28-0	ID	2.58E+00	4.50E+00	5.7E-01				1.1E+00	EqP	**2.3E+00**
Landbay A	4400-52	INORG	Vanadium	7440-62-2	ID	1.60E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay A	4400-52	INORG	Zinc	7440-66-6	ID	8.36E+01	1.02E+02	8.2E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.4E-01
Landbay A	4500-2900	PCB	PCBs (total)	1336-36-3	B2	2.22E-02				NA		1.4E+00	EqP	1.6E-02
Landbay A	4500-2900	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	4500-2900	INORG	Antimony	7440-36-0	ID	1.07E+00	1.70E+00	6.3E-01	1.4E+03	EqP	7.8E-04	2.7E+01	EqP	3.9E-02
Landbay A	4500-2900	INORG	Arsenic	7440-38-2	A	4.02E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay A	4500-2900	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay A	4500-2900	INORG	Beryllium	7440-41-7	B1	2.61E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.8E-05	1.0E+01	EqP	2.5E-02
Landbay A	4500-2900	INORG	Boron	7440-42-8	ID	1.39E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay A	4500-2900	INORG	Cadmium	7440-43-9	B1	2.09E+00	2.70E+00	7.7E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.8E-01
Landbay A	4500-2900	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.6E-05
Landbay A	4500-2900	INORG	Chromium VI	18540-29-9	A	2.20E+00	4.97E+00	4.4E-01	6.6E+01	LT	3.3E-02	4.4E+00	LT	5.0E-01
Landbay A	4500-2900	INORG	Cobalt	7440-48-4	LC	3.58E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	4500-2900	INORG	Copper	7440-50-8	D	5.88E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay A	4500-2900	INORG	Iron	7439-89-6	D	5.39E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	4500-2900	INORG	Lead	7439-92-1	B2	1.12E+01						3.5E+02	EqP	3.2E-02
Landbay A	4500-2900	INORG	Manganese	7439-96-5	D	9.72E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay A	4500-2900	INORG	Mercury	7439-97-6	D	2.26E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.1E-02
Landbay A	4500-2900	INORG	Nickel	7440-02-0	A	5.49E+01	7.30E+01	7.5E-01	1.2E+05	EqP	4.4E-04	3.4E+01	EqP	**1.6E+00**
Landbay A	4500-2900	INORG	Silver	7440-22-4	D	2.15E+00	2.30E+00	9.3E-01	3.8E+03	LT	5.7E-04	2.7E+00	LT	8.1E-01
Landbay A	4500-2900	INORG	Strontium	7440-24-6		4.03E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay A	4500-2900	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	4500-2900	INORG	Zinc	7440-66-6	ID	5.94E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay A	4500-3050	INORG	Aluminum	7429-90-5	ID	3.62E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.8E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	4500-3050	INORG	Antimony	7440-36-0	ID	1.10E+00	1.70E+00	6.5E-01	1.4E+03	EqP	8.0E-04	2.7E+01	EqP	4.1E-02
Landbay A	4500-3050	INORG	Arsenic	7440-38-2	A	3.05E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	4500-3050	INORG	Barium	7440-39-3	NC	8.41E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	4500-3050	INORG	Beryllium	7440-41-7	B1	4.73E-01	1.20E+00	3.9E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.5E-02
Landbay A	4500-3050	INORG	Cadmium	7440-43-9	B1	2.09E+00	2.70E+00	7.7E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.8E-01
Landbay A	4500-3050	INORG	Chromium III	16065-83-1	D	6.29E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.9E-05
Landbay A	4500-3050	INORG	Chromium VI	18540-29-9	A	3.02E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.9E-01
Landbay A	4500-3050	INORG	Cobalt	7440-48-4	LC	2.88E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.1E-03	2.1E+01	EqP	**1.4E+00**
Landbay A	4500-3050	INORG	Copper	7440-50-8	D	5.54E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay A	4500-3050	INORG	Iron	7439-89-6	D	4.93E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay A	4500-3050	INORG	Lead	7439-92-1	B2	1.48E+01						3.5E+02	EqP	4.2E-02
Landbay A	4500-3050	INORG	Manganese	7439-96-5	D	1.01E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.2E-03	1.6E+02	EqP	**6.4E+00**
Landbay A	4500-3050	INORG	Mercury	7439-97-6	D	1.13E-01	7.10E-02	**1.6E+00**		NA		3.7E-01	EqP	3.1E-01
Landbay A	4500-3050	INORG	Nickel	7440-02-0	A	2.32E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	6.9E-01
Landbay A	4500-3050	INORG	Silver	7440-22-4	D	3.77E-01	2.30E+00	1.6E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay A	4500-3050	INORG	Thallium	7440-28-0	ID	1.81E+00	4.50E+00	4.0E-01				1.1E+00	EqP	**1.6E+00**
Landbay A	4500-3050	INORG	Vanadium	7440-62-2	ID	1.62E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay A	4500-3050	INORG	Zinc	7440-66-6	ID	5.37E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay A	4500-3200	INORG	Aluminum	7429-90-5	ID	3.47E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.4E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	4500-3200	INORG	Antimony	7440-36-0	ID	1.35E+00	1.70E+00	7.9E-01	1.4E+03	EqP	9.9E-04	2.7E+01	EqP	5.0E-02
Landbay A	4500-3200	INORG	Arsenic	7440-38-2	A	2.72E+00	9.90E+00	2.7E-01	1.1E+03	EqP	2.6E-03	8.6E+01	EqP	3.2E-02
Landbay A	4500-3200	INORG	Barium	7440-39-3	NC	8.13E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	4500-3200	INORG	Beryllium	7440-41-7	B1	7.87E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.5E-02
Landbay A	4500-3200	INORG	Cadmium	7440-43-9	B1	2.29E+00	2.70E+00	8.5E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	4500-3200	INORG	Chromium III	16065-83-1	D	4.78E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay A	4500-3200	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	4500-3200	INORG	Cobalt	7440-48-4	LC	2.73E+01	8.60E+01	3.2E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay A	4500-3200	INORG	Copper	7440-50-8	D	3.94E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay A	4500-3200	INORG	Iron	7439-89-6	D	6.13E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay A	4500-3200	INORG	Manganese	7439-96-5	D	5.49E+02	4.27E+03	1.3E-01	3.1E+05	EqP	1.8E-03	1.6E+02	EqP	**3.5E+00**
Landbay A	4500-3200	INORG	Mercury	7439-97-6	D	2.70E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.3E-02
Landbay A	4500-3200	INORG	Nickel	7440-02-0	A	2.15E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.4E-01
Landbay A	4500-3200	INORG	Perchlorate	14797-73-0	NC	2.00E-04			3.4E+03	LT	5.8E-08	7.7E+02	LT	2.6E-07
Landbay A	4500-3200	INORG	Silver	7440-22-4	D	4.44E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay A	4500-3200	INORG	Thallium	7440-28-0	ID	1.88E+00	4.50E+00	4.2E-01				1.1E+00	EqP	**1.6E+00**
Landbay A	4500-3200	INORG	Vanadium	7440-62-2	ID	2.13E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay A	4500-3200	INORG	Zinc	7440-66-6	ID	4.22E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay A	4500-4250	INORG	Aluminum	7429-90-5	ID	2.92E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	4500-4250	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay A	4500-4250	INORG	Arsenic	7440-38-2	A	7.24E+00	9.90E+00	7.3E-01	1.1E+03	EqP	6.9E-03	8.6E+01	EqP	8.4E-02
Landbay A	4500-4250	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	4500-4250	INORG	Beryllium	7440-41-7	B1	9.00E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay A	4500-4250	INORG	Cadmium	7440-43-9	B1	1.43E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.7E-01
Landbay A	4500-4250	INORG	Chromium III	16065-83-1	D	7.95E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.4E-05
Landbay A	4500-4250	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	4500-4250	INORG	Cobalt	7440-48-4	LC	8.58E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay A	4500-4250	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	4500-4250	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay A	4500-4250	INORG	Lead	7439-92-1	B2	2.89E+01						3.5E+02	EqP	8.2E-02
Landbay A	4500-4250	INORG	Manganese	7439-96-5	D	2.52E+03	4.27E+03	5.9E-01	3.1E+05	EqP	8.1E-03	1.6E+02	EqP	**1.6E+01**
Landbay A	4500-4250	INORG	Mercury	7439-97-6	D	3.66E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	9.9E-02
Landbay A	4500-4250	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay A	4500-4250	INORG	Silver	7440-22-4	D	1.59E+00	2.30E+00	6.9E-01	3.8E+03	LT	4.2E-04	2.7E+00	LT	6.0E-01
Landbay A	4500-4250	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	4500-4250	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	4500-4250	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	4500-4400	INORG	Aluminum	7429-90-5	ID	2.92E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	4500-4400	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay A	4500-4400	INORG	Arsenic	7440-38-2	A	7.24E+00	9.90E+00	7.3E-01	1.1E+03	EqP	6.9E-03	8.6E+01	EqP	8.4E-02
Landbay A	4500-4400	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	4500-4400	INORG	Beryllium	7440-41-7	B1	9.00E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay A	4500-4400	INORG	Cadmium	7440-43-9	B1	1.43E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.7E-01
Landbay A	4500-4400	INORG	Chromium III	16065-83-1	D	7.95E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.4E-05
Landbay A	4500-4400	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	4500-4400	INORG	Cobalt	7440-48-4	LC	8.58E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay A	4500-4400	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay A	4500-4400	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay A	4500-4400	INORG	Lead	7439-92-1	B2	2.89E+01						3.5E+02	EqP	8.2E-02
Landbay A	4500-4400	INORG	Manganese	7439-96-5	D	2.52E+03	4.27E+03	5.9E-01	3.1E+05	EqP	8.1E-03	1.6E+02	EqP	**1.6E+01**
Landbay A	4500-4400	INORG	Mercury	7439-97-6	D	3.66E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	9.9E-02
Landbay A	4500-4400	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay A	4500-4400	INORG	Silver	7440-22-4	D	1.59E+00	2.30E+00	6.9E-01	3.8E+03	LT	4.2E-04	2.7E+00	LT	6.0E-01
Landbay A	4500-4400	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay A	4500-4400	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	4500-4400	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	4650-3050	PCB	PCBs (total)	1336-36-3	B2	2.22E-02				NA		1.4E+00	EqP	1.6E-02
Landbay A	4650-3050	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	4650-3050	INORG	Antimony	7440-36-0	ID	1.07E+00	1.70E+00	6.3E-01	1.4E+03	EqP	7.8E-04	2.7E+01	EqP	3.9E-02
Landbay A	4650-3050	INORG	Arsenic	7440-38-2	A	4.02E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay A	4650-3050	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay A	4650-3050	INORG	Beryllium	7440-41-7	B1	2.61E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.8E-05	1.0E+01	EqP	2.5E-02
Landbay A	4650-3050	INORG	Boron	7440-42-8	ID	1.39E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay A	4650-3050	INORG	Cadmium	7440-43-9	B1	2.09E+00	2.70E+00	7.7E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.8E-01
Landbay A	4650-3050	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.6E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	4650-3050	INORG	Chromium VI	18540-29-9	A	2.20E+00	4.97E+00	4.4E-01	6.6E+01	LT	3.3E-02	4.4E+00	LT	5.0E-01
Landbay A	4650-3050	INORG	Cobalt	7440-48-4	LC	3.58E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	4650-3050	INORG	Copper	7440-50-8	D	5.88E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay A	4650-3050	INORG	Iron	7439-89-6	D	5.39E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	4650-3050	INORG	Lead	7439-92-1	B2	1.12E+01						3.5E+02	EqP	3.2E-02
Landbay A	4650-3050	INORG	Manganese	7439-96-5	D	9.72E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay A	4650-3050	INORG	Mercury	7439-97-6	D	2.26E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.1E-02
Landbay A	4650-3050	INORG	Nickel	7440-02-0	A	5.49E+01	7.30E+01	7.5E-01	1.2E+05	EqP	4.4E-04	3.4E+01	EqP	**1.6E+00**
Landbay A	4650-3050	INORG	Silver	7440-22-4	D	2.15E+00	2.30E+00	9.3E-01	3.8E+03	LT	5.7E-04	2.7E+00	LT	8.1E-01
Landbay A	4650-3050	INORG	Strontium	7440-24-6		4.03E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay A	4650-3050	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	4650-3050	INORG	Zinc	7440-66-6	ID	5.94E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay A	4650-3200	INORG	Aluminum	7429-90-5	ID	3.76E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	4650-3200	INORG	Antimony	7440-36-0	ID	1.04E+00	1.70E+00	6.1E-01	1.4E+03	EqP	7.6E-04	2.7E+01	EqP	3.8E-02
Landbay A	4650-3200	INORG	Arsenic	7440-38-2	A	3.72E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay A	4650-3200	INORG	Barium	7440-39-3	NC	9.53E+01	2.24E+02	4.3E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	4650-3200	INORG	Beryllium	7440-41-7	B1	5.52E-01	1.20E+00	4.6E-01	6.8E+03	EqP	8.1E-05	1.0E+01	EqP	5.3E-02
Landbay A	4650-3200	INORG	Cadmium	7440-43-9	B1	2.49E+00	2.70E+00	9.2E-01	1.1E+03	EqP	2.3E-03	2.1E+00	EqP	**1.2E+00**
Landbay A	4650-3200	INORG	Chromium III	16065-83-1	D	7.27E+01	2.61E+02	2.8E-01	2.1E+10	EqP	3.4E-09	3.4E+06	EqP	2.2E-05
Landbay A	4650-3200	INORG	Chromium VI	18540-29-9	A	3.09E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	7.0E-01
Landbay A	4650-3200	INORG	Cobalt	7440-48-4	LC	4.69E+01	8.60E+01	5.5E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.3E+00**
Landbay A	4650-3200	INORG	Copper	7440-50-8	D	4.87E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay A	4650-3200	INORG	Iron	7439-89-6	D	5.43E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay A	4650-3200	INORG	Lead	7439-92-1	B2	1.50E+01						3.5E+02	EqP	4.3E-02
Landbay A	4650-3200	INORG	Manganese	7439-96-5	D	8.20E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.2E+00**
Landbay A	4650-3200	INORG	Mercury	7439-97-6	D	2.26E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.1E-02
Landbay A	4650-3200	INORG	Nickel	7440-02-0	A	2.97E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.8E-01
Landbay A	4650-3200	INORG	Thallium	7440-28-0	ID	2.00E+00	4.50E+00	4.4E-01				1.1E+00	EqP	**1.8E+00**
Landbay A	4650-3200	INORG	Vanadium	7440-62-2	ID	1.66E+02	2.83E+02	5.9E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay A	4650-3200	INORG	Zinc	7440-66-6	ID	5.00E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay A	4650-4250	INORG	Aluminum	7429-90-5	ID	4.45E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	4650-4250	INORG	Arsenic	7440-38-2	A	4.23E+00	9.90E+00	4.3E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	4.9E-02
Landbay A	4650-4250	INORG	Barium	7440-39-3	NC	1.28E+02	2.24E+02	5.7E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay A	4650-4250	INORG	Beryllium	7440-41-7	B1	6.83E-01	1.20E+00	5.7E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay A	4650-4250	INORG	Chromium III	16065-83-1	D	1.39E+02	2.61E+02	5.4E-01	2.1E+10	EqP	6.5E-09	3.4E+06	EqP	4.1E-05
Landbay A	4650-4250	INORG	Chromium VI	18540-29-9	A	3.54E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay A	4650-4250	INORG	Cobalt	7440-48-4	LC	5.57E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	4650-4250	INORG	Copper	7440-50-8	D	6.56E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.8E+00**
Landbay A	4650-4250	INORG	Iron	7439-89-6	D	5.78E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay A	4650-4250	INORG	Lead	7439-92-1	B2	1.25E+01						3.5E+02	EqP	3.6E-02
Landbay A	4650-4250	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay A	4650-4250	INORG	Mercury	7439-97-6	D	1.14E-02	7.10E-02	1.6E-01		NA		3.7E-01	EqP	3.1E-02
Landbay A	4650-4250	INORG	Nickel	7440-02-0	A	5.54E+01	7.30E+01	7.6E-01	1.2E+05	EqP	4.5E-04	3.4E+01	EqP	**1.6E+00**
Landbay A	4650-4250	INORG	Strontium	7440-24-6		2.86E+01	3.80E+01	7.5E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay A	4650-4250	INORG	Thallium	7440-28-0	ID	1.86E+00	4.50E+00	4.1E-01				1.1E+00	EqP	**1.6E+00**
Landbay A	4650-4250	INORG	Vanadium	7440-62-2	ID	1.78E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.4E-01
Landbay A	4650-4250	INORG	Zinc	7440-66-6	ID	6.76E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay A	5100-3050	VOC	Acetone	67-64-1	ID	9.30E-03			2.0E+06	LT	4.6E-09	6.0E+02	LT	1.6E-05
Landbay A	5100-3050	INORG	Aluminum	7429-90-5	ID	3.35E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	5100-3050	INORG	Antimony	7440-36-0	ID	1.32E+00	1.70E+00	7.8E-01	1.4E+03	EqP	9.6E-04	2.7E+01	EqP	4.9E-02
Landbay A	5100-3050	INORG	Arsenic	7440-38-2	A	7.14E+00	9.90E+00	7.2E-01	1.1E+03	EqP	6.8E-03	8.6E+01	EqP	8.3E-02
Landbay A	5100-3050	INORG	Barium	7440-39-3	NC	1.46E+02	2.24E+02	6.5E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay A	5100-3050	INORG	Beryllium	7440-41-7	B1	6.42E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.2E-02
Landbay A	5100-3050	INORG	Boron	7440-42-8	ID	1.65E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.6E+01**
Landbay A	5100-3050	INORG	Cadmium	7440-43-9	B1	2.28E+00	2.70E+00	8.4E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	5100-3050	INORG	Chromium III	16065-83-1	D	1.38E+02	2.61E+02	5.3E-01	2.1E+10	EqP	6.5E-09	3.4E+06	EqP	4.1E-05
Landbay A	5100-3050	INORG	Cobalt	7440-48-4	LC	6.77E+01	8.60E+01	7.9E-01	1.4E+04	EqP	4.9E-03	2.1E+01	EqP	**3.3E+00**
Landbay A	5100-3050	INORG	Copper	7440-50-8	D	4.05E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay A	5100-3050	INORG	Iron	7439-89-6	D	6.72E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay A	5100-3050	INORG	Lead	7439-92-1	B2	3.32E+01						3.5E+02	EqP	9.5E-02
Landbay A	5100-3050	INORG	Manganese	7439-96-5	D	3.09E+03	4.27E+03	7.2E-01	3.1E+05	EqP	9.9E-03	1.6E+02	EqP	**2.0E+01**
Landbay A	5100-3050	INORG	Mercury	7439-97-6	D	6.28E-02	7.10E-02	8.8E-01		NA		3.7E-01	EqP	1.7E-01
Landbay A	5100-3050	INORG	Nickel	7440-02-0	A	3.10E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.2E-01
Landbay A	5100-3050	INORG	Silver	7440-22-4	D	1.99E+00	2.30E+00	8.7E-01	3.8E+03	LT	5.3E-04	2.7E+00	LT	7.5E-01
Landbay A	5100-3050	INORG	Strontium	7440-24-6		2.09E+01	3.80E+01	5.5E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay A	5100-3050	INORG	Vanadium	7440-62-2	ID	2.20E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay A	5100-3050	INORG	Zinc	7440-66-6	ID	7.34E+01	1.02E+02	7.2E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.9E-01
Landbay A	5100-3200	PCB	PCBs (total)	1336-36-3	B2	8.90E-02				NA		1.4E+00	EqP	6.5E-02
Landbay A	5100-3200	INORG	Aluminum	7429-90-5	ID	3.35E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	5100-3200	INORG	Antimony	7440-36-0	ID	1.32E+00	1.70E+00	7.8E-01	1.4E+03	EqP	9.6E-04	2.7E+01	EqP	4.9E-02
Landbay A	5100-3200	INORG	Arsenic	7440-38-2	A	7.14E+00	9.90E+00	7.2E-01	1.1E+03	EqP	6.8E-03	8.6E+01	EqP	8.3E-02
Landbay A	5100-3200	INORG	Barium	7440-39-3	NC	1.46E+02	2.24E+02	6.5E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay A	5100-3200	INORG	Beryllium	7440-41-7	B1	6.42E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.2E-02
Landbay A	5100-3200	INORG	Boron	7440-42-8	ID	1.65E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.6E+01**
Landbay A	5100-3200	INORG	Cadmium	7440-43-9	B1	2.28E+00	2.70E+00	8.4E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	5100-3200	INORG	Chromium III	16065-83-1	D	1.38E+02	2.61E+02	5.3E-01	2.1E+10	EqP	6.5E-09	3.4E+06	EqP	4.1E-05
Landbay A	5100-3200	INORG	Cobalt	7440-48-4	LC	6.77E+01	8.60E+01	7.9E-01	1.4E+04	EqP	4.9E-03	2.1E+01	EqP	**3.3E+00**
Landbay A	5100-3200	INORG	Copper	7440-50-8	D	4.05E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay A	5100-3200	INORG	Iron	7439-89-6	D	6.72E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay A	5100-3200	INORG	Lead	7439-92-1	B2	3.32E+01						3.5E+02	EqP	9.5E-02
Landbay A	5100-3200	INORG	Manganese	7439-96-5	D	3.09E+03	4.27E+03	7.2E-01	3.1E+05	EqP	9.9E-03	1.6E+02	EqP	**2.0E+01**
Landbay A	5100-3200	INORG	Mercury	7439-97-6	D	6.28E-02	7.10E-02	8.8E-01		NA		3.7E-01	EqP	1.7E-01
Landbay A	5100-3200	INORG	Nickel	7440-02-0	A	3.10E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.2E-01
Landbay A	5100-3200	INORG	Silver	7440-22-4	D	1.99E+00	2.30E+00	8.7E-01	3.8E+03	LT	5.3E-04	2.7E+00	LT	7.5E-01
Landbay A	5100-3200	INORG	Strontium	7440-24-6		2.09E+01	3.80E+01	5.5E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay A	5100-3200	INORG	Vanadium	7440-62-2	ID	2.20E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay A	5100-3200	INORG	Zinc	7440-66-6	ID	7.34E+01	1.02E+02	7.2E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.9E-01
Landbay A	5200-71	PCB	PCBs (total)	1336-36-3	B2	3.57E-02				NA		1.4E+00	EqP	2.6E-02
Landbay A	5200-71	INORG	Aluminum	7429-90-5	ID	6.18E+04	5.34E+04	**1.2E+00**	3.7E+08	EqP	1.7E-04	2.6E+03	EqP	**2.4E+01**
Landbay A	5200-71	INORG	Arsenic	7440-38-2	A	1.17E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.1E-02	8.6E+01	EqP	1.4E-01
Landbay A	5200-71	INORG	Barium	7440-39-3	NC	1.01E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	5200-71	INORG	Beryllium	7440-41-7	B1	8.60E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay A	5200-71	INORG	Boron	7440-42-8	ID	6.35E+00	1.34E+01	4.7E-01	9.9E+05	LT	6.4E-06	6.4E-01	LT	**9.9E+00**
Landbay A	5200-71	INORG	Chromium III	16065-83-1	D	1.65E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.8E-09	3.4E+06	EqP	4.9E-05
Landbay A	5200-71	INORG	Chromium VI	18540-29-9	A	3.72E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay A	5200-71	INORG	Cobalt	7440-48-4	LC	2.84E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.1E-03	2.1E+01	EqP	**1.4E+00**
Landbay A	5200-71	INORG	Copper	7440-50-8	D	7.08E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay A	5200-71	INORG	Iron	7439-89-6	D	7.60E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay A	5200-71	INORG	Lead	7439-92-1	B2	4.27E+01						3.5E+02	EqP	1.2E-01
Landbay A	5200-71	INORG	Manganese	7439-96-5	D	6.53E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.1E-03	1.6E+02	EqP	**4.2E+00**
Landbay A	5200-71	INORG	Mercury	7439-97-6	D	4.05E-02	7.10E-02	5.7E-01		NA		3.7E-01	EqP	1.1E-01
Landbay A	5200-71	INORG	Nickel	7440-02-0	A	3.72E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay A	5200-71	INORG	Perchlorate	14797-73-0	NC	1.40E-02			3.4E+03	LT	4.1E-06	7.7E+02	LT	1.8E-05
Landbay A	5200-71	INORG	Silver	7440-22-4	D	4.76E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.8E-01
Landbay A	5200-71	INORG	Strontium	7440-24-6		1.40E+01	3.80E+01	3.7E-01	1.6E+07	EqP	8.6E-07	1.1E+03	EqP	1.3E-02
Landbay A	5200-71	INORG	Thallium	7440-28-0	ID	4.24E+00	4.50E+00	9.4E-01				1.1E+00	EqP	**3.7E+00**
Landbay A	5200-71	INORG	Vanadium	7440-62-2	ID	2.12E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay A	5200-71	INORG	Zinc	7440-66-6	ID	7.40E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	5300-74	PCB	PCBs (total)	1336-36-3	B2	9.27E-02				NA		1.4E+00	EqP	6.7E-02
Landbay A	5300-74	INORG	Aluminum	7429-90-5	ID	3.64E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	5300-74	INORG	Arsenic	7440-38-2	A	5.63E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay A	5300-74	INORG	Barium	7440-39-3	NC	3.07E+01	2.24E+02	1.4E-01	3.2E+05	EqP	9.5E-05	3.3E+00	EqP	**9.3E+00**
Landbay A	5300-74	INORG	Beryllium	7440-41-7	B1	1.57E-01	1.20E+00	1.3E-01	6.8E+03	EqP	2.3E-05	1.0E+01	EqP	1.5E-02
Landbay A	5300-74	INORG	Boron	7440-42-8	ID	5.47E+00	1.34E+01	4.1E-01	9.9E+05	LT	5.6E-06	6.4E-01	LT	**8.5E+00**
Landbay A	5300-74	INORG	Chromium III	16065-83-1	D	2.12E+01	2.61E+02	8.1E-02	2.1E+10	EqP	9.9E-10	3.4E+06	EqP	6.3E-06
Landbay A	5300-74	INORG	Chromium VI	18540-29-9	A	2.74E+00	4.97E+00	5.5E-01	6.6E+01	LT	4.1E-02	4.4E+00	LT	6.2E-01
Landbay A	5300-74	INORG	Cobalt	7440-48-4	LC	1.89E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.1E-01
Landbay A	5300-74	INORG	Copper	7440-50-8	D	7.84E+01	1.31E+02	6.0E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.3E+00**
Landbay A	5300-74	INORG	Iron	7439-89-6	D	4.01E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.2E-03	1.5E+02	EqP	**2.6E+02**
Landbay A	5300-74	INORG	Lead	7439-92-1	B2	4.61E+00						3.5E+02	EqP	1.3E-02
Landbay A	5300-74	INORG	Manganese	7439-96-5	D	5.38E+02	4.27E+03	1.3E-01	3.1E+05	EqP	1.7E-03	1.6E+02	EqP	**3.4E+00**
Landbay A	5300-74	INORG	Nickel	7440-02-0	A	2.36E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay A	5300-74	INORG	Strontium	7440-24-6		8.17E+01	3.80E+01	**2.2E+00**	1.6E+07	EqP	5.0E-06	1.1E+03	EqP	7.7E-02
Landbay A	5300-74	INORG	Thallium	7440-28-0	ID	2.26E+00	4.50E+00	5.0E-01				1.1E+00	EqP	**2.0E+00**
Landbay A	5300-74	INORG	Vanadium	7440-62-2	ID	1.31E+02	2.83E+02	4.6E-01	1.5E+05	EqP	8.5E-04	4.0E+02	EqP	3.3E-01
Landbay A	5300-74	INORG	Zinc	7440-66-6	ID	6.24E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay A	5400-3500	INORG	Aluminum	7429-90-5	ID	2.52E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay A	5400-3500	INORG	Antimony	7440-36-0	ID	1.11E+00	1.70E+00	6.5E-01	1.4E+03	EqP	8.1E-04	2.7E+01	EqP	4.1E-02
Landbay A	5400-3500	INORG	Arsenic	7440-38-2	A	3.90E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay A	5400-3500	INORG	Barium	7440-39-3	NC	8.96E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay A	5400-3500	INORG	Beryllium	7440-41-7	B1	7.46E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay A	5400-3500	INORG	Boron	7440-42-8	ID	1.52E+01	1.34E+01	**1.1E+00**	9.9E+05	LT	1.5E-05	6.4E-01	LT	**2.4E+01**
Landbay A	5400-3500	INORG	Cadmium	7440-43-9	B1	1.57E+00	2.70E+00	5.8E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.3E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	5400-3500	INORG	Chromium III	16065-83-1	D	6.07E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.8E-05
Landbay A	5400-3500	INORG	Chromium VI	18540-29-9	A	5.10E-01	4.97E+00	1.0E-01	6.6E+01	LT	7.7E-03	4.4E+00	LT	1.2E-01
Landbay A	5400-3500	INORG	Cobalt	7440-48-4	LC	1.93E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.3E-01
Landbay A	5400-3500	INORG	Copper	7440-50-8	D	2.45E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.1E-05	8.4E+00	EqP	**2.9E+00**
Landbay A	5400-3500	INORG	Iron	7439-89-6	D	4.78E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay A	5400-3500	INORG	Lead	7439-92-1	B2	1.42E+01						3.5E+02	EqP	4.1E-02
Landbay A	5400-3500	INORG	Manganese	7439-96-5	D	6.70E+02	4.27E+03	1.6E-01	3.1E+05	EqP	2.2E-03	1.6E+02	EqP	**4.3E+00**
Landbay A	5400-3500	INORG	Mercury	7439-97-6	D	3.08E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.3E-02
Landbay A	5400-3500	INORG	Nickel	7440-02-0	A	2.40E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.1E-01
Landbay A	5400-3500	INORG	Silver	7440-22-4	D	1.73E+00	2.30E+00	7.5E-01	3.8E+03	LT	4.6E-04	2.7E+00	LT	6.5E-01
Landbay A	5400-3500	INORG	Strontium	7440-24-6		9.31E+00	3.80E+01	2.5E-01	1.6E+07	EqP	5.7E-07	1.1E+03	EqP	8.8E-03
Landbay A	5400-3500	INORG	Vanadium	7440-62-2	ID	1.15E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.4E-04	4.0E+02	EqP	2.9E-01
Landbay A	5400-3500	INORG	Zinc	7440-66-6	ID	2.91E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.3E-06	1.9E+02	EqP	1.5E-01
Landbay A	5400-75	SVOC	Chrysene	218-01-9	B2	5.10E-02				NA			NA	
Landbay A	5400-75	INORG	Aluminum	7429-90-5	ID	3.45E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	5400-75	INORG	Arsenic	7440-38-2	A	1.22E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.2E-02	8.6E+01	EqP	1.4E-01
Landbay A	5400-75	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay A	5400-75	INORG	Beryllium	7440-41-7	B1	1.11E+00	1.20E+00	9.3E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.1E-01
Landbay A	5400-75	INORG	Boron	7440-42-8	ID	6.42E+00	1.34E+01	4.8E-01	9.9E+05	LT	6.5E-06	6.4E-01	LT	**1.0E+01**
Landbay A	5400-75	INORG	Chromium III	16065-83-1	D	1.43E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.3E-05
Landbay A	5400-75	INORG	Chromium VI	18540-29-9	A	3.57E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay A	5400-75	INORG	Cobalt	7440-48-4	LC	5.63E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	5400-75	INORG	Copper	7440-50-8	D	4.42E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.3E+00**
Landbay A	5400-75	INORG	Iron	7439-89-6	D	6.63E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay A	5400-75	INORG	Lead	7439-92-1	B2	2.66E+01						3.5E+02	EqP	7.6E-02
Landbay A	5400-75	INORG	Manganese	7439-96-5	D	2.78E+03	4.27E+03	6.5E-01	3.1E+05	EqP	8.9E-03	1.6E+02	EqP	**1.8E+01**
Landbay A	5400-75	INORG	Mercury	7439-97-6	D	4.02E-02	7.10E-02	5.7E-01		NA		3.7E-01	EqP	1.1E-01
Landbay A	5400-75	INORG	Nickel	7440-02-0	A	2.83E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay A	5400-75	INORG	Perchlorate	14797-73-0	NC	1.60E-02			3.4E+03	LT	4.6E-06	7.7E+02	LT	2.1E-05
Landbay A	5400-75	INORG	Silver	7440-22-4	D	2.18E-01	2.30E+00	9.5E-02	3.8E+03	LT	5.8E-05	2.7E+00	LT	8.2E-02
Landbay A	5400-75	INORG	Strontium	7440-24-6		2.28E+01	3.80E+01	6.0E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.2E-02
Landbay A	5400-75	INORG	Vanadium	7440-62-2	ID	2.05E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay A	5400-75	INORG	Zinc	7440-66-6	ID	6.30E+01	1.02E+02	6.2E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.3E-01
Landbay A	5500-76	SVOC	Anthracene	120-12-7	ID	4.20E-02				NA		1.4E-02	EqP	**2.9E+00**
Landbay A	5500-76	SVOC	Benzo(a)anthracene	56-55-3	B2	1.40E-01				NA		2.9E-01	EqP	4.8E-01
Landbay A	5500-76	SVOC	Benzo(a)pyrene	50-32-8	B2	1.30E-01				NA		4.8E-01	EqP	2.7E-01
Landbay A	5500-76	SVOC	Benzo(b)fluoranthene	205-99-2	B2	1.70E-01				NA			NA	
Landbay A	5500-76	SVOC	Benzo(g,h,i)perylene	191-24-2	D	9.50E-02				NA			NA	
Landbay A	5500-76	SVOC	Benzo(k)fluoranthene	207-08-9	B2	7.50E-02				NA			NA	
Landbay A	5500-76	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.30E-01				NA		9.6E+03	EqP	2.4E-05
Landbay A	5500-76	SVOC	Chrysene	218-01-9	B2	1.30E-01				NA			NA	
Landbay A	5500-76	SVOC	Fluoranthene	206-44-0	D	2.40E-01				NA		1.7E-01	EqP	**1.4E+00**
Landbay A	5500-76	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	8.50E-02				NA			NA	
Landbay A	5500-76	SVOC	Phenanthrene	85-01-8	D	1.70E-01				NA		3.9E-01	EqP	4.4E-01
Landbay A	5500-76	SVOC	Pyrene	129-00-0	NC	2.40E-01				NA		1.1E-01	EqP	**2.3E+00**
Landbay A	5500-76	PCB	PCBs (total)	1336-36-3	B2	2.62E-01				NA		1.4E+00	EqP	1.9E-01
Landbay A	5500-76	INORG	Aluminum	7429-90-5	ID	4.26E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	5500-76	INORG	Antimony	7440-36-0	ID	1.03E+00	1.70E+00	6.1E-01	1.4E+03	EqP	7.5E-04	2.7E+01	EqP	3.8E-02
Landbay A	5500-76	INORG	Arsenic	7440-38-2	A	7.89E+00	9.90E+00	8.0E-01	1.1E+03	EqP	7.5E-03	8.6E+01	EqP	9.2E-02
Landbay A	5500-76	INORG	Barium	7440-39-3	NC	1.33E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay A	5500-76	INORG	Beryllium	7440-41-7	B1	4.51E-01	1.20E+00	3.8E-01	6.8E+03	EqP	6.7E-05	1.0E+01	EqP	4.3E-02
Landbay A	5500-76	INORG	Boron	7440-42-8	ID	8.74E+00	1.34E+01	6.5E-01	9.9E+05	LT	8.9E-06	6.4E-01	LT	**1.4E+01**
Landbay A	5500-76	INORG	Chromium III	16065-83-1	D	1.01E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay A	5500-76	INORG	Chromium VI	18540-29-9	A	3.28E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay A	5500-76	INORG	Cobalt	7440-48-4	LC	3.58E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	5500-76	INORG	Copper	7440-50-8	D	7.53E+01	1.31E+02	5.7E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**9.0E+00**
Landbay A	5500-76	INORG	Iron	7439-89-6	D	5.25E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay A	5500-76	INORG	Lead	7439-92-1	B2	1.84E+01						3.5E+02	EqP	5.3E-02
Landbay A	5500-76	INORG	Manganese	7439-96-5	D	1.18E+03	4.27E+03	2.8E-01	3.1E+05	EqP	3.8E-03	1.6E+02	EqP	**7.5E+00**
Landbay A	5500-76	INORG	Mercury	7439-97-6	D	6.61E-02	7.10E-02	9.3E-01		NA		3.7E-01	EqP	1.8E-01
Landbay A	5500-76	INORG	Nickel	7440-02-0	A	4.80E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay A	5500-76	INORG	Perchlorate	14797-73-0	NC	2.60E-03			3.4E+03	LT	7.5E-07	7.7E+02	LT	3.4E-06
Landbay A	5500-76	INORG	Silver	7440-22-4	D	7.75E-01	2.30E+00	3.4E-01	3.8E+03	LT	2.1E-04	2.7E+00	LT	2.9E-01
Landbay A	5500-76	INORG	Strontium	7440-24-6		4.98E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.7E-02
Landbay A	5500-76	INORG	Thallium	7440-28-0	ID	2.65E+00	4.50E+00	5.9E-01				1.1E+00	EqP	**2.3E+00**
Landbay A	5500-76	INORG	Vanadium	7440-62-2	ID	1.58E+02	2.83E+02	5.6E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	5500-76	INORG	Zinc	7440-66-6	ID	1.68E+02	1.02E+02	**1.6E+00**	5.5E+06	EqP	3.1E-05	1.9E+02	EqP	8.8E-01
Landbay A	5550-3950	INORG	Aluminum	7429-90-5	ID	3.30E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	5550-3950	INORG	Antimony	7440-36-0	ID	1.05E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02
Landbay A	5550-3950	INORG	Arsenic	7440-38-2	A	8.06E+00	9.90E+00	8.1E-01	1.1E+03	EqP	7.7E-03	8.6E+01	EqP	9.4E-02
Landbay A	5550-3950	INORG	Barium	7440-39-3	NC	1.08E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.3E+01**
Landbay A	5550-3950	INORG	Beryllium	7440-41-7	B1	5.65E-01	1.20E+00	4.7E-01	6.8E+03	EqP	8.3E-05	1.0E+01	EqP	5.4E-02
Landbay A	5550-3950	INORG	Boron	7440-42-8	ID	1.97E+01	1.34E+01	**1.5E+00**	9.9E+05	LT	2.0E-05	6.4E-01	LT	**3.1E+01**
Landbay A	5550-3950	INORG	Cadmium	7440-43-9	B1	2.36E+00	2.70E+00	8.7E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	5550-3950	INORG	Chromium III	16065-83-1	D	2.24E+01	2.61E+02	8.6E-02	2.1E+10	EqP	1.0E-09	3.4E+06	EqP	6.6E-06
Landbay A	5550-3950	INORG	Cobalt	7440-48-4	LC	5.65E+01	8.60E+01	6.6E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	5550-3950	INORG	Copper	7440-50-8	D	1.22E+02	1.31E+02	9.3E-01	3.5E+05	EqP	3.5E-04	8.4E+00	EqP	**1.5E+01**
Landbay A	5550-3950	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	5550-3950	INORG	Lead	7439-92-1	B2	2.36E+01						3.5E+02	EqP	6.7E-02
Landbay A	5550-3950	INORG	Manganese	7439-96-5	D	1.75E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	5550-3950	INORG	Mercury	7439-97-6	D	4.27E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	5550-3950	INORG	Nickel	7440-02-0	A	2.02E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay A	5550-3950	INORG	Perchlorate	14797-73-0	NC	4.60E-03			3.4E+03	LT	1.3E-06	7.7E+02	LT	5.9E-06
Landbay A	5550-3950	INORG	Selenium	7782-49-2	D	1.15E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.7E-05	2.0E+00	LT	5.8E-01
Landbay A	5550-3950	INORG	Silver	7440-22-4	D	2.17E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.2E-01
Landbay A	5550-3950	INORG	Strontium	7440-24-6		1.45E+01	3.80E+01	3.8E-01	1.6E+07	EqP	8.9E-07	1.1E+03	EqP	1.4E-02
Landbay A	5550-3950	INORG	Vanadium	7440-62-2	ID	2.50E+02	2.83E+02	8.8E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.2E-01
Landbay A	5550-3950	INORG	Zinc	7440-66-6	ID	1.29E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.4E-05	1.9E+02	EqP	6.8E-01
Landbay A	5700-3950	VOC	Acetone	67-64-1	ID	1.40E-02			2.0E+06	LT	6.9E-09	6.0E+02	LT	2.3E-05
Landbay A	5700-3950	INORG	Aluminum	7429-90-5	ID	3.30E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	5700-3950	INORG	Antimony	7440-36-0	ID	1.05E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02
Landbay A	5700-3950	INORG	Arsenic	7440-38-2	A	8.06E+00	9.90E+00	8.1E-01	1.1E+03	EqP	7.7E-03	8.6E+01	EqP	9.4E-02
Landbay A	5700-3950	INORG	Barium	7440-39-3	NC	1.08E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.3E+01**
Landbay A	5700-3950	INORG	Beryllium	7440-41-7	B1	5.65E-01	1.20E+00	4.7E-01	6.8E+03	EqP	8.3E-05	1.0E+01	EqP	5.4E-02
Landbay A	5700-3950	INORG	Boron	7440-42-8	ID	1.97E+01	1.34E+01	**1.5E+00**	9.9E+05	LT	2.0E-05	6.4E-01	LT	**3.1E+01**
Landbay A	5700-3950	INORG	Cadmium	7440-43-9	B1	2.36E+00	2.70E+00	8.7E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	5700-3950	INORG	Chromium III	16065-83-1	D	2.24E+01	2.61E+02	8.6E-02	2.1E+10	EqP	1.0E-09	3.4E+06	EqP	6.6E-06
Landbay A	5700-3950	INORG	Cobalt	7440-48-4	LC	5.65E+01	8.60E+01	6.6E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay A	5700-3950	INORG	Copper	7440-50-8	D	1.22E+02	1.31E+02	9.3E-01	3.5E+05	EqP	3.5E-04	8.4E+00	EqP	**1.5E+01**
Landbay A	5700-3950	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	5700-3950	INORG	Lead	7439-92-1	B2	2.36E+01						3.5E+02	EqP	6.7E-02
Landbay A	5700-3950	INORG	Manganese	7439-96-5	D	1.75E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	5700-3950	INORG	Mercury	7439-97-6	D	4.27E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.2E-01
Landbay A	5700-3950	INORG	Nickel	7440-02-0	A	2.02E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay A	5700-3950	INORG	Perchlorate	14797-73-0	NC	4.60E-03			3.4E+03	LT	1.3E-06	7.7E+02	LT	5.9E-06
Landbay A	5700-3950	INORG	Selenium	7782-49-2	D	1.15E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.7E-05	2.0E+00	LT	5.8E-01
Landbay A	5700-3950	INORG	Silver	7440-22-4	D	2.17E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.2E-01
Landbay A	5700-3950	INORG	Strontium	7440-24-6		1.45E+01	3.80E+01	3.8E-01	1.6E+07	EqP	8.9E-07	1.1E+03	EqP	1.4E-02
Landbay A	5700-3950	INORG	Vanadium	7440-62-2	ID	2.50E+02	2.83E+02	8.8E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.2E-01
Landbay A	5700-3950	INORG	Zinc	7440-66-6	ID	1.29E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.4E-05	1.9E+02	EqP	6.8E-01
Landbay A	5700-88	VOC	Acetone	67-64-1	ID	7.90E-02			2.0E+06	LT	3.9E-08	6.0E+02	LT	1.3E-04
Landbay A	5700-88	VOC	p-Cymene	99-87-6		1.10E-01						3.4E+01	LT	3.2E-03
Landbay A	5700-88	VOC	Ethyl Benzene	100-41-4	D	1.70E-03				NA		3.6E+01	LT	4.7E-05
Landbay A	5700-88	VOC	Styrene	100-42-5		2.20E-02				NA		2.9E+01	LT	7.6E-04
Landbay A	5700-88	VOC	Toluene	108-88-3	ID	3.60E-03				NA		8.0E-01	LT	4.5E-03
Landbay A	5700-88	INORG	Aluminum	7429-90-5	ID	3.47E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.4E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	5700-88	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay A	5700-88	INORG	Arsenic	7440-38-2	A	1.13E+01	9.90E+00	**1.1E+00**	1.1E+03	EqP	1.1E-02	8.6E+01	EqP	1.3E-01
Landbay A	5700-88	INORG	Barium	7440-39-3	NC	9.60E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	5700-88	INORG	Beryllium	7440-41-7	B1	9.45E-01	1.20E+00	7.9E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.1E-02
Landbay A	5700-88	INORG	Boron	7440-42-8	ID	4.38E+00	1.34E+01	3.3E-01	9.9E+05	LT	4.4E-06	6.4E-01	LT	**6.8E+00**
Landbay A	5700-88	INORG	Chromium III	16065-83-1	D	4.24E+01	2.61E+02	1.6E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay A	5700-88	INORG	Chromium VI	18540-29-9	A	2.88E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay A	5700-88	INORG	Cobalt	7440-48-4	LC	6.28E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay A	5700-88	INORG	Copper	7440-50-8	D	6.38E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay A	5700-88	INORG	Iron	7439-89-6	D	7.51E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay A	5700-88	INORG	Lead	7439-92-1	B2	2.41E+01						3.5E+02	EqP	6.9E-02
Landbay A	5700-88	INORG	Manganese	7439-96-5	D	2.08E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay A	5700-88	INORG	Mercury	7439-97-6	D	3.67E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	9.9E-02
Landbay A	5700-88	INORG	Nickel	7440-02-0	A	2.09E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.2E-01
Landbay A	5700-88	INORG	Silver	7440-22-4	D	3.99E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay A	5700-88	INORG	Strontium	7440-24-6		1.08E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.6E-07	1.1E+03	EqP	1.0E-02
Landbay A	5700-88	INORG	Thallium	7440-28-0	ID	2.53E+00	4.50E+00	5.6E-01				1.1E+00	EqP	**2.2E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	5700-88	INORG	Vanadium	7440-62-2	ID	2.76E+02	2.83E+02	9.8E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.9E-01
Landbay A	5700-88	INORG	Zinc	7440-66-6	ID	5.09E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.3E-06	1.9E+02	EqP	2.7E-01
Landbay A	5TP1-7	INORG	Aluminum	7429-90-5	ID	3.78E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	5TP1-7	INORG	Barium	7440-39-3	NC	3.01E+01	2.24E+02	1.3E-01	3.2E+05	EqP	9.3E-05	3.3E+00	EqP	**9.1E+00**
Landbay A	5TP1-7	INORG	Cadmium	7440-43-9	B1	7.38E-01	2.70E+00	2.7E-01	1.1E+03	EqP	6.8E-04	2.1E+00	EqP	3.5E-01
Landbay A	5TP1-7	INORG	Chromium III	16065-83-1	D	2.89E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.6E-06
Landbay A	5TP1-7	INORG	Copper	7440-50-8	D	6.14E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.3E+00**
Landbay A	5TP1-7	INORG	Lead	7439-92-1	B2	1.97E+00						3.5E+02	EqP	5.6E-03
Landbay A	5TP1-7	INORG	Perchlorate	14797-73-0	NC	7.60E-04			3.4E+03	LT	2.2E-07	7.7E+02	LT	9.8E-07
Landbay A	5TP1-7	INORG	Strontium	7440-24-6		6.76E+01	3.80E+01	**1.8E+00**	1.6E+07	EqP	4.2E-06	1.1E+03	EqP	6.4E-02
Landbay A	5TP2-7	INORG	Aluminum	7429-90-5	ID	3.79E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	5TP2-7	INORG	Barium	7440-39-3	NC	3.21E+01	2.24E+02	1.4E-01	3.2E+05	EqP	9.9E-05	3.3E+00	EqP	**9.7E+00**
Landbay A	5TP2-7	INORG	Chromium III	16065-83-1	D	2.94E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.7E-06
Landbay A	5TP2-7	INORG	Copper	7440-50-8	D	7.26E+01	1.31E+02	5.5E-01	3.5E+05	EqP	2.1E-04	8.4E+00	EqP	**8.6E+00**
Landbay A	5TP2-7	INORG	Lead	7439-92-1	B2	1.14E+00						3.5E+02	EqP	3.3E-03
Landbay A	5TP2-7	INORG	Perchlorate	14797-73-0	NC	2.50E-04			3.4E+03	LT	7.3E-08	7.7E+02	LT	3.2E-07
Landbay A	5TP2-7	INORG	Strontium	7440-24-6		6.76E+01	3.80E+01	**1.8E+00**	1.6E+07	EqP	4.2E-06	1.1E+03	EqP	6.4E-02
Landbay A	8TP1-7	INORG	Aluminum	7429-90-5	ID	3.89E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	8TP1-7	INORG	Barium	7440-39-3	NC	2.61E+01	2.24E+02	1.2E-01	3.2E+05	EqP	8.1E-05	3.3E+00	EqP	**7.9E+00**
Landbay A	8TP1-7	INORG	Chromium III	16065-83-1	D	2.78E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.3E-09	3.4E+06	EqP	8.2E-06
Landbay A	8TP1-7	INORG	Copper	7440-50-8	D	7.47E+01	1.31E+02	5.7E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**8.9E+00**
Landbay A	8TP1-7	INORG	Lead	7439-92-1	B2	3.35E+00						3.5E+02	EqP	9.6E-03
Landbay A	8TP1-7	INORG	Perchlorate	14797-73-0	NC	6.20E-04			3.4E+03	LT	1.8E-07	7.7E+02	LT	8.0E-07
Landbay A	8TP1-7	INORG	Strontium	7440-24-6		7.40E+01	3.80E+01	**1.9E+00**	1.6E+07	EqP	4.5E-06	1.1E+03	EqP	7.0E-02
Landbay A	8TP2-7	INORG	Aluminum	7429-90-5	ID	4.29E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	8TP2-7	INORG	Barium	7440-39-3	NC	2.92E+01	2.24E+02	1.3E-01	3.2E+05	EqP	9.0E-05	3.3E+00	EqP	**8.8E+00**
Landbay A	8TP2-7	INORG	Beryllium	7440-41-7	B1	6.99E-02	1.20E+00	5.8E-02	6.8E+03	EqP	1.0E-05	1.0E+01	EqP	6.7E-03
Landbay A	8TP2-7	INORG	Chromium III	16065-83-1	D	3.55E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay A	8TP2-7	INORG	Copper	7440-50-8	D	6.98E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.3E+00**
Landbay A	8TP2-7	INORG	Lead	7439-92-1	B2	3.88E+00						3.5E+02	EqP	1.1E-02
Landbay A	8TP2-7	INORG	Strontium	7440-24-6		5.70E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.4E-02
Landbay A	9TP1-7	VOC	Acetone	67-64-1	ID	1.20E-02			2.0E+06	LT	5.9E-09	6.0E+02	LT	2.0E-05
Landbay A	9TP1-7	PCB	PCBs (total)	1336-36-3	B2	2.57E-02				NA		1.4E+00	EqP	1.9E-02
Landbay A	9TP1-7	INORG	Aluminum	7429-90-5	ID	3.43E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	9TP1-7	INORG	Arsenic	7440-38-2	A	5.02E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay A	9TP1-7	INORG	Barium	7440-39-3	NC	9.66E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	9TP1-7	INORG	Beryllium	7440-41-7	B1	3.65E-01	1.20E+00	3.0E-01	6.8E+03	EqP	5.4E-05	1.0E+01	EqP	3.5E-02
Landbay A	9TP1-7	INORG	Chromium III	16065-83-1	D	6.11E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.8E-05
Landbay A	9TP1-7	INORG	Chromium VI	18540-29-9	A	1.40E+00	4.97E+00	2.8E-01	6.6E+01	LT	2.1E-02	4.4E+00	LT	3.2E-01
Landbay A	9TP1-7	INORG	Copper	7440-50-8	D	1.01E+02	1.31E+02	7.7E-01	3.5E+05	EqP	2.9E-04	8.4E+00	EqP	**1.2E+01**
Landbay A	9TP1-7	INORG	Lead	7439-92-1	B2	7.07E+00						3.5E+02	EqP	2.0E-02
Landbay A	9TP1-7	INORG	Mercury	7439-97-6	D	1.30E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.5E-02
Landbay A	9TP1-7	INORG	Perchlorate	14797-73-0	NC	1.20E-02			3.4E+03	LT	3.5E-06	7.7E+02	LT	1.6E-05
Landbay A	9TP1-7	INORG	Strontium	7440-24-6		3.84E+01	3.80E+01	1.0E+00	1.6E+07	EqP	2.4E-06	1.1E+03	EqP	3.6E-02
Landbay A	9TP2-8	VOC	Acetone	67-64-1	ID	3.00E-02			2.0E+06	LT	1.5E-08	6.0E+02	LT	5.0E-05
Landbay A	9TP2-8	INORG	Aluminum	7429-90-5	ID	3.40E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.2E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	9TP2-8	INORG	Arsenic	7440-38-2	A	6.57E+00	9.90E+00	6.6E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay A	9TP2-8	INORG	Barium	7440-39-3	NC	1.02E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	9TP2-8	INORG	Beryllium	7440-41-7	B1	3.08E-01	1.20E+00	2.6E-01	6.8E+03	EqP	4.5E-05	1.0E+01	EqP	3.0E-02
Landbay A	9TP2-8	INORG	Chromium III	16065-83-1	D	7.24E+01	2.61E+02	2.8E-01	2.1E+10	EqP	3.4E-09	3.4E+06	EqP	2.1E-05
Landbay A	9TP2-8	INORG	Chromium VI	18540-29-9	A	3.08E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	7.0E-01
Landbay A	9TP2-8	INORG	Copper	7440-50-8	D	4.90E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay A	9TP2-8	INORG	Lead	7439-92-1	B2	1.39E+01						3.5E+02	EqP	4.0E-02
Landbay A	9TP2-8	INORG	Mercury	7439-97-6	D	2.71E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.3E-02
Landbay A	9TP2-8	INORG	Strontium	7440-24-6		2.72E+01	3.80E+01	7.2E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay A	9TP3-6	VOC	Acetone	67-64-1	ID	1.40E-01			2.0E+06	LT	6.9E-08	6.0E+02	LT	2.3E-04
Landbay A	9TP3-6	VOC	2-Butanone	78-93-3	ID	8.00E-03			3.0E+05	LT	2.7E-08	5.6E+03	LT	1.4E-06
Landbay A	9TP3-6	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.20E-01				NA		9.6E+03	EqP	1.2E-05
Landbay A	9TP3-6	PCB	PCBs (total)	1336-36-3	B2	2.60E-02				NA		1.4E+00	EqP	1.9E-02
Landbay A	9TP3-6	INORG	Aluminum	7429-90-5	ID	2.51E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay A	9TP3-6	INORG	Arsenic	7440-38-2	A	1.06E+01	9.90E+00	**1.1E+00**	1.1E+03	EqP	1.0E-02	8.6E+01	EqP	1.2E-01
Landbay A	9TP3-6	INORG	Barium	7440-39-3	NC	1.09E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay A	9TP3-6	INORG	Beryllium	7440-41-7	B1	6.30E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay A	9TP3-6	INORG	Chromium III	16065-83-1	D	7.55E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay A	9TP3-6	INORG	Chromium VI	18540-29-9	A	1.50E+00	4.97E+00	3.0E-01	6.6E+01	LT	2.3E-02	4.4E+00	LT	3.4E-01
Landbay A	9TP3-6	INORG	Copper	7440-50-8	D	4.14E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.9E+00**
Landbay A	9TP3-6	INORG	Lead	7439-92-1	B2	2.05E+01						3.5E+02	EqP	5.9E-02
Landbay A	9TP3-6	INORG	Mercury	7439-97-6	D	3.39E-02	7.10E-02	4.8E-01		NA		3.7E-01	EqP	9.2E-02
Landbay A	9TP3-6	INORG	Strontium	7440-24-6		1.18E+01	3.80E+01	3.1E-01	1.6E+07	EqP	7.3E-07	1.1E+03	EqP	1.1E-02
Landbay A	9TP4-5	VOC	Acetone	67-64-1	ID	4.10E-02			2.0E+06	LT	2.0E-08	6.0E+02	LT	6.8E-05
Landbay A	9TP4-5	VOC	Carbon Disulfide	75-15-0		1.00E-03			1.4E+04	LT	6.9E-08	3.7E-01	LT	2.7E-03
Landbay A	9TP4-5	SVOC	Benzo(a)anthracene	56-55-3	B2	9.60E-02				NA		2.9E-01	EqP	3.3E-01
Landbay A	9TP4-5	SVOC	Benzo(a)pyrene	50-32-8	B2	5.70E-02				NA		4.8E-01	EqP	1.2E-01
Landbay A	9TP4-5	SVOC	Benzo(b)fluoranthene	205-99-2	B2	1.10E-01				NA			NA	
Landbay A	9TP4-5	SVOC	Benzo(k)fluoranthene	207-08-9	B2	5.40E-02				NA			NA	
Landbay A	9TP4-5	SVOC	Chrysene	218-01-9	B2	1.10E-01				NA			NA	
Landbay A	9TP4-5	SVOC	Fluoranthene	206-44-0	D	1.00E-01				NA		1.7E-01	EqP	5.8E-01
Landbay A	9TP4-5	SVOC	Pyrene	129-00-0	NC	1.80E-01				NA		1.1E-01	EqP	**1.7E+00**
Landbay A	9TP4-5	PCB	PCBs (total)	1336-36-3	B2	9.02E-02				NA		1.4E+00	EqP	6.6E-02
Landbay A	9TP4-5	INORG	Aluminum	7429-90-5	ID	3.25E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	9TP4-5	INORG	Arsenic	7440-38-2	A	7.44E+00	9.90E+00	7.5E-01	1.1E+03	EqP	7.1E-03	8.6E+01	EqP	8.7E-02
Landbay A	9TP4-5	INORG	Barium	7440-39-3	NC	9.56E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	9TP4-5	INORG	Beryllium	7440-41-7	B1	3.00E-01	1.20E+00	2.5E-01	6.8E+03	EqP	4.4E-05	1.0E+01	EqP	2.9E-02
Landbay A	9TP4-5	INORG	Chromium III	16065-83-1	D	1.06E+02	2.61E+02	4.1E-01	2.1E+10	EqP	5.0E-09	3.4E+06	EqP	3.1E-05
Landbay A	9TP4-5	INORG	Copper	7440-50-8	D	5.35E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.4E+00**
Landbay A	9TP4-5	INORG	Lead	7439-92-1	B2	1.75E+01						3.5E+02	EqP	5.0E-02
Landbay A	9TP4-5	INORG	Mercury	7439-97-6	D	6.68E-02	7.10E-02	9.4E-01		NA		3.7E-01	EqP	1.8E-01
Landbay A	9TP4-5	INORG	Perchlorate	14797-73-0	NC	1.00E-03			3.4E+03	LT	2.9E-07	7.7E+02	LT	1.3E-06
Landbay A	9TP4-5	INORG	Strontium	7440-24-6		3.62E+01	3.80E+01	9.5E-01	1.6E+07	EqP	2.2E-06	1.1E+03	EqP	3.4E-02
Landbay A	A1G244	INORG	Aluminum	7429-90-5	ID	2.04E+04	5.34E+04	3.8E-01	3.7E+08	EqP	5.5E-05	2.6E+03	EqP	**7.8E+00**
Landbay A	A1G244	INORG	Arsenic	7440-38-2	A	3.50E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.1E-02
Landbay A	A1G244	INORG	Barium	7440-39-3	NC	9.32E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay A	A1G244	INORG	Beryllium	7440-41-7	B1	7.00E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay A	A1G244	INORG	Chromium III	16065-83-1	D	5.31E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay A	A1G244	INORG	Copper	7440-50-8	D	4.81E+02	1.31E+02	**3.7E+00**	3.5E+05	EqP	1.4E-03	8.4E+00	EqP	**5.7E+01**
Landbay A	A1G244	INORG	Silver	7440-22-4	D	3.10E-01	2.30E+00	1.3E-01	3.8E+03	LT	8.3E-05	2.7E+00	LT	1.2E-01
Landbay A	A1G244	INORG	Strontium	7440-24-6		1.31E+01	3.80E+01	3.4E-01	1.6E+07	EqP	8.0E-07	1.1E+03	EqP	1.2E-02
Landbay A	A1G247	INORG	Aluminum	7429-90-5	ID	2.92E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	A1G247	INORG	Arsenic	7440-38-2	A	3.57E+00	9.90E+00	3.6E-01	1.1E+03	EqP	3.4E-03	8.6E+01	EqP	4.2E-02
Landbay A	A1G247	INORG	Barium	7440-39-3	NC	9.89E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay A	A1G247	INORG	Beryllium	7440-41-7	B1	1.60E+00	1.20E+00	**1.3E+00**	6.8E+03	EqP	2.4E-04	1.0E+01	EqP	1.5E-01
Landbay A	A1G247	INORG	Chromium III	16065-83-1	D	5.50E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay A	A1G247	INORG	Copper	7440-50-8	D	5.99E+00	1.31E+02	4.6E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	7.1E-01
Landbay A	A1G247	INORG	Lead	7439-92-1	B2	7.27E-01						3.5E+02	EqP	2.1E-03
Landbay A	A1G247	INORG	Perchlorate	14797-73-0	NC	2.40E-04			3.4E+03	LT	7.0E-08	7.7E+02	LT	3.1E-07
Landbay A	A1G247	INORG	Silver	7440-22-4	D	1.93E-01	2.30E+00	8.4E-02	3.8E+03	LT	5.1E-05	2.7E+00	LT	7.3E-02
Landbay A	A1G247	INORG	Strontium	7440-24-6		1.84E+01	3.80E+01	4.8E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay A	A1G253	INORG	Aluminum	7429-90-5	ID	2.74E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	A1G253	INORG	Arsenic	7440-38-2	A	5.48E+00	9.90E+00	5.5E-01	1.1E+03	EqP	5.2E-03	8.6E+01	EqP	6.4E-02
Landbay A	A1G253	INORG	Barium	7440-39-3	NC	3.48E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay A	A1G253	INORG	Cadmium	7440-43-9	B1	1.80E+00	2.70E+00	6.7E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.4E-01
Landbay A	A1G253	INORG	Chromium III	16065-83-1	D	6.22E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.8E-05
Landbay A	A1G253	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay A	A1G253	INORG	Lead	7439-92-1	B2	7.69E+00						3.5E+02	EqP	2.2E-02
Landbay A	A1G253	INORG	Silver	7440-22-4	D	5.01E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay A	A1G253	INORG	Strontium	7440-24-6		1.21E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay A	A1G259	INORG	Aluminum	7429-90-5	ID	3.19E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	A1G259	INORG	Arsenic	7440-38-2	A	1.78E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay A	A1G259	INORG	Barium	7440-39-3	NC	1.43E+02	2.24E+02	6.4E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay A	A1G259	INORG	Beryllium	7440-41-7	B1	7.28E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay A	A1G259	INORG	Chromium III	16065-83-1	D	4.47E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay A	A1G259	INORG	Copper	7440-50-8	D	4.36E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.2E+00**
Landbay A	A1G259	INORG	Lead	7439-92-1	B2	2.65E+01						3.5E+02	EqP	7.6E-02
Landbay A	A1G259	INORG	Mercury	7439-97-6	D	1.09E-01	7.10E-02	**1.5E+00**		NA		3.7E-01	EqP	3.0E-01
Landbay A	A1G259	INORG	Silver	7440-22-4	D	3.33E-01	2.30E+00	1.4E-01	3.8E+03	LT	8.9E-05	2.7E+00	LT	1.3E-01
Landbay A	A1G259	INORG	Strontium	7440-24-6		2.81E+01	3.80E+01	7.4E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.7E-02
Landbay A	A1G262	INORG	Aluminum	7429-90-5	ID	1.93E+04	5.34E+04	3.6E-01	3.7E+08	EqP	5.2E-05	2.6E+03	EqP	**7.4E+00**
Landbay A	A1G262	INORG	Arsenic	7440-38-2	A	3.01E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.5E-02
Landbay A	A1G262	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay A	A1G262	INORG	Beryllium	7440-41-7	B1	1.33E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	2.0E-04	1.0E+01	EqP	1.3E-01
Landbay A	A1G262	INORG	Cadmium	7440-43-9	B1	3.72E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.4E-04	2.1E+00	EqP	1.7E-01
Landbay A	A1G262	INORG	Chromium III	16065-83-1	D	4.99E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.5E-05
Landbay A	A1G262	INORG	Copper	7440-50-8	D	1.54E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.4E-05	8.4E+00	EqP	**1.8E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	A1G262	INORG	Lead	7439-92-1	B2	3.07E+00						3.5E+02	EqP	8.8E-03
Landbay A	A1G262	INORG	Perchlorate	14797-73-0	NC	3.50E-04			3.4E+03	LT	1.0E-07	7.7E+02	LT	4.5E-07
Landbay A	A1G262	INORG	Strontium	7440-24-6		1.32E+01	3.80E+01	3.5E-01	1.6E+07	EqP	8.1E-07	1.1E+03	EqP	1.2E-02
Landbay A	A1G265	INORG	Aluminum	7429-90-5	ID	4.26E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	A1G265	INORG	Arsenic	7440-38-2	A	9.58E-01	9.90E+00	9.7E-02	1.1E+03	EqP	9.1E-04	8.6E+01	EqP	1.1E-02
Landbay A	A1G265	INORG	Barium	7440-39-3	NC	1.97E+02	2.24E+02	8.8E-01	3.2E+05	EqP	6.1E-04	3.3E+00	EqP	**6.0E+01**
Landbay A	A1G265	INORG	Beryllium	7440-41-7	B1	1.23E+00	1.20E+00	1.0E+00	6.8E+03	EqP	1.8E-04	1.0E+01	EqP	1.2E-01
Landbay A	A1G265	INORG	Chromium III	16065-83-1	D	8.09E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay A	A1G265	INORG	Chromium VI	18540-29-9	A	6.03E-01	4.97E+00	1.2E-01	6.6E+01	LT	9.1E-03	4.4E+00	LT	1.4E-01
Landbay A	A1G265	INORG	Copper	7440-50-8	D	5.23E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.2E+00**
Landbay A	A1G265	INORG	Lead	7439-92-1	B2	1.29E+01						3.5E+02	EqP	3.7E-02
Landbay A	A1G265	INORG	Mercury	7439-97-6	D	1.16E-01	7.10E-02	**1.6E+00**		NA		3.7E-01	EqP	3.1E-01
Landbay A	A1G265	INORG	Silver	7440-22-4	D	2.29E-01	2.30E+00	1.0E-01	3.8E+03	LT	6.1E-05	2.7E+00	LT	8.6E-02
Landbay A	A1G265	INORG	Strontium	7440-24-6		3.04E+01	3.80E+01	8.0E-01	1.6E+07	EqP	1.9E-06	1.1E+03	EqP	2.9E-02
Landbay A	A1S130	PCB	PCBs (total)	1336-36-3	B2	1.85E-01				NA		1.4E+00	EqP	1.3E-01
Landbay A	A1S130	INORG	Aluminum	7429-90-5	ID	3.77E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	A1S130	INORG	Arsenic	7440-38-2	A	4.87E+00	9.90E+00	4.9E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.7E-02
Landbay A	A1S130	INORG	Barium	7440-39-3	NC	8.81E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay A	A1S130	INORG	Beryllium	7440-41-7	B1	4.76E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay A	A1S130	INORG	Cadmium	7440-43-9	B1	9.99E-01	2.70E+00	3.7E-01	1.1E+03	EqP	9.2E-04	2.1E+00	EqP	4.7E-01
Landbay A	A1S130	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	A1S130	INORG	Chromium VI	18540-29-9	A	3.41E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	A1S130	INORG	Cobalt	7440-48-4	LC	3.51E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	A1S130	INORG	Copper	7440-50-8	D	5.44E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay A	A1S130	INORG	Iron	7439-89-6	D	5.08E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay A	A1S130	INORG	Lead	7439-92-1	B2	2.45E+01						3.5E+02	EqP	7.0E-02
Landbay A	A1S130	INORG	Manganese	7439-96-5	D	1.04E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.6E+00**
Landbay A	A1S130	INORG	Mercury	7439-97-6	D	1.57E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.3E-02
Landbay A	A1S130	INORG	Nickel	7440-02-0	A	4.70E+01	7.30E+01	6.4E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay A	A1S130	INORG	Thallium	7440-28-0	ID	1.60E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay A	A1S130	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	A1S130	INORG	Zinc	7440-66-6	ID	1.30E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.4E-05	1.9E+02	EqP	6.8E-01
Landbay A	A1S131	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	A1S131	INORG	Arsenic	7440-38-2	A	3.07E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	A1S131	INORG	Barium	7440-39-3	NC	8.05E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay A	A1S131	INORG	Beryllium	7440-41-7	B1	6.23E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.2E-05	1.0E+01	EqP	6.0E-02
Landbay A	A1S131	INORG	Cadmium	7440-43-9	B1	7.13E-01	2.70E+00	2.6E-01	1.1E+03	EqP	6.6E-04	2.1E+00	EqP	3.3E-01
Landbay A	A1S131	INORG	Chromium III	16065-83-1	D	3.97E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay A	A1S131	INORG	Chromium VI	18540-29-9	A	9.00E-01	4.97E+00	1.8E-01	6.6E+01	LT	1.4E-02	4.4E+00	LT	2.0E-01
Landbay A	A1S131	INORG	Cobalt	7440-48-4	LC	3.51E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	A1S131	INORG	Copper	7440-50-8	D	2.60E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay A	A1S131	INORG	Iron	7439-89-6	D	5.08E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay A	A1S131	INORG	Lead	7439-92-1	B2	1.78E+01						3.5E+02	EqP	5.1E-02
Landbay A	A1S131	INORG	Manganese	7439-96-5	D	1.04E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.6E+00**
Landbay A	A1S131	INORG	Mercury	7439-97-6	D	2.24E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.1E-02
Landbay A	A1S131	INORG	Nickel	7440-02-0	A	4.70E+01	7.30E+01	6.4E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay A	A1S131	INORG	Silver	7440-22-4	D	4.46E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay A	A1S131	INORG	Strontium	7440-24-6		1.20E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay A	A1S131	INORG	Thallium	7440-28-0	ID	1.60E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay A	A1S131	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	A1S131	INORG	Zinc	7440-66-6	ID	1.30E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.4E-05	1.9E+02	EqP	6.8E-01
Landbay A	A1S132	INORG	Aluminum	7429-90-5	ID	2.21E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay A	A1S132	INORG	Arsenic	7440-38-2	A	2.24E+00	9.90E+00	2.3E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.6E-02
Landbay A	A1S132	INORG	Barium	7440-39-3	NC	3.79E+01	2.24E+02	1.7E-01	3.2E+05	EqP	1.2E-04	3.3E+00	EqP	**1.1E+01**
Landbay A	A1S132	INORG	Beryllium	7440-41-7	B1	5.76E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay A	A1S132	INORG	Chromium III	16065-83-1	D	5.96E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.8E-05
Landbay A	A1S132	INORG	Cobalt	7440-48-4	LC	3.51E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	A1S132	INORG	Copper	7440-50-8	D	1.05E+01	1.31E+02	8.0E-02	3.5E+05	EqP	3.0E-05	8.4E+00	EqP	**1.2E+00**
Landbay A	A1S132	INORG	Iron	7439-89-6	D	5.08E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay A	A1S132	INORG	Manganese	7439-96-5	D	1.04E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.6E+00**
Landbay A	A1S132	INORG	Nickel	7440-02-0	A	4.70E+01	7.30E+01	6.4E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay A	A1S132	INORG	Perchlorate	14797-73-0	NC	5.00E-04			3.4E+03	LT	1.5E-07	7.7E+02	LT	6.5E-07
Landbay A	A1S132	INORG	Silver	7440-22-4	D	1.71E-01	2.30E+00	7.4E-02	3.8E+03	LT	4.6E-05	2.7E+00	LT	6.4E-02
Landbay A	A1S132	INORG	Strontium	7440-24-6		1.07E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.6E-07	1.1E+03	EqP	1.0E-02
Landbay A	A1S132	INORG	Thallium	7440-28-0	ID	1.60E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay A	A1S132	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	A1S132	INORG	Zinc	7440-66-6	ID	1.30E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.4E-05	1.9E+02	EqP	6.8E-01
Landbay A	A1S133	PCB	PCBs (total)	1336-36-3	B2	1.85E-01				NA		1.4E+00	EqP	1.3E-01
Landbay A	A1S133	INORG	Aluminum	7429-90-5	ID	3.77E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	A1S133	INORG	Arsenic	7440-38-2	A	4.87E+00	9.90E+00	4.9E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.7E-02
Landbay A	A1S133	INORG	Barium	7440-39-3	NC	8.81E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay A	A1S133	INORG	Beryllium	7440-41-7	B1	4.76E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay A	A1S133	INORG	Cadmium	7440-43-9	B1	9.99E-01	2.70E+00	3.7E-01	1.1E+03	EqP	9.2E-04	2.1E+00	EqP	4.7E-01
Landbay A	A1S133	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay A	A1S133	INORG	Chromium VI	18540-29-9	A	3.41E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	A1S133	INORG	Cobalt	7440-48-4	LC	3.51E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	A1S133	INORG	Copper	7440-50-8	D	5.44E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay A	A1S133	INORG	Iron	7439-89-6	D	5.08E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay A	A1S133	INORG	Lead	7439-92-1	B2	2.45E+01						3.5E+02	EqP	7.0E-02
Landbay A	A1S133	INORG	Manganese	7439-96-5	D	1.04E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.6E+00**
Landbay A	A1S133	INORG	Mercury	7439-97-6	D	1.57E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.3E-02
Landbay A	A1S133	INORG	Nickel	7440-02-0	A	4.70E+01	7.30E+01	6.4E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay A	A1S133	INORG	Thallium	7440-28-0	ID	1.60E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay A	A1S133	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	A1S133	INORG	Zinc	7440-66-6	ID	1.30E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.4E-05	1.9E+02	EqP	6.8E-01
Landbay A	A2G171	INORG	Aluminum	7429-90-5	ID	3.79E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	A2G171	INORG	Barium	7440-39-3	NC	9.92E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay A	A2G171	INORG	Cadmium	7440-43-9	B1	2.36E-01	2.70E+00	8.7E-02	1.1E+03	EqP	2.2E-04	2.1E+00	EqP	1.1E-01
Landbay A	A2G171	INORG	Chromium III	16065-83-1	D	4.22E+01	2.61E+02	1.6E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay A	A2G171	INORG	Copper	7440-50-8	D	6.05E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.2E+00**
Landbay A	A2G171	INORG	Lead	7439-92-1	B2	1.50E+00						3.5E+02	EqP	4.3E-03
Landbay A	A2G171	INORG	Perchlorate	14797-73-0	NC	2.50E-02			3.4E+03	LT	7.3E-06	7.7E+02	LT	3.2E-05
Landbay A	A2G171	INORG	Silver	7440-22-4	D	1.05E+00	2.30E+00	4.6E-01	3.8E+03	LT	2.8E-04	2.7E+00	LT	3.9E-01
Landbay A	A2G171	INORG	Strontium	7440-24-6		4.15E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.9E-02
Landbay A	A2G173	INORG	Aluminum	7429-90-5	ID	4.67E+04	5.34E+04	8.7E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	A2G173	INORG	Arsenic	7440-38-2	A	3.71E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay A	A2G173	INORG	Barium	7440-39-3	NC	1.69E+02	2.24E+02	7.5E-01	3.2E+05	EqP	5.2E-04	3.3E+00	EqP	**5.1E+01**
Landbay A	A2G173	INORG	Beryllium	7440-41-7	B1	4.79E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.1E-05	1.0E+01	EqP	4.6E-02
Landbay A	A2G173	INORG	Chromium III	16065-83-1	D	8.28E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay A	A2G173	INORG	Chromium VI	18540-29-9	A	7.60E-01	4.97E+00	1.5E-01	6.6E+01	LT	1.1E-02	4.4E+00	LT	1.7E-01
Landbay A	A2G173	INORG	Copper	7440-50-8	D	8.08E+01	1.31E+02	6.2E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.6E+00**
Landbay A	A2G173	INORG	Perchlorate	14797-73-0	NC	6.20E-03			3.4E+03	LT	1.8E-06	7.7E+02	LT	8.0E-06
Landbay A	A2G173	INORG	Strontium	7440-24-6		4.01E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay A	A2G177	INORG	Aluminum	7429-90-5	ID	4.55E+04	5.34E+04	8.5E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	A2G177	INORG	Arsenic	7440-38-2	A	6.40E+00	9.90E+00	6.5E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.5E-02
Landbay A	A2G177	INORG	Barium	7440-39-3	NC	1.40E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.3E-04	3.3E+00	EqP	**4.2E+01**
Landbay A	A2G177	INORG	Chromium III	16065-83-1	D	1.08E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.1E-09	3.4E+06	EqP	3.2E-05
Landbay A	A2G177	INORG	Chromium VI	18540-29-9	A	1.70E+00	4.97E+00	3.4E-01	6.6E+01	LT	2.6E-02	4.4E+00	LT	3.9E-01
Landbay A	A2G177	INORG	Copper	7440-50-8	D	6.94E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.3E+00**
Landbay A	A2G177	INORG	Mercury	7439-97-6	D	2.27E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.1E-02
Landbay A	A2G177	INORG	Perchlorate	14797-73-0	NC	1.60E-01			3.4E+03	LT	4.6E-05	7.7E+02	LT	2.1E-04
Landbay A	A2G177	INORG	Strontium	7440-24-6		3.79E+01	3.80E+01	1.0E+00	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.6E-02
Landbay A	A2G180	INORG	Aluminum	7429-90-5	ID	4.58E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	A2G180	INORG	Arsenic	7440-38-2	A	2.87E+00	9.90E+00	2.9E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay A	A2G180	INORG	Barium	7440-39-3	NC	1.32E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay A	A2G180	INORG	Beryllium	7440-41-7	B1	2.51E-01	1.20E+00	2.1E-01	6.8E+03	EqP	3.7E-05	1.0E+01	EqP	2.4E-02
Landbay A	A2G180	INORG	Chromium III	16065-83-1	D	4.03E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay A	A2G180	INORG	Copper	7440-50-8	D	6.52E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.8E+00**
Landbay A	A2G180	INORG	Perchlorate	14797-73-0	NC	1.60E+00			3.4E+03	LT	4.6E-04	7.7E+02	LT	2.1E-03
Landbay A	A2G180	INORG	Silver	7440-22-4	D	1.09E+00	2.30E+00	4.7E-01	3.8E+03	LT	2.9E-04	2.7E+00	LT	4.1E-01
Landbay A	A2G180	INORG	Strontium	7440-24-6		5.06E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay A	A2G181	INORG	Perchlorate	14797-73-0	NC	9.10E-04			3.4E+03	LT	2.6E-07	7.7E+02	LT	1.2E-06
Landbay A	A2G184	INORG	Aluminum	7429-90-5	ID	3.27E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	A2G184	INORG	Arsenic	7440-38-2	A	7.33E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.5E-02
Landbay A	A2G184	INORG	Barium	7440-39-3	NC	1.44E+02	2.24E+02	6.4E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay A	A2G184	INORG	Beryllium	7440-41-7	B1	1.62E+00	1.20E+00	**1.4E+00**	6.8E+03	EqP	2.4E-04	1.0E+01	EqP	1.6E-01
Landbay A	A2G184	INORG	Cadmium	7440-43-9	B1	4.40E+00	2.70E+00	**1.6E+00**	1.1E+03	EqP	4.1E-03	2.1E+00	EqP	**2.1E+00**
Landbay A	A2G184	INORG	Chromium III	16065-83-1	D	1.21E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.7E-09	3.4E+06	EqP	3.6E-05
Landbay A	A2G184	INORG	Copper	7440-50-8	D	3.78E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay A	A2G184	INORG	Lead	7439-92-1	B2	1.54E+01						3.5E+02	EqP	4.4E-02
Landbay A	A2G184	INORG	Mercury	7439-97-6	D	2.93E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.9E-02
Landbay A	A2G184	INORG	Strontium	7440-24-6		1.50E+01	3.80E+01	3.9E-01	1.6E+07	EqP	9.2E-07	1.1E+03	EqP	1.4E-02
Landbay A	A2G187	INORG	Perchlorate	14797-73-0	NC	6.50E-03			3.4E+03	LT	1.9E-06	7.7E+02	LT	8.4E-06

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	A2G192	INORG	Perchlorate	14797-73-0	NC	1.10E-02			3.4E+03	LT	3.2E-06	7.7E+02	LT	1.4E-05
Landbay A	A2G195	INORG	Perchlorate	14797-73-0	NC	3.30E-04			3.4E+03	LT	9.6E-08	7.7E+02	LT	4.3E-07
Landbay A	A2G198	PCB	PCBs (total)	1336-36-3	B2	1.61E-01				NA		1.4E+00	EqP	1.2E-01
Landbay A	A2G198	INORG	Perchlorate	14797-73-0	NC	2.20E-03			3.4E+03	LT	6.4E-07	7.7E+02	LT	2.8E-06
Landbay A	A2G201	INORG	Perchlorate	14797-73-0	NC	2.90E-03			3.4E+03	LT	8.4E-07	7.7E+02	LT	3.7E-06
Landbay A	A2G202	INORG	Aluminum	7429-90-5	ID	4.43E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	A2G202	INORG	Barium	7440-39-3	NC	1.53E+02	2.24E+02	6.8E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay A	A2G202	INORG	Beryllium	7440-41-7	B1	2.53E-01	1.20E+00	2.1E-01	6.8E+03	EqP	3.7E-05	1.0E+01	EqP	2.4E-02
Landbay A	A2G202	INORG	Chromium III	16065-83-1	D	3.86E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay A	A2G202	INORG	Copper	7440-50-8	D	5.98E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.1E+00**
Landbay A	A2G202	INORG	Perchlorate	14797-73-0	NC	1.10E+00			3.4E+03	LT	3.2E-04	7.7E+02	LT	1.4E-03
Landbay A	A2G202	INORG	Silver	7440-22-4	D	1.27E+00	2.30E+00	5.5E-01	3.8E+03	LT	3.4E-04	2.7E+00	LT	4.8E-01
Landbay A	A2G202	INORG	Strontium	7440-24-6		5.38E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.3E-06	1.1E+03	EqP	5.1E-02
Landbay A	A2S134	INORG	Aluminum	7429-90-5	ID	2.40E+04	5.34E+04	4.5E-01	3.7E+08	EqP	6.5E-05	2.6E+03	EqP	**9.2E+00**
Landbay A	A2S134	INORG	Arsenic	7440-38-2	A	6.61E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay A	A2S134	INORG	Barium	7440-39-3	NC	1.68E+02	2.24E+02	7.5E-01	3.2E+05	EqP	5.2E-04	3.3E+00	EqP	**5.1E+01**
Landbay A	A2S134	INORG	Beryllium	7440-41-7	B1	1.83E+00	1.20E+00	**1.5E+00**	6.8E+03	EqP	2.7E-04	1.0E+01	EqP	1.8E-01
Landbay A	A2S134	INORG	Chromium III	16065-83-1	D	7.16E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.4E-09	3.4E+06	EqP	2.1E-05
Landbay A	A2S134	INORG	Cobalt	7440-48-4	LC	7.02E+01	8.60E+01	8.2E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay A	A2S134	INORG	Copper	7440-50-8	D	2.99E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.6E-05	8.4E+00	EqP	**3.6E+00**
Landbay A	A2S134	INORG	Iron	7439-89-6	D	8.44E+04	9.52E+04	8.9E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.6E+02**
Landbay A	A2S134	INORG	Manganese	7439-96-5	D	2.28E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	A2S134	INORG	Nickel	7440-02-0	A	2.56E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.6E-01
Landbay A	A2S134	INORG	Perchlorate	14797-73-0	NC	7.30E-03			3.4E+03	LT	2.1E-06	7.7E+02	LT	9.4E-06
Landbay A	A2S134	INORG	Silver	7440-22-4	D	1.74E+00	2.30E+00	7.6E-01	3.8E+03	LT	4.6E-04	2.7E+00	LT	6.5E-01
Landbay A	A2S134	INORG	Strontium	7440-24-6		1.86E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay A	A2S134	INORG	Thallium	7440-28-0	ID	1.50E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay A	A2S134	INORG	Vanadium	7440-62-2	ID	3.26E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.1E-03	4.0E+02	EqP	8.1E-01
Landbay A	A2S134	INORG	Zinc	7440-66-6	ID	4.82E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	A2S135	INORG	Aluminum	7429-90-5	ID	4.89E+04	5.34E+04	9.2E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.9E+01**
Landbay A	A2S135	INORG	Arsenic	7440-38-2	A	2.03E+00	9.90E+00	2.1E-01	1.1E+03	EqP	1.9E-03	8.6E+01	EqP	2.4E-02
Landbay A	A2S135	INORG	Barium	7440-39-3	NC	1.32E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay A	A2S135	INORG	Beryllium	7440-41-7	B1	2.66E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.6E-02
Landbay A	A2S135	INORG	Chromium III	16065-83-1	D	3.87E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay A	A2S135	INORG	Cobalt	7440-48-4	LC	7.02E+01	8.60E+01	8.2E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay A	A2S135	INORG	Copper	7440-50-8	D	7.83E+01	1.31E+02	6.0E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.3E+00**
Landbay A	A2S135	INORG	Iron	7439-89-6	D	8.44E+04	9.52E+04	8.9E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.6E+02**
Landbay A	A2S135	INORG	Manganese	7439-96-5	D	2.28E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	A2S135	INORG	Nickel	7440-02-0	A	2.56E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.6E-01
Landbay A	A2S135	INORG	Perchlorate	14797-73-0	NC	4.20E-04			3.4E+03	LT	1.2E-07	7.7E+02	LT	5.4E-07
Landbay A	A2S135	INORG	Silver	7440-22-4	D	1.58E+00	2.30E+00	6.9E-01	3.8E+03	LT	4.2E-04	2.7E+00	LT	5.9E-01
Landbay A	A2S135	INORG	Strontium	7440-24-6		5.25E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.2E-06	1.1E+03	EqP	5.0E-02
Landbay A	A2S135	INORG	Thallium	7440-28-0	ID	1.50E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay A	A2S135	INORG	Vanadium	7440-62-2	ID	3.26E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.1E-03	4.0E+02	EqP	8.1E-01
Landbay A	A2S135	INORG	Zinc	7440-66-6	ID	4.82E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	A2S136	INORG	Aluminum	7429-90-5	ID	4.34E+04	5.34E+04	8.1E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	A2S136	INORG	Arsenic	7440-38-2	A	4.42E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay A	A2S136	INORG	Barium	7440-39-3	NC	1.47E+02	2.24E+02	6.6E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.5E+01**
Landbay A	A2S136	INORG	Chromium III	16065-83-1	D	3.35E+02	2.61E+02	**1.3E+00**	2.1E+10	EqP	1.6E-08	3.4E+06	EqP	9.9E-05
Landbay A	A2S136	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.0E-01
Landbay A	A2S136	INORG	Cobalt	7440-48-4	LC	7.02E+01	8.60E+01	8.2E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay A	A2S136	INORG	Copper	7440-50-8	D	9.93E+01	1.31E+02	7.6E-01	3.5E+05	EqP	2.9E-04	8.4E+00	EqP	**1.2E+01**
Landbay A	A2S136	INORG	Iron	7439-89-6	D	8.44E+04	9.52E+04	8.9E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.6E+02**
Landbay A	A2S136	INORG	Manganese	7439-96-5	D	2.28E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	A2S136	INORG	Nickel	7440-02-0	A	2.56E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.6E-01
Landbay A	A2S136	INORG	Perchlorate	14797-73-0	NC	1.90E-03			3.4E+03	LT	5.5E-07	7.7E+02	LT	2.5E-06
Landbay A	A2S136	INORG	Strontium	7440-24-6		2.66E+01	3.80E+01	7.0E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.5E-02
Landbay A	A2S136	INORG	Thallium	7440-28-0	ID	1.50E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay A	A2S136	INORG	Vanadium	7440-62-2	ID	3.26E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.1E-03	4.0E+02	EqP	8.1E-01
Landbay A	A2S136	INORG	Zinc	7440-66-6	ID	4.82E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	A2S137	INORG	Aluminum	7429-90-5	ID	3.92E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	A2S137	INORG	Arsenic	7440-38-2	A	2.85E+00	9.90E+00	2.9E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay A	A2S137	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay A	A2S137	INORG	Beryllium	7440-41-7	B1	2.50E-01	1.20E+00	2.1E-01	6.8E+03	EqP	3.7E-05	1.0E+01	EqP	2.4E-02
Landbay A	A2S137	INORG	Chromium III	16065-83-1	D	7.50E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay A	A2S137	INORG	Cobalt	7440-48-4	LC	7.02E+01	8.60E+01	8.2E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay A	A2S137	INORG	Copper	7440-50-8	D	7.22E+01	1.31E+02	5.5E-01	3.5E+05	EqP	2.1E-04	8.4E+00	EqP	**8.6E+00**
Landbay A	A2S137	INORG	Iron	7439-89-6	D	8.44E+04	9.52E+04	8.9E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.6E+02**
Landbay A	A2S137	INORG	Manganese	7439-96-5	D	2.28E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	A2S137	INORG	Nickel	7440-02-0	A	2.56E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.6E-01
Landbay A	A2S137	INORG	Perchlorate	14797-73-0	NC	9.90E-02			3.4E+03	LT	2.9E-05	7.7E+02	LT	1.3E-04
Landbay A	A2S137	INORG	Silver	7440-22-4	D	1.66E+00	2.30E+00	7.2E-01	3.8E+03	LT	4.4E-04	2.7E+00	LT	6.2E-01
Landbay A	A2S137	INORG	Strontium	7440-24-6		4.27E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay A	A2S137	INORG	Thallium	7440-28-0	ID	1.50E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay A	A2S137	INORG	Vanadium	7440-62-2	ID	3.26E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.1E-03	4.0E+02	EqP	8.1E-01
Landbay A	A2S137	INORG	Zinc	7440-66-6	ID	4.82E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	A2S138	PCB	PCBs (total)	1336-36-3	B2	9.63E-03				NA		1.4E+00	EqP	7.0E-03
Landbay A	A2S138	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	A2S138	INORG	Arsenic	7440-38-2	A	7.07E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay A	A2S138	INORG	Barium	7440-39-3	NC	1.55E+02	2.24E+02	6.9E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	A2S138	INORG	Beryllium	7440-41-7	B1	1.13E+00	1.20E+00	9.4E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay A	A2S138	INORG	Cadmium	7440-43-9	B1	1.56E+00	2.70E+00	5.8E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.3E-01
Landbay A	A2S138	INORG	Chromium III	16065-83-1	D	1.17E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.5E-09	3.4E+06	EqP	3.5E-05
Landbay A	A2S138	INORG	Chromium VI	18540-29-9	A	3.39E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	A2S138	INORG	Cobalt	7440-48-4	LC	6.21E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay A	A2S138	INORG	Copper	7440-50-8	D	3.32E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay A	A2S138	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	A2S138	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay A	A2S138	INORG	Manganese	7439-96-5	D	2.42E+03	4.27E+03	5.7E-01	3.1E+05	EqP	7.8E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	A2S138	INORG	Mercury	7439-97-6	D	3.71E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	1.0E-01
Landbay A	A2S138	INORG	Nickel	7440-02-0	A	3.27E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.7E-01
Landbay A	A2S138	INORG	Perchlorate	14797-73-0	NC	4.30E-03			3.4E+03	LT	1.2E-06	7.7E+02	LT	5.6E-06
Landbay A	A2S138	INORG	Selenium	7782-49-2	D	1.27E+00	2.50E+00	5.1E-01	2.5E+04	LT	5.2E-05	2.0E+00	LT	6.4E-01
Landbay A	A2S138	INORG	Thallium	7440-28-0	ID	1.98E+00	4.50E+00	4.4E-01				1.1E+00	EqP	**1.7E+00**
Landbay A	A2S138	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	A2S138	INORG	Zinc	7440-66-6	ID	7.48E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	A2S139	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	A2S139	INORG	Arsenic	7440-38-2	A	7.07E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay A	A2S139	INORG	Barium	7440-39-3	NC	1.55E+02	2.24E+02	6.9E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	A2S139	INORG	Beryllium	7440-41-7	B1	1.13E+00	1.20E+00	9.4E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay A	A2S139	INORG	Cadmium	7440-43-9	B1	1.56E+00	2.70E+00	5.8E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.3E-01
Landbay A	A2S139	INORG	Chromium III	16065-83-1	D	1.17E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.5E-09	3.4E+06	EqP	3.5E-05
Landbay A	A2S139	INORG	Chromium VI	18540-29-9	A	3.39E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	A2S139	INORG	Cobalt	7440-48-4	LC	6.21E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay A	A2S139	INORG	Copper	7440-50-8	D	3.32E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay A	A2S139	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	A2S139	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay A	A2S139	INORG	Manganese	7439-96-5	D	2.42E+03	4.27E+03	5.7E-01	3.1E+05	EqP	7.8E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	A2S139	INORG	Mercury	7439-97-6	D	3.71E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	1.0E-01
Landbay A	A2S139	INORG	Nickel	7440-02-0	A	3.27E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.7E-01
Landbay A	A2S139	INORG	Perchlorate	14797-73-0	NC	2.80E-03			3.4E+03	LT	8.1E-07	7.7E+02	LT	3.6E-06
Landbay A	A2S139	INORG	Selenium	7782-49-2	D	1.27E+00	2.50E+00	5.1E-01	2.5E+04	LT	5.2E-05	2.0E+00	LT	6.4E-01
Landbay A	A2S139	INORG	Thallium	7440-28-0	ID	1.98E+00	4.50E+00	4.4E-01				1.1E+00	EqP	**1.7E+00**
Landbay A	A2S139	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	A2S139	INORG	Zinc	7440-66-6	ID	7.48E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	A2S164	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	A2S164	INORG	Arsenic	7440-38-2	A	7.07E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay A	A2S164	INORG	Barium	7440-39-3	NC	1.55E+02	2.24E+02	6.9E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	A2S164	INORG	Beryllium	7440-41-7	B1	1.13E+00	1.20E+00	9.4E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay A	A2S164	INORG	Cadmium	7440-43-9	B1	1.56E+00	2.70E+00	5.8E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.3E-01
Landbay A	A2S164	INORG	Chromium III	16065-83-1	D	1.17E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.5E-09	3.4E+06	EqP	3.5E-05
Landbay A	A2S164	INORG	Chromium VI	18540-29-9	A	3.39E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	A2S164	INORG	Cobalt	7440-48-4	LC	6.21E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay A	A2S164	INORG	Copper	7440-50-8	D	3.32E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay A	A2S164	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	A2S164	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay A	A2S164	INORG	Manganese	7439-96-5	D	2.42E+03	4.27E+03	5.7E-01	3.1E+05	EqP	7.8E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	A2S164	INORG	Mercury	7439-97-6	D	3.71E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	1.0E-01
Landbay A	A2S164	INORG	Nickel	7440-02-0	A	3.27E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.7E-01
Landbay A	A2S164	INORG	Perchlorate	14797-73-0	NC	1.20E-03			3.4E+03	LT	3.5E-07	7.7E+02	LT	1.6E-06
Landbay A	A2S164	INORG	Selenium	7782-49-2	D	1.27E+00	2.50E+00	5.1E-01	2.5E+04	LT	5.2E-05	2.0E+00	LT	6.4E-01
Landbay A	A2S164	INORG	Thallium	7440-28-0	ID	1.98E+00	4.50E+00	4.4E-01				1.1E+00	EqP	**1.7E+00**
Landbay A	A2S164	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	A2S164	INORG	Zinc	7440-66-6	ID	7.48E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	A2S167	PCB	PCBs (total)	1336-36-3	B2	1.89E-02				NA		1.4E+00	EqP	1.4E-02
Landbay A	A2S167	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	A2S167	INORG	Arsenic	7440-38-2	A	7.07E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay A	A2S167	INORG	Barium	7440-39-3	NC	1.55E+02	2.24E+02	6.9E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	A2S167	INORG	Beryllium	7440-41-7	B1	1.13E+00	1.20E+00	9.4E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay A	A2S167	INORG	Cadmium	7440-43-9	B1	1.56E+00	2.70E+00	5.8E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.3E-01
Landbay A	A2S167	INORG	Chromium III	16065-83-1	D	1.17E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.5E-09	3.4E+06	EqP	3.5E-05
Landbay A	A2S167	INORG	Chromium VI	18540-29-9	A	3.39E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	A2S167	INORG	Cobalt	7440-48-4	LC	6.21E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay A	A2S167	INORG	Copper	7440-50-8	D	3.32E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay A	A2S167	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	A2S167	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay A	A2S167	INORG	Manganese	7439-96-5	D	2.42E+03	4.27E+03	5.7E-01	3.1E+05	EqP	7.8E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	A2S167	INORG	Mercury	7439-97-6	D	3.71E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	1.0E-01
Landbay A	A2S167	INORG	Nickel	7440-02-0	A	3.27E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.7E-01
Landbay A	A2S167	INORG	Selenium	7782-49-2	D	1.27E+00	2.50E+00	5.1E-01	2.5E+04	LT	5.2E-05	2.0E+00	LT	6.4E-01
Landbay A	A2S167	INORG	Thallium	7440-28-0	ID	1.98E+00	4.50E+00	4.4E-01				1.1E+00	EqP	**1.7E+00**
Landbay A	A2S167	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay A	A2S167	INORG	Zinc	7440-66-6	ID	7.48E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	A3B198	INORG	Aluminum	7429-90-5	ID	3.80E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	A3B198	INORG	Arsenic	7440-38-2	A	3.11E+00	9.90E+00	3.1E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.6E-02
Landbay A	A3B198	INORG	Barium	7440-39-3	NC	7.98E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay A	A3B198	INORG	Cadmium	7440-43-9	B1	3.57E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.3E-04	2.1E+00	EqP	1.7E-01
Landbay A	A3B198	INORG	Chromium III	16065-83-1	D	5.27E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay A	A3B198	INORG	Chromium VI	18540-29-9	A	9.40E-01	4.97E+00	1.9E-01	6.6E+01	LT	1.4E-02	4.4E+00	LT	2.1E-01
Landbay A	A3B198	INORG	Copper	7440-50-8	D	6.85E+01	1.31E+02	5.2E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay A	A3B198	INORG	Lead	7439-92-1	B2	4.95E+00						3.5E+02	EqP	1.4E-02
Landbay A	A3B198	INORG	Silver	7440-22-4	D	5.42E-01	2.30E+00	2.4E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay A	A3B198	INORG	Strontium	7440-24-6		4.37E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.1E-02
Landbay A	A3B202	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.30E-01				NA		9.6E+03	EqP	1.4E-05
Landbay A	A3B202	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	A3B202	INORG	Arsenic	7440-38-2	A	3.08E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay A	A3B202	INORG	Barium	7440-39-3	NC	3.06E+01	2.24E+02	1.4E-01	3.2E+05	EqP	9.5E-05	3.3E+00	EqP	**9.3E+00**
Landbay A	A3B202	INORG	Cadmium	7440-43-9	B1	4.37E-01	2.70E+00	1.6E-01	1.1E+03	EqP	4.0E-04	2.1E+00	EqP	2.0E-01
Landbay A	A3B202	INORG	Chromium III	16065-83-1	D	4.74E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay A	A3B202	INORG	Copper	7440-50-8	D	5.87E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay A	A3B202	INORG	Lead	7439-92-1	B2	9.77E+00						3.5E+02	EqP	2.8E-02
Landbay A	A3B202	INORG	Perchlorate	14797-73-0	NC	5.60E-04			3.4E+03	LT	1.6E-07	7.7E+02	LT	7.2E-07
Landbay A	A3B202	INORG	Silver	7440-22-4	D	5.26E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay A	A3B202	INORG	Strontium	7440-24-6		5.34E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.3E-06	1.1E+03	EqP	5.1E-02
Landbay A	A3B205	INORG	Aluminum	7429-90-5	ID	4.29E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	A3B205	INORG	Barium	7440-39-3	NC	1.21E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.7E+01**
Landbay A	A3B205	INORG	Beryllium	7440-41-7	B1	8.90E-02	1.20E+00	7.4E-02	6.8E+03	EqP	1.3E-05	1.0E+01	EqP	8.5E-03
Landbay A	A3B205	INORG	Chromium III	16065-83-1	D	1.03E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay A	A3B205	INORG	Copper	7440-50-8	D	6.44E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.7E+00**
Landbay A	A3B205	INORG	Lead	7439-92-1	B2	1.03E+00						3.5E+02	EqP	2.9E-03
Landbay A	A3B205	INORG	Perchlorate	14797-73-0	NC	8.20E-04			3.4E+03	LT	2.4E-07	7.7E+02	LT	1.1E-06
Landbay A	A3B205	INORG	Silver	7440-22-4	D	1.75E-01	2.30E+00	7.6E-02	3.8E+03	LT	4.7E-05	2.7E+00	LT	6.6E-02
Landbay A	A3B205	INORG	Strontium	7440-24-6		7.54E+01	3.80E+01	**2.0E+00**	1.6E+07	EqP	4.6E-06	1.1E+03	EqP	7.1E-02
Landbay A	A3B208	INORG	Aluminum	7429-90-5	ID	3.82E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	A3B208	INORG	Arsenic	7440-38-2	A	3.03E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.5E-02
Landbay A	A3B208	INORG	Barium	7440-39-3	NC	3.31E+01	2.24E+02	1.5E-01	3.2E+05	EqP	1.0E-04	3.3E+00	EqP	**1.0E+01**
Landbay A	A3B208	INORG	Cadmium	7440-43-9	B1	5.46E-01	2.70E+00	2.0E-01	1.1E+03	EqP	5.0E-04	2.1E+00	EqP	2.6E-01
Landbay A	A3B208	INORG	Chromium III	16065-83-1	D	2.92E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.7E-06
Landbay A	A3B208	INORG	Copper	7440-50-8	D	1.48E+02	1.31E+02	**1.1E+00**	3.5E+05	EqP	4.3E-04	8.4E+00	EqP	**1.8E+01**
Landbay A	A3B208	INORG	Lead	7439-92-1	B2	6.30E+00						3.5E+02	EqP	1.8E-02
Landbay A	A3B208	INORG	Perchlorate	14797-73-0	NC	5.70E-03			3.4E+03	LT	1.7E-06	7.7E+02	LT	7.4E-06
Landbay A	A3B208	INORG	Silver	7440-22-4	D	4.10E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay A	A3B208	INORG	Strontium	7440-24-6		4.96E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.0E-06	1.1E+03	EqP	4.7E-02
Landbay A	A3B211	PCB	PCBs (total)	1336-36-3	B2	3.49E-02				NA		1.4E+00	EqP	2.5E-02
Landbay A	A3B211	INORG	Aluminum	7429-90-5	ID	3.77E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	A3B211	INORG	Arsenic	7440-38-2	A	9.95E-01	9.90E+00	1.0E-01	1.1E+03	EqP	9.5E-04	8.6E+01	EqP	1.2E-02
Landbay A	A3B211	INORG	Barium	7440-39-3	NC	7.45E+01	2.24E+02	3.3E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.3E+01**
Landbay A	A3B211	INORG	Beryllium	7440-41-7	B1	1.87E-01	1.20E+00	1.6E-01	6.8E+03	EqP	2.8E-05	1.0E+01	EqP	1.8E-02
Landbay A	A3B211	INORG	Chromium III	16065-83-1	D	2.57E+01	2.61E+02	9.9E-02	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.6E-06
Landbay A	A3B211	INORG	Chromium VI	18540-29-9	A	6.90E-01	4.97E+00	1.4E-01	6.6E+01	LT	1.0E-02	4.4E+00	LT	1.6E-01
Landbay A	A3B211	INORG	Copper	7440-50-8	D	5.87E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay A	A3B211	INORG	Lead	7439-92-1	B2	1.19E+00						3.5E+02	EqP	3.4E-03
Landbay A	A3B211	INORG	Perchlorate	14797-73-0	NC	2.80E-03			3.4E+03	LT	8.1E-07	7.7E+02	LT	3.6E-06
Landbay A	A3B211	INORG	Strontium	7440-24-6		4.98E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.7E-02
Landbay A	A3B222	INORG	Aluminum	7429-90-5	ID	3.39E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.2E-05	2.6E+03	EqP	**1.3E+01**
Landbay A	A3B222	INORG	Arsenic	7440-38-2	A	1.44E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay A	A3B222	INORG	Barium	7440-39-3	NC	4.96E+01	2.24E+02	2.2E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.5E+01**
Landbay A	A3B222	INORG	Beryllium	7440-41-7	B1	2.26E-01	1.20E+00	1.9E-01	6.8E+03	EqP	3.3E-05	1.0E+01	EqP	2.2E-02
Landbay A	A3B222	INORG	Cadmium	7440-43-9	B1	6.06E-01	2.70E+00	2.2E-01	1.1E+03	EqP	5.6E-04	2.1E+00	EqP	2.8E-01
Landbay A	A3B222	INORG	Chromium III	16065-83-1	D	3.04E+01	2.61E+02	1.2E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	9.0E-06
Landbay A	A3B222	INORG	Copper	7440-50-8	D	5.48E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay A	A3B222	INORG	Lead	7439-92-1	B2	4.10E+00						3.5E+02	EqP	1.2E-02
Landbay A	A3B222	INORG	Perchlorate	14797-73-0	NC	2.20E-03			3.4E+03	LT	6.4E-07	7.7E+02	LT	2.8E-06
Landbay A	A3B222	INORG	Strontium	7440-24-6		5.09E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay A	A3G214	INORG	Aluminum	7429-90-5	ID	3.76E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay A	A3G214	INORG	Barium	7440-39-3	NC	5.29E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.6E+01**
Landbay A	A3G214	INORG	Beryllium	7440-41-7	B1	1.73E-01	1.20E+00	1.4E-01	6.8E+03	EqP	2.6E-05	1.0E+01	EqP	1.7E-02
Landbay A	A3G214	INORG	Chromium III	16065-83-1	D	3.44E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay A	A3G214	INORG	Copper	7440-50-8	D	6.17E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.3E+00**
Landbay A	A3G214	INORG	Lead	7439-92-1	B2	2.51E+00						3.5E+02	EqP	7.2E-03
Landbay A	A3G214	INORG	Perchlorate	14797-73-0	NC	2.10E+01			3.4E+03	LT	6.1E-03	7.7E+02	LT	2.7E-02
Landbay A	A3G214	INORG	Strontium	7440-24-6		5.38E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.3E-06	1.1E+03	EqP	5.1E-02
Landbay A	A3G217	INORG	Aluminum	7429-90-5	ID	3.59E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A3G217	INORG	Barium	7440-39-3	NC	1.54E+02	2.24E+02	6.9E-01	3.2E+05	EqP	4.8E-04	3.3E+00	EqP	**4.7E+01**
Landbay A	A3G217	INORG	Beryllium	7440-41-7	B1	4.66E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.9E-05	1.0E+01	EqP	4.5E-02
Landbay A	A3G217	INORG	Cadmium	7440-43-9	B1	8.18E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.6E-04	2.1E+00	EqP	3.8E-01
Landbay A	A3G217	INORG	Chromium III	16065-83-1	D	5.88E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.7E-05
Landbay A	A3G217	INORG	Chromium VI	18540-29-9	A	7.90E-01	4.97E+00	1.6E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.8E-01
Landbay A	A3G217	INORG	Copper	7440-50-8	D	5.51E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay A	A3G217	INORG	Lead	7439-92-1	B2	1.77E+00						3.5E+02	EqP	5.1E-03
Landbay A	A3G217	INORG	Perchlorate	14797-73-0	NC	2.50E-01			3.4E+03	LT	7.3E-05	7.7E+02	LT	3.2E-04
Landbay A	A3G217	INORG	Strontium	7440-24-6		3.44E+01	3.80E+01	9.1E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.3E-02
Landbay A	A3G220	INORG	Aluminum	7429-90-5	ID	4.43E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	A3G220	INORG	Barium	7440-39-3	NC	1.76E+02	2.24E+02	7.9E-01	3.2E+05	EqP	5.4E-04	3.3E+00	EqP	**5.3E+01**
Landbay A	A3G220	INORG	Beryllium	7440-41-7	B1	3.98E-01	1.20E+00	3.3E-01	6.8E+03	EqP	5.9E-05	1.0E+01	EqP	3.8E-02
Landbay A	A3G220	INORG	Cadmium	7440-43-9	B1	1.13E+00	2.70E+00	4.2E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.3E-01
Landbay A	A3G220	INORG	Chromium III	16065-83-1	D	8.34E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay A	A3G220	INORG	Copper	7440-50-8	D	6.48E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.7E+00**
Landbay A	A3G220	INORG	Lead	7439-92-1	B2	2.39E+00						3.5E+02	EqP	6.8E-03
Landbay A	A3G220	INORG	Mercury	7439-97-6	D	1.29E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.5E-02
Landbay A	A3G220	INORG	Perchlorate	14797-73-0	NC	6.60E+01			3.4E+03	LT	1.9E-02	7.7E+02	LT	8.5E-02
Landbay A	A3G220	INORG	Strontium	7440-24-6		3.67E+01	3.80E+01	9.7E-01	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.5E-02
Landbay A	A3G226	INORG	Perchlorate	14797-73-0	NC	1.10E-02			3.4E+03	LT	3.2E-06	7.7E+02	LT	1.4E-05
Landbay A	A3G229	INORG	Perchlorate	14797-73-0	NC	1.80E-01			3.4E+03	LT	5.2E-05	7.7E+02	LT	2.3E-04
Landbay A	A3G232	INORG	Perchlorate	14797-73-0	NC	2.30E-04			3.4E+03	LT	6.7E-08	7.7E+02	LT	3.0E-07
Landbay A	A3G235	INORG	Perchlorate	14797-73-0	NC	1.10E-03			3.4E+03	LT	3.2E-07	7.7E+02	LT	1.4E-06
Landbay A	A3S144	INORG	Aluminum	7429-90-5	ID	3.67E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A3S144	INORG	Arsenic	7440-38-2	A	3.42E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay A	A3S144	INORG	Barium	7440-39-3	NC	8.11E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	A3S144	INORG	Beryllium	7440-41-7	B1	4.94E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.3E-05	1.0E+01	EqP	4.7E-02
Landbay A	A3S144	INORG	Cadmium	7440-43-9	B1	8.10E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.5E-04	2.1E+00	EqP	3.8E-01
Landbay A	A3S144	INORG	Chromium III	16065-83-1	D	8.21E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay A	A3S144	INORG	Chromium VI	18540-29-9	A	3.15E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay A	A3S144	INORG	Cobalt	7440-48-4	LC	3.49E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	A3S144	INORG	Copper	7440-50-8	D	6.58E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.8E+00**
Landbay A	A3S144	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	A3S144	INORG	Lead	7439-92-1	B2	1.55E+01						3.5E+02	EqP	4.4E-02
Landbay A	A3S144	INORG	Manganese	7439-96-5	D	9.46E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.0E-03	1.6E+02	EqP	**6.0E+00**
Landbay A	A3S144	INORG	Mercury	7439-97-6	D	1.96E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.3E-02
Landbay A	A3S144	INORG	Nickel	7440-02-0	A	3.70E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay A	A3S144	INORG	Perchlorate	14797-73-0	NC	2.30E+01			3.4E+03	LT	6.7E-03	7.7E+02	LT	3.0E-02
Landbay A	A3S144	INORG	Silver	7440-22-4	D	3.17E-01	2.30E+00	1.4E-01	3.8E+03	LT	8.5E-05	2.7E+00	LT	1.2E-01
Landbay A	A3S144	INORG	Thallium	7440-28-0	ID	9.67E-01	4.50E+00	2.1E-01				1.1E+00	EqP	8.5E-01
Landbay A	A3S144	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	A3S144	INORG	Zinc	7440-66-6	ID	5.92E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay A	A3S145	PCB	PCBs (total)	1336-36-3	B2	1.58E-01				NA		1.4E+00	EqP	1.1E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	A3S145	INORG	Aluminum	7429-90-5	ID	3.67E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A3S145	INORG	Arsenic	7440-38-2	A	3.42E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay A	A3S145	INORG	Barium	7440-39-3	NC	8.11E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	A3S145	INORG	Beryllium	7440-41-7	B1	4.94E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.3E-05	1.0E+01	EqP	4.7E-02
Landbay A	A3S145	INORG	Cadmium	7440-43-9	B1	8.10E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.5E-04	2.1E+00	EqP	3.8E-01
Landbay A	A3S145	INORG	Chromium III	16065-83-1	D	8.21E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay A	A3S145	INORG	Chromium VI	18540-29-9	A	3.15E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay A	A3S145	INORG	Cobalt	7440-48-4	LC	3.49E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	A3S145	INORG	Copper	7440-50-8	D	6.58E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.8E+00**
Landbay A	A3S145	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	A3S145	INORG	Lead	7439-92-1	B2	1.55E+01						3.5E+02	EqP	4.4E-02
Landbay A	A3S145	INORG	Manganese	7439-96-5	D	9.46E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.0E-03	1.6E+02	EqP	**6.0E+00**
Landbay A	A3S145	INORG	Mercury	7439-97-6	D	1.96E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.3E-02
Landbay A	A3S145	INORG	Nickel	7440-02-0	A	3.70E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay A	A3S145	INORG	Silver	7440-22-4	D	3.17E-01	2.30E+00	1.4E-01	3.8E+03	LT	8.5E-05	2.7E+00	LT	1.2E-01
Landbay A	A3S145	INORG	Thallium	7440-28-0	ID	9.67E-01	4.50E+00	2.1E-01				1.1E+00	EqP	8.5E-01
Landbay A	A3S145	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	A3S145	INORG	Zinc	7440-66-6	ID	5.92E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay A	A3S146	PCB	PCBs (total)	1336-36-3	B2	1.58E-01				NA		1.4E+00	EqP	1.1E-01
Landbay A	A3S146	INORG	Aluminum	7429-90-5	ID	3.67E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A3S146	INORG	Arsenic	7440-38-2	A	3.42E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay A	A3S146	INORG	Barium	7440-39-3	NC	8.11E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	A3S146	INORG	Beryllium	7440-41-7	B1	4.94E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.3E-05	1.0E+01	EqP	4.7E-02
Landbay A	A3S146	INORG	Cadmium	7440-43-9	B1	8.10E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.5E-04	2.1E+00	EqP	3.8E-01
Landbay A	A3S146	INORG	Chromium III	16065-83-1	D	8.21E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay A	A3S146	INORG	Chromium VI	18540-29-9	A	3.15E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay A	A3S146	INORG	Cobalt	7440-48-4	LC	3.49E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	A3S146	INORG	Copper	7440-50-8	D	6.58E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.8E+00**
Landbay A	A3S146	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	A3S146	INORG	Lead	7439-92-1	B2	1.55E+01						3.5E+02	EqP	4.4E-02
Landbay A	A3S146	INORG	Manganese	7439-96-5	D	9.46E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.0E-03	1.6E+02	EqP	**6.0E+00**
Landbay A	A3S146	INORG	Mercury	7439-97-6	D	1.96E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.3E-02
Landbay A	A3S146	INORG	Nickel	7440-02-0	A	3.70E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay A	A3S146	INORG	Silver	7440-22-4	D	3.17E-01	2.30E+00	1.4E-01	3.8E+03	LT	8.5E-05	2.7E+00	LT	1.2E-01
Landbay A	A3S146	INORG	Thallium	7440-28-0	ID	9.67E-01	4.50E+00	2.1E-01				1.1E+00	EqP	8.5E-01
Landbay A	A3S146	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	A3S146	INORG	Zinc	7440-66-6	ID	5.92E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay A	A3S147	PCB	PCBs (total)	1336-36-3	B2	1.58E-01				NA		1.4E+00	EqP	1.1E-01
Landbay A	A3S147	INORG	Aluminum	7429-90-5	ID	3.67E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A3S147	INORG	Arsenic	7440-38-2	A	3.42E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay A	A3S147	INORG	Barium	7440-39-3	NC	8.11E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	A3S147	INORG	Beryllium	7440-41-7	B1	4.94E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.3E-05	1.0E+01	EqP	4.7E-02
Landbay A	A3S147	INORG	Cadmium	7440-43-9	B1	8.10E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.5E-04	2.1E+00	EqP	3.8E-01
Landbay A	A3S147	INORG	Chromium III	16065-83-1	D	8.21E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay A	A3S147	INORG	Chromium VI	18540-29-9	A	3.15E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay A	A3S147	INORG	Cobalt	7440-48-4	LC	3.49E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.7E+00**
Landbay A	A3S147	INORG	Copper	7440-50-8	D	6.58E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.8E+00**
Landbay A	A3S147	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay A	A3S147	INORG	Lead	7439-92-1	B2	1.55E+01						3.5E+02	EqP	4.4E-02
Landbay A	A3S147	INORG	Manganese	7439-96-5	D	9.46E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.0E-03	1.6E+02	EqP	**6.0E+00**
Landbay A	A3S147	INORG	Mercury	7439-97-6	D	1.96E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.3E-02
Landbay A	A3S147	INORG	Nickel	7440-02-0	A	3.70E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay A	A3S147	INORG	Silver	7440-22-4	D	3.17E-01	2.30E+00	1.4E-01	3.8E+03	LT	8.5E-05	2.7E+00	LT	1.2E-01
Landbay A	A3S147	INORG	Thallium	7440-28-0	ID	9.67E-01	4.50E+00	2.1E-01				1.1E+00	EqP	8.5E-01
Landbay A	A3S147	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay A	A3S147	INORG	Zinc	7440-66-6	ID	5.92E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay A	A4S140	INORG	Aluminum	7429-90-5	ID	3.55E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A4S140	INORG	Arsenic	7440-38-2	A	3.66E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay A	A4S140	INORG	Barium	7440-39-3	NC	1.33E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay A	A4S140	INORG	Beryllium	7440-41-7	B1	1.34E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	2.0E-04	1.0E+01	EqP	1.3E-01
Landbay A	A4S140	INORG	Cadmium	7440-43-9	B1	8.04E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.4E-04	2.1E+00	EqP	3.8E-01
Landbay A	A4S140	INORG	Chromium III	16065-83-1	D	5.57E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	A4S140	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	A4S140	INORG	Cobalt	7440-48-4	LC	2.30E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay A	A4S140	INORG	Copper	7440-50-8	D	1.58E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay A	A4S140	INORG	Iron	7439-89-6	D	4.81E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay A	A4S140	INORG	Lead	7439-92-1	B2	1.32E+01						3.5E+02	EqP	3.8E-02
Landbay A	A4S140	INORG	Manganese	7439-96-5	D	6.45E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.1E-03	1.6E+02	EqP	**4.1E+00**
Landbay A	A4S140	INORG	Mercury	7439-97-6	D	1.77E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.8E-02
Landbay A	A4S140	INORG	Nickel	7440-02-0	A	2.63E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.8E-01
Landbay A	A4S140	INORG	Perchlorate	14797-73-0	NC	2.30E-03			3.4E+03	LT	6.7E-07	7.7E+02	LT	3.0E-06
Landbay A	A4S140	INORG	Vanadium	7440-62-2	ID	1.22E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.9E-04	4.0E+02	EqP	3.0E-01
Landbay A	A4S140	INORG	Zinc	7440-66-6	ID	3.94E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay A	A4S141	INORG	Aluminum	7429-90-5	ID	3.55E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A4S141	INORG	Arsenic	7440-38-2	A	3.66E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay A	A4S141	INORG	Barium	7440-39-3	NC	1.33E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay A	A4S141	INORG	Beryllium	7440-41-7	B1	1.34E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	2.0E-04	1.0E+01	EqP	1.3E-01
Landbay A	A4S141	INORG	Cadmium	7440-43-9	B1	8.04E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.4E-04	2.1E+00	EqP	3.8E-01
Landbay A	A4S141	INORG	Chromium III	16065-83-1	D	5.57E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	A4S141	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	A4S141	INORG	Cobalt	7440-48-4	LC	2.30E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay A	A4S141	INORG	Copper	7440-50-8	D	1.58E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay A	A4S141	INORG	Iron	7439-89-6	D	4.81E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay A	A4S141	INORG	Lead	7439-92-1	B2	1.32E+01						3.5E+02	EqP	3.8E-02
Landbay A	A4S141	INORG	Manganese	7439-96-5	D	6.45E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.1E-03	1.6E+02	EqP	**4.1E+00**
Landbay A	A4S141	INORG	Mercury	7439-97-6	D	1.77E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.8E-02
Landbay A	A4S141	INORG	Nickel	7440-02-0	A	2.63E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.8E-01
Landbay A	A4S141	INORG	Perchlorate	14797-73-0	NC	2.30E-03			3.4E+03	LT	6.7E-07	7.7E+02	LT	3.0E-06
Landbay A	A4S141	INORG	Vanadium	7440-62-2	ID	1.22E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.9E-04	4.0E+02	EqP	3.0E-01
Landbay A	A4S141	INORG	Zinc	7440-66-6	ID	3.94E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay A	A4S142	INORG	Aluminum	7429-90-5	ID	3.55E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A4S142	INORG	Arsenic	7440-38-2	A	3.66E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay A	A4S142	INORG	Barium	7440-39-3	NC	1.33E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay A	A4S142	INORG	Beryllium	7440-41-7	B1	1.34E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	2.0E-04	1.0E+01	EqP	1.3E-01
Landbay A	A4S142	INORG	Cadmium	7440-43-9	B1	8.04E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.4E-04	2.1E+00	EqP	3.8E-01
Landbay A	A4S142	INORG	Chromium III	16065-83-1	D	5.57E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	A4S142	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	A4S142	INORG	Cobalt	7440-48-4	LC	2.30E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay A	A4S142	INORG	Copper	7440-50-8	D	1.58E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay A	A4S142	INORG	Iron	7439-89-6	D	4.81E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay A	A4S142	INORG	Lead	7439-92-1	B2	1.32E+01						3.5E+02	EqP	3.8E-02
Landbay A	A4S142	INORG	Manganese	7439-96-5	D	6.45E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.1E-03	1.6E+02	EqP	**4.1E+00**
Landbay A	A4S142	INORG	Mercury	7439-97-6	D	1.77E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.8E-02
Landbay A	A4S142	INORG	Nickel	7440-02-0	A	2.63E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.8E-01
Landbay A	A4S142	INORG	Perchlorate	14797-73-0	NC	2.30E-03			3.4E+03	LT	6.7E-07	7.7E+02	LT	3.0E-06
Landbay A	A4S142	INORG	Vanadium	7440-62-2	ID	1.22E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.9E-04	4.0E+02	EqP	3.0E-01
Landbay A	A4S142	INORG	Zinc	7440-66-6	ID	3.94E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay A	A4S143	INORG	Aluminum	7429-90-5	ID	3.55E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	A4S143	INORG	Arsenic	7440-38-2	A	3.66E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay A	A4S143	INORG	Barium	7440-39-3	NC	1.33E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay A	A4S143	INORG	Beryllium	7440-41-7	B1	1.34E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	2.0E-04	1.0E+01	EqP	1.3E-01
Landbay A	A4S143	INORG	Cadmium	7440-43-9	B1	8.04E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.4E-04	2.1E+00	EqP	3.8E-01
Landbay A	A4S143	INORG	Chromium III	16065-83-1	D	5.57E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay A	A4S143	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	A4S143	INORG	Cobalt	7440-48-4	LC	2.30E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay A	A4S143	INORG	Copper	7440-50-8	D	1.58E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay A	A4S143	INORG	Iron	7439-89-6	D	4.81E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay A	A4S143	INORG	Lead	7439-92-1	B2	1.32E+01						3.5E+02	EqP	3.8E-02
Landbay A	A4S143	INORG	Manganese	7439-96-5	D	6.45E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.1E-03	1.6E+02	EqP	**4.1E+00**
Landbay A	A4S143	INORG	Mercury	7439-97-6	D	1.77E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.8E-02
Landbay A	A4S143	INORG	Nickel	7440-02-0	A	2.63E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.8E-01
Landbay A	A4S143	INORG	Perchlorate	14797-73-0	NC	2.30E-03			3.4E+03	LT	6.7E-07	7.7E+02	LT	3.0E-06
Landbay A	A4S143	INORG	Vanadium	7440-62-2	ID	1.22E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.9E-04	4.0E+02	EqP	3.0E-01
Landbay A	A4S143	INORG	Zinc	7440-66-6	ID	3.94E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay A	A5-1	INORG	Perchlorate	14797-73-0	NC	7.50E-04			3.4E+03	LT	2.2E-07	7.7E+02	LT	9.7E-07
Landbay A	A5-4	INORG	Perchlorate	14797-73-0	NC	2.80E-03			3.4E+03	LT	8.1E-07	7.7E+02	LT	3.6E-06
Landbay A	A5B268	VOC	Acetone	67-64-1	ID	4.20E-02			2.0E+06	LT	2.1E-08	6.0E+02	LT	7.0E-05
Landbay A	A5B268	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.50E-03				NA			NA	
Landbay A	A5B268	INORG	Perchlorate	14797-73-0	NC	4.90E-04			3.4E+03	LT	1.4E-07	7.7E+02	LT	6.3E-07
Landbay A	A5S148	INORG	Aluminum	7429-90-5	ID	2.97E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	A5S148	INORG	Arsenic	7440-38-2	A	4.81E+00	9.90E+00	4.9E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay A	A5S148	INORG	Barium	7440-39-3	NC	8.58E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay A	A5S148	INORG	Beryllium	7440-41-7	B1	8.65E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	A5S148	INORG	Cadmium	7440-43-9	B1	8.62E-01	2.70E+00	3.2E-01	1.1E+03	EqP	8.0E-04	2.1E+00	EqP	4.0E-01
Landbay A	A5S148	INORG	Chromium III	16065-83-1	D	5.44E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay A	A5S148	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay A	A5S148	INORG	Cobalt	7440-48-4	LC	3.00E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.4E+00**
Landbay A	A5S148	INORG	Copper	7440-50-8	D	6.09E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.2E+00**
Landbay A	A5S148	INORG	Iron	7439-89-6	D	4.31E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.9E-03	1.5E+02	EqP	**2.8E+02**
Landbay A	A5S148	INORG	Lead	7439-92-1	B2	1.88E+01						3.5E+02	EqP	5.4E-02
Landbay A	A5S148	INORG	Manganese	7439-96-5	D	1.02E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.5E+00**
Landbay A	A5S148	INORG	Mercury	7439-97-6	D	8.47E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay A	A5S148	INORG	Nickel	7440-02-0	A	2.50E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay A	A5S148	INORG	Perchlorate	14797-73-0	NC	2.50E-03			3.4E+03	LT	7.3E-07	7.7E+02	LT	3.2E-06
Landbay A	A5S148	INORG	Vanadium	7440-62-2	ID	1.16E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.5E-04	4.0E+02	EqP	2.9E-01
Landbay A	A5S148	INORG	Zinc	7440-66-6	ID	7.48E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	A5S149	INORG	Aluminum	7429-90-5	ID	2.97E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	A5S149	INORG	Arsenic	7440-38-2	A	4.81E+00	9.90E+00	4.9E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay A	A5S149	INORG	Barium	7440-39-3	NC	8.58E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay A	A5S149	INORG	Beryllium	7440-41-7	B1	8.65E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay A	A5S149	INORG	Cadmium	7440-43-9	B1	8.62E-01	2.70E+00	3.2E-01	1.1E+03	EqP	8.0E-04	2.1E+00	EqP	4.0E-01
Landbay A	A5S149	INORG	Chromium III	16065-83-1	D	5.44E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay A	A5S149	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay A	A5S149	INORG	Cobalt	7440-48-4	LC	3.00E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.4E+00**
Landbay A	A5S149	INORG	Copper	7440-50-8	D	6.09E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.2E+00**
Landbay A	A5S149	INORG	Iron	7439-89-6	D	4.31E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.9E-03	1.5E+02	EqP	**2.8E+02**
Landbay A	A5S149	INORG	Lead	7439-92-1	B2	1.88E+01						3.5E+02	EqP	5.4E-02
Landbay A	A5S149	INORG	Manganese	7439-96-5	D	1.02E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.5E+00**
Landbay A	A5S149	INORG	Mercury	7439-97-6	D	8.47E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay A	A5S149	INORG	Nickel	7440-02-0	A	2.50E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay A	A5S149	INORG	Perchlorate	14797-73-0	NC	5.80E-03			3.4E+03	LT	1.7E-06	7.7E+02	LT	7.5E-06
Landbay A	A5S149	INORG	Vanadium	7440-62-2	ID	1.16E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.5E-04	4.0E+02	EqP	2.9E-01
Landbay A	A5S149	INORG	Zinc	7440-66-6	ID	7.48E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	A5S150	INORG	Aluminum	7429-90-5	ID	2.97E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	A5S150	INORG	Arsenic	7440-38-2	A	4.81E+00	9.90E+00	4.9E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay A	A5S150	INORG	Barium	7440-39-3	NC	8.58E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay A	A5S150	INORG	Beryllium	7440-41-7	B1	8.65E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay A	A5S150	INORG	Cadmium	7440-43-9	B1	8.62E-01	2.70E+00	3.2E-01	1.1E+03	EqP	8.0E-04	2.1E+00	EqP	4.0E-01
Landbay A	A5S150	INORG	Chromium III	16065-83-1	D	5.44E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay A	A5S150	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay A	A5S150	INORG	Cobalt	7440-48-4	LC	3.00E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.4E+00**
Landbay A	A5S150	INORG	Copper	7440-50-8	D	6.09E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.2E+00**
Landbay A	A5S150	INORG	Iron	7439-89-6	D	4.31E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.9E-03	1.5E+02	EqP	**2.8E+02**
Landbay A	A5S150	INORG	Lead	7439-92-1	B2	1.88E+01						3.5E+02	EqP	5.4E-02
Landbay A	A5S150	INORG	Manganese	7439-96-5	D	1.02E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.5E+00**
Landbay A	A5S150	INORG	Mercury	7439-97-6	D	8.47E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay A	A5S150	INORG	Nickel	7440-02-0	A	2.50E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay A	A5S150	INORG	Perchlorate	14797-73-0	NC	3.40E-04			3.4E+03	LT	9.9E-08	7.7E+02	LT	4.4E-07
Landbay A	A5S150	INORG	Vanadium	7440-62-2	ID	1.16E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.5E-04	4.0E+02	EqP	2.9E-01
Landbay A	A5S150	INORG	Zinc	7440-66-6	ID	7.48E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	A5S151	INORG	Aluminum	7429-90-5	ID	2.97E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	A5S151	INORG	Arsenic	7440-38-2	A	4.81E+00	9.90E+00	4.9E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay A	A5S151	INORG	Barium	7440-39-3	NC	8.58E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay A	A5S151	INORG	Beryllium	7440-41-7	B1	8.65E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay A	A5S151	INORG	Cadmium	7440-43-9	B1	8.62E-01	2.70E+00	3.2E-01	1.1E+03	EqP	8.0E-04	2.1E+00	EqP	4.0E-01
Landbay A	A5S151	INORG	Chromium III	16065-83-1	D	5.44E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay A	A5S151	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay A	A5S151	INORG	Cobalt	7440-48-4	LC	3.00E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.4E+00**
Landbay A	A5S151	INORG	Copper	7440-50-8	D	6.09E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.2E+00**
Landbay A	A5S151	INORG	Iron	7439-89-6	D	4.31E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.9E-03	1.5E+02	EqP	**2.8E+02**
Landbay A	A5S151	INORG	Lead	7439-92-1	B2	1.88E+01						3.5E+02	EqP	5.4E-02
Landbay A	A5S151	INORG	Manganese	7439-96-5	D	1.02E+03	4.27E+03	2.4E-01	3.1E+05	EqP	3.3E-03	1.6E+02	EqP	**6.5E+00**
Landbay A	A5S151	INORG	Mercury	7439-97-6	D	8.47E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay A	A5S151	INORG	Nickel	7440-02-0	A	2.50E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay A	A5S151	INORG	Perchlorate	14797-73-0	NC	2.50E-03			3.4E+03	LT	7.3E-07	7.7E+02	LT	3.2E-06
Landbay A	A5S151	INORG	Vanadium	7440-62-2	ID	1.16E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.5E-04	4.0E+02	EqP	2.9E-01
Landbay A	A5S151	INORG	Zinc	7440-66-6	ID	7.48E+01	1.02E+02	7.3E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	3.9E-01
Landbay A	AB-01	INORG	Aluminum	7429-90-5	ID	2.05E+04	5.34E+04	3.8E-01	3.7E+08	EqP	5.5E-05	2.6E+03	EqP	**7.9E+00**
Landbay A	AB-01	INORG	Barium	7440-39-3	NC	9.37E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay A	AB-01	INORG	Boron	7440-42-8	ID	1.40E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay A	AB-01	INORG	Cadmium	7440-43-9	B1	2.15E+00	2.70E+00	8.0E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay A	AB-01	INORG	Chromium III	16065-83-1	D	7.43E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay A	AB-01	INORG	Chromium VI	18540-29-9	A	1.60E+00	4.97E+00	3.2E-01	6.6E+01	LT	2.4E-02	4.4E+00	LT	3.6E-01
Landbay A	AB-01	INORG	Lead	7439-92-1	B2	4.31E+01						3.5E+02	EqP	1.2E-01
Landbay A	AB-01	INORG	Molybdenum	7439-98-7		5.47E-01			2.5E+04	EqP	2.2E-05	3.0E+01	EqP	1.9E-02
Landbay A	AB-01	INORG	Strontium	7440-24-6		1.42E+01	3.80E+01	3.7E-01	1.6E+07	EqP	8.7E-07	1.1E+03	EqP	1.3E-02
Landbay A	AB-01	INORG	Zinc	7440-66-6	ID	4.99E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay A	AB-01	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	4.77E-07			3.3E-03	EqP	1.4E-04	4.1E-04	EqP	1.2E-03
Landbay A	AB-02	INORG	Aluminum	7429-90-5	ID	2.78E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	AB-02	INORG	Barium	7440-39-3	NC	1.75E+02	2.24E+02	7.8E-01	3.2E+05	EqP	5.4E-04	3.3E+00	EqP	**5.3E+01**
Landbay A	AB-02	INORG	Boron	7440-42-8	ID	1.74E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.7E+01**
Landbay A	AB-02	INORG	Cadmium	7440-43-9	B1	4.57E+01	2.70E+00	**1.7E+01**	1.1E+03	EqP	4.2E-02	2.1E+00	EqP	**2.1E+01**
Landbay A	AB-02	INORG	Chromium III	16065-83-1	D	1.05E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.9E-09	3.4E+06	EqP	3.1E-05
Landbay A	AB-02	INORG	Lead	7439-92-1	B2	4.67E+01						3.5E+02	EqP	1.3E-01
Landbay A	AB-02	INORG	Molybdenum	7439-98-7		5.87E-01			2.5E+04	EqP	2.4E-05	3.0E+01	EqP	2.0E-02
Landbay A	AB-02	INORG	Strontium	7440-24-6		1.45E+01	3.80E+01	3.8E-01	1.6E+07	EqP	8.9E-07	1.1E+03	EqP	1.4E-02
Landbay A	AB-02	INORG	Zinc	7440-66-6	ID	7.96E+01	1.02E+02	7.8E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.2E-01
Landbay A	AB-04	INORG	Aluminum	7429-90-5	ID	2.22E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay A	AB-04	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay A	AB-04	INORG	Boron	7440-42-8	ID	1.63E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.5E+01**
Landbay A	AB-04	INORG	Cadmium	7440-43-9	B1	2.07E+00	2.70E+00	7.7E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.7E-01
Landbay A	AB-04	INORG	Chromium III	16065-83-1	D	1.03E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay A	AB-04	INORG	Lead	7439-92-1	B2	2.95E+01						3.5E+02	EqP	8.4E-02
Landbay A	AB-04	INORG	Strontium	7440-24-6		9.57E+00	3.80E+01	2.5E-01	1.6E+07	EqP	5.9E-07	1.1E+03	EqP	9.1E-03
Landbay A	AB-04	INORG	Zinc	7440-66-6	ID	4.61E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.4E-06	1.9E+02	EqP	2.4E-01
Landbay A	AB-05	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay A	AB-05	INORG	Barium	7440-39-3	NC	2.19E+02	2.24E+02	9.8E-01	3.2E+05	EqP	6.8E-04	3.3E+00	EqP	**6.6E+01**
Landbay A	AB-05	INORG	Boron	7440-42-8	ID	1.78E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.8E+01**
Landbay A	AB-05	INORG	Cadmium	7440-43-9	B1	1.93E+00	2.70E+00	7.1E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.0E-01
Landbay A	AB-05	INORG	Chromium III	16065-83-1	D	8.42E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay A	AB-05	INORG	Chromium VI	18540-29-9	A	2.10E+00	4.97E+00	4.2E-01	6.6E+01	LT	3.2E-02	4.4E+00	LT	4.8E-01
Landbay A	AB-05	INORG	Lead	7439-92-1	B2	4.57E+01						3.5E+02	EqP	1.3E-01
Landbay A	AB-05	INORG	Strontium	7440-24-6		1.05E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.5E-07	1.1E+03	EqP	1.0E-02
Landbay A	AB-05	INORG	Zinc	7440-66-6	ID	5.47E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay A	AB-07	INORG	Aluminum	7429-90-5	ID	3.22E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.7E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	AB-07	INORG	Barium	7440-39-3	NC	1.53E+02	2.24E+02	6.8E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay A	AB-07	INORG	Boron	7440-42-8	ID	1.56E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.6E-05	6.4E-01	LT	**2.4E+01**
Landbay A	AB-07	INORG	Cadmium	7440-43-9	B1	1.59E+00	2.70E+00	5.9E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.4E-01
Landbay A	AB-07	INORG	Chromium III	16065-83-1	D	1.63E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.6E-09	3.4E+06	EqP	4.8E-05
Landbay A	AB-07	INORG	Lead	7439-92-1	B2	3.17E+01						3.5E+02	EqP	9.0E-02
Landbay A	AB-07	INORG	Perchlorate	14797-73-0	NC	3.30E-04			3.4E+03	LT	9.6E-08	7.7E+02	LT	4.3E-07
Landbay A	AB-07	INORG	Strontium	7440-24-6		1.69E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay A	AB-07	INORG	Zinc	7440-66-6	ID	6.38E+01	1.02E+02	6.3E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay A	AB-07	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	1.36E-07			3.3E-03	EqP	4.1E-05	4.1E-04	EqP	3.3E-04
Landbay A	AB-08	INORG	Aluminum	7429-90-5	ID	3.64E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay A	AB-08	INORG	Barium	7440-39-3	NC	1.35E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay A	AB-08	INORG	Boron	7440-42-8	ID	2.18E+01	1.34E+01	**1.6E+00**	9.9E+05	LT	2.2E-05	6.4E-01	LT	**3.4E+01**
Landbay A	AB-08	INORG	Cadmium	7440-43-9	B1	2.10E+00	2.70E+00	7.8E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.8E-01
Landbay A	AB-08	INORG	Chromium III	16065-83-1	D	2.09E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay A	AB-08	INORG	Lead	7439-92-1	B2	3.83E+01						3.5E+02	EqP	1.1E-01
Landbay A	AB-08	INORG	Strontium	7440-24-6		1.06E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.5E-07	1.1E+03	EqP	1.0E-02
Landbay A	AB-08	INORG	Zinc	7440-66-6	ID	6.31E+01	1.02E+02	6.2E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.3E-01
Landbay A	AB-09	INORG	Aluminum	7429-90-5	ID	2.89E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	AB-09	INORG	Barium	7440-39-3	NC	1.35E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay A	AB-09	INORG	Boron	7440-42-8	ID	1.95E+01	1.34E+01	**1.5E+00**	9.9E+05	LT	2.0E-05	6.4E-01	LT	**3.0E+01**
Landbay A	AB-09	INORG	Cadmium	7440-43-9	B1	1.79E+00	2.70E+00	6.6E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.4E-01
Landbay A	AB-09	INORG	Chromium III	16065-83-1	D	1.59E+02	2.61E+02	6.1E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.7E-05
Landbay A	AB-09	INORG	Lead	7439-92-1	B2	4.76E+01						3.5E+02	EqP	1.4E-01
Landbay A	AB-09	INORG	Strontium	7440-24-6		1.78E+01	3.80E+01	4.7E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay A	AB-09	INORG	Zinc	7440-66-6	ID	5.80E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.0E-01
Landbay A	AB-09	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	7.19E-07			3.3E-03	EqP	2.2E-04	4.1E-04	EqP	1.8E-03
Landbay A	AB-10	INORG	Aluminum	7429-90-5	ID	3.12E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	AB-10	INORG	Barium	7440-39-3	NC	1.87E+02	2.24E+02	8.3E-01	3.2E+05	EqP	5.8E-04	3.3E+00	EqP	**5.7E+01**
Landbay A	AB-10	INORG	Boron	7440-42-8	ID	2.16E+01	1.34E+01	**1.6E+00**	9.9E+05	LT	2.2E-05	6.4E-01	LT	**3.4E+01**
Landbay A	AB-10	INORG	Cadmium	7440-43-9	B1	2.27E+00	2.70E+00	8.4E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay A	AB-10	INORG	Chromium III	16065-83-1	D	1.87E+02	2.61E+02	7.2E-01	2.1E+10	EqP	8.8E-09	3.4E+06	EqP	5.5E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	AB-10	INORG	Chromium VI	18540-29-9	A	6.80E+00	4.97E+00	**1.4E+00**	6.6E+01	LT	1.0E-01	4.4E+00	LT	**1.5E+00**
Landbay A	AB-10	INORG	Lead	7439-92-1	B2	7.17E+01						3.5E+02	EqP	2.0E-01
Landbay A	AB-10	INORG	Strontium	7440-24-6		1.07E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.6E-07	1.1E+03	EqP	1.0E-02
Landbay A	AB-10	INORG	Zinc	7440-66-6	ID	7.30E+01	1.02E+02	7.2E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay A	AB-11	INORG	Aluminum	7429-90-5	ID	2.68E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	AB-11	INORG	Barium	7440-39-3	NC	1.50E+02	2.24E+02	6.7E-01	3.2E+05	EqP	4.6E-04	3.3E+00	EqP	**4.5E+01**
Landbay A	AB-11	INORG	Boron	7440-42-8	ID	1.98E+01	1.34E+01	**1.5E+00**	9.9E+05	LT	2.0E-05	6.4E-01	LT	**3.1E+01**
Landbay A	AB-11	INORG	Cadmium	7440-43-9	B1	1.79E+00	2.70E+00	6.6E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.4E-01
Landbay A	AB-11	INORG	Chromium III	16065-83-1	D	1.61E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay A	AB-11	INORG	Chromium VI	18540-29-9	A	1.30E+00	4.97E+00	2.6E-01	6.6E+01	LT	2.0E-02	4.4E+00	LT	3.0E-01
Landbay A	AB-11	INORG	Lead	7439-92-1	B2	4.04E+01						3.5E+02	EqP	1.2E-01
Landbay A	AB-11	INORG	Strontium	7440-24-6		9.30E+00	3.80E+01	2.4E-01	1.6E+07	EqP	5.7E-07	1.1E+03	EqP	8.8E-03
Landbay A	AB-11	INORG	Zinc	7440-66-6	ID	5.17E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay A	AB-12	INORG	Aluminum	7429-90-5	ID	2.37E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.1E+00**
Landbay A	AB-12	INORG	Barium	7440-39-3	NC	1.22E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay A	AB-12	INORG	Boron	7440-42-8	ID	2.04E+01	1.34E+01	**1.5E+00**	9.9E+05	LT	2.1E-05	6.4E-01	LT	**3.2E+01**
Landbay A	AB-12	INORG	Cadmium	7440-43-9	B1	2.12E+00	2.70E+00	7.9E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	9.9E-01
Landbay A	AB-12	INORG	Chromium III	16065-83-1	D	1.68E+02	2.61E+02	6.4E-01	2.1E+10	EqP	7.9E-09	3.4E+06	EqP	5.0E-05
Landbay A	AB-12	INORG	Chromium VI	18540-29-9	A	1.67E+00	4.97E+00	3.4E-01	6.6E+01	LT	2.5E-02	4.4E+00	LT	3.8E-01
Landbay A	AB-12	INORG	Lead	7439-92-1	B2	4.94E+01						3.5E+02	EqP	1.4E-01
Landbay A	AB-12	INORG	Strontium	7440-24-6		8.80E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.4E-07	1.1E+03	EqP	8.3E-03
Landbay A	AB-12	INORG	Zinc	7440-66-6	ID	4.80E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay A	AB-12	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	3.93E-07			3.3E-03	EqP	1.2E-04	4.1E-04	EqP	9.7E-04
Landbay A	Bldg 34-35-36	VOC	Acetone	67-64-1	ID	1.00E-01			2.0E+06	LT	4.9E-08	6.0E+02	LT	1.7E-04
Landbay A	Bldg 34-35-36	VOC	Carbon Disulfide	75-15-0		2.00E-03			1.4E+04	LT	1.4E-07	3.7E-01	LT	5.4E-03
Landbay A	CARD GAP B1	INORG	Perchlorate	14797-73-0	NC	2.65E-03			3.4E+03	LT	7.7E-07	7.7E+02	LT	3.4E-06
Landbay A	CARD GAP B1	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	2.35E-01				NA		6.0E+01	LT	3.9E-03
Landbay A	DP-23	INORG	Arsenic	7440-38-2	A	8.90E+00	9.90E+00	9.0E-01	1.1E+03	EqP	8.5E-03	8.6E+01	EqP	1.0E-01
Landbay A	DP-23	INORG	Beryllium	7440-41-7	B1	8.52E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay A	DP-23	INORG	Cadmium	7440-43-9	B1	1.75E+00	2.70E+00	6.5E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.2E-01
Landbay A	DP-23	INORG	Chromium III	16065-83-1	D	4.70E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay A	DP-23	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	DP-23	INORG	Copper	7440-50-8	D	2.64E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.6E-05	8.4E+00	EqP	**3.1E+00**
Landbay A	DP-23	INORG	Lead	7439-92-1	B2	2.98E+01						3.5E+02	EqP	8.5E-02
Landbay A	DP-23	INORG	Mercury	7439-97-6	D	3.07E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.3E-02
Landbay A	DP-23	INORG	Nickel	7440-02-0	A	1.43E+01	7.30E+01	2.0E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.2E-01
Landbay A	DP-23	INORG	Thallium	7440-28-0	ID	4.38E+00	4.50E+00	9.7E-01				1.1E+00	EqP	**3.8E+00**
Landbay A	DP-23	INORG	Zinc	7440-66-6	ID	5.06E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.3E-06	1.9E+02	EqP	2.7E-01
Landbay A	DP-29	PCB	PCBs (total)	1336-36-3	B2	7.98E-02				NA		1.4E+00	EqP	5.8E-02
Landbay A	DP-29	INORG	Arsenic	7440-38-2	A	6.94E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay A	DP-29	INORG	Beryllium	7440-41-7	B1	8.29E-01	1.20E+00	6.9E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay A	DP-29	INORG	Cadmium	7440-43-9	B1	1.55E+00	2.70E+00	5.7E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.2E-01
Landbay A	DP-29	INORG	Chromium III	16065-83-1	D	2.73E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.3E-09	3.4E+06	EqP	8.1E-06
Landbay A	DP-29	INORG	Chromium VI	18540-29-9	A	2.78E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay A	DP-29	INORG	Copper	7440-50-8	D	7.59E+01	1.31E+02	5.8E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**9.0E+00**
Landbay A	DP-29	INORG	Lead	7439-92-1	B2	1.86E+01						3.5E+02	EqP	5.3E-02
Landbay A	DP-29	INORG	Mercury	7439-97-6	D	2.54E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay A	DP-29	INORG	Nickel	7440-02-0	A	2.40E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.1E-01
Landbay A	DP-29	INORG	Thallium	7440-28-0	ID	3.51E+00	4.50E+00	7.8E-01				1.1E+00	EqP	**3.1E+00**
Landbay A	DP-29	INORG	Zinc	7440-66-6	ID	6.10E+01	1.02E+02	6.0E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay A	GP 100-05	INORG	Perchlorate	14797-73-0	NC	2.65E-02			3.4E+03	LT	7.7E-06	7.7E+02	LT	3.4E-05
Landbay A	GP 103-02	INORG	Perchlorate	14797-73-0	NC	4.40E-02			3.4E+03	LT	1.3E-05	7.7E+02	LT	5.7E-05
Landbay A	GP 105-01	INORG	Perchlorate	14797-73-0	NC	3.80E-02			3.4E+03	LT	1.1E-05	7.7E+02	LT	4.9E-05
Landbay A	GP 105-06	INORG	Perchlorate	14797-73-0	NC	3.02E+00			3.4E+03	LT	8.8E-04	7.7E+02	LT	3.9E-03
Landbay A	GP 105-07	INORG	Perchlorate	14797-73-0	NC	3.02E-01			3.4E+03	LT	8.8E-05	7.7E+02	LT	3.9E-04
Landbay A	GP 105-08	INORG	Perchlorate	14797-73-0	NC	1.20E-01			3.4E+03	LT	3.5E-05	7.7E+02	LT	1.6E-04
Landbay A	GP 105-09	INORG	Perchlorate	14797-73-0	NC	7.80E-01			3.4E+03	LT	2.3E-04	7.7E+02	LT	1.0E-03
Landbay A	GP 105-10	INORG	Perchlorate	14797-73-0	NC	1.30E-01			3.4E+03	LT	3.8E-05	7.7E+02	LT	1.7E-04
Landbay A	GP 105-11	INORG	Perchlorate	14797-73-0	NC	8.90E+00			3.4E+03	LT	2.6E-03	7.7E+02	LT	1.2E-02
Landbay A	GP 105-12	INORG	Perchlorate	14797-73-0	NC	1.30E+00			3.4E+03	LT	3.8E-04	7.7E+02	LT	1.7E-03
Landbay A	GP 105-13	INORG	Perchlorate	14797-73-0	NC	4.30E-02			3.4E+03	LT	1.2E-05	7.7E+02	LT	5.6E-05
Landbay A	GP 105-14	INORG	Perchlorate	14797-73-0	NC	3.30E+00			3.4E+03	LT	9.6E-04	7.7E+02	LT	4.3E-03
Landbay A	GP 105-15	INORG	Perchlorate	14797-73-0	NC	2.80E+01			3.4E+03	LT	8.1E-03	7.7E+02	LT	3.6E-02
Landbay A	GP 107-01	INORG	Arsenic	7440-38-2	A	2.08E+00	9.90E+00	2.1E-01	1.1E+03	EqP	2.0E-03	8.6E+01	EqP	2.4E-02
Landbay A	GP 107-01	INORG	Barium	7440-39-3	NC	1.36E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay A	GP 107-01	INORG	Cadmium	7440-43-9	B1	4.37E-01	2.70E+00	1.6E-01	1.1E+03	EqP	4.0E-04	2.1E+00	EqP	2.0E-01
Landbay A	GP 107-01	INORG	Chromium III	16065-83-1	D	5.73E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay A	GP 107-01	INORG	Chromium VI	18540-29-9	A	2.98E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	GP 107-01	INORG	Lead	7439-92-1	B2	3.02E+00						3.5E+02	EqP	8.6E-03
Landbay A	GP 107-01	INORG	Silver	7440-22-4	D	8.34E-01	2.30E+00	3.6E-01	3.8E+03	LT	2.2E-04	2.7E+00	LT	3.1E-01
Landbay A	GP 107-02	INORG	Arsenic	7440-38-2	A	2.06E+00	9.90E+00	2.1E-01	1.1E+03	EqP	2.0E-03	8.6E+01	EqP	2.4E-02
Landbay A	GP 107-02	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	GP 107-02	INORG	Cadmium	7440-43-9	B1	4.49E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay A	GP 107-02	INORG	Chromium III	16065-83-1	D	5.39E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay A	GP 107-02	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay A	GP 107-02	INORG	Lead	7439-92-1	B2	3.78E+00						3.5E+02	EqP	1.1E-02
Landbay A	GP 107-02	INORG	Silver	7440-22-4	D	6.48E-01	2.30E+00	2.8E-01	3.8E+03	LT	1.7E-04	2.7E+00	LT	2.4E-01
Landbay A	GP 110-06	INORG	Perchlorate	14797-73-0	NC	1.40E-02			3.4E+03	LT	4.1E-06	7.7E+02	LT	1.8E-05
Landbay A	GP 18-01	INORG	Perchlorate	14797-73-0	NC	9.60E-02			3.4E+03	LT	2.8E-05	7.7E+02	LT	1.2E-04
Landbay A	GP 34-02	INORG	Perchlorate	14797-73-0	NC	5.50E-02			3.4E+03	LT	1.6E-05	7.7E+02	LT	7.1E-05
Landbay A	GP CM-03	INORG	Perchlorate	14797-73-0	NC	1.20E-02			3.4E+03	LT	3.5E-06	7.7E+02	LT	1.6E-05
Landbay A	GP CM-04	INORG	Chromium III	16065-83-1	D	1.33E+01	2.61E+02	5.1E-02	2.1E+10	EqP	6.2E-10	3.4E+06	EqP	3.9E-06
Landbay A	GP CM-04	INORG	Chromium VI	18540-29-9	A	2.68E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay A	GP CM-04	INORG	Copper	7440-50-8	D	8.50E+00	1.31E+02	6.5E-02	3.5E+05	EqP	2.4E-05	8.4E+00	EqP	1.0E+00
Landbay A	GP CM-04	INORG	Lead	7439-92-1	B2	5.70E+00						3.5E+02	EqP	1.6E-02
Landbay A	GP CM-04	INORG	Nickel	7440-02-0	A	5.70E+00	7.30E+01	7.8E-02	1.2E+05	EqP	4.6E-05	3.4E+01	EqP	1.7E-01
Landbay A	GP CM-06	INORG	Perchlorate	14797-73-0	NC	1.12E+01			3.4E+03	LT	3.2E-03	7.7E+02	LT	1.4E-02
Landbay A	GP CM-07	INORG	Arsenic	7440-38-2	A	2.80E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay A	GP CM-07	INORG	Chromium III	16065-83-1	D	5.90E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.7E-05
Landbay A	GP CM-07	INORG	Chromium VI	18540-29-9	A	2.99E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay A	GP CM-07	INORG	Copper	7440-50-8	D	6.60E+00	1.31E+02	5.0E-02	3.5E+05	EqP	1.9E-05	8.4E+00	EqP	7.9E-01
Landbay A	GP CM-07	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay A	GP CM-07	INORG	Nickel	7440-02-0	A	6.50E+00	7.30E+01	8.9E-02	1.2E+05	EqP	5.2E-05	3.4E+01	EqP	1.9E-01
Landbay A	GP CM-08	INORG	Perchlorate	14797-73-0	NC	6.20E-02			3.4E+03	LT	1.8E-05	7.7E+02	LT	8.0E-05
Landbay A	GP CM-09	INORG	Arsenic	7440-38-2	A	1.20E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.1E-03	8.6E+01	EqP	1.4E-02
Landbay A	GP CM-09	INORG	Chromium III	16065-83-1	D	3.32E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	9.8E-06
Landbay A	GP CM-09	INORG	Chromium VI	18540-29-9	A	2.82E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay A	GP CM-09	INORG	Copper	7440-50-8	D	7.60E+00	1.31E+02	5.8E-02	3.5E+05	EqP	2.2E-05	8.4E+00	EqP	9.0E-01
Landbay A	GP CM-09	INORG	Lead	7439-92-1	B2	1.50E+01						3.5E+02	EqP	4.3E-02
Landbay A	GP CM-09	INORG	Nickel	7440-02-0	A	1.00E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.1E-05	3.4E+01	EqP	3.0E-01
Landbay A	GP CM-10	INORG	Perchlorate	14797-73-0	NC	1.70E-02			3.4E+03	LT	4.9E-06	7.7E+02	LT	2.2E-05
Landbay A	GP CM-12	INORG	Arsenic	7440-38-2	A	6.60E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay A	GP CM-12	INORG	Chromium III	16065-83-1	D	5.30E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay A	GP CM-12	INORG	Chromium VI	18540-29-9	A	2.95E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay A	GP CM-12	INORG	Copper	7440-50-8	D	1.70E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.9E-05	8.4E+00	EqP	**2.0E+00**
Landbay A	GP CM-12	INORG	Lead	7439-92-1	B2	3.60E+01						3.5E+02	EqP	1.0E-01
Landbay A	GP CM-12	INORG	Nickel	7440-02-0	A	1.80E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.3E-01
Landbay A	GP CM-12	INORG	Perchlorate	14797-73-0	NC	8.80E-01			3.4E+03	LT	2.6E-04	7.7E+02	LT	1.1E-03
Landbay A	GP CM-13	INORG	Chromium III	16065-83-1	D	7.59E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.2E-05
Landbay A	GP CM-13	INORG	Chromium VI	18540-29-9	A	3.11E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	GP CM-13	INORG	Copper	7440-50-8	D	2.10E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.0E-05	8.4E+00	EqP	**2.5E+00**
Landbay A	GP CM-13	INORG	Lead	7439-92-1	B2	7.30E+00						3.5E+02	EqP	2.1E-02
Landbay A	GP CM-13	INORG	Nickel	7440-02-0	A	7.30E+00	7.30E+01	1.0E-01	1.2E+05	EqP	5.9E-05	3.4E+01	EqP	2.2E-01
Landbay A	GP CM-13	INORG	Perchlorate	14797-73-0	NC	1.30E-02			3.4E+03	LT	3.8E-06	7.7E+02	LT	1.7E-05
Landbay A	GP CM-14	INORG	Perchlorate	14797-73-0	NC	1.29E+00			3.4E+03	LT	3.7E-04	7.7E+02	LT	1.7E-03
Landbay A	GP CM-15	INORG	Perchlorate	14797-73-0	NC	1.92E+00			3.4E+03	LT	5.6E-04	7.7E+02	LT	2.5E-03
Landbay A	GP CM-19	INORG	Perchlorate	14797-73-0	NC	1.41E+00			3.4E+03	LT	4.1E-04	7.7E+02	LT	1.8E-03
Landbay A	GP TTF-11	INORG	Chromium III	16065-83-1	D	3.03E+01	2.61E+02	1.2E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	9.0E-06
Landbay A	GP TTF-11	INORG	Chromium VI	18540-29-9	A	6.50E-01	4.97E+00	1.3E-01	6.6E+01	LT	9.8E-03	4.4E+00	LT	1.5E-01
Landbay A	GP TTF-11	INORG	Copper	7440-50-8	D	6.35E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay A	GP TTF-11	INORG	Zinc	7440-66-6	ID	4.92E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay A	GP TTF-12	INORG	Chromium III	16065-83-1	D	4.48E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay A	GP TTF-12	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay A	GP TTF-12	INORG	Copper	7440-50-8	D	5.63E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay A	GP TTF-12	INORG	Silver	7440-22-4	D	5.52E-01	2.30E+00	2.4E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay A	GP TTF-12	INORG	Zinc	7440-66-6	ID	5.28E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.7E-06	1.9E+02	EqP	2.8E-01
Landbay A	GP TTF-13	INORG	Chromium III	16065-83-1	D	5.12E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay A	GP TTF-13	INORG	Chromium VI	18540-29-9	A	2.94E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay A	GP TTF-13	INORG	Copper	7440-50-8	D	3.30E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.5E-05	8.4E+00	EqP	**3.9E+00**
Landbay A	GP TTF-13	INORG	Silver	7440-22-4	D	5.25E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay A	GP TTF-13	INORG	Zinc	7440-66-6	ID	5.33E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.7E-06	1.9E+02	EqP	2.8E-01
Landbay A	GP TTU-41	PCB	PCBs (total)	1336-36-3	B2	1.09E-01				NA		1.4E+00	EqP	7.9E-02
Landbay A	GP TTU-44	PCB	PCBs (total)	1336-36-3	B2	4.53E-02				NA		1.4E+00	EqP	3.3E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay A	GP TTU-45	PCB	PCBs (total)	1336-36-3	B2	8.29E-02				NA		1.4E+00	EqP	6.0E-02
Landbay A	GP TTU-46	PCB	PCBs (total)	1336-36-3	B2	1.41E-01				NA		1.4E+00	EqP	1.0E-01
Landbay A	GP TTU-47	PCB	PCBs (total)	1336-36-3	B2	9.33E-01				NA		1.4E+00	EqP	6.8E-01
Landbay A	IM10-1	INORG	Aluminum	7429-90-5	ID	5.25E+04	5.34E+04	9.8E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay A	IM10-1	INORG	Arsenic	7440-38-2	A	2.66E+00	9.90E+00	2.7E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.1E-02
Landbay A	IM10-1	INORG	Barium	7440-39-3	NC	1.65E+02	2.24E+02	7.4E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay A	IM10-1	INORG	Beryllium	7440-41-7	B1	5.47E-01	1.20E+00	4.6E-01	6.8E+03	EqP	8.1E-05	1.0E+01	EqP	5.2E-02
Landbay A	IM10-1	INORG	Cadmium	7440-43-9	B1	2.35E-01	2.70E+00	8.7E-02	1.1E+03	EqP	2.2E-04	2.1E+00	EqP	1.1E-01
Landbay A	IM10-1	INORG	Chromium III	16065-83-1	D	1.03E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.1E-05
Landbay A	IM10-1	INORG	Chromium VI	18540-29-9	A	2.15E+00	4.97E+00	4.3E-01	6.6E+01	LT	3.2E-02	4.4E+00	LT	4.9E-01
Landbay A	IM10-1	INORG	Cobalt	7440-48-4	LC	2.39E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay A	IM10-1	INORG	Copper	7440-50-8	D	5.81E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay A	IM10-1	INORG	Iron	7439-89-6	D	4.65E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay A	IM10-1	INORG	Lead	7439-92-1	B2	6.58E+00						3.5E+02	EqP	1.9E-02
Landbay A	IM10-1	INORG	Manganese	7439-96-5	D	5.99E+02	4.27E+03	1.4E-01	3.1E+05	EqP	1.9E-03	1.6E+02	EqP	**3.8E+00**
Landbay A	IM10-1	INORG	Mercury	7439-97-6	D	1.26E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.4E-02
Landbay A	IM10-1	INORG	Nickel	7440-02-0	A	4.55E+01	7.30E+01	6.2E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.3E+00**
Landbay A	IM10-1	INORG	Selenium	7782-49-2	D	1.92E+00	2.50E+00	7.7E-01	2.5E+04	LT	7.8E-05	2.0E+00	LT	9.6E-01
Landbay A	IM10-1	INORG	Silver	7440-22-4	D	1.29E+00	2.30E+00	5.6E-01	3.8E+03	LT	3.4E-04	2.7E+00	LT	4.9E-01
Landbay A	IM10-1	INORG	Strontium	7440-24-6		2.75E+01	3.80E+01	7.2E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay A	IM10-1	INORG	Vanadium	7440-62-2	ID	1.40E+02	2.83E+02	4.9E-01	1.5E+05	EqP	9.0E-04	4.0E+02	EqP	3.5E-01
Landbay A	IM10-1	INORG	Zinc	7440-66-6	ID	4.62E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.4E-06	1.9E+02	EqP	2.4E-01
Landbay A	IM10-2	INORG	Aluminum	7429-90-5	ID	5.49E+04	5.34E+04	1.0E+00	3.7E+08	EqP	1.5E-04	2.6E+03	EqP	**2.1E+01**
Landbay A	IM10-2	INORG	Antimony	7440-36-0	ID	1.65E+00	1.70E+00	9.7E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.1E-02
Landbay A	IM10-2	INORG	Arsenic	7440-38-2	A	3.35E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay A	IM10-2	INORG	Barium	7440-39-3	NC	2.88E+02	2.24E+02	**1.3E+00**	3.2E+05	EqP	8.9E-04	3.3E+00	EqP	**8.7E+01**
Landbay A	IM10-2	INORG	Beryllium	7440-41-7	B1	7.37E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay A	IM10-2	INORG	Cadmium	7440-43-9	B1	2.41E-01	2.70E+00	8.9E-02	1.1E+03	EqP	2.2E-04	2.1E+00	EqP	1.1E-01
Landbay A	IM10-2	INORG	Chromium III	16065-83-1	D	8.43E+01	2.61E+02	3.2E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay A	IM10-2	INORG	Chromium VI	18540-29-9	A	1.75E+00	4.97E+00	3.5E-01	6.6E+01	LT	2.6E-02	4.4E+00	LT	4.0E-01
Landbay A	IM10-2	INORG	Cobalt	7440-48-4	LC	3.15E+01	8.60E+01	3.7E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay A	IM10-2	INORG	Copper	7440-50-8	D	6.38E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay A	IM10-2	INORG	Iron	7439-89-6	D	5.01E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay A	IM10-2	INORG	Lead	7439-92-1	B2	9.73E+00						3.5E+02	EqP	2.8E-02
Landbay A	IM10-2	INORG	Manganese	7439-96-5	D	7.66E+02	4.27E+03	1.8E-01	3.1E+05	EqP	2.5E-03	1.6E+02	EqP	**4.9E+00**
Landbay A	IM10-2	INORG	Mercury	7439-97-6	D	2.06E-02	7.10E-02	2.9E-01		NA		3.7E-01	EqP	5.6E-02
Landbay A	IM10-2	INORG	Nickel	7440-02-0	A	5.83E+01	7.30E+01	8.0E-01	1.2E+05	EqP	4.7E-04	3.4E+01	EqP	**1.7E+00**
Landbay A	IM10-2	INORG	Selenium	7782-49-2	D	1.74E+00	2.50E+00	7.0E-01	2.5E+04	LT	7.1E-05	2.0E+00	LT	8.7E-01
Landbay A	IM10-2	INORG	Silver	7440-22-4	D	1.22E+00	2.30E+00	5.3E-01	3.8E+03	LT	3.3E-04	2.7E+00	LT	4.6E-01
Landbay A	IM10-2	INORG	Strontium	7440-24-6		3.18E+01	3.80E+01	8.4E-01	1.6E+07	EqP	2.0E-06	1.1E+03	EqP	3.0E-02
Landbay A	IM10-2	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	IM10-2	INORG	Zinc	7440-66-6	ID	6.53E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay A	IM10-3	INORG	Aluminum	7429-90-5	ID	4.10E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	IM10-3	INORG	Arsenic	7440-38-2	A	1.32E+00	9.90E+00	1.3E-01	1.1E+03	EqP	1.3E-03	8.6E+01	EqP	1.5E-02
Landbay A	IM10-3	INORG	Barium	7440-39-3	NC	9.46E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay A	IM10-3	INORG	Beryllium	7440-41-7	B1	3.08E-01	1.20E+00	2.6E-01	6.8E+03	EqP	4.5E-05	1.0E+01	EqP	3.0E-02
Landbay A	IM10-3	INORG	Cadmium	7440-43-9	B1	2.33E-01	2.70E+00	8.6E-02	1.1E+03	EqP	2.2E-04	2.1E+00	EqP	1.1E-01
Landbay A	IM10-3	INORG	Chromium III	16065-83-1	D	5.08E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay A	IM10-3	INORG	Chromium VI	18540-29-9	A	2.45E+00	4.97E+00	4.9E-01	6.6E+01	LT	3.7E-02	4.4E+00	LT	5.6E-01
Landbay A	IM10-3	INORG	Cobalt	7440-48-4	LC	1.95E+01	8.60E+01	2.3E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.4E-01
Landbay A	IM10-3	INORG	Copper	7440-50-8	D	5.71E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.8E+00**
Landbay A	IM10-3	INORG	Iron	7439-89-6	D	3.14E+04	9.52E+04	3.3E-01	4.4E+06	EqP	7.2E-03	1.5E+02	EqP	**2.1E+02**
Landbay A	IM10-3	INORG	Lead	7439-92-1	B2	4.64E+00						3.5E+02	EqP	1.3E-02
Landbay A	IM10-3	INORG	Manganese	7439-96-5	D	4.58E+02	4.27E+03	1.1E-01	3.1E+05	EqP	1.5E-03	1.6E+02	EqP	**2.9E+00**
Landbay A	IM10-3	INORG	Nickel	7440-02-0	A	3.36E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.9E-01
Landbay A	IM10-3	INORG	Silver	7440-22-4	D	7.98E-01	2.30E+00	3.5E-01	3.8E+03	LT	2.1E-04	2.7E+00	LT	3.0E-01
Landbay A	IM10-3	INORG	Strontium	7440-24-6		3.31E+01	3.80E+01	8.7E-01	1.6E+07	EqP	2.0E-06	1.1E+03	EqP	3.1E-02
Landbay A	IM10-3	INORG	Vanadium	7440-62-2	ID	1.11E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.2E-04	4.0E+02	EqP	2.8E-01
Landbay A	IM10-3	INORG	Zinc	7440-66-6	ID	3.41E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01
Landbay A	IM10-4	INORG	Aluminum	7429-90-5	ID	4.16E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	IM10-4	INORG	Antimony	7440-36-0	ID	7.68E-01	1.70E+00	4.5E-01	1.4E+03	EqP	5.6E-04	2.7E+01	EqP	2.8E-02
Landbay A	IM10-4	INORG	Arsenic	7440-38-2	A	2.44E+00	9.90E+00	2.5E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay A	IM10-4	INORG	Barium	7440-39-3	NC	1.10E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay A	IM10-4	INORG	Beryllium	7440-41-7	B1	3.48E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.1E-05	1.0E+01	EqP	3.3E-02
Landbay A	IM10-4	INORG	Boron	7440-42-8	ID	1.70E+00	1.34E+01	1.3E-01	9.9E+05	LT	1.7E-06	6.4E-01	LT	**2.7E+00**
Landbay A	IM10-4	INORG	Cadmium	7440-43-9	B1	3.85E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.6E-04	2.1E+00	EqP	1.8E-01
Landbay A	IM10-4	INORG	Chromium III	16065-83-1	D	6.37E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay A	IM10-4	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay A	IM10-4	INORG	Cobalt	7440-48-4	LC	2.06E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.9E-01
Landbay A	IM10-4	INORG	Copper	7440-50-8	D	5.57E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay A	IM10-4	INORG	Iron	7439-89-6	D	3.75E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.6E-03	1.5E+02	EqP	**2.5E+02**
Landbay A	IM10-4	INORG	Lead	7439-92-1	B2	5.07E+00						3.5E+02	EqP	1.4E-02
Landbay A	IM10-4	INORG	Manganese	7439-96-5	D	4.30E+02	4.27E+03	1.0E-01	3.1E+05	EqP	1.4E-03	1.6E+02	EqP	**2.7E+00**
Landbay A	IM10-4	INORG	Mercury	7439-97-6	D	6.60E-03	7.10E-02	9.3E-02		NA		3.7E-01	EqP	1.8E-02
Landbay A	IM10-4	INORG	Nickel	7440-02-0	A	4.34E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay A	IM10-4	INORG	Selenium	7782-49-2	D	1.08E+00	2.50E+00	4.3E-01	2.5E+04	LT	4.4E-05	2.0E+00	LT	5.4E-01
Landbay A	IM10-4	INORG	Silver	7440-22-4	D	9.91E-01	2.30E+00	4.3E-01	3.8E+03	LT	2.6E-04	2.7E+00	LT	3.7E-01
Landbay A	IM10-4	INORG	Strontium	7440-24-6		3.16E+01	3.80E+01	8.3E-01	1.6E+07	EqP	1.9E-06	1.1E+03	EqP	3.0E-02
Landbay A	IM10-4	INORG	Vanadium	7440-62-2	ID	1.21E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.8E-04	4.0E+02	EqP	3.0E-01
Landbay A	IM10-4	INORG	Zinc	7440-66-6	ID	4.11E+01	1.02E+02	4.0E-01	5.5E+06	EqP	7.5E-06	1.9E+02	EqP	2.2E-01
Landbay A	IM10-5	INORG	Aluminum	7429-90-5	ID	4.15E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	IM10-5	INORG	Barium	7440-39-3	NC	1.22E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay A	IM10-5	INORG	Beryllium	7440-41-7	B1	4.09E-01	1.20E+00	3.4E-01	6.8E+03	EqP	6.0E-05	1.0E+01	EqP	3.9E-02
Landbay A	IM10-5	INORG	Chromium III	16065-83-1	D	9.80E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.6E-09	3.4E+06	EqP	2.9E-05
Landbay A	IM10-5	INORG	Chromium VI	18540-29-9	A	2.30E+00	4.97E+00	4.6E-01	6.6E+01	LT	3.5E-02	4.4E+00	LT	5.2E-01
Landbay A	IM10-5	INORG	Cobalt	7440-48-4	LC	3.77E+01	8.60E+01	4.4E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay A	IM10-5	INORG	Copper	7440-50-8	D	7.63E+01	1.31E+02	5.8E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**9.1E+00**
Landbay A	IM10-5	INORG	Iron	7439-89-6	D	6.16E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay A	IM10-5	INORG	Lead	7439-92-1	B2	8.46E+00						3.5E+02	EqP	2.4E-02
Landbay A	IM10-5	INORG	Manganese	7439-96-5	D	1.09E+03	4.27E+03	2.6E-01	3.1E+05	EqP	3.5E-03	1.6E+02	EqP	**7.0E+00**
Landbay A	IM10-5	INORG	Mercury	7439-97-6	D	1.09E-02	7.10E-02	1.5E-01		NA		3.7E-01	EqP	3.0E-02
Landbay A	IM10-5	INORG	Nickel	7440-02-0	A	5.65E+01	7.30E+01	7.7E-01	1.2E+05	EqP	4.6E-04	3.4E+01	EqP	**1.7E+00**
Landbay A	IM10-5	INORG	Strontium	7440-24-6		5.59E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.4E-06	1.1E+03	EqP	5.3E-02
Landbay A	IM10-5	INORG	Vanadium	7440-62-2	ID	1.50E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.7E-04	4.0E+02	EqP	3.7E-01
Landbay A	IM10-5	INORG	Zinc	7440-66-6	ID	8.14E+01	1.02E+02	8.0E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.3E-01
Landbay A	IM9-1	INORG	Aluminum	7429-90-5	ID	2.64E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	IM9-1	INORG	Barium	7440-39-3	NC	6.00E+01	2.24E+02	2.7E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.8E+01**
Landbay A	IM9-1	INORG	Beryllium	7440-41-7	B1	1.50E-01	1.20E+00	1.3E-01	6.8E+03	EqP	2.2E-05	1.0E+01	EqP	1.4E-02
Landbay A	IM9-1	INORG	Boron	7440-42-8	ID	2.40E+00	1.34E+01	1.8E-01	9.9E+05	LT	2.4E-06	6.4E-01	LT	**3.8E+00**
Landbay A	IM9-1	INORG	Chromium III	16065-83-1	D	1.79E+01	2.61E+02	6.9E-02	2.1E+10	EqP	8.4E-10	3.4E+06	EqP	5.3E-06
Landbay A	IM9-1	INORG	Chromium VI	18540-29-9	A	5.15E-01	4.97E+00	1.0E-01	6.6E+01	LT	7.7E-03	4.4E+00	LT	1.2E-01
Landbay A	IM9-1	INORG	Cobalt	7440-48-4	LC	8.12E+00	8.60E+01	9.4E-02	1.4E+04	EqP	5.9E-04	2.1E+01	EqP	3.9E-01
Landbay A	IM9-1	INORG	Copper	7440-50-8	D	4.55E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.4E+00**
Landbay A	IM9-1	INORG	Iron	7439-89-6	D	1.14E+04	9.52E+04	1.2E-01	4.4E+06	EqP	2.6E-03	1.5E+02	EqP	**7.5E+01**
Landbay A	IM9-1	INORG	Lead	7439-92-1	B2	9.83E-01						3.5E+02	EqP	2.8E-03
Landbay A	IM9-1	INORG	Manganese	7439-96-5	D	1.25E+02	4.27E+03	2.9E-02	3.1E+05	EqP	4.0E-04	1.6E+02	EqP	8.0E-01
Landbay A	IM9-1	INORG	Nickel	7440-02-0	A	1.80E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.3E-01
Landbay A	IM9-1	INORG	Strontium	7440-24-6		3.95E+01	3.80E+01	1.0E+00	1.6E+07	EqP	2.4E-06	1.1E+03	EqP	3.7E-02
Landbay A	IM9-1	INORG	Vanadium	7440-62-2	ID	4.39E+01	2.83E+02	1.6E-01	1.5E+05	EqP	2.8E-04	4.0E+02	EqP	1.1E-01
Landbay A	IM9-1	INORG	Zinc	7440-66-6	ID	1.40E+01	1.02E+02	1.4E-01	5.5E+06	EqP	2.6E-06	1.9E+02	EqP	7.4E-02
Landbay A	IM9-2	INORG	Aluminum	7429-90-5	ID	4.72E+04	5.34E+04	8.8E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	IM9-2	INORG	Barium	7440-39-3	NC	8.30E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay A	IM9-2	INORG	Beryllium	7440-41-7	B1	4.78E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay A	IM9-2	INORG	Cadmium	7440-43-9	B1	8.24E-01	2.70E+00	3.1E-01	1.1E+03	EqP	7.6E-04	2.1E+00	EqP	3.9E-01
Landbay A	IM9-2	INORG	Chromium III	16065-83-1	D	1.26E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay A	IM9-2	INORG	Chromium VI	18540-29-9	A	1.55E+00	4.97E+00	3.1E-01	6.6E+01	LT	2.3E-02	4.4E+00	LT	3.5E-01
Landbay A	IM9-2	INORG	Cobalt	7440-48-4	LC	4.46E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.1E+00**
Landbay A	IM9-2	INORG	Copper	7440-50-8	D	7.24E+01	1.31E+02	5.5E-01	3.5E+05	EqP	2.1E-04	8.4E+00	EqP	**8.6E+00**
Landbay A	IM9-2	INORG	Iron	7439-89-6	D	6.86E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay A	IM9-2	INORG	Lead	7439-92-1	B2	3.31E+00						3.5E+02	EqP	9.4E-03
Landbay A	IM9-2	INORG	Manganese	7439-96-5	D	1.37E+03	4.27E+03	3.2E-01	3.1E+05	EqP	4.4E-03	1.6E+02	EqP	**8.7E+00**
Landbay A	IM9-2	INORG	Mercury	7439-97-6	D	7.40E-03	7.10E-02	1.0E-01		NA		3.7E-01	EqP	2.0E-02
Landbay A	IM9-2	INORG	Nickel	7440-02-0	A	5.79E+01	7.30E+01	7.9E-01	1.2E+05	EqP	4.7E-04	3.4E+01	EqP	**1.7E+00**
Landbay A	IM9-2	INORG	Silver	7440-22-4	D	2.34E+00	2.30E+00	1.0E+00	3.8E+03	LT	6.2E-04	2.7E+00	LT	8.8E-01
Landbay A	IM9-2	INORG	Strontium	7440-24-6		3.58E+01	3.80E+01	9.4E-01	1.6E+07	EqP	2.2E-06	1.1E+03	EqP	3.4E-02
Landbay A	IM9-2	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay A	IM9-2	INORG	Zinc	7440-66-6	ID	8.92E+01	1.02E+02	8.7E-01	5.5E+06	EqP	1.6E-05	1.9E+02	EqP	4.7E-01
Landbay A	IM9-3	INORG	Aluminum	7429-90-5	ID	2.84E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay A	IM9-3	INORG	Barium	7440-39-3	NC	3.58E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay A	IM9-3	INORG	Beryllium	7440-41-7	B1	1.37E-01	1.20E+00	1.1E-01	6.8E+03	EqP	2.0E-05	1.0E+01	EqP	1.3E-02
Landbay A	IM9-3	INORG	Boron	7440-42-8	ID	2.65E+00	1.34E+01	2.0E-01	9.9E+05	LT	2.7E-06	6.4E-01	LT	**4.1E+00**
Landbay A	IM9-3	INORG	Chromium III	16065-83-1	D	1.87E+01	2.61E+02	7.2E-02	2.1E+10	EqP	8.8E-10	3.4E+06	EqP	5.5E-06
Landbay A	IM9-3	INORG	Chromium VI	18540-29-9	A	6.40E-01	4.97E+00	1.3E-01	6.6E+01	LT	9.6E-03	4.4E+00	LT	1.5E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	IM9-3	INORG	Cobalt	7440-48-4	LC	6.61E+00	8.60E+01	7.7E-02	1.4E+04	EqP	4.8E-04	2.1E+01	EqP	3.2E-01
Landbay A	IM9-3	INORG	Copper	7440-50-8	D	4.51E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.4E+00**
Landbay A	IM9-3	INORG	Iron	7439-89-6	D	1.31E+04	9.52E+04	1.4E-01	4.4E+06	EqP	3.0E-03	1.5E+02	EqP	**8.6E+01**
Landbay A	IM9-3	INORG	Lead	7439-92-1	B2	1.22E+00						3.5E+02	EqP	3.5E-03
Landbay A	IM9-3	INORG	Manganese	7439-96-5	D	1.18E+02	4.27E+03	2.8E-02	3.1E+05	EqP	3.8E-04	1.6E+02	EqP	7.5E-01
Landbay A	IM9-3	INORG	Nickel	7440-02-0	A	1.49E+01	7.30E+01	2.0E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.4E-01
Landbay A	IM9-3	INORG	Strontium	7440-24-6		4.55E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.8E-06	1.1E+03	EqP	4.3E-02
Landbay A	IM9-3	INORG	Vanadium	7440-62-2	ID	5.37E+01	2.83E+02	1.9E-01	1.5E+05	EqP	3.5E-04	4.0E+02	EqP	1.3E-01
Landbay A	IM9-3	INORG	Zinc	7440-66-6	ID	1.37E+01	1.02E+02	1.3E-01	5.5E+06	EqP	2.5E-06	1.9E+02	EqP	7.2E-02
Landbay A	IM9-4	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	IM9-4	INORG	Arsenic	7440-38-2	A	4.46E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay A	IM9-4	INORG	Barium	7440-39-3	NC	1.20E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay A	IM9-4	INORG	Beryllium	7440-41-7	B1	7.25E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay A	IM9-4	INORG	Chromium III	16065-83-1	D	1.32E+02	2.61E+02	5.1E-01	2.1E+10	EqP	6.2E-09	3.4E+06	EqP	3.9E-05
Landbay A	IM9-4	INORG	Chromium VI	18540-29-9	A	2.10E+00	4.97E+00	4.2E-01	6.6E+01	LT	3.2E-02	4.4E+00	LT	4.8E-01
Landbay A	IM9-4	INORG	Cobalt	7440-48-4	LC	6.64E+01	8.60E+01	7.7E-01	1.4E+04	EqP	4.8E-03	2.1E+01	EqP	**3.2E+00**
Landbay A	IM9-4	INORG	Copper	7440-50-8	D	3.01E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.7E-05	8.4E+00	EqP	**3.6E+00**
Landbay A	IM9-4	INORG	Iron	7439-89-6	D	5.60E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay A	IM9-4	INORG	Lead	7439-92-1	B2	1.92E+01						3.5E+02	EqP	5.5E-02
Landbay A	IM9-4	INORG	Manganese	7439-96-5	D	2.84E+03	4.27E+03	6.7E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay A	IM9-4	INORG	Mercury	7439-97-6	D	1.35E-02	7.10E-02	1.9E-01		NA		3.7E-01	EqP	3.7E-02
Landbay A	IM9-4	INORG	Nickel	7440-02-0	A	2.83E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay A	IM9-4	INORG	Strontium	7440-24-6		1.44E+01	3.80E+01	3.8E-01	1.6E+07	EqP	8.8E-07	1.1E+03	EqP	1.4E-02
Landbay A	IM9-4	INORG	Thallium	7440-28-0	ID	6.44E+00	4.50E+00	**1.4E+00**				1.1E+00	EqP	**5.6E+00**
Landbay A	IM9-4	INORG	Vanadium	7440-62-2	ID	2.03E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay A	IM9-4	INORG	Zinc	7440-66-6	ID	5.13E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay A	IM9-5	INORG	Aluminum	7429-90-5	ID	2.71E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay A	IM9-5	INORG	Antimony	7440-36-0	ID	1.05E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02
Landbay A	IM9-5	INORG	Arsenic	7440-38-2	A	4.56E+00	9.90E+00	4.6E-01	1.1E+03	EqP	4.3E-03	8.6E+01	EqP	5.3E-02
Landbay A	IM9-5	INORG	Barium	7440-39-3	NC	1.02E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay A	IM9-5	INORG	Beryllium	7440-41-7	B1	6.71E-01	1.20E+00	5.6E-01	6.8E+03	EqP	9.9E-05	1.0E+01	EqP	6.4E-02
Landbay A	IM9-5	INORG	Boron	7440-42-8	ID	1.05E+00	1.34E+01	7.8E-02	9.9E+05	LT	1.1E-06	6.4E-01	LT	**1.6E+00**
Landbay A	IM9-5	INORG	Chromium III	16065-83-1	D	9.51E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay A	IM9-5	INORG	Chromium VI	18540-29-9	A	2.25E+00	4.97E+00	4.5E-01	6.6E+01	LT	3.4E-02	4.4E+00	LT	5.1E-01
Landbay A	IM9-5	INORG	Cobalt	7440-48-4	LC	3.86E+01	8.60E+01	4.5E-01	1.4E+04	EqP	2.8E-03	2.1E+01	EqP	**1.9E+00**
Landbay A	IM9-5	INORG	Copper	7440-50-8	D	2.88E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.3E-05	8.4E+00	EqP	**3.4E+00**
Landbay A	IM9-5	INORG	Iron	7439-89-6	D	4.73E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay A	IM9-5	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay A	IM9-5	INORG	Manganese	7439-96-5	D	1.67E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay A	IM9-5	INORG	Mercury	7439-97-6	D	1.68E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.5E-02
Landbay A	IM9-5	INORG	Nickel	7440-02-0	A	2.44E+01	7.30E+01	3.3E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.2E-01
Landbay A	IM9-5	INORG	Strontium	7440-24-6		1.51E+01	3.80E+01	4.0E-01	1.6E+07	EqP	9.3E-07	1.1E+03	EqP	1.4E-02
Landbay A	IM9-5	INORG	Thallium	7440-28-0	ID	4.60E+00	4.50E+00	1.0E+00				1.1E+00	EqP	**4.0E+00**
Landbay A	IM9-5	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay A	IM9-5	INORG	Zinc	7440-66-6	ID	4.78E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay A	POND 01 INF	PCB	PCBs (total)	1336-36-3	B2	2.16E+00				NA		1.4E+00	EqP	**1.6E+00**
Landbay A	SB CM-08	INORG	Perchlorate	14797-73-0	NC	1.16E-01			3.4E+03	LT	3.4E-05	7.7E+02	LT	1.5E-04
Landbay A	SB CM-10	INORG	Perchlorate	14797-73-0	NC	4.89E+00			3.4E+03	LT	1.4E-03	7.7E+02	LT	6.3E-03
Landbay A	SB CM-11	INORG	Perchlorate	14797-73-0	NC	7.70E-01			3.4E+03	LT	2.2E-04	7.7E+02	LT	1.0E-03
Landbay A	SEDA 13	INORG	Arsenic	7440-38-2	A	7.80E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay A	SEDA 13	INORG	Chromium III	16065-83-1	D	1.22E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.7E-09	3.4E+06	EqP	3.6E-05
Landbay A	SEDA 13	INORG	Chromium VI	18540-29-9	A	3.42E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.8E-01
Landbay A	SEDA 13	INORG	Copper	7440-50-8	D	2.60E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay A	SEDA 13	INORG	Lead	7439-92-1	B2	4.20E+01						3.5E+02	EqP	1.2E-01
Landbay A	SEDA 13	INORG	Nickel	7440-02-0	A	2.50E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay A	SEDA 13	INORG	Zinc	7440-66-6	ID	1.56E+02	1.02E+02	**1.5E+00**	5.5E+06	EqP	2.9E-05	1.9E+02	EqP	8.2E-01
Landbay A	SEDP 01 INF	INORG	Arsenic	7440-38-2	A	2.20E+00	9.90E+00	2.2E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.6E-02
Landbay A	SEDP 01 INF	INORG	Chromium III	16065-83-1	D	3.91E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.2E-05
Landbay A	SEDP 01 INF	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay A	SEDP 01 INF	INORG	Copper	7440-50-8	D	3.10E+01	1.31E+02	2.4E-01	3.5E+05	EqP	8.9E-05	8.4E+00	EqP	**3.7E+00**
Landbay A	SEDP 01 INF	INORG	Lead	7439-92-1	B2	2.10E+01						3.5E+02	EqP	6.0E-02
Landbay A	SEDP 01 INF	INORG	Nickel	7440-02-0	A	2.00E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.9E-01
Landbay A	S-IMSED-1	PCB	PCBs (total)	1336-36-3	B2	1.77E+00				NA		1.4E+00	EqP	**1.3E+00**
Landbay A	S-IMSED-3	PCB	PCBs (total)	1336-36-3	B2	6.22E-01				NA		1.4E+00	EqP	4.5E-01
Landbay A	SS-105C	INORG	Perchlorate	14797-73-0	NC	3.30E-03			3.4E+03	LT	9.6E-07	7.7E+02	LT	4.3E-06
Landbay A	SS-CGA	INORG	Perchlorate	14797-73-0	NC	5.00E-03			3.4E+03	LT	1.5E-06	7.7E+02	LT	6.5E-06
Landbay A	SS-CGA	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.10E+02				NA		6.0E+01	LT	**1.8E+00**
Landbay A	SW CM-02	INORG	Perchlorate	14797-73-0	NC	1.70E-01			3.4E+03	LT	4.9E-05	7.7E+02	LT	2.2E-04
Landbay A	SW CM-07	INORG	Perchlorate	14797-73-0	NC	6.70E-02			3.4E+03	LT	1.9E-05	7.7E+02	LT	8.7E-05
Landbay A	SW CM-08	INORG	Perchlorate	14797-73-0	NC	1.62E+00			3.4E+03	LT	4.7E-04	7.7E+02	LT	2.1E-03
Landbay A	SW TTU-01	INORG	Aluminum	7429-90-5	ID	4.41E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	SW TTU-01	INORG	Barium	7440-39-3	NC	1.52E+02	2.24E+02	6.8E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay A	SW TTU-01	INORG	Chromium III	16065-83-1	D	8.50E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay A	SW TTU-01	INORG	Chromium VI	18540-29-9	A	3.17E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay A	SW TTU-01	INORG	Copper	7440-50-8	D	5.71E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.8E+00**
Landbay A	SW TTU-01	INORG	Lead	7439-92-1	B2	7.00E+00						3.5E+02	EqP	2.0E-02
Landbay A	SW TTU-01	INORG	Nitrate	14797-55-8		1.10E+00			7.9E+06	LT	1.4E-07	2.0E+06	LT	5.5E-07
Landbay A	SW TTU-01	INORG	Strontium	7440-24-6		3.47E+01	3.80E+01	9.1E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.3E-02
Landbay A	SW TTU-02	SVOC	Di(2-ethylhexyl) adipate	103-23-1	C	1.20E-02			1.5E+06	LT	8.1E-09	1.2E+05	LT	1.0E-07
Landbay A	SW TTU-02	INORG	Aluminum	7429-90-5	ID	4.44E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay A	SW TTU-02	INORG	Barium	7440-39-3	NC	1.73E+02	2.24E+02	7.7E-01	3.2E+05	EqP	5.3E-04	3.3E+00	EqP	**5.2E+01**
Landbay A	SW TTU-02	INORG	Chromium III	16065-83-1	D	7.85E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay A	SW TTU-02	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay A	SW TTU-02	INORG	Copper	7440-50-8	D	5.54E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay A	SW TTU-02	INORG	Lead	7439-92-1	B2	4.78E+00						3.5E+02	EqP	1.4E-02
Landbay A	SW TTU-02	INORG	Nitrate	14797-55-8		1.00E+00			7.9E+06	LT	1.3E-07	2.0E+06	LT	5.0E-07
Landbay A	SW TTU-02	INORG	Perchlorate	14797-73-0	NC	1.10E-01			3.4E+03	LT	3.2E-05	7.7E+02	LT	1.4E-04
Landbay A	SW TTU-02	INORG	Strontium	7440-24-6		3.79E+01	3.80E+01	1.0E+00	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.6E-02
Landbay A	SW TTU-03	INORG	Aluminum	7429-90-5	ID	3.25E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	SW TTU-03	INORG	Barium	7440-39-3	NC	3.65E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay A	SW TTU-03	INORG	Chromium III	16065-83-1	D	2.70E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.3E-09	3.4E+06	EqP	8.0E-06
Landbay A	SW TTU-03	INORG	Chromium VI	18540-29-9	A	2.78E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay A	SW TTU-03	INORG	Copper	7440-50-8	D	5.77E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay A	SW TTU-03	INORG	Lead	7439-92-1	B2	4.40E+00						3.5E+02	EqP	1.3E-02
Landbay A	SW TTU-03	INORG	Perchlorate	14797-73-0	NC	4.50E-02			3.4E+03	LT	1.3E-05	7.7E+02	LT	5.8E-05
Landbay A	SW TTU-03	INORG	Strontium	7440-24-6		6.46E+01	3.80E+01	**1.7E+00**	1.6E+07	EqP	4.0E-06	1.1E+03	EqP	6.1E-02
Landbay A	SW TTU-04	INORG	Aluminum	7429-90-5	ID	4.14E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	SW TTU-04	INORG	Barium	7440-39-3	NC	1.37E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.2E+01**
Landbay A	SW TTU-04	INORG	Chromium III	16065-83-1	D	1.24E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.8E-09	3.4E+06	EqP	3.7E-05
Landbay A	SW TTU-04	INORG	Chromium VI	18540-29-9	A	3.43E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay A	SW TTU-04	INORG	Copper	7440-50-8	D	4.21E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.0E+00**
Landbay A	SW TTU-04	INORG	Lead	7439-92-1	B2	2.10E+01						3.5E+02	EqP	6.0E-02
Landbay A	SW TTU-04	INORG	Perchlorate	14797-73-0	NC	6.80E-02			3.4E+03	LT	2.0E-05	7.7E+02	LT	8.8E-05
Landbay A	SW TTU-04	INORG	Strontium	7440-24-6		2.08E+01	3.80E+01	5.5E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay A	SW TTU-05	SVOC	Di(2-ethylhexyl) adipate	103-23-1	C	3.20E-01			1.5E+06	LT	2.1E-07	1.2E+05	LT	2.7E-06
Landbay A	SW TTU-05	INORG	Aluminum	7429-90-5	ID	3.16E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	SW TTU-05	INORG	Barium	7440-39-3	NC	1.29E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay A	SW TTU-05	INORG	Chromium III	16065-83-1	D	1.05E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.9E-09	3.4E+06	EqP	3.1E-05
Landbay A	SW TTU-05	INORG	Chromium VI	18540-29-9	A	3.30E+00	4.97E+00	6.6E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay A	SW TTU-05	INORG	Copper	7440-50-8	D	3.37E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.7E-05	8.4E+00	EqP	**4.0E+00**
Landbay A	SW TTU-05	INORG	Lead	7439-92-1	B2	2.90E+01						3.5E+02	EqP	8.3E-02
Landbay A	SW TTU-05	INORG	Nitrate	14797-55-8		1.80E+00			7.9E+06	LT	2.3E-07	2.0E+06	LT	8.9E-07
Landbay A	SW TTU-05	INORG	Strontium	7440-24-6		1.79E+01	3.80E+01	4.7E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay A	TP 107-01	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay A	TP 107-01	INORG	Beryllium	7440-41-7	B1	5.81E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay A	TP 107-01	INORG	Cadmium	7440-43-9	B1	4.65E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.3E-04	2.1E+00	EqP	2.2E-01
Landbay A	TP 107-01	INORG	Chromium III	16065-83-1	D	3.59E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay A	TP 107-01	INORG	Chromium VI	18540-29-9	A	2.84E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay A	TP 107-01	INORG	Copper	7440-50-8	D	7.41E+01	1.31E+02	5.7E-01	3.5E+05	EqP	2.1E-04	8.4E+00	EqP	**8.8E+00**
Landbay A	TP 107-01	INORG	Lead	7439-92-1	B2	2.88E+01						3.5E+02	EqP	8.2E-02
Landbay A	TP 107-01	INORG	Mercury	7439-97-6	D	2.90E-01	7.10E-02	**4.1E+00**		NA		3.7E-01	EqP	7.9E-01
Landbay A	TP 107-01	INORG	Nickel	7440-02-0	A	2.03E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay A	TP 107-01	INORG	Zinc	7440-66-6	ID	8.50E+01	1.02E+02	8.3E-01	5.5E+06	EqP	1.6E-05	1.9E+02	EqP	4.5E-01
Landbay A	TP 107-07	INORG	Arsenic	7440-38-2	A	5.41E+00	9.90E+00	5.5E-01	1.1E+03	EqP	5.2E-03	8.6E+01	EqP	6.3E-02
Landbay A	TP 107-07	INORG	Beryllium	7440-41-7	B1	7.15E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay A	TP 107-07	INORG	Chromium III	16065-83-1	D	3.71E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay A	TP 107-07	INORG	Chromium VI	18540-29-9	A	2.84E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay A	TP 107-07	INORG	Copper	7440-50-8	D	5.87E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay A	TP 107-07	INORG	Lead	7439-92-1	B2	8.86E+00						3.5E+02	EqP	2.5E-02
Landbay A	TP 107-07	INORG	Mercury	7439-97-6	D	6.07E-02	7.10E-02	8.5E-01		NA		3.7E-01	EqP	1.6E-01
Landbay A	TP 107-07	INORG	Nickel	7440-02-0	A	1.92E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.7E-01
Landbay A	TP 107-07	INORG	Selenium	7782-49-2	D	1.20E+00	2.50E+00	4.8E-01	2.5E+04	LT	4.9E-05	2.0E+00	LT	6.0E-01
Landbay A	TP 107-07	INORG	Silver	7440-22-4	D	1.93E-01	2.30E+00	8.4E-02	3.8E+03	LT	5.1E-05	2.7E+00	LT	7.3E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay A	TP 107-07	INORG	Zinc	7440-66-6	ID	3.93E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay A	TRL100B1	INORG	Perchlorate	14797-73-0	NC	3.90E-02			3.4E+03	LT	1.1E-05	7.7E+02	LT	5.0E-05
Landbay A	TTU GP-01	PCB	PCBs (total)	1336-36-3	B2	5.54E-02				NA		1.4E+00	EqP	4.0E-02
Landbay A	TTU GP-15	PCB	PCBs (total)	1336-36-3	B2	1.69E-02				NA		1.4E+00	EqP	1.2E-02
Landbay A	TTU GP-23	PCB	PCBs (total)	1336-36-3	B2	1.52E-02				NA		1.4E+00	EqP	1.1E-02
Landbay A	TTU GP-31	PCB	PCBs (total)	1336-36-3	B2	9.00E-02				NA		1.4E+00	EqP	6.6E-02
Landbay A	TTU SED-02	PCB	PCBs (total)	1336-36-3	B2	1.07E-01				NA		1.4E+00	EqP	7.8E-02
Landbay A	TTU SED-03	VOC	Acetone	67-64-1	ID	6.10E-02			2.0E+06	LT	3.0E-08	6.0E+02	LT	1.0E-04
Landbay A	TTU SED-03	VOC	Carbon Disulfide	75-15-0		2.00E-03			1.4E+04	LT	1.4E-07	3.7E-01	LT	5.4E-03
Landbay A	TTU SED-03	PCB	PCBs (total)	1336-36-3	B2	3.32E-02				NA		1.4E+00	EqP	2.4E-02
Landbay A	TTU SED-03	INORG	Aluminum	7429-90-5	ID	2.07E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.6E-05	2.6E+03	EqP	**7.9E+00**
Landbay A	TTU SED-03	INORG	Arsenic	7440-38-2	A	8.06E+00	9.90E+00	8.1E-01	1.1E+03	EqP	7.7E-03	8.6E+01	EqP	9.4E-02
Landbay A	TTU SED-03	INORG	Barium	7440-39-3	NC	9.85E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay A	TTU SED-03	INORG	Beryllium	7440-41-7	B1	6.14E-01	1.20E+00	5.1E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay A	TTU SED-03	INORG	Boron	7440-42-8	ID	3.32E+00	1.34E+01	2.5E-01	9.9E+05	LT	3.4E-06	6.4E-01	LT	**5.2E+00**
Landbay A	TTU SED-03	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.1E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.7E-05
Landbay A	TTU SED-03	INORG	Cobalt	7440-48-4	LC	6.34E+01	8.60E+01	7.4E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay A	TTU SED-03	INORG	Copper	7440-50-8	D	3.36E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.7E-05	8.4E+00	EqP	**4.0E+00**
Landbay A	TTU SED-03	INORG	Iron	7439-89-6	D	7.07E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay A	TTU SED-03	INORG	Lead	7439-92-1	B2	2.24E+01						3.5E+02	EqP	6.4E-02
Landbay A	TTU SED-03	INORG	Manganese	7439-96-5	D	2.38E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.6E-03	1.6E+02	EqP	**1.5E+01**
Landbay A	TTU SED-03	INORG	Nickel	7440-02-0	A	2.95E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.7E-01
Landbay A	TTU SED-03	INORG	Perchlorate	14797-73-0	NC	6.90E-03			3.4E+03	LT	2.0E-06	7.7E+02	LT	8.9E-06
Landbay A	TTU SED-03	INORG	Silver	7440-22-4	D	4.23E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay A	TTU SED-03	INORG	Strontium	7440-24-6		2.80E+01	3.80E+01	7.4E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay A	TTU SED-03	INORG	Vanadium	7440-62-2	ID	3.03E+02	2.83E+02	**1.1E+00**	1.5E+05	EqP	2.0E-03	4.0E+02	EqP	7.6E-01
Landbay A	TTU SED-03	INORG	Zinc	7440-66-6	ID	5.27E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay A	TTU1P3-1	INORG	Perchlorate	14797-73-0	NC	5.80E+01			3.4E+03	LT	1.7E-02	7.7E+02	LT	7.5E-02
Landbay A	TTU1P3-2	INORG	Perchlorate	14797-73-0	NC	3.90E+00			3.4E+03	LT	1.1E-03	7.7E+02	LT	5.0E-03
Landbay A	TTU1P3-3	INORG	Perchlorate	14797-73-0	NC	6.60E-01			3.4E+03	LT	1.9E-04	7.7E+02	LT	8.5E-04
Landbay A	TTU1P3-4	INORG	Perchlorate	14797-73-0	NC	2.60E-02			3.4E+03	LT	7.5E-06	7.7E+02	LT	3.4E-05
Landbay A	TTU2P2-10	INORG	Aluminum	7429-90-5	ID	4.60E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay A	TTU2P2-10	INORG	Barium	7440-39-3	NC	1.79E+02	2.24E+02	8.0E-01	3.2E+05	EqP	5.5E-04	3.3E+00	EqP	**5.4E+01**
Landbay A	TTU2P2-10	INORG	Chromium III	16065-83-1	D	9.40E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay A	TTU2P2-10	INORG	Chromium VI	18540-29-9	A	1.60E+00	4.97E+00	3.2E-01	6.6E+01	LT	2.4E-02	4.4E+00	LT	3.6E-01
Landbay A	TTU2P2-10	INORG	Copper	7440-50-8	D	6.35E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay A	TTU2P2-10	INORG	Lead	7439-92-1	B2	1.60E+01						3.5E+02	EqP	4.6E-02
Landbay A	TTU2P2-10	INORG	Perchlorate	14797-73-0	NC	6.30E-03			3.4E+03	LT	1.8E-06	7.7E+02	LT	8.1E-06
Landbay A	TTU2P2-10	INORG	Silver	7440-22-4	D	1.38E+00	2.30E+00	6.0E-01	3.8E+03	LT	3.7E-04	2.7E+00	LT	5.2E-01
Landbay A	TTU2P2-10	INORG	Strontium	7440-24-6		4.66E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.4E-02
Landbay A	TTU2P2-9	INORG	Perchlorate	14797-73-0	NC	2.20E-03			3.4E+03	LT	6.4E-07	7.7E+02	LT	2.8E-06
Landbay A	TTU2P3-5	INORG	Perchlorate	14797-73-0	NC	6.30E+00			3.4E+03	LT	1.8E-03	7.7E+02	LT	8.1E-03
Landbay A	TTU2P3-6	INORG	Perchlorate	14797-73-0	NC	7.00E+00			3.4E+03	LT	2.0E-03	7.7E+02	LT	9.0E-03
Landbay A	TTU3P3-7	INORG	Perchlorate	14797-73-0	NC	5.70E-03			3.4E+03	LT	1.7E-06	7.7E+02	LT	7.4E-06
Landbay A	TTU3P3-8	INORG	Perchlorate	14797-73-0	NC	1.90E-03			3.4E+03	LT	5.5E-07	7.7E+02	LT	2.5E-06
Landbay A	TTUP2-DS-1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.10E-01				NA		9.6E+03	EqP	1.1E-05
Landbay A	TTUP2-DS-1	INORG	Aluminum	7429-90-5	ID	4.02E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay A	TTUP2-DS-1	INORG	Barium	7440-39-3	NC	1.00E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay A	TTUP2-DS-1	INORG	Chromium III	16065-83-1	D	7.89E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay A	TTUP2-DS-1	INORG	Copper	7440-50-8	D	8.18E+01	1.31E+02	6.2E-01	3.5E+05	EqP	2.4E-04	8.4E+00	EqP	**9.7E+00**
Landbay A	TTUP2-DS-1	INORG	Lead	7439-92-1	B2	1.77E+01						3.5E+02	EqP	5.1E-02
Landbay A	TTUP2-DS-1	INORG	Perchlorate	14797-73-0	NC	3.70E-01			3.4E+03	LT	1.1E-04	7.7E+02	LT	4.8E-04
Landbay A	TTUP2-DS-1	INORG	Silver	7440-22-4	D	8.77E-01	2.30E+00	3.8E-01	3.8E+03	LT	2.3E-04	2.7E+00	LT	3.3E-01
Landbay A	TTUP2-DS-1	INORG	Strontium	7440-24-6		7.88E+01	3.80E+01	**2.1E+00**	1.6E+07	EqP	4.8E-06	1.1E+03	EqP	7.5E-02
Landbay A	TTUP2-DS-2	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay A	TTUP2-DS-2	INORG	Barium	7440-39-3	NC	6.63E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay A	TTUP2-DS-2	INORG	Chromium III	16065-83-1	D	4.21E+01	2.61E+02	1.6E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.2E-05
Landbay A	TTUP2-DS-2	INORG	Copper	7440-50-8	D	4.47E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.3E+00**
Landbay A	TTUP2-DS-2	INORG	Lead	7439-92-1	B2	4.84E+00						3.5E+02	EqP	1.4E-02
Landbay A	TTUP2-DS-2	INORG	Perchlorate	14797-73-0	NC	5.10E-03			3.4E+03	LT	1.5E-06	7.7E+02	LT	6.6E-06
Landbay A	TTUP2-DS-2	INORG	Silver	7440-22-4	D	2.52E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.7E-05	2.7E+00	LT	9.5E-02
Landbay A	TTUP2-DS-2	INORG	Strontium	7440-24-6		4.75E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.5E-02
Landbay A	TTUP2-DS-3	INORG	Aluminum	7429-90-5	ID	4.29E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay A	TTUP2-DS-3	INORG	Barium	7440-39-3	NC	8.85E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay A	TTUP2-DS-3	INORG	Chromium III	16065-83-1	D	1.32E+02	2.61E+02	5.1E-01	2.1E+10	EqP	6.2E-09	3.4E+06	EqP	3.9E-05
Landbay A	TTUP2-DS-3	INORG	Chromium VI	18540-29-9	A	1.90E+00	4.97E+00	3.8E-01	6.6E+01	LT	2.9E-02	4.4E+00	LT	4.3E-01
Landbay A	TTUP2-DS-3	INORG	Copper	7440-50-8	D	7.02E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay A	TTUP2-DS-3	INORG	Lead	7439-92-1	B2	1.43E+01						3.5E+02	EqP	4.1E-02
Landbay A	TTUP2-DS-3	INORG	Silver	7440-22-4	D	5.28E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay A	TTUP2-DS-3	INORG	Strontium	7440-24-6		4.80E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.5E-02
Landbay A	TTUP2-DS-3	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.80E-01				NA		6.0E+01	LT	1.1E-02
Landbay A	TTUP2-DS-4	INORG	Aluminum	7429-90-5	ID	5.07E+04	5.34E+04	9.5E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**1.9E+01**
Landbay A	TTUP2-DS-4	INORG	Barium	7440-39-3	NC	2.14E+02	2.24E+02	9.6E-01	3.2E+05	EqP	6.6E-04	3.3E+00	EqP	**6.5E+01**
Landbay A	TTUP2-DS-4	INORG	Chromium III	16065-83-1	D	2.21E+02	2.61E+02	8.5E-01	2.1E+10	EqP	1.0E-08	3.4E+06	EqP	6.6E-05
Landbay A	TTUP2-DS-4	INORG	Chromium VI	18540-29-9	A	2.60E+00	4.97E+00	5.2E-01	6.6E+01	LT	3.9E-02	4.4E+00	LT	5.9E-01
Landbay A	TTUP2-DS-4	INORG	Copper	7440-50-8	D	5.65E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay A	TTUP2-DS-4	INORG	Lead	7439-92-1	B2	1.77E+01						3.5E+02	EqP	5.1E-02
Landbay A	TTUP2-DS-4	INORG	Silver	7440-22-4	D	8.55E-01	2.30E+00	3.7E-01	3.8E+03	LT	2.3E-04	2.7E+00	LT	3.2E-01
Landbay A	TTUP2-DS-4	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay B	116AEC-1	INORG	Perchlorate	14797-73-0	NC	3.90E-01			3.4E+03	LT	1.1E-04	7.7E+02	LT	5.0E-04
Landbay B	116AEC-1	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.50E+00				NA		1.4E+02	LT	1.0E-02
Landbay B	116AEC-1	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	3.00E+00				NA		6.0E+01	LT	5.0E-02
Landbay B	116ANEC	INORG	Perchlorate	14797-73-0	NC	1.30E-01			3.4E+03	LT	3.8E-05	7.7E+02	LT	1.7E-04
Landbay B	116ANEC	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.30E-01				NA		6.0E+01	LT	1.1E-02
Landbay B	116B145	INORG	Aluminum	7429-90-5	ID	4.24E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	116B145	INORG	Arsenic	7440-38-2	A	6.45E+00	9.90E+00	6.5E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.5E-02
Landbay B	116B145	INORG	Barium	7440-39-3	NC	1.66E+02	2.24E+02	7.4E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay B	116B145	INORG	Beryllium	7440-41-7	B1	1.06E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay B	116B145	INORG	Boron	7440-42-8	ID	1.25E+00	1.34E+01	9.3E-02	9.9E+05	LT	1.3E-06	6.4E-01	LT	**1.9E+00**
Landbay B	116B145	INORG	Chromium III	16065-83-1	D	1.55E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.3E-09	3.4E+06	EqP	4.6E-05
Landbay B	116B145	INORG	Chromium VI	18540-29-9	A	3.65E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay B	116B145	INORG	Cobalt	7440-48-4	LC	1.13E+02	8.60E+01	**1.3E+00**	1.4E+04	EqP	8.2E-03	2.1E+01	EqP	**5.4E+00**
Landbay B	116B145	INORG	Copper	7440-50-8	D	5.39E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.4E+00**
Landbay B	116B145	INORG	Iron	7439-89-6	D	8.94E+04	9.52E+04	9.4E-01	4.4E+06	EqP	2.1E-02	1.5E+02	EqP	**5.9E+02**
Landbay B	116B145	INORG	Lead	7439-92-1	B2	3.83E+01						3.5E+02	EqP	1.1E-01
Landbay B	116B145	INORG	Manganese	7439-96-5	D	4.01E+03	4.27E+03	9.4E-01	3.1E+05	EqP	1.3E-02	1.6E+02	EqP	**2.6E+01**
Landbay B	116B145	INORG	Mercury	7439-97-6	D	2.73E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.4E-02
Landbay B	116B145	INORG	Nickel	7440-02-0	A	4.12E+01	7.30E+01	5.6E-01	1.2E+05	EqP	3.3E-04	3.4E+01	EqP	**1.2E+00**
Landbay B	116B145	INORG	Perchlorate	14797-73-0	NC	2.50E-03			3.4E+03	LT	7.3E-07	7.7E+02	LT	3.2E-06
Landbay B	116B145	INORG	Selenium	7782-49-2	D	2.10E+00	2.50E+00	8.4E-01	2.5E+04	LT	8.5E-05	2.0E+00	LT	1.0E+00
Landbay B	116B145	INORG	Strontium	7440-24-6		2.59E+01	3.80E+01	6.8E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay B	116B145	INORG	Thallium	7440-28-0	ID	7.07E+00	4.50E+00	**1.6E+00**				1.1E+00	EqP	**6.2E+00**
Landbay B	116B145	INORG	Vanadium	7440-62-2	ID	3.20E+02	2.83E+02	**1.1E+00**	1.5E+05	EqP	2.1E-03	4.0E+02	EqP	8.0E-01
Landbay B	116B145	INORG	Zinc	7440-66-6	ID	5.67E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	116B145	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.00E+00				NA		6.0E+01	LT	1.7E-02
Landbay B	116B146	INORG	Aluminum	7429-90-5	ID	3.53E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	116B146	INORG	Arsenic	7440-38-2	A	3.95E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.6E-02
Landbay B	116B146	INORG	Barium	7440-39-3	NC	1.01E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.1E+01**
Landbay B	116B146	INORG	Beryllium	7440-41-7	B1	7.44E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay B	116B146	INORG	Boron	7440-42-8	ID	4.15E+01	1.34E+01	**3.1E+00**	9.9E+05	LT	4.2E-05	6.4E-01	LT	**6.5E+01**
Landbay B	116B146	INORG	Chromium III	16065-83-1	D	1.12E+02	2.61E+02	4.3E-01	2.1E+10	EqP	5.2E-09	3.4E+06	EqP	3.3E-05
Landbay B	116B146	INORG	Chromium VI	18540-29-9	A	3.35E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay B	116B146	INORG	Cobalt	7440-48-4	LC	5.81E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.2E-03	2.1E+01	EqP	**2.8E+00**
Landbay B	116B146	INORG	Copper	7440-50-8	D	5.80E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay B	116B146	INORG	Iron	7439-89-6	D	6.35E+04	9.52E+04	6.7E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay B	116B146	INORG	Lead	7439-92-1	B2	2.27E+01						3.5E+02	EqP	6.5E-02
Landbay B	116B146	INORG	Manganese	7439-96-5	D	1.93E+03	4.27E+03	4.5E-01	3.1E+05	EqP	6.2E-03	1.6E+02	EqP	**1.2E+01**
Landbay B	116B146	INORG	Mercury	7439-97-6	D	1.76E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.8E-02
Landbay B	116B146	INORG	Nickel	7440-02-0	A	3.58E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	116B146	INORG	Selenium	7782-49-2	D	1.22E+00	2.50E+00	4.9E-01	2.5E+04	LT	5.0E-05	2.0E+00	LT	6.1E-01
Landbay B	116B146	INORG	Strontium	7440-24-6		3.70E+01	3.80E+01	9.7E-01	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.5E-02
Landbay B	116B146	INORG	Thallium	7440-28-0	ID	4.99E+00	4.50E+00	**1.1E+00**				1.1E+00	EqP	**4.4E+00**
Landbay B	116B146	INORG	Vanadium	7440-62-2	ID	2.22E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay B	116B146	INORG	Zinc	7440-66-6	ID	6.04E+01	1.02E+02	5.9E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay B	116B147	INORG	Aluminum	7429-90-5	ID	4.28E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	116B147	INORG	Arsenic	7440-38-2	A	2.22E+00	9.90E+00	2.2E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.6E-02
Landbay B	116B147	INORG	Barium	7440-39-3	NC	8.99E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	116B147	INORG	Beryllium	7440-41-7	B1	3.08E-01	1.20E+00	2.6E-01	6.8E+03	EqP	4.5E-05	1.0E+01	EqP	3.0E-02
Landbay B	116B147	INORG	Chromium III	16065-83-1	D	5.34E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay B	116B147	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay B	116B147	INORG	Cobalt	7440-48-4	LC	2.13E+01	8.60E+01	2.5E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	1.0E+00
Landbay B	116B147	INORG	Copper	7440-50-8	D	5.53E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay B	116B147	INORG	Iron	7439-89-6	D	3.43E+04	9.52E+04	3.6E-01	4.4E+06	EqP	7.9E-03	1.5E+02	EqP	**2.3E+02**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay B	116B147	INORG	Lead	7439-92-1	B2	3.79E+00						3.5E+02	EqP	1.1E-02
Landbay B	116B147	INORG	Manganese	7439-96-5	D	4.60E+02	4.27E+03	1.1E-01	3.1E+05	EqP	1.5E-03	1.6E+02	EqP	**2.9E+00**
Landbay B	116B147	INORG	Nickel	7440-02-0	A	3.35E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.9E-01
Landbay B	116B147	INORG	Perchlorate	14797-73-0	NC	3.05E-03			3.4E+03	LT	8.8E-07	7.7E+02	LT	3.9E-06
Landbay B	116B147	INORG	Selenium	7782-49-2	D	1.18E+00	2.50E+00	4.7E-01	2.5E+04	LT	4.8E-05	2.0E+00	LT	5.9E-01
Landbay B	116B147	INORG	Strontium	7440-24-6		5.04E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay B	116B147	INORG	Vanadium	7440-62-2	ID	1.20E+02	2.83E+02	4.2E-01	1.5E+05	EqP	7.7E-04	4.0E+02	EqP	3.0E-01
Landbay B	116B147	INORG	Zinc	7440-66-6	ID	3.66E+01	1.02E+02	3.6E-01	5.5E+06	EqP	6.7E-06	1.9E+02	EqP	1.9E-01
Landbay B	116G17	INORG	Aluminum	7429-90-5	ID	4.41E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay B	116G17	INORG	Arsenic	7440-38-2	A	3.04E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.5E-02
Landbay B	116G17	INORG	Barium	7440-39-3	NC	1.10E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay B	116G17	INORG	Beryllium	7440-41-7	B1	5.73E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay B	116G17	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay B	116G17	INORG	Chromium VI	18540-29-9	A	3.41E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay B	116G17	INORG	Cobalt	7440-48-4	LC	4.02E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	116G17	INORG	Copper	7440-50-8	D	5.16E+01	1.31E+02	3.9E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.1E+00**
Landbay B	116G17	INORG	Iron	7439-89-6	D	6.52E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay B	116G17	INORG	Lead	7439-92-1	B2	1.31E+01						3.5E+02	EqP	3.7E-02
Landbay B	116G17	INORG	Manganese	7439-96-5	D	1.29E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.2E+00**
Landbay B	116G17	INORG	Nickel	7440-02-0	A	4.37E+01	7.30E+01	6.0E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay B	116G17	INORG	Strontium	7440-24-6		4.02E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay B	116G17	INORG	Thallium	7440-28-0	ID	3.59E+00	4.50E+00	8.0E-01				1.1E+00	EqP	**3.1E+00**
Landbay B	116G17	INORG	Vanadium	7440-62-2	ID	2.24E+02	2.83E+02	7.9E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.6E-01
Landbay B	116G17	INORG	Zinc	7440-66-6	ID	5.66E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	116G18	INORG	Aluminum	7429-90-5	ID	5.71E+04	5.34E+04	**1.1E+00**	3.7E+08	EqP	1.5E-04	2.6E+03	EqP	**2.2E+01**
Landbay B	116G18	INORG	Arsenic	7440-38-2	A	4.32E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.1E-03	8.6E+01	EqP	5.0E-02
Landbay B	116G18	INORG	Barium	7440-39-3	NC	1.85E+02	2.24E+02	8.3E-01	3.2E+05	EqP	5.7E-04	3.3E+00	EqP	**5.6E+01**
Landbay B	116G18	INORG	Beryllium	7440-41-7	B1	1.08E+00	1.20E+00	9.0E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay B	116G18	INORG	Chromium III	16065-83-1	D	2.04E+02	2.61E+02	7.8E-01	2.1E+10	EqP	9.6E-09	3.4E+06	EqP	6.0E-05
Landbay B	116G18	INORG	Chromium VI	18540-29-9	A	3.99E+00	4.97E+00	8.0E-01	6.6E+01	LT	6.0E-02	4.4E+00	LT	9.1E-01
Landbay B	116G18	INORG	Cobalt	7440-48-4	LC	1.46E+02	8.60E+01	**1.7E+00**	1.4E+04	EqP	1.1E-02	2.1E+01	EqP	**7.0E+00**
Landbay B	116G18	INORG	Copper	7440-50-8	D	6.00E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.1E+00**
Landbay B	116G18	INORG	Iron	7439-89-6	D	1.00E+05	9.52E+04	**1.1E+00**	4.4E+06	EqP	2.3E-02	1.5E+02	EqP	**6.6E+02**
Landbay B	116G18	INORG	Lead	7439-92-1	B2	1.82E+01						3.5E+02	EqP	5.2E-02
Landbay B	116G18	INORG	Manganese	7439-96-5	D	4.11E+03	4.27E+03	9.6E-01	3.1E+05	EqP	1.3E-02	1.6E+02	EqP	**2.6E+01**
Landbay B	116G18	INORG	Mercury	7439-97-6	D	3.76E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay B	116G18	INORG	Nickel	7440-02-0	A	6.18E+01	7.30E+01	8.5E-01	1.2E+05	EqP	5.0E-04	3.4E+01	EqP	**1.8E+00**
Landbay B	116G18	INORG	Selenium	7782-49-2	D	2.38E+00	2.50E+00	9.5E-01	2.5E+04	LT	9.7E-05	2.0E+00	LT	**1.2E+00**
Landbay B	116G18	INORG	Strontium	7440-24-6		2.62E+01	3.80E+01	6.9E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.5E-02
Landbay B	116G18	INORG	Thallium	7440-28-0	ID	8.35E+00	4.50E+00	**1.9E+00**				1.1E+00	EqP	**7.3E+00**
Landbay B	116G18	INORG	Vanadium	7440-62-2	ID	3.17E+02	2.83E+02	**1.1E+00**	1.5E+05	EqP	2.0E-03	4.0E+02	EqP	7.9E-01
Landbay B	116G18	INORG	Zinc	7440-66-6	ID	7.03E+01	1.02E+02	6.9E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01
Landbay B	116G19	PCB	PCBs (total)	1336-36-3	B2	1.72E-02				NA		1.4E+00	EqP	1.3E-02
Landbay B	116G19	INORG	Aluminum	7429-90-5	ID	4.66E+04	5.34E+04	8.7E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay B	116G19	INORG	Arsenic	7440-38-2	A	4.15E+00	9.90E+00	4.2E-01	1.1E+03	EqP	3.9E-03	8.6E+01	EqP	4.8E-02
Landbay B	116G19	INORG	Barium	7440-39-3	NC	2.25E+02	2.24E+02	1.0E+00	3.2E+05	EqP	6.9E-04	3.3E+00	EqP	**6.8E+01**
Landbay B	116G19	INORG	Beryllium	7440-41-7	B1	7.91E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay B	116G19	INORG	Chromium III	16065-83-1	D	1.83E+02	2.61E+02	7.0E-01	2.1E+10	EqP	8.6E-09	3.4E+06	EqP	5.4E-05
Landbay B	116G19	INORG	Chromium VI	18540-29-9	A	3.84E+00	4.97E+00	7.7E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.7E-01
Landbay B	116G19	INORG	Cobalt	7440-48-4	LC	8.12E+01	8.60E+01	9.4E-01	1.4E+04	EqP	5.9E-03	2.1E+01	EqP	**3.9E+00**
Landbay B	116G19	INORG	Copper	7440-50-8	D	5.53E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay B	116G19	INORG	Iron	7439-89-6	D	8.88E+04	9.52E+04	9.3E-01	4.4E+06	EqP	2.0E-02	1.5E+02	EqP	**5.9E+02**
Landbay B	116G19	INORG	Lead	7439-92-1	B2	3.32E+01						3.5E+02	EqP	9.5E-02
Landbay B	116G19	INORG	Manganese	7439-96-5	D	3.42E+03	4.27E+03	8.0E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.2E+01**
Landbay B	116G19	INORG	Mercury	7439-97-6	D	1.60E-02	7.10E-02	2.3E-01		NA		3.7E-01	EqP	4.3E-02
Landbay B	116G19	INORG	Nickel	7440-02-0	A	6.29E+01	7.30E+01	8.6E-01	1.2E+05	EqP	5.1E-04	3.4E+01	EqP	**1.9E+00**
Landbay B	116G19	INORG	Selenium	7782-49-2	D	2.22E+00	2.50E+00	8.9E-01	2.5E+04	LT	9.0E-05	2.0E+00	LT	**1.1E+00**
Landbay B	116G19	INORG	Strontium	7440-24-6		2.58E+01	3.80E+01	6.8E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay B	116G19	INORG	Thallium	7440-28-0	ID	5.89E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.2E+00**
Landbay B	116G19	INORG	Vanadium	7440-62-2	ID	2.47E+02	2.83E+02	8.7E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.2E-01
Landbay B	116G19	INORG	Zinc	7440-66-6	ID	1.26E+02	1.02E+02	**1.2E+00**	5.5E+06	EqP	2.3E-05	1.9E+02	EqP	6.6E-01
Landbay B	116G20	INORG	Aluminum	7429-90-5	ID	6.00E+04	5.34E+04	**1.1E+00**	3.7E+08	EqP	1.6E-04	2.6E+03	EqP	**2.3E+01**
Landbay B	116G20	INORG	Arsenic	7440-38-2	A	1.36E+00	9.90E+00	1.4E-01	1.1E+03	EqP	1.3E-03	8.6E+01	EqP	1.6E-02
Landbay B	116G20	INORG	Barium	7440-39-3	NC	1.69E+02	2.24E+02	7.5E-01	3.2E+05	EqP	5.2E-04	3.3E+00	EqP	**5.1E+01**
Landbay B	116G20	INORG	Beryllium	7440-41-7	B1	6.56E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay B	116G20	INORG	Chromium III	16065-83-1	D	2.01E+02	2.61E+02	7.7E-01	2.1E+10	EqP	9.4E-09	3.4E+06	EqP	6.0E-05
Landbay B	116G20	INORG	Chromium VI	18540-29-9	A	3.97E+00	4.97E+00	8.0E-01	6.6E+01	LT	6.0E-02	4.4E+00	LT	9.0E-01
Landbay B	116G20	INORG	Cobalt	7440-48-4	LC	4.64E+01	8.60E+01	5.4E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.2E+00**
Landbay B	116G20	INORG	Copper	7440-50-8	D	6.25E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.4E+00**
Landbay B	116G20	INORG	Iron	7439-89-6	D	8.07E+04	9.52E+04	8.5E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.3E+02**
Landbay B	116G20	INORG	Lead	7439-92-1	B2	6.06E+00						3.5E+02	EqP	1.7E-02
Landbay B	116G20	INORG	Manganese	7439-96-5	D	1.85E+03	4.27E+03	4.3E-01	3.1E+05	EqP	5.9E-03	1.6E+02	EqP	**1.2E+01**
Landbay B	116G20	INORG	Mercury	7439-97-6	D	1.62E-02	7.10E-02	2.3E-01		NA		3.7E-01	EqP	4.4E-02
Landbay B	116G20	INORG	Nickel	7440-02-0	A	6.96E+01	7.30E+01	9.5E-01	1.2E+05	EqP	5.6E-04	3.4E+01	EqP	**2.1E+00**
Landbay B	116G20	INORG	Selenium	7782-49-2	D	1.51E+00	2.50E+00	6.0E-01	2.5E+04	LT	6.1E-05	2.0E+00	LT	7.6E-01
Landbay B	116G20	INORG	Strontium	7440-24-6		2.94E+01	3.80E+01	7.7E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay B	116G20	INORG	Thallium	7440-28-0	ID	4.01E+00	4.50E+00	8.9E-01				1.1E+00	EqP	**3.5E+00**
Landbay B	116G20	INORG	Vanadium	7440-62-2	ID	1.96E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay B	116G20	INORG	Zinc	7440-66-6	ID	6.33E+01	1.02E+02	6.2E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.3E-01
Landbay B	116G21	INORG	Aluminum	7429-90-5	ID	4.50E+04	5.34E+04	8.4E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay B	116G21	INORG	Arsenic	7440-38-2	A	2.40E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay B	116G21	INORG	Barium	7440-39-3	NC	1.42E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay B	116G21	INORG	Beryllium	7440-41-7	B1	4.73E-01	1.20E+00	3.9E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.5E-02
Landbay B	116G21	INORG	Chromium III	16065-83-1	D	1.18E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.5E-09	3.4E+06	EqP	3.5E-05
Landbay B	116G21	INORG	Chromium VI	18540-29-9	A	3.39E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay B	116G21	INORG	Cobalt	7440-48-4	LC	4.00E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	116G21	INORG	Copper	7440-50-8	D	7.08E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay B	116G21	INORG	Iron	7439-89-6	D	6.30E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.2E+02**
Landbay B	116G21	INORG	Lead	7439-92-1	B2	8.66E+00						3.5E+02	EqP	2.5E-02
Landbay B	116G21	INORG	Manganese	7439-96-5	D	1.39E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**8.9E+00**
Landbay B	116G21	INORG	Nickel	7440-02-0	A	5.55E+01	7.30E+01	7.6E-01	1.2E+05	EqP	4.5E-04	3.4E+01	EqP	**1.6E+00**
Landbay B	116G21	INORG	Perchlorate	14797-73-0	NC	1.90E-03			3.4E+03	LT	5.5E-07	7.7E+02	LT	2.5E-06
Landbay B	116G21	INORG	Strontium	7440-24-6		4.49E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.8E-06	1.1E+03	EqP	4.2E-02
Landbay B	116G21	INORG	Thallium	7440-28-0	ID	3.91E+00	4.50E+00	8.7E-01				1.1E+00	EqP	**3.4E+00**
Landbay B	116G21	INORG	Vanadium	7440-62-2	ID	1.74E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay B	116G21	INORG	Zinc	7440-66-6	ID	5.69E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	116G22	PCB	PCBs (total)	1336-36-3	B2	1.72E-02				NA		1.4E+00	EqP	1.3E-02
Landbay B	116G22	INORG	Aluminum	7429-90-5	ID	4.32E+04	5.34E+04	8.1E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay B	116G22	INORG	Arsenic	7440-38-2	A	1.93E+00	9.90E+00	1.9E-01	1.1E+03	EqP	1.8E-03	8.6E+01	EqP	2.2E-02
Landbay B	116G22	INORG	Barium	7440-39-3	NC	1.17E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	116G22	INORG	Beryllium	7440-41-7	B1	5.22E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.7E-05	1.0E+01	EqP	5.0E-02
Landbay B	116G22	INORG	Chromium III	16065-83-1	D	9.87E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.6E-09	3.4E+06	EqP	2.9E-05
Landbay B	116G22	INORG	Chromium VI	18540-29-9	A	3.26E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay B	116G22	INORG	Cobalt	7440-48-4	LC	2.95E+01	8.60E+01	3.4E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.4E+00**
Landbay B	116G22	INORG	Copper	7440-50-8	D	5.29E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.3E+00**
Landbay B	116G22	INORG	Iron	7439-89-6	D	5.06E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	116G22	INORG	Lead	7439-92-1	B2	6.87E+00						3.5E+02	EqP	2.0E-02
Landbay B	116G22	INORG	Manganese	7439-96-5	D	1.07E+03	4.27E+03	2.5E-01	3.1E+05	EqP	3.4E-03	1.6E+02	EqP	**6.8E+00**
Landbay B	116G22	INORG	Nickel	7440-02-0	A	4.92E+01	7.30E+01	6.7E-01	1.2E+05	EqP	4.0E-04	3.4E+01	EqP	**1.5E+00**
Landbay B	116G22	INORG	Strontium	7440-24-6		4.64E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.4E-02
Landbay B	116G22	INORG	Thallium	7440-28-0	ID	3.58E+00	4.50E+00	8.0E-01				1.1E+00	EqP	**3.1E+00**
Landbay B	116G22	INORG	Vanadium	7440-62-2	ID	1.61E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay B	116G22	INORG	Zinc	7440-66-6	ID	3.91E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay B	116G23	PCB	PCBs (total)	1336-36-3	B2	1.72E-02				NA		1.4E+00	EqP	1.3E-02
Landbay B	116G23	INORG	Aluminum	7429-90-5	ID	4.57E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay B	116G23	INORG	Arsenic	7440-38-2	A	2.80E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay B	116G23	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay B	116G23	INORG	Beryllium	7440-41-7	B1	9.94E-01	1.20E+00	8.3E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.5E-02
Landbay B	116G23	INORG	Chromium III	16065-83-1	D	1.65E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.8E-09	3.4E+06	EqP	4.9E-05
Landbay B	116G23	INORG	Chromium VI	18540-29-9	A	3.72E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay B	116G23	INORG	Cobalt	7440-48-4	LC	8.65E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.2E+00**
Landbay B	116G23	INORG	Copper	7440-50-8	D	4.12E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.9E+00**
Landbay B	116G23	INORG	Iron	7439-89-6	D	8.45E+04	9.52E+04	8.9E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.6E+02**
Landbay B	116G23	INORG	Lead	7439-92-1	B2	1.93E+01						3.5E+02	EqP	5.5E-02
Landbay B	116G23	INORG	Manganese	7439-96-5	D	2.24E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	116G23	INORG	Mercury	7439-97-6	D	2.32E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.3E-02
Landbay B	116G23	INORG	Nickel	7440-02-0	A	4.49E+01	7.30E+01	6.2E-01	1.2E+05	EqP	3.6E-04	3.4E+01	EqP	**1.3E+00**
Landbay B	116G23	INORG	Selenium	7782-49-2	D	1.21E+00	2.50E+00	4.8E-01	2.5E+04	LT	4.9E-05	2.0E+00	LT	6.1E-01
Landbay B	116G23	INORG	Strontium	7440-24-6		2.26E+01	3.80E+01	5.9E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay B	116G23	INORG	Thallium	7440-28-0	ID	4.79E+00	4.50E+00	**1.1E+00**				1.1E+00	EqP	**4.2E+00**
Landbay B	116G23	INORG	Vanadium	7440-62-2	ID	2.70E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay B	116G23	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay B	116G24	INORG	Aluminum	7429-90-5	ID	4.92E+04	5.34E+04	9.2E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.9E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	116G24	INORG	Arsenic	7440-38-2	A	2.22E+00	9.90E+00	2.2E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.6E-02
Landbay B	116G24	INORG	Barium	7440-39-3	NC	1.06E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	116G24	INORG	Beryllium	7440-41-7	B1	5.68E-01	1.20E+00	4.7E-01	6.8E+03	EqP	8.4E-05	1.0E+01	EqP	5.4E-02
Landbay B	116G24	INORG	Chromium III	16065-83-1	D	1.57E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.4E-09	3.4E+06	EqP	4.7E-05
Landbay B	116G24	INORG	Chromium VI	18540-29-9	A	3.66E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay B	116G24	INORG	Cobalt	7440-48-4	LC	3.68E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay B	116G24	INORG	Copper	7440-50-8	D	5.39E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.4E+00**
Landbay B	116G24	INORG	Iron	7439-89-6	D	6.63E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay B	116G24	INORG	Lead	7439-92-1	B2	7.06E+00						3.5E+02	EqP	2.0E-02
Landbay B	116G24	INORG	Manganese	7439-96-5	D	1.09E+03	4.27E+03	2.6E-01	3.1E+05	EqP	3.5E-03	1.6E+02	EqP	**7.0E+00**
Landbay B	116G24	INORG	Mercury	7439-97-6	D	1.80E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.9E-02
Landbay B	116G24	INORG	Nickel	7440-02-0	A	4.97E+01	7.30E+01	6.8E-01	1.2E+05	EqP	4.0E-04	3.4E+01	EqP	**1.5E+00**
Landbay B	116G24	INORG	Strontium	7440-24-6		4.11E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.9E-02
Landbay B	116G24	INORG	Thallium	7440-28-0	ID	3.59E+00	4.50E+00	8.0E-01				1.1E+00	EqP	**3.1E+00**
Landbay B	116G24	INORG	Vanadium	7440-62-2	ID	1.84E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay B	116G24	INORG	Zinc	7440-66-6	ID	4.99E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay B	116G25	INORG	Aluminum	7429-90-5	ID	3.86E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	116G25	INORG	Arsenic	7440-38-2	A	5.91E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay B	116G25	INORG	Barium	7440-39-3	NC	1.17E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	116G25	INORG	Beryllium	7440-41-7	B1	7.44E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay B	116G25	INORG	Boron	7440-42-8	ID	1.12E+00	1.34E+01	8.4E-02	9.9E+05	LT	1.1E-06	6.4E-01	LT	**1.8E+00**
Landbay B	116G25	INORG	Chromium III	16065-83-1	D	1.56E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.3E-09	3.4E+06	EqP	4.6E-05
Landbay B	116G25	INORG	Chromium VI	18540-29-9	A	3.66E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay B	116G25	INORG	Cobalt	7440-48-4	LC	6.97E+01	8.60E+01	8.1E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.3E+00**
Landbay B	116G25	INORG	Copper	7440-50-8	D	4.81E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.7E+00**
Landbay B	116G25	INORG	Iron	7439-89-6	D	8.25E+04	9.52E+04	8.7E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.4E+02**
Landbay B	116G25	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay B	116G25	INORG	Manganese	7439-96-5	D	1.25E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**8.0E+00**
Landbay B	116G25	INORG	Mercury	7439-97-6	D	1.33E-02	7.10E-02	1.9E-01		NA		3.7E-01	EqP	3.6E-02
Landbay B	116G25	INORG	Nickel	7440-02-0	A	5.08E+01	7.30E+01	7.0E-01	1.2E+05	EqP	4.1E-04	3.4E+01	EqP	**1.5E+00**
Landbay B	116G25	INORG	Selenium	7782-49-2	D	1.25E+00	2.50E+00	5.0E-01	2.5E+04	LT	5.1E-05	2.0E+00	LT	6.3E-01
Landbay B	116G25	INORG	Strontium	7440-24-6		3.25E+01	3.80E+01	8.6E-01	1.6E+07	EqP	2.0E-06	1.1E+03	EqP	3.1E-02
Landbay B	116G25	INORG	Thallium	7440-28-0	ID	4.85E+00	4.50E+00	**1.1E+00**				1.1E+00	EqP	**4.3E+00**
Landbay B	116G25	INORG	Vanadium	7440-62-2	ID	2.96E+02	2.83E+02	1.0E+00	1.5E+05	EqP	1.9E-03	4.0E+02	EqP	7.4E-01
Landbay B	116G25	INORG	Zinc	7440-66-6	ID	5.27E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay B	116G26	PCB	PCBs (total)	1336-36-3	B2	1.72E-02				NA		1.4E+00	EqP	1.3E-02
Landbay B	116G26	INORG	Aluminum	7429-90-5	ID	3.61E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.8E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	116G26	INORG	Arsenic	7440-38-2	A	3.67E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay B	116G26	INORG	Barium	7440-39-3	NC	1.22E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay B	116G26	INORG	Beryllium	7440-41-7	B1	6.31E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay B	116G26	INORG	Chromium III	16065-83-1	D	1.09E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.1E-09	3.4E+06	EqP	3.2E-05
Landbay B	116G26	INORG	Chromium VI	18540-29-9	A	3.33E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay B	116G26	INORG	Cobalt	7440-48-4	LC	4.07E+01	8.60E+01	4.7E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay B	116G26	INORG	Copper	7440-50-8	D	4.25E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.1E+00**
Landbay B	116G26	INORG	Iron	7439-89-6	D	5.48E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay B	116G26	INORG	Lead	7439-92-1	B2	1.43E+01						3.5E+02	EqP	4.1E-02
Landbay B	116G26	INORG	Manganese	7439-96-5	D	1.50E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.6E+00**
Landbay B	116G26	INORG	Nickel	7440-02-0	A	3.45E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	116G26	INORG	Selenium	7782-49-2	D	1.14E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.6E-05	2.0E+00	LT	5.7E-01
Landbay B	116G26	INORG	Strontium	7440-24-6		3.47E+01	3.80E+01	9.1E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.3E-02
Landbay B	116G26	INORG	Thallium	7440-28-0	ID	3.52E+00	4.50E+00	7.8E-01				1.1E+00	EqP	**3.1E+00**
Landbay B	116G26	INORG	Vanadium	7440-62-2	ID	1.85E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay B	116G26	INORG	Zinc	7440-66-6	ID	4.60E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.4E-06	1.9E+02	EqP	2.4E-01
Landbay B	116G27	INORG	Aluminum	7429-90-5	ID	3.65E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	116G27	INORG	Arsenic	7440-38-2	A	6.30E+00	9.90E+00	6.4E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.3E-02
Landbay B	116G27	INORG	Barium	7440-39-3	NC	2.23E+02	2.24E+02	1.0E+00	3.2E+05	EqP	6.9E-04	3.3E+00	EqP	**6.8E+01**
Landbay B	116G27	INORG	Beryllium	7440-41-7	B1	9.56E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay B	116G27	INORG	Chromium III	16065-83-1	D	1.24E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.8E-09	3.4E+06	EqP	3.7E-05
Landbay B	116G27	INORG	Chromium VI	18540-29-9	A	3.43E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay B	116G27	INORG	Cobalt	7440-48-4	LC	1.03E+02	8.60E+01	**1.2E+00**	1.4E+04	EqP	7.5E-03	2.1E+01	EqP	**4.9E+00**
Landbay B	116G27	INORG	Copper	7440-50-8	D	3.15E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.1E-05	8.4E+00	EqP	**3.7E+00**
Landbay B	116G27	INORG	Iron	7439-89-6	D	6.48E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay B	116G27	INORG	Lead	7439-92-1	B2	3.95E+01						3.5E+02	EqP	1.1E-01
Landbay B	116G27	INORG	Manganese	7439-96-5	D	4.70E+03	4.27E+03	**1.1E+00**	3.1E+05	EqP	1.5E-02	1.6E+02	EqP	**3.0E+01**
Landbay B	116G27	INORG	Mercury	7439-97-6	D	2.60E-02	7.10E-02	3.7E-01		NA		3.7E-01	EqP	7.0E-02
Landbay B	116G27	INORG	Nickel	7440-02-0	A	3.10E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.2E-01
Landbay B	116G27	INORG	Selenium	7782-49-2	D	1.56E+00	2.50E+00	6.2E-01	2.5E+04	LT	6.3E-05	2.0E+00	LT	7.8E-01
Landbay B	116G27	INORG	Strontium	7440-24-6		1.52E+01	3.80E+01	4.0E-01	1.6E+07	EqP	9.3E-07	1.1E+03	EqP	1.4E-02
Landbay B	116G27	INORG	Thallium	7440-28-0	ID	6.33E+00	4.50E+00	**1.4E+00**				1.1E+00	EqP	**5.6E+00**
Landbay B	116G27	INORG	Vanadium	7440-62-2	ID	2.33E+02	2.83E+02	8.2E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay B	116G27	INORG	Zinc	7440-66-6	ID	5.12E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay B	116G27	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	8.20E-01				NA		6.0E+01	LT	1.4E-02
Landbay B	116G28	INORG	Aluminum	7429-90-5	ID	3.09E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	116G28	INORG	Arsenic	7440-38-2	A	5.03E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay B	116G28	INORG	Barium	7440-39-3	NC	1.35E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay B	116G28	INORG	Beryllium	7440-41-7	B1	6.65E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.8E-05	1.0E+01	EqP	6.4E-02
Landbay B	116G28	INORG	Boron	7440-42-8	ID	8.54E-01	1.34E+01	6.4E-02	9.9E+05	LT	8.7E-07	6.4E-01	LT	**1.3E+00**
Landbay B	116G28	INORG	Chromium III	16065-83-1	D	1.08E+02	2.61E+02	4.1E-01	2.1E+10	EqP	5.1E-09	3.4E+06	EqP	3.2E-05
Landbay B	116G28	INORG	Chromium VI	18540-29-9	A	3.32E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay B	116G28	INORG	Cobalt	7440-48-4	LC	5.21E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay B	116G28	INORG	Copper	7440-50-8	D	2.17E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.2E-05	8.4E+00	EqP	**2.6E+00**
Landbay B	116G28	INORG	Iron	7439-89-6	D	4.64E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay B	116G28	INORG	Lead	7439-92-1	B2	1.46E+01						3.5E+02	EqP	4.2E-02
Landbay B	116G28	INORG	Manganese	7439-96-5	D	1.99E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	116G28	INORG	Mercury	7439-97-6	D	1.60E-02	7.10E-02	2.3E-01		NA		3.7E-01	EqP	4.3E-02
Landbay B	116G28	INORG	Nickel	7440-02-0	A	3.14E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.3E-01
Landbay B	116G28	INORG	Strontium	7440-24-6		2.17E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.1E-02
Landbay B	116G28	INORG	Thallium	7440-28-0	ID	3.56E+00	4.50E+00	7.9E-01				1.1E+00	EqP	**3.1E+00**
Landbay B	116G28	INORG	Vanadium	7440-62-2	ID	1.72E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay B	116G28	INORG	Zinc	7440-66-6	ID	5.19E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay B	117AEC-1	INORG	Perchlorate	14797-73-0	NC	3.70E+01			3.4E+03	LT	1.1E-02	7.7E+02	LT	4.8E-02
Landbay B	117ANEC	INORG	Perchlorate	14797-73-0	NC	1.70E-01			3.4E+03	LT	4.9E-05	7.7E+02	LT	2.2E-04
Landbay B	117B1	INORG	Aluminum	7429-90-5	ID	2.93E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	117B1	INORG	Arsenic	7440-38-2	A	8.85E+00	9.90E+00	8.9E-01	1.1E+03	EqP	8.4E-03	8.6E+01	EqP	1.0E-01
Landbay B	117B1	INORG	Barium	7440-39-3	NC	5.39E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.6E+01**
Landbay B	117B1	INORG	Beryllium	7440-41-7	B1	7.66E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	117B1	INORG	Cadmium	7440-43-9	B1	1.28E+00	2.70E+00	4.7E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.0E-01
Landbay B	117B1	INORG	Chromium III	16065-83-1	D	5.62E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay B	117B1	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	117B1	INORG	Copper	7440-50-8	D	4.68E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.6E+00**
Landbay B	117B1	INORG	Lead	7439-92-1	B2	1.61E+01						3.5E+02	EqP	4.6E-02
Landbay B	117B1	INORG	Mercury	7439-97-6	D	4.04E-02	7.10E-02	5.7E-01		NA		3.7E-01	EqP	1.1E-01
Landbay B	117B1	INORG	Perchlorate	14797-73-0	NC	4.00E-01			3.4E+03	LT	1.2E-04	7.7E+02	LT	5.2E-04
Landbay B	117B1	INORG	Silver	7440-22-4	D	2.97E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	7.9E-04	2.7E+00	LT	**1.1E+00**
Landbay B	117B1	INORG	Strontium	7440-24-6		3.03E+01	3.80E+01	8.0E-01	1.6E+07	EqP	1.9E-06	1.1E+03	EqP	2.9E-02
Landbay B	117B2	INORG	Aluminum	7429-90-5	ID	2.93E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	117B2	INORG	Arsenic	7440-38-2	A	8.85E+00	9.90E+00	8.9E-01	1.1E+03	EqP	8.4E-03	8.6E+01	EqP	1.0E-01
Landbay B	117B2	INORG	Barium	7440-39-3	NC	5.39E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.6E+01**
Landbay B	117B2	INORG	Beryllium	7440-41-7	B1	7.66E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	117B2	INORG	Cadmium	7440-43-9	B1	1.28E+00	2.70E+00	4.7E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.0E-01
Landbay B	117B2	INORG	Chromium III	16065-83-1	D	5.62E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay B	117B2	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	117B2	INORG	Copper	7440-50-8	D	4.68E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.6E+00**
Landbay B	117B2	INORG	Lead	7439-92-1	B2	1.61E+01						3.5E+02	EqP	4.6E-02
Landbay B	117B2	INORG	Mercury	7439-97-6	D	4.04E-02	7.10E-02	5.7E-01		NA		3.7E-01	EqP	1.1E-01
Landbay B	117B2	INORG	Perchlorate	14797-73-0	NC	1.50E-03			3.4E+03	LT	4.4E-07	7.7E+02	LT	1.9E-06
Landbay B	117B2	INORG	Silver	7440-22-4	D	2.97E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	7.9E-04	2.7E+00	LT	**1.1E+00**
Landbay B	117B2	INORG	Strontium	7440-24-6		3.03E+01	3.80E+01	8.0E-01	1.6E+07	EqP	1.9E-06	1.1E+03	EqP	2.9E-02
Landbay B	117B3	INORG	Perchlorate	14797-73-0	NC	3.00E-03			3.4E+03	LT	8.7E-07	7.7E+02	LT	3.9E-06
Landbay B	117G4	INORG	Perchlorate	14797-73-0	NC	1.10E-01			3.4E+03	LT	3.2E-05	7.7E+02	LT	1.4E-04
Landbay B	119AEC-2	INORG	Perchlorate	14797-73-0	NC	6.60E+00			3.4E+03	LT	1.9E-03	7.7E+02	LT	8.5E-03
Landbay B	119ANEC	INORG	Perchlorate	14797-73-0	NC	1.10E+01			3.4E+03	LT	3.2E-03	7.7E+02	LT	1.4E-02
Landbay B	119G31	PCB	PCBs (total)	1336-36-3	B2	1.80E-02				NA		1.4E+00	EqP	1.3E-02
Landbay B	119G31	INORG	Aluminum	7429-90-5	ID	4.10E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	119G31	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay B	119G31	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	119G31	INORG	Beryllium	7440-41-7	B1	7.41E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay B	119G31	INORG	Cadmium	7440-43-9	B1	4.98E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.6E-04	2.1E+00	EqP	2.3E-01
Landbay B	119G31	INORG	Chromium III	16065-83-1	D	1.28E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay B	119G31	INORG	Chromium VI	18540-29-9	A	3.46E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay B	119G31	INORG	Cobalt	7440-48-4	LC	6.04E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay B	119G31	INORG	Copper	7440-50-8	D	5.85E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay B	119G31	INORG	Iron	7439-89-6	D	7.78E+04	9.52E+04	8.2E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay B	119G31	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay B	119G31	INORG	Manganese	7439-96-5	D	2.04E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	119G31	INORG	Mercury	7439-97-6	D	2.35E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	119G31	INORG	Nickel	7440-02-0	A	4.74E+01	7.30E+01	6.5E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay B	119G31	INORG	Silver	7440-22-4	D	7.25E-01	2.30E+00	3.2E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay B	119G31	INORG	Vanadium	7440-62-2	ID	2.02E+02	2.83E+02	7.1E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay B	119G31	INORG	Zinc	7440-66-6	ID	9.05E+01	1.02E+02	8.9E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.8E-01
Landbay B	119G34	PCB	PCBs (total)	1336-36-3	B2	1.80E-02				NA		1.4E+00	EqP	1.3E-02
Landbay B	119G34	INORG	Aluminum	7429-90-5	ID	4.10E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	119G34	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay B	119G34	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	119G34	INORG	Beryllium	7440-41-7	B1	7.41E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay B	119G34	INORG	Cadmium	7440-43-9	B1	4.98E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.6E-04	2.1E+00	EqP	2.3E-01
Landbay B	119G34	INORG	Chromium III	16065-83-1	D	1.28E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay B	119G34	INORG	Chromium VI	18540-29-9	A	3.46E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay B	119G34	INORG	Cobalt	7440-48-4	LC	6.04E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay B	119G34	INORG	Copper	7440-50-8	D	5.85E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay B	119G34	INORG	Iron	7439-89-6	D	7.78E+04	9.52E+04	8.2E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay B	119G34	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay B	119G34	INORG	Manganese	7439-96-5	D	2.04E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	119G34	INORG	Mercury	7439-97-6	D	2.35E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	119G34	INORG	Nickel	7440-02-0	A	4.74E+01	7.30E+01	6.5E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay B	119G34	INORG	Silver	7440-22-4	D	7.25E-01	2.30E+00	3.2E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay B	119G34	INORG	Vanadium	7440-62-2	ID	2.02E+02	2.83E+02	7.1E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay B	119G34	INORG	Zinc	7440-66-6	ID	9.05E+01	1.02E+02	8.9E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.8E-01
Landbay B	119G35	PCB	PCBs (total)	1336-36-3	B2	1.80E-02				NA		1.4E+00	EqP	1.3E-02
Landbay B	119G35	INORG	Aluminum	7429-90-5	ID	4.10E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	119G35	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay B	119G35	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	119G35	INORG	Beryllium	7440-41-7	B1	7.41E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay B	119G35	INORG	Cadmium	7440-43-9	B1	4.98E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.6E-04	2.1E+00	EqP	2.3E-01
Landbay B	119G35	INORG	Chromium III	16065-83-1	D	1.28E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay B	119G35	INORG	Chromium VI	18540-29-9	A	3.46E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay B	119G35	INORG	Cobalt	7440-48-4	LC	6.04E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay B	119G35	INORG	Copper	7440-50-8	D	5.85E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay B	119G35	INORG	Iron	7439-89-6	D	7.78E+04	9.52E+04	8.2E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay B	119G35	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay B	119G35	INORG	Manganese	7439-96-5	D	2.04E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	119G35	INORG	Mercury	7439-97-6	D	2.35E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	119G35	INORG	Nickel	7440-02-0	A	4.74E+01	7.30E+01	6.5E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay B	119G35	INORG	Silver	7440-22-4	D	7.25E-01	2.30E+00	3.2E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay B	119G35	INORG	Vanadium	7440-62-2	ID	2.02E+02	2.83E+02	7.1E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay B	119G35	INORG	Zinc	7440-66-6	ID	9.05E+01	1.02E+02	8.9E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.8E-01
Landbay B	119G37	INORG	Perchlorate	14797-73-0	NC	4.40E-01			3.4E+03	LT	1.3E-04	7.7E+02	LT	5.7E-04
Landbay B	119G38	PCB	PCBs (total)	1336-36-3	B2	1.80E-02				NA		1.4E+00	EqP	1.3E-02
Landbay B	119G38	INORG	Aluminum	7429-90-5	ID	4.10E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	119G38	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay B	119G38	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	119G38	INORG	Beryllium	7440-41-7	B1	7.41E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay B	119G38	INORG	Cadmium	7440-43-9	B1	4.98E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.6E-04	2.1E+00	EqP	2.3E-01
Landbay B	119G38	INORG	Chromium III	16065-83-1	D	1.28E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay B	119G38	INORG	Chromium VI	18540-29-9	A	3.46E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay B	119G38	INORG	Cobalt	7440-48-4	LC	6.04E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay B	119G38	INORG	Copper	7440-50-8	D	5.85E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay B	119G38	INORG	Iron	7439-89-6	D	7.78E+04	9.52E+04	8.2E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay B	119G38	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay B	119G38	INORG	Manganese	7439-96-5	D	2.04E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	119G38	INORG	Mercury	7439-97-6	D	2.35E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	119G38	INORG	Nickel	7440-02-0	A	4.74E+01	7.30E+01	6.5E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay B	119G38	INORG	Perchlorate	14797-73-0	NC	1.50E-01			3.4E+03	LT	4.4E-05	7.7E+02	LT	1.9E-04
Landbay B	119G38	INORG	Silver	7440-22-4	D	7.25E-01	2.30E+00	3.2E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay B	119G38	INORG	Vanadium	7440-62-2	ID	2.02E+02	2.83E+02	7.1E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay B	119G38	INORG	Zinc	7440-66-6	ID	9.05E+01	1.02E+02	8.9E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.8E-01
Landbay B	119G39	INORG	Perchlorate	14797-73-0	NC	2.70E-03			3.4E+03	LT	7.8E-07	7.7E+02	LT	3.5E-06
Landbay B	119G40	INORG	Perchlorate	14797-73-0	NC	1.80E-03			3.4E+03	LT	5.2E-07	7.7E+02	LT	2.3E-06
Landbay B	15TP1-7	INORG	Aluminum	7429-90-5	ID	3.86E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	15TP1-7	INORG	Arsenic	7440-38-2	A	3.20E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.7E-02
Landbay B	15TP1-7	INORG	Barium	7440-39-3	NC	3.31E+01	2.24E+02	1.5E-01	3.2E+05	EqP	1.0E-04	3.3E+00	EqP	**1.0E+01**
Landbay B	15TP1-7	INORG	Chromium III	16065-83-1	D	5.79E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay B	15TP1-7	INORG	Copper	7440-50-8	D	6.97E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.3E+00**
Landbay B	15TP1-7	INORG	Lead	7439-92-1	B2	2.52E+01						3.5E+02	EqP	7.2E-02
Landbay B	15TP1-7	INORG	Perchlorate	14797-73-0	NC	4.90E-03			3.4E+03	LT	1.4E-06	7.7E+02	LT	6.3E-06
Landbay B	15TP1-7	INORG	Strontium	7440-24-6		5.31E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.3E-06	1.1E+03	EqP	5.0E-02
Landbay B	16TP1-7	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay B	16TP1-7	INORG	Aluminum	7429-90-5	ID	3.52E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	16TP1-7	INORG	Barium	7440-39-3	NC	5.41E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.6E+01**
Landbay B	16TP1-7	INORG	Beryllium	7440-41-7	B1	9.51E-02	1.20E+00	7.9E-02	6.8E+03	EqP	1.4E-05	1.0E+01	EqP	9.1E-03
Landbay B	16TP1-7	INORG	Chromium III	16065-83-1	D	5.36E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay B	16TP1-7	INORG	Copper	7440-50-8	D	4.95E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.9E+00**
Landbay B	16TP1-7	INORG	Lead	7439-92-1	B2	6.44E+00						3.5E+02	EqP	1.8E-02
Landbay B	16TP1-7	INORG	Perchlorate	14797-73-0	NC	6.20E-04			3.4E+03	LT	1.8E-07	7.7E+02	LT	8.0E-07
Landbay B	16TP1-7	INORG	Strontium	7440-24-6		5.93E+01	3.80E+01	**1.6E+00**	1.6E+07	EqP	3.6E-06	1.1E+03	EqP	5.6E-02
Landbay B	16TP2-7	VOC	Acetone	67-64-1	ID	4.50E-02			2.0E+06	LT	2.2E-08	6.0E+02	LT	7.5E-05
Landbay B	16TP2-7	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	6.90E+01				NA		9.6E+03	EqP	7.2E-03
Landbay B	16TP2-7	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay B	16TP2-7	INORG	Arsenic	7440-38-2	A	7.44E+00	9.90E+00	7.5E-01	1.1E+03	EqP	7.1E-03	8.6E+01	EqP	8.7E-02
Landbay B	16TP2-7	INORG	Barium	7440-39-3	NC	7.76E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	16TP2-7	INORG	Beryllium	7440-41-7	B1	5.35E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay B	16TP2-7	INORG	Chromium III	16065-83-1	D	6.20E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.8E-05
Landbay B	16TP2-7	INORG	Chromium VI	18540-29-9	A	9.60E-01	4.97E+00	1.9E-01	6.6E+01	LT	1.4E-02	4.4E+00	LT	2.2E-01
Landbay B	16TP2-7	INORG	Copper	7440-50-8	D	3.26E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay B	16TP2-7	INORG	Lead	7439-92-1	B2	2.02E+01						3.5E+02	EqP	5.8E-02
Landbay B	16TP2-7	INORG	Mercury	7439-97-6	D	1.69E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.6E-02
Landbay B	16TP2-7	INORG	Perchlorate	14797-73-0	NC	1.10E-03			3.4E+03	LT	3.2E-07	7.7E+02	LT	1.4E-06
Landbay B	16TP2-7	INORG	Silver	7440-22-4	D	5.22E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay B	16TP2-7	INORG	Strontium	7440-24-6		2.09E+01	3.80E+01	5.5E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay B	16TP3-7	VOC	Tetrachloroethene	127-18-4	LC	1.00E-01			1.5E+03	LT	6.8E-05	4.4E+01	LT	2.3E-03
Landbay B	16TP3-7	INORG	Aluminum	7429-90-5	ID	3.59E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	16TP3-7	INORG	Arsenic	7440-38-2	A	2.85E+00	9.90E+00	2.9E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay B	16TP3-7	INORG	Barium	7440-39-3	NC	8.18E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	16TP3-7	INORG	Chromium III	16065-83-1	D	5.31E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay B	16TP3-7	INORG	Copper	7440-50-8	D	8.06E+01	1.31E+02	6.2E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.6E+00**
Landbay B	16TP3-7	INORG	Lead	7439-92-1	B2	1.95E+00						3.5E+02	EqP	5.6E-03
Landbay B	16TP3-7	INORG	Perchlorate	14797-73-0	NC	1.60E+00			3.4E+03	LT	4.6E-04	7.7E+02	LT	2.1E-03
Landbay B	16TP3-7	INORG	Strontium	7440-24-6		4.39E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.2E-02
Landbay B	16TP4-7	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.00E-03			6.5E+03	LT	1.2E-06	4.0E+02	LT	2.0E-05
Landbay B	16TP4-7	VOC	Tetrachloroethene	127-18-4	LC	2.20E-02			1.5E+03	LT	1.5E-05	4.4E+01	LT	5.0E-04
Landbay B	16TP4-7	VOC	Trichloroethene	79-01-6	HC	2.00E-03			1.1E+02	LT	1.8E-05	8.4E+00	LT	2.4E-04
Landbay B	16TP4-7	INORG	Aluminum	7429-90-5	ID	3.07E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	16TP4-7	INORG	Arsenic	7440-38-2	A	7.30E+00	9.90E+00	7.4E-01	1.1E+03	EqP	6.9E-03	8.6E+01	EqP	8.5E-02
Landbay B	16TP4-7	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	16TP4-7	INORG	Beryllium	7440-41-7	B1	8.77E-01	1.20E+00	7.3E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.4E-02
Landbay B	16TP4-7	INORG	Chromium III	16065-83-1	D	5.36E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay B	16TP4-7	INORG	Copper	7440-50-8	D	1.04E+02	1.31E+02	7.9E-01	3.5E+05	EqP	3.0E-04	8.4E+00	EqP	**1.2E+01**
Landbay B	16TP4-7	INORG	Lead	7439-92-1	B2	1.23E+01						3.5E+02	EqP	3.5E-02
Landbay B	16TP4-7	INORG	Mercury	7439-97-6	D	1.87E-02	7.10E-02	2.6E-01		NA		3.7E-01	EqP	5.1E-02
Landbay B	16TP4-7	INORG	Perchlorate	14797-73-0	NC	6.00E-01			3.4E+03	LT	1.7E-04	7.7E+02	LT	7.8E-04
Landbay B	16TP4-7	INORG	Strontium	7440-24-6		2.19E+01	3.80E+01	5.8E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.1E-02
Landbay B	16TP5-7	VOC	Acetone	67-64-1	ID	8.00E-03			2.0E+06	LT	3.9E-09	6.0E+02	LT	1.3E-05
Landbay B	16TP5-7	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03			6.5E+03	LT	3.1E-07	4.0E+02	LT	5.0E-06
Landbay B	16TP5-7	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03			1.5E+03	LT	1.4E-06	4.4E+01	LT	4.5E-05
Landbay B	16TP5-7	INORG	Aluminum	7429-90-5	ID	3.21E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.7E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	16TP5-7	INORG	Barium	7440-39-3	NC	1.09E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay B	16TP5-7	INORG	Beryllium	7440-41-7	B1	1.17E+00	1.20E+00	9.8E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay B	16TP5-7	INORG	Cadmium	7440-43-9	B1	2.56E-01	2.70E+00	9.5E-02	1.1E+03	EqP	2.4E-04	2.1E+00	EqP	1.2E-01
Landbay B	16TP5-7	INORG	Chromium III	16065-83-1	D	6.43E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay B	16TP5-7	INORG	Copper	7440-50-8	D	1.20E+02	1.31E+02	9.2E-01	3.5E+05	EqP	3.5E-04	8.4E+00	EqP	**1.4E+01**
Landbay B	16TP5-7	INORG	Lead	7439-92-1	B2	1.51E+01						3.5E+02	EqP	4.3E-02
Landbay B	16TP5-7	INORG	Mercury	7439-97-6	D	2.27E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.1E-02
Landbay B	16TP5-7	INORG	Silver	7440-22-4	D	2.24E-01	2.30E+00	9.7E-02	3.8E+03	LT	6.0E-05	2.7E+00	LT	8.4E-02
Landbay B	16TP5-7	INORG	Strontium	7440-24-6		1.69E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay B	16TP6-7	VOC	Acetone	67-64-1	ID	3.00E-02			2.0E+06	LT	1.5E-08	6.0E+02	LT	5.0E-05
Landbay B	16TP6-7	INORG	Aluminum	7429-90-5	ID	3.31E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	16TP6-7	INORG	Barium	7440-39-3	NC	1.36E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay B	16TP6-7	INORG	Beryllium	7440-41-7	B1	1.23E+00	1.20E+00	1.0E+00	6.8E+03	EqP	1.8E-04	1.0E+01	EqP	1.2E-01
Landbay B	16TP6-7	INORG	Chromium III	16065-83-1	D	7.37E+01	2.61E+02	2.8E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay B	16TP6-7	INORG	Chromium VI	18540-29-9	A	1.00E+00	4.97E+00	2.0E-01	6.6E+01	LT	1.5E-02	4.4E+00	LT	2.3E-01
Landbay B	16TP6-7	INORG	Copper	7440-50-8	D	1.20E+02	1.31E+02	9.2E-01	3.5E+05	EqP	3.5E-04	8.4E+00	EqP	**1.4E+01**
Landbay B	16TP6-7	INORG	Lead	7439-92-1	B2	1.65E+01						3.5E+02	EqP	4.7E-02
Landbay B	16TP6-7	INORG	Mercury	7439-97-6	D	1.97E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.3E-02
Landbay B	16TP6-7	INORG	Silver	7440-22-4	D	3.11E-01	2.30E+00	1.4E-01	3.8E+03	LT	8.3E-05	2.7E+00	LT	1.2E-01
Landbay B	16TP6-7	INORG	Strontium	7440-24-6		2.15E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay B	42B136	INORG	Perchlorate	14797-73-0	NC	7.90E-02			3.4E+03	LT	2.3E-05	7.7E+02	LT	1.0E-04
Landbay B	42G115	PCB	PCBs (total)	1336-36-3	B2	5.20E-02				NA		1.4E+00	EqP	3.8E-02
Landbay B	42G115	INORG	Aluminum	7429-90-5	ID	4.01E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	42G115	INORG	Arsenic	7440-38-2	A	2.38E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay B	42G115	INORG	Barium	7440-39-3	NC	9.38E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay B	42G115	INORG	Beryllium	7440-41-7	B1	5.17E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay B	42G115	INORG	Chromium III	16065-83-1	D	1.14E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.3E-09	3.4E+06	EqP	3.4E-05
Landbay B	42G115	INORG	Chromium VI	18540-29-9	A	3.36E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.6E-01
Landbay B	42G115	INORG	Cobalt	7440-48-4	LC	3.68E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay B	42G115	INORG	Copper	7440-50-8	D	5.75E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay B	42G115	INORG	Iron	7439-89-6	D	4.98E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	42G115	INORG	Lead	7439-92-1	B2	1.76E+01						3.5E+02	EqP	5.0E-02
Landbay B	42G115	INORG	Manganese	7439-96-5	D	9.70E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay B	42G115	INORG	Mercury	7439-97-6	D	1.56E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay B	42G115	INORG	Nickel	7440-02-0	A	4.83E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay B	42G115	INORG	Perchlorate	14797-73-0	NC	4.70E-03			3.4E+03	LT	1.4E-06	7.7E+02	LT	6.1E-06
Landbay B	42G115	INORG	Silver	7440-22-4	D	8.41E-01	2.30E+00	3.7E-01	3.8E+03	LT	2.2E-04	2.7E+00	LT	3.2E-01
Landbay B	42G115	INORG	Vanadium	7440-62-2	ID	1.33E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay B	42G115	INORG	Zinc	7440-66-6	ID	5.95E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay B	42G117	PCB	PCBs (total)	1336-36-3	B2	2.18E-02				NA		1.4E+00	EqP	1.6E-02
Landbay B	42G117	INORG	Perchlorate	14797-73-0	NC	2.20E-03			3.4E+03	LT	6.4E-07	7.7E+02	LT	2.8E-06
Landbay B	42TP3-25	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.60E-01				NA		9.6E+03	EqP	1.7E-05
Landbay B	42TP3-25	PCB	PCBs (total)	1336-36-3	B2	3.01E+00				NA		1.4E+00	EqP	**2.2E+00**
Landbay B	42TP3-25	INORG	Aluminum	7429-90-5	ID	3.56E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	42TP3-25	INORG	Arsenic	7440-38-2	A	1.75E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.0E-02
Landbay B	42TP3-25	INORG	Barium	7440-39-3	NC	8.04E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	42TP3-25	INORG	Beryllium	7440-41-7	B1	2.44E-01	1.20E+00	2.0E-01	6.8E+03	EqP	3.6E-05	1.0E+01	EqP	2.3E-02
Landbay B	42TP3-25	INORG	Cadmium	7440-43-9	B1	1.97E+00	2.70E+00	7.3E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.2E-01
Landbay B	42TP3-25	INORG	Chromium III	16065-83-1	D	9.38E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay B	42TP3-25	INORG	Cobalt	7440-48-4	LC	3.33E+01	8.60E+01	3.9E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay B	42TP3-25	INORG	Copper	7440-50-8	D	5.31E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.3E+00**
Landbay B	42TP3-25	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay B	42TP3-25	INORG	Lead	7439-92-1	B2	2.56E+00						3.5E+02	EqP	7.3E-03
Landbay B	42TP3-25	INORG	Manganese	7439-96-5	D	6.88E+02	4.27E+03	1.6E-01	3.1E+05	EqP	2.2E-03	1.6E+02	EqP	**4.4E+00**
Landbay B	42TP3-25	INORG	Nickel	7440-02-0	A	5.88E+01	7.30E+01	8.1E-01	1.2E+05	EqP	4.7E-04	3.4E+01	EqP	**1.7E+00**
Landbay B	42TP3-25	INORG	Perchlorate	14797-73-0	NC	6.30E-02			3.4E+03	LT	1.8E-05	7.7E+02	LT	8.1E-05
Landbay B	42TP3-25	INORG	Strontium	7440-24-6		1.72E+02	3.80E+01	**4.5E+00**	1.6E+07	EqP	1.1E-05	1.1E+03	EqP	1.6E-01
Landbay B	42TP3-25	INORG	Vanadium	7440-62-2	ID	1.05E+02	2.83E+02	3.7E-01	1.5E+05	EqP	6.8E-04	4.0E+02	EqP	2.6E-01
Landbay B	42TP3-25	INORG	Zinc	7440-66-6	ID	5.37E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay B	42TP3-37	PCB	PCBs (total)	1336-36-3	B2	1.59E-02				NA		1.4E+00	EqP	1.2E-02
Landbay B	42TP3-37	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	42TP3-37	INORG	Arsenic	7440-38-2	A	2.14E+00	9.90E+00	2.2E-01	1.1E+03	EqP	2.0E-03	8.6E+01	EqP	2.5E-02
Landbay B	42TP3-37	INORG	Barium	7440-39-3	NC	2.29E+01	2.24E+02	1.0E-01	3.2E+05	EqP	7.1E-05	3.3E+00	EqP	**6.9E+00**
Landbay B	42TP3-37	INORG	Beryllium	7440-41-7	B1	1.72E-01	1.20E+00	1.4E-01	6.8E+03	EqP	2.5E-05	1.0E+01	EqP	1.6E-02
Landbay B	42TP3-37	INORG	Cadmium	7440-43-9	B1	8.75E-01	2.70E+00	3.2E-01	1.1E+03	EqP	8.1E-04	2.1E+00	EqP	4.1E-01
Landbay B	42TP3-37	INORG	Chromium III	16065-83-1	D	5.11E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay B	42TP3-37	INORG	Cobalt	7440-48-4	LC	2.15E+01	8.60E+01	2.5E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	1.0E+00
Landbay B	42TP3-37	INORG	Copper	7440-50-8	D	5.72E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.8E+00**
Landbay B	42TP3-37	INORG	Iron	7439-89-6	D	2.65E+04	9.52E+04	2.8E-01	4.4E+06	EqP	6.1E-03	1.5E+02	EqP	**1.7E+02**
Landbay B	42TP3-37	INORG	Lead	7439-92-1	B2	7.43E+00						3.5E+02	EqP	2.1E-02
Landbay B	42TP3-37	INORG	Manganese	7439-96-5	D	3.87E+02	4.27E+03	9.1E-02	3.1E+05	EqP	1.2E-03	1.6E+02	EqP	**2.5E+00**
Landbay B	42TP3-37	INORG	Nickel	7440-02-0	A	3.55E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	42TP3-37	INORG	Perchlorate	14797-73-0	NC	5.30E-02			3.4E+03	LT	1.5E-05	7.7E+02	LT	6.9E-05
Landbay B	42TP3-37	INORG	Strontium	7440-24-6		4.67E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.4E-02
Landbay B	42TP3-37	INORG	Vanadium	7440-62-2	ID	6.91E+01	2.83E+02	2.4E-01	1.5E+05	EqP	4.5E-04	4.0E+02	EqP	1.7E-01
Landbay B	42TP3-37	INORG	Zinc	7440-66-6	ID	5.26E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay B	42TP3-43	PCB	PCBs (total)	1336-36-3	B2	1.42E-02				NA		1.4E+00	EqP	1.0E-02
Landbay B	42TP3-43	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	42TP3-43	INORG	Arsenic	7440-38-2	A	1.18E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.1E-03	8.6E+01	EqP	1.4E-02
Landbay B	42TP3-43	INORG	Barium	7440-39-3	NC	2.35E+01	2.24E+02	1.0E-01	3.2E+05	EqP	7.3E-05	3.3E+00	EqP	**7.1E+00**
Landbay B	42TP3-43	INORG	Beryllium	7440-41-7	B1	1.47E-01	1.20E+00	1.2E-01	6.8E+03	EqP	2.2E-05	1.0E+01	EqP	1.4E-02
Landbay B	42TP3-43	INORG	Cadmium	7440-43-9	B1	6.43E-01	2.70E+00	2.4E-01	1.1E+03	EqP	5.9E-04	2.1E+00	EqP	3.0E-01
Landbay B	42TP3-43	INORG	Chromium III	16065-83-1	D	2.76E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.3E-09	3.4E+06	EqP	8.2E-06
Landbay B	42TP3-43	INORG	Cobalt	7440-48-4	LC	1.61E+01	8.60E+01	1.9E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	7.7E-01
Landbay B	42TP3-43	INORG	Copper	7440-50-8	D	5.50E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay B	42TP3-43	INORG	Iron	7439-89-6	D	1.94E+04	9.52E+04	2.0E-01	4.4E+06	EqP	4.5E-03	1.5E+02	EqP	**1.3E+02**
Landbay B	42TP3-43	INORG	Lead	7439-92-1	B2	1.33E+00						3.5E+02	EqP	3.8E-03
Landbay B	42TP3-43	INORG	Manganese	7439-96-5	D	2.95E+02	4.27E+03	6.9E-02	3.1E+05	EqP	9.5E-04	1.6E+02	EqP	**1.9E+00**
Landbay B	42TP3-43	INORG	Nickel	7440-02-0	A	3.17E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.4E-01
Landbay B	42TP3-43	INORG	Perchlorate	14797-73-0	NC	4.50E-02			3.4E+03	LT	1.3E-05	7.7E+02	LT	5.8E-05
Landbay B	42TP3-43	INORG	Strontium	7440-24-6		4.94E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.0E-06	1.1E+03	EqP	4.7E-02
Landbay B	42TP3-43	INORG	Vanadium	7440-62-2	ID	5.30E+01	2.83E+02	1.9E-01	1.5E+05	EqP	3.4E-04	4.0E+02	EqP	1.3E-01
Landbay B	42TP3-43	INORG	Zinc	7440-66-6	ID	2.20E+01	1.02E+02	2.2E-01	5.5E+06	EqP	4.0E-06	1.9E+02	EqP	1.2E-01
Landbay B	42TP4-125	VOC	Acetone	67-64-1	ID	7.50E-02			2.0E+06	LT	3.7E-08	6.0E+02	LT	1.3E-04
Landbay B	42TP4-125	VOC	2-Butanone	78-93-3	ID	7.00E-03			3.0E+05	LT	2.3E-08	5.6E+03	LT	1.3E-06
Landbay B	42TP4-125	VOC	Methyl Acetate	79-20-9		4.00E-03				NA		5.7E+05	LT	7.0E-09
Landbay B	42TP4-125	INORG	Aluminum	7429-90-5	ID	2.88E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	42TP4-125	INORG	Arsenic	7440-38-2	A	4.37E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay B	42TP4-125	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	42TP4-125	INORG	Beryllium	7440-41-7	B1	6.29E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay B	42TP4-125	INORG	Cadmium	7440-43-9	B1	1.72E+00	2.70E+00	6.4E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay B	42TP4-125	INORG	Chromium III	16065-83-1	D	1.99E+02	2.61E+02	7.7E-01	2.1E+10	EqP	9.4E-09	3.4E+06	EqP	5.9E-05
Landbay B	42TP4-125	INORG	Cobalt	7440-48-4	LC	7.13E+01	8.60E+01	8.3E-01	1.4E+04	EqP	5.2E-03	2.1E+01	EqP	**3.4E+00**
Landbay B	42TP4-125	INORG	Copper	7440-50-8	D	2.71E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.8E-05	8.4E+00	EqP	**3.2E+00**
Landbay B	42TP4-125	INORG	Iron	7439-89-6	D	5.75E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay B	42TP4-125	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay B	42TP4-125	INORG	Manganese	7439-96-5	D	2.80E+03	4.27E+03	6.6E-01	3.1E+05	EqP	9.0E-03	1.6E+02	EqP	**1.8E+01**
Landbay B	42TP4-125	INORG	Mercury	7439-97-6	D	3.33E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.0E-02
Landbay B	42TP4-125	INORG	Nickel	7440-02-0	A	3.78E+01	7.30E+01	5.2E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	42TP4-125	INORG	Selenium	7782-49-2	D	2.56E+00	2.50E+00	1.0E+00	2.5E+04	LT	1.0E-04	2.0E+00	LT	**1.3E+00**
Landbay B	42TP4-125	INORG	Strontium	7440-24-6		1.83E+01	3.80E+01	4.8E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay B	42TP4-125	INORG	Vanadium	7440-62-2	ID	2.04E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay B	42TP4-125	INORG	Zinc	7440-66-6	ID	5.22E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay B	42TP4-127	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.00E-01				NA		9.6E+03	EqP	2.1E-05
Landbay B	42TP4-127	PCB	PCBs (total)	1336-36-3	B2	1.65E+00				NA		1.4E+00	EqP	**1.2E+00**
Landbay B	42TP4-127	INORG	Aluminum	7429-90-5	ID	3.24E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	42TP4-127	INORG	Arsenic	7440-38-2	A	3.37E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay B	42TP4-127	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	42TP4-127	INORG	Beryllium	7440-41-7	B1	6.46E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.2E-02
Landbay B	42TP4-127	INORG	Cadmium	7440-43-9	B1	1.41E+00	2.70E+00	5.2E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.6E-01
Landbay B	42TP4-127	INORG	Chromium III	16065-83-1	D	1.04E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.9E-09	3.4E+06	EqP	3.1E-05
Landbay B	42TP4-127	INORG	Chromium VI	18540-29-9	A	6.10E-01	4.97E+00	1.2E-01	6.6E+01	LT	9.2E-03	4.4E+00	LT	1.4E-01
Landbay B	42TP4-127	INORG	Cobalt	7440-48-4	LC	3.55E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay B	42TP4-127	INORG	Copper	7440-50-8	D	4.68E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.6E+00**
Landbay B	42TP4-127	INORG	Iron	7439-89-6	D	4.39E+04	9.52E+04	4.6E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay B	42TP4-127	INORG	Lead	7439-92-1	B2	2.98E+01						3.5E+02	EqP	8.5E-02
Landbay B	42TP4-127	INORG	Manganese	7439-96-5	D	1.31E+03	4.27E+03	3.1E-01	3.1E+05	EqP	4.2E-03	1.6E+02	EqP	**8.4E+00**
Landbay B	42TP4-127	INORG	Mercury	7439-97-6	D	1.66E-02	7.10E-02	2.3E-01		NA		3.7E-01	EqP	4.5E-02
Landbay B	42TP4-127	INORG	Nickel	7440-02-0	A	3.82E+01	7.30E+01	5.2E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	42TP4-127	INORG	Selenium	7782-49-2	D	1.05E+00	2.50E+00	4.2E-01	2.5E+04	LT	4.3E-05	2.0E+00	LT	5.3E-01
Landbay B	42TP4-127	INORG	Strontium	7440-24-6		3.31E+01	3.80E+01	8.7E-01	1.6E+07	EqP	2.0E-06	1.1E+03	EqP	3.1E-02
Landbay B	42TP4-127	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay B	42TP4-127	INORG	Zinc	7440-66-6	ID	6.75E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay B	42TP4-136	SVOC	Benzo(a)anthracene	56-55-3	B2	5.60E-02				NA		2.9E-01	EqP	1.9E-01
Landbay B	42TP4-136	SVOC	Benzo(a)pyrene	50-32-8	B2	7.00E-02				NA		4.8E-01	EqP	1.5E-01
Landbay B	42TP4-136	SVOC	Benzo(b)fluoranthene	205-99-2	B2	9.35E-02				NA			NA	
Landbay B	42TP4-136	SVOC	Benzo(g,h,i)perylene	191-24-2	D	7.85E-02				NA			NA	
Landbay B	42TP4-136	SVOC	Benzo(k)fluoranthene	207-08-9	B2	4.35E-02				NA			NA	
Landbay B	42TP4-136	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.00E-01				NA		9.6E+03	EqP	2.1E-05
Landbay B	42TP4-136	SVOC	Chrysene	218-01-9	B2	5.65E-02				NA			NA	
Landbay B	42TP4-136	SVOC	Fluoranthene	206-44-0	D	7.00E-02				NA		1.7E-01	EqP	4.0E-01
Landbay B	42TP4-136	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	6.15E-02				NA			NA	
Landbay B	42TP4-136	SVOC	Phenanthrene	85-01-8	D	3.85E-02				NA		3.9E-01	EqP	9.9E-02
Landbay B	42TP4-136	SVOC	Pyrene	129-00-0	NC	6.50E-02				NA		1.1E-01	EqP	6.2E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay B	42TP4-136	PCB	PCBs (total)	1336-36-3	B2	2.11E-01				NA		1.4E+00	EqP	1.5E-01
Landbay B	42TP4-136	INORG	Aluminum	7429-90-5	ID	3.15E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	42TP4-136	INORG	Arsenic	7440-38-2	A	5.46E+00	9.90E+00	5.5E-01	1.1E+03	EqP	5.2E-03	8.6E+01	EqP	6.4E-02
Landbay B	42TP4-136	INORG	Barium	7440-39-3	NC	1.76E+02	2.24E+02	7.9E-01	3.2E+05	EqP	5.4E-04	3.3E+00	EqP	**5.3E+01**
Landbay B	42TP4-136	INORG	Beryllium	7440-41-7	B1	7.12E-01	1.20E+00	5.9E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.8E-02
Landbay B	42TP4-136	INORG	Cadmium	7440-43-9	B1	2.42E+00	2.70E+00	9.0E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**
Landbay B	42TP4-136	INORG	Chromium III	16065-83-1	D	1.15E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay B	42TP4-136	INORG	Cobalt	7440-48-4	LC	5.45E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay B	42TP4-136	INORG	Copper	7440-50-8	D	4.38E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.2E+00**
Landbay B	42TP4-136	INORG	Iron	7439-89-6	D	6.62E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay B	42TP4-136	INORG	Lead	7439-92-1	B2	7.37E+01						3.5E+02	EqP	2.1E-01
Landbay B	42TP4-136	INORG	Manganese	7439-96-5	D	3.19E+03	4.27E+03	7.5E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay B	42TP4-136	INORG	Mercury	7439-97-6	D	3.13E-01	7.10E-02	**4.4E+00**		NA		3.7E-01	EqP	8.5E-01
Landbay B	42TP4-136	INORG	Nickel	7440-02-0	A	3.51E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	42TP4-136	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay B	42TP4-136	INORG	Selenium	7782-49-2	D	2.01E+00	2.50E+00	8.0E-01	2.5E+04	LT	8.1E-05	2.0E+00	LT	1.0E+00
Landbay B	42TP4-136	INORG	Silver	7440-22-4	D	8.16E-01	2.30E+00	3.5E-01	3.8E+03	LT	2.2E-04	2.7E+00	LT	3.1E-01
Landbay B	42TP4-136	INORG	Strontium	7440-24-6		4.06E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay B	42TP4-136	INORG	Vanadium	7440-62-2	ID	1.86E+02	2.83E+02	6.6E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay B	42TP4-136	INORG	Zinc	7440-66-6	ID	6.20E+02	1.02E+02	**6.1E+00**	5.5E+06	EqP	1.1E-04	1.9E+02	EqP	**3.3E+00**
Landbay B	42TP4-165	VOC	Acetone	67-64-1	ID	8.40E-02			2.0E+06	LT	4.1E-08	6.0E+02	LT	1.4E-04
Landbay B	42TP4-165	VOC	Methyl Acetate	79-20-9		6.00E-03				NA		5.7E+05	LT	1.1E-08
Landbay B	42TP4-165	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	7.90E-02				NA		9.6E+03	EqP	8.2E-06
Landbay B	42TP4-165	PCB	PCBs (total)	1336-36-3	B2	1.15E+00				NA		1.4E+00	EqP	8.4E-01
Landbay B	42TP4-165	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	42TP4-165	INORG	Arsenic	7440-38-2	A	4.12E+00	9.90E+00	4.2E-01	1.1E+03	EqP	3.9E-03	8.6E+01	EqP	4.8E-02
Landbay B	42TP4-165	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	42TP4-165	INORG	Beryllium	7440-41-7	B1	7.25E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay B	42TP4-165	INORG	Cadmium	7440-43-9	B1	1.49E+00	2.70E+00	5.5E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.0E-01
Landbay B	42TP4-165	INORG	Chromium III	16065-83-1	D	1.43E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.2E-05
Landbay B	42TP4-165	INORG	Cobalt	7440-48-4	LC	4.82E+01	8.60E+01	5.6E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay B	42TP4-165	INORG	Copper	7440-50-8	D	3.86E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay B	42TP4-165	INORG	Iron	7439-89-6	D	4.77E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay B	42TP4-165	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay B	42TP4-165	INORG	Manganese	7439-96-5	D	1.61E+03	4.27E+03	3.8E-01	3.1E+05	EqP	5.2E-03	1.6E+02	EqP	**1.0E+01**
Landbay B	42TP4-165	INORG	Mercury	7439-97-6	D	5.71E-02	7.10E-02	8.0E-01		NA		3.7E-01	EqP	1.5E-01
Landbay B	42TP4-165	INORG	Nickel	7440-02-0	A	3.82E+01	7.30E+01	5.2E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	42TP4-165	INORG	Selenium	7782-49-2	D	1.44E+00	2.50E+00	5.8E-01	2.5E+04	LT	5.8E-05	2.0E+00	LT	7.2E-01
Landbay B	42TP4-165	INORG	Silver	7440-22-4	D	3.75E-01	2.30E+00	1.6E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay B	42TP4-165	INORG	Strontium	7440-24-6		2.75E+01	3.80E+01	7.2E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay B	42TP4-165	INORG	Vanadium	7440-62-2	ID	1.64E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay B	42TP4-165	INORG	Zinc	7440-66-6	ID	8.26E+01	1.02E+02	8.1E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.3E-01
Landbay B	42TP4-180	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	8.20E-02				NA		9.6E+03	EqP	8.5E-06
Landbay B	42TP4-180	PCB	PCBs (total)	1336-36-3	B2	7.75E-02				NA		1.4E+00	EqP	5.6E-02
Landbay B	42TP4-180	INORG	Aluminum	7429-90-5	ID	3.27E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	42TP4-180	INORG	Arsenic	7440-38-2	A	4.67E+00	9.90E+00	4.7E-01	1.1E+03	EqP	4.4E-03	8.6E+01	EqP	5.4E-02
Landbay B	42TP4-180	INORG	Barium	7440-39-3	NC	9.42E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay B	42TP4-180	INORG	Beryllium	7440-41-7	B1	9.07E-01	1.20E+00	7.6E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay B	42TP4-180	INORG	Cadmium	7440-43-9	B1	1.38E+00	2.70E+00	5.1E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.5E-01
Landbay B	42TP4-180	INORG	Chromium III	16065-83-1	D	9.58E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay B	42TP4-180	INORG	Chromium VI	18540-29-9	A	1.80E+00	4.97E+00	3.6E-01	6.6E+01	LT	2.7E-02	4.4E+00	LT	4.1E-01
Landbay B	42TP4-180	INORG	Cobalt	7440-48-4	LC	3.21E+01	8.60E+01	3.7E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay B	42TP4-180	INORG	Copper	7440-50-8	D	5.15E+01	1.31E+02	3.9E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.1E+00**
Landbay B	42TP4-180	INORG	Iron	7439-89-6	D	4.95E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	42TP4-180	INORG	Lead	7439-92-1	B2	1.73E+01						3.5E+02	EqP	4.9E-02
Landbay B	42TP4-180	INORG	Manganese	7439-96-5	D	8.99E+02	4.27E+03	2.1E-01	3.1E+05	EqP	2.9E-03	1.6E+02	EqP	**5.7E+00**
Landbay B	42TP4-180	INORG	Mercury	7439-97-6	D	1.91E-02	7.10E-02	2.7E-01		NA		3.7E-01	EqP	5.2E-02
Landbay B	42TP4-180	INORG	Nickel	7440-02-0	A	3.33E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay B	42TP4-180	INORG	Perchlorate	14797-73-0	NC	6.20E-02			3.4E+03	LT	1.8E-05	7.7E+02	LT	8.0E-05
Landbay B	42TP4-180	INORG	Strontium	7440-24-6		4.14E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.9E-02
Landbay B	42TP4-180	INORG	Vanadium	7440-62-2	ID	1.46E+02	2.83E+02	5.2E-01	1.5E+05	EqP	9.4E-04	4.0E+02	EqP	3.6E-01
Landbay B	42TP4-180	INORG	Zinc	7440-66-6	ID	5.65E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	42TP4-195	VOC	Acetone	67-64-1	ID	1.30E-01			2.0E+06	LT	6.4E-08	6.0E+02	LT	2.2E-04
Landbay B	42TP4-195	VOC	2-Butanone	78-93-3	ID	8.00E-03			3.0E+05	LT	2.7E-08	5.6E+03	LT	1.4E-06
Landbay B	42TP4-195	VOC	Methyl Acetate	79-20-9		1.10E-02				NA		5.7E+05	LT	1.9E-08
Landbay B	42TP4-195	VOC	Toluene	108-88-3	ID	2.00E-03				NA		8.0E-01	LT	2.5E-03
Landbay B	42TP4-195	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.00E-01				NA		9.6E+03	EqP	3.1E-05
Landbay B	42TP4-195	PCB	PCBs (total)	1336-36-3	B2	3.59E-01				NA		1.4E+00	EqP	2.6E-01
Landbay B	42TP4-195	INORG	Aluminum	7429-90-5	ID	3.37E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	42TP4-195	INORG	Arsenic	7440-38-2	A	3.85E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay B	42TP4-195	INORG	Barium	7440-39-3	NC	7.77E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	42TP4-195	INORG	Beryllium	7440-41-7	B1	5.48E-01	1.20E+00	4.6E-01	6.8E+03	EqP	8.1E-05	1.0E+01	EqP	5.3E-02
Landbay B	42TP4-195	INORG	Cadmium	7440-43-9	B1	1.44E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.7E-01
Landbay B	42TP4-195	INORG	Chromium III	16065-83-1	D	8.58E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay B	42TP4-195	INORG	Chromium VI	18540-29-9	A	7.50E-01	4.97E+00	1.5E-01	6.6E+01	LT	1.1E-02	4.4E+00	LT	1.7E-01
Landbay B	42TP4-195	INORG	Cobalt	7440-48-4	LC	2.83E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.1E-03	2.1E+01	EqP	**1.4E+00**
Landbay B	42TP4-195	INORG	Copper	7440-50-8	D	6.56E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.8E+00**
Landbay B	42TP4-195	INORG	Iron	7439-89-6	D	4.17E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.6E-03	1.5E+02	EqP	**2.8E+02**
Landbay B	42TP4-195	INORG	Lead	7439-92-1	B2	1.85E+01						3.5E+02	EqP	5.3E-02
Landbay B	42TP4-195	INORG	Manganese	7439-96-5	D	7.73E+02	4.27E+03	1.8E-01	3.1E+05	EqP	2.5E-03	1.6E+02	EqP	**4.9E+00**
Landbay B	42TP4-195	INORG	Mercury	7439-97-6	D	2.74E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.4E-02
Landbay B	42TP4-195	INORG	Nickel	7440-02-0	A	3.41E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay B	42TP4-195	INORG	Perchlorate	14797-73-0	NC	7.70E-03			3.4E+03	LT	2.2E-06	7.7E+02	LT	1.0E-05
Landbay B	42TP4-195	INORG	Strontium	7440-24-6		5.07E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay B	42TP4-195	INORG	Vanadium	7440-62-2	ID	1.18E+02	2.83E+02	4.2E-01	1.5E+05	EqP	7.6E-04	4.0E+02	EqP	2.9E-01
Landbay B	42TP4-195	INORG	Zinc	7440-66-6	ID	6.64E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay B	42TP4-75	INORG	Aluminum	7429-90-5	ID	3.31E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	42TP4-75	INORG	Barium	7440-39-3	NC	2.44E+01	2.24E+02	1.1E-01	3.2E+05	EqP	7.5E-05	3.3E+00	EqP	**7.4E+00**
Landbay B	42TP4-75	INORG	Beryllium	7440-41-7	B1	1.46E-01	1.20E+00	1.2E-01	6.8E+03	EqP	2.2E-05	1.0E+01	EqP	1.4E-02
Landbay B	42TP4-75	INORG	Cadmium	7440-43-9	B1	8.87E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.2E-04	2.1E+00	EqP	4.1E-01
Landbay B	42TP4-75	INORG	Chromium III	16065-83-1	D	2.14E+01	2.61E+02	8.2E-02	2.1E+10	EqP	1.0E-09	3.4E+06	EqP	6.4E-06
Landbay B	42TP4-75	INORG	Cobalt	7440-48-4	LC	1.85E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.9E-01
Landbay B	42TP4-75	INORG	Copper	7440-50-8	D	6.03E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.2E+00**
Landbay B	42TP4-75	INORG	Iron	7439-89-6	D	2.58E+04	9.52E+04	2.7E-01	4.4E+06	EqP	5.9E-03	1.5E+02	EqP	**1.7E+02**
Landbay B	42TP4-75	INORG	Lead	7439-92-1	B2	9.29E-01						3.5E+02	EqP	2.7E-03
Landbay B	42TP4-75	INORG	Manganese	7439-96-5	D	4.25E+02	4.27E+03	1.0E-01	3.1E+05	EqP	1.4E-03	1.6E+02	EqP	**2.7E+00**
Landbay B	42TP4-75	INORG	Nickel	7440-02-0	A	3.57E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	42TP4-75	INORG	Strontium	7440-24-6		5.54E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.4E-06	1.1E+03	EqP	5.2E-02
Landbay B	42TP4-75	INORG	Vanadium	7440-62-2	ID	5.23E+01	2.83E+02	1.8E-01	1.5E+05	EqP	3.4E-04	4.0E+02	EqP	1.3E-01
Landbay B	42TP4-75	INORG	Zinc	7440-66-6	ID	3.09E+01	1.02E+02	3.0E-01	5.5E+06	EqP	5.7E-06	1.9E+02	EqP	1.6E-01
Landbay B	42TP5-260	VOC	Acetone	67-64-1	ID	3.70E-02			2.0E+06	LT	1.8E-08	6.0E+02	LT	6.2E-05
Landbay B	42TP5-260	INORG	Aluminum	7429-90-5	ID	7.01E+04	5.34E+04	**1.3E+00**	3.7E+08	EqP	1.9E-04	2.6E+03	EqP	**2.7E+01**
Landbay B	42TP5-260	INORG	Arsenic	7440-38-2	A	3.02E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.5E-02
Landbay B	42TP5-260	INORG	Barium	7440-39-3	NC	3.16E+02	2.24E+02	**1.4E+00**	3.2E+05	EqP	9.8E-04	3.3E+00	EqP	**9.6E+01**
Landbay B	42TP5-260	INORG	Beryllium	7440-41-7	B1	8.45E-01	1.20E+00	7.0E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	8.1E-02
Landbay B	42TP5-260	INORG	Boron	7440-42-8	ID	2.20E+00	1.34E+01	1.6E-01	9.9E+05	LT	2.2E-06	6.4E-01	LT	**3.4E+00**
Landbay B	42TP5-260	INORG	Cadmium	7440-43-9	B1	2.23E-01	2.70E+00	8.3E-02	1.1E+03	EqP	2.1E-04	2.1E+00	EqP	1.0E-01
Landbay B	42TP5-260	INORG	Chromium III	16065-83-1	D	2.55E+02	2.61E+02	9.8E-01	2.1E+10	EqP	1.2E-08	3.4E+06	EqP	7.5E-05
Landbay B	42TP5-260	INORG	Chromium VI	18540-29-9	A	1.30E+00	4.97E+00	2.6E-01	6.6E+01	LT	2.0E-02	4.4E+00	LT	3.0E-01
Landbay B	42TP5-260	INORG	Cobalt	7440-48-4	LC	1.17E+02	8.60E+01	**1.4E+00**	1.4E+04	EqP	8.5E-03	2.1E+01	EqP	**5.6E+00**
Landbay B	42TP5-260	INORG	Copper	7440-50-8	D	5.04E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.0E+00**
Landbay B	42TP5-260	INORG	Iron	7439-89-6	D	8.67E+04	9.52E+04	9.1E-01	4.4E+06	EqP	2.0E-02	1.5E+02	EqP	**5.7E+02**
Landbay B	42TP5-260	INORG	Lead	7439-92-1	B2	1.44E+01						3.5E+02	EqP	4.1E-02
Landbay B	42TP5-260	INORG	Manganese	7439-96-5	D	4.29E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay B	42TP5-260	INORG	Mercury	7439-97-6	D	2.66E-02	7.10E-02	3.7E-01		NA		3.7E-01	EqP	7.2E-02
Landbay B	42TP5-260	INORG	Nickel	7440-02-0	A	9.45E+01	7.30E+01	**1.3E+00**	1.2E+05	EqP	7.6E-04	3.4E+01	EqP	**2.8E+00**
Landbay B	42TP5-260	INORG	Perchlorate	14797-73-0	NC	8.40E-04			3.4E+03	LT	2.4E-07	7.7E+02	LT	1.1E-06
Landbay B	42TP5-260	INORG	Strontium	7440-24-6		2.37E+01	3.80E+01	6.2E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.2E-02
Landbay B	42TP5-260	INORG	Thallium	7440-28-0	ID	3.84E+00	4.50E+00	8.5E-01				1.1E+00	EqP	**3.4E+00**
Landbay B	42TP5-260	INORG	Vanadium	7440-62-2	ID	2.81E+02	2.83E+02	9.9E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	7.0E-01
Landbay B	42TP5-260	INORG	Zinc	7440-66-6	ID	5.72E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	42TP5-275	INORG	Aluminum	7429-90-5	ID	2.94E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	42TP5-275	INORG	Arsenic	7440-38-2	A	3.85E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay B	42TP5-275	INORG	Barium	7440-39-3	NC	1.41E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay B	42TP5-275	INORG	Beryllium	7440-41-7	B1	6.31E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay B	42TP5-275	INORG	Boron	7440-42-8	ID	6.23E+00	1.34E+01	4.6E-01	9.9E+05	LT	6.3E-06	6.4E-01	LT	**9.7E+00**
Landbay B	42TP5-275	INORG	Chromium III	16065-83-1	D	1.59E+02	2.61E+02	6.1E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.7E-05
Landbay B	42TP5-275	INORG	Chromium VI	18540-29-9	A	4.00E+00	4.97E+00	8.0E-01	6.6E+01	LT	6.0E-02	4.4E+00	LT	9.1E-01
Landbay B	42TP5-275	INORG	Cobalt	7440-48-4	LC	7.67E+01	8.60E+01	8.9E-01	1.4E+04	EqP	5.6E-03	2.1E+01	EqP	**3.7E+00**
Landbay B	42TP5-275	INORG	Copper	7440-50-8	D	3.37E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.7E-05	8.4E+00	EqP	**4.0E+00**
Landbay B	42TP5-275	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay B	42TP5-275	INORG	Lead	7439-92-1	B2	2.34E+01						3.5E+02	EqP	6.7E-02
Landbay B	42TP5-275	INORG	Manganese	7439-96-5	D	3.23E+03	4.27E+03	7.6E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.1E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	42TP5-275	INORG	Mercury	7439-97-6	D	3.47E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay B	42TP5-275	INORG	Nickel	7440-02-0	A	3.50E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	42TP5-275	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay B	42TP5-275	INORG	Silver	7440-22-4	D	1.73E-01	2.30E+00	7.5E-02	3.8E+03	LT	4.6E-05	2.7E+00	LT	6.5E-02
Landbay B	42TP5-275	INORG	Strontium	7440-24-6		1.81E+01	3.80E+01	4.8E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay B	42TP5-275	INORG	Thallium	7440-28-0	ID	2.01E+00	4.50E+00	4.5E-01				1.1E+00	EqP	**1.8E+00**
Landbay B	42TP5-275	INORG	Vanadium	7440-62-2	ID	1.82E+02	2.83E+02	6.4E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay B	42TP5-275	INORG	Zinc	7440-66-6	ID	6.22E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay B	42TP6-40	VOC	Acetone	67-64-1	ID	2.50E-01			2.0E+06	LT	1.2E-07	6.0E+02	LT	4.2E-04
Landbay B	42TP6-40	VOC	2-Butanone	78-93-3	ID	1.40E-02			3.0E+05	LT	4.7E-08	5.6E+03	LT	2.5E-06
Landbay B	42TP6-40	VOC	Methyl Acetate	79-20-9		1.90E-02				NA		5.7E+05	LT	3.3E-08
Landbay B	42TP6-40	VOC	Toluene	108-88-3	ID	2.00E-03				NA		8.0E-01	LT	2.5E-03
Landbay B	42TP6-40	INORG	Aluminum	7429-90-5	ID	4.05E+04	5.34E+04	7.6E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	42TP6-40	INORG	Arsenic	7440-38-2	A	3.30E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay B	42TP6-40	INORG	Barium	7440-39-3	NC	1.20E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay B	42TP6-40	INORG	Beryllium	7440-41-7	B1	6.59E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay B	42TP6-40	INORG	Boron	7440-42-8	ID	3.86E+00	1.34E+01	2.9E-01	9.9E+05	LT	3.9E-06	6.4E-01	LT	**6.0E+00**
Landbay B	42TP6-40	INORG	Chromium III	16065-83-1	D	1.76E+02	2.61E+02	6.7E-01	2.1E+10	EqP	8.2E-09	3.4E+06	EqP	5.2E-05
Landbay B	42TP6-40	INORG	Chromium VI	18540-29-9	A	2.30E+00	4.97E+00	4.6E-01	6.6E+01	LT	3.5E-02	4.4E+00	LT	5.2E-01
Landbay B	42TP6-40	INORG	Cobalt	7440-48-4	LC	5.89E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay B	42TP6-40	INORG	Copper	7440-50-8	D	4.20E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.0E+00**
Landbay B	42TP6-40	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay B	42TP6-40	INORG	Lead	7439-92-1	B2	1.41E+01						3.5E+02	EqP	4.0E-02
Landbay B	42TP6-40	INORG	Manganese	7439-96-5	D	1.78E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	42TP6-40	INORG	Mercury	7439-97-6	D	2.86E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.7E-02
Landbay B	42TP6-40	INORG	Nickel	7440-02-0	A	4.31E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay B	42TP6-40	INORG	Perchlorate	14797-73-0	NC	1.80E-03			3.4E+03	LT	5.2E-07	7.7E+02	LT	2.3E-06
Landbay B	42TP6-40	INORG	Strontium	7440-24-6		1.98E+01	3.80E+01	5.2E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay B	42TP6-40	INORG	Thallium	7440-28-0	ID	2.69E+00	4.50E+00	6.0E-01				1.1E+00	EqP	**2.4E+00**
Landbay B	42TP6-40	INORG	Vanadium	7440-62-2	ID	1.93E+02	2.83E+02	6.8E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay B	42TP6-40	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay B	42TP6-5	INORG	Aluminum	7429-90-5	ID	4.16E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	42TP6-5	INORG	Arsenic	7440-38-2	A	3.04E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.5E-02
Landbay B	42TP6-5	INORG	Barium	7440-39-3	NC	8.48E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	42TP6-5	INORG	Beryllium	7440-41-7	B1	4.90E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.2E-05	1.0E+01	EqP	4.7E-02
Landbay B	42TP6-5	INORG	Boron	7440-42-8	ID	2.03E+00	1.34E+01	1.5E-01	9.9E+05	LT	2.1E-06	6.4E-01	LT	**3.2E+00**
Landbay B	42TP6-5	INORG	Chromium III	16065-83-1	D	1.30E+02	2.61E+02	5.0E-01	2.1E+10	EqP	6.1E-09	3.4E+06	EqP	3.8E-05
Landbay B	42TP6-5	INORG	Chromium VI	18540-29-9	A	1.40E+00	4.97E+00	2.8E-01	6.6E+01	LT	2.1E-02	4.4E+00	LT	3.2E-01
Landbay B	42TP6-5	INORG	Cobalt	7440-48-4	LC	3.75E+01	8.60E+01	4.4E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay B	42TP6-5	INORG	Copper	7440-50-8	D	4.41E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.2E+00**
Landbay B	42TP6-5	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	42TP6-5	INORG	Lead	7439-92-1	B2	9.84E+00						3.5E+02	EqP	2.8E-02
Landbay B	42TP6-5	INORG	Manganese	7439-96-5	D	1.20E+03	4.27E+03	2.8E-01	3.1E+05	EqP	3.9E-03	1.6E+02	EqP	**7.7E+00**
Landbay B	42TP6-5	INORG	Mercury	7439-97-6	D	1.14E-02	7.10E-02	1.6E-01		NA		3.7E-01	EqP	3.1E-02
Landbay B	42TP6-5	INORG	Nickel	7440-02-0	A	3.63E+01	7.30E+01	5.0E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	42TP6-5	INORG	Perchlorate	14797-73-0	NC	7.50E-04			3.4E+03	LT	2.2E-07	7.7E+02	LT	9.7E-07
Landbay B	42TP6-5	INORG	Strontium	7440-24-6		3.14E+01	3.80E+01	8.3E-01	1.6E+07	EqP	1.9E-06	1.1E+03	EqP	3.0E-02
Landbay B	42TP6-5	INORG	Vanadium	7440-62-2	ID	1.75E+02	2.83E+02	6.2E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.4E-01
Landbay B	42TP6-5	INORG	Zinc	7440-66-6	ID	3.32E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.1E-06	1.9E+02	EqP	1.7E-01
Landbay B	5100-2750	INORG	Aluminum	7429-90-5	ID	3.69E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	5100-2750	INORG	Antimony	7440-36-0	ID	2.56E+00	1.70E+00	**1.5E+00**	1.4E+03	EqP	1.9E-03	2.7E+01	EqP	9.4E-02
Landbay B	5100-2750	INORG	Arsenic	7440-38-2	A	7.61E+00	9.90E+00	7.7E-01	1.1E+03	EqP	7.2E-03	8.6E+01	EqP	8.9E-02
Landbay B	5100-2750	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay B	5100-2750	INORG	Beryllium	7440-41-7	B1	6.20E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay B	5100-2750	INORG	Boron	7440-42-8	ID	1.77E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.8E+01**
Landbay B	5100-2750	INORG	Cadmium	7440-43-9	B1	2.61E+00	2.70E+00	9.7E-01	1.1E+03	EqP	2.4E-03	2.1E+00	EqP	**1.2E+00**
Landbay B	5100-2750	INORG	Chromium III	16065-83-1	D	1.86E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay B	5100-2750	INORG	Cobalt	7440-48-4	LC	6.18E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay B	5100-2750	INORG	Copper	7440-50-8	D	4.19E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.0E+00**
Landbay B	5100-2750	INORG	Iron	7439-89-6	D	7.42E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	5100-2750	INORG	Lead	7439-92-1	B2	4.53E+01						3.5E+02	EqP	1.3E-01
Landbay B	5100-2750	INORG	Manganese	7439-96-5	D	2.26E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	5100-2750	INORG	Mercury	7439-97-6	D	8.59E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay B	5100-2750	INORG	Nickel	7440-02-0	A	3.21E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.5E-01
Landbay B	5100-2750	INORG	Perchlorate	14797-73-0	NC	2.40E-03			3.4E+03	LT	7.0E-07	7.7E+02	LT	3.1E-06
Landbay B	5100-2750	INORG	Silver	7440-22-4	D	2.26E+00	2.30E+00	9.8E-01	3.8E+03	LT	6.0E-04	2.7E+00	LT	8.5E-01
Landbay B	5100-2750	INORG	Strontium	7440-24-6		1.78E+01	3.80E+01	4.7E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay B	5100-2750	INORG	Vanadium	7440-62-2	ID	2.64E+02	2.83E+02	9.3E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.6E-01
Landbay B	5100-2750	INORG	Zinc	7440-66-6	ID	6.98E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01
Landbay B	5100-2900	INORG	Aluminum	7429-90-5	ID	3.69E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	5100-2900	INORG	Antimony	7440-36-0	ID	2.56E+00	1.70E+00	**1.5E+00**	1.4E+03	EqP	1.9E-03	2.7E+01	EqP	9.4E-02
Landbay B	5100-2900	INORG	Arsenic	7440-38-2	A	7.61E+00	9.90E+00	7.7E-01	1.1E+03	EqP	7.2E-03	8.6E+01	EqP	8.9E-02
Landbay B	5100-2900	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay B	5100-2900	INORG	Beryllium	7440-41-7	B1	6.20E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay B	5100-2900	INORG	Boron	7440-42-8	ID	1.77E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.8E+01**
Landbay B	5100-2900	INORG	Cadmium	7440-43-9	B1	2.61E+00	2.70E+00	9.7E-01	1.1E+03	EqP	2.4E-03	2.1E+00	EqP	**1.2E+00**
Landbay B	5100-2900	INORG	Chromium III	16065-83-1	D	1.86E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay B	5100-2900	INORG	Cobalt	7440-48-4	LC	6.18E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay B	5100-2900	INORG	Copper	7440-50-8	D	4.19E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.0E+00**
Landbay B	5100-2900	INORG	Iron	7439-89-6	D	7.42E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	5100-2900	INORG	Lead	7439-92-1	B2	4.53E+01						3.5E+02	EqP	1.3E-01
Landbay B	5100-2900	INORG	Manganese	7439-96-5	D	2.26E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	5100-2900	INORG	Mercury	7439-97-6	D	8.59E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay B	5100-2900	INORG	Nickel	7440-02-0	A	3.21E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.5E-01
Landbay B	5100-2900	INORG	Perchlorate	14797-73-0	NC	2.40E-03			3.4E+03	LT	7.0E-07	7.7E+02	LT	3.1E-06
Landbay B	5100-2900	INORG	Silver	7440-22-4	D	2.26E+00	2.30E+00	9.8E-01	3.8E+03	LT	6.0E-04	2.7E+00	LT	8.5E-01
Landbay B	5100-2900	INORG	Strontium	7440-24-6		1.78E+01	3.80E+01	4.7E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay B	5100-2900	INORG	Vanadium	7440-62-2	ID	2.64E+02	2.83E+02	9.3E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.6E-01
Landbay B	5100-2900	INORG	Zinc	7440-66-6	ID	6.98E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01
Landbay B	5250-2600	INORG	Aluminum	7429-90-5	ID	3.69E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	5250-2600	INORG	Antimony	7440-36-0	ID	2.56E+00	1.70E+00	**1.5E+00**	1.4E+03	EqP	1.9E-03	2.7E+01	EqP	9.4E-02
Landbay B	5250-2600	INORG	Arsenic	7440-38-2	A	7.61E+00	9.90E+00	7.7E-01	1.1E+03	EqP	7.2E-03	8.6E+01	EqP	8.9E-02
Landbay B	5250-2600	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay B	5250-2600	INORG	Beryllium	7440-41-7	B1	6.20E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay B	5250-2600	INORG	Boron	7440-42-8	ID	1.77E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.8E+01**
Landbay B	5250-2600	INORG	Cadmium	7440-43-9	B1	2.61E+00	2.70E+00	9.7E-01	1.1E+03	EqP	2.4E-03	2.1E+00	EqP	**1.2E+00**
Landbay B	5250-2600	INORG	Chromium III	16065-83-1	D	1.86E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay B	5250-2600	INORG	Cobalt	7440-48-4	LC	6.18E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay B	5250-2600	INORG	Copper	7440-50-8	D	4.19E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.0E+00**
Landbay B	5250-2600	INORG	Iron	7439-89-6	D	7.42E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	5250-2600	INORG	Lead	7439-92-1	B2	4.53E+01						3.5E+02	EqP	1.3E-01
Landbay B	5250-2600	INORG	Manganese	7439-96-5	D	2.26E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	5250-2600	INORG	Mercury	7439-97-6	D	8.59E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay B	5250-2600	INORG	Nickel	7440-02-0	A	3.21E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.5E-01
Landbay B	5250-2600	INORG	Perchlorate	14797-73-0	NC	2.40E-03			3.4E+03	LT	7.0E-07	7.7E+02	LT	3.1E-06
Landbay B	5250-2600	INORG	Silver	7440-22-4	D	2.26E+00	2.30E+00	9.8E-01	3.8E+03	LT	6.0E-04	2.7E+00	LT	8.5E-01
Landbay B	5250-2600	INORG	Strontium	7440-24-6		1.78E+01	3.80E+01	4.7E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay B	5250-2600	INORG	Vanadium	7440-62-2	ID	2.64E+02	2.83E+02	9.3E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.6E-01
Landbay B	5250-2600	INORG	Zinc	7440-66-6	ID	6.98E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01
Landbay B	5250-2750	INORG	Aluminum	7429-90-5	ID	3.69E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	5250-2750	INORG	Antimony	7440-36-0	ID	2.56E+00	1.70E+00	**1.5E+00**	1.4E+03	EqP	1.9E-03	2.7E+01	EqP	9.4E-02
Landbay B	5250-2750	INORG	Arsenic	7440-38-2	A	7.61E+00	9.90E+00	7.7E-01	1.1E+03	EqP	7.2E-03	8.6E+01	EqP	8.9E-02
Landbay B	5250-2750	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay B	5250-2750	INORG	Beryllium	7440-41-7	B1	6.20E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay B	5250-2750	INORG	Boron	7440-42-8	ID	1.77E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.8E+01**
Landbay B	5250-2750	INORG	Cadmium	7440-43-9	B1	2.61E+00	2.70E+00	9.7E-01	1.1E+03	EqP	2.4E-03	2.1E+00	EqP	**1.2E+00**
Landbay B	5250-2750	INORG	Chromium III	16065-83-1	D	1.86E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay B	5250-2750	INORG	Cobalt	7440-48-4	LC	6.18E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay B	5250-2750	INORG	Copper	7440-50-8	D	4.19E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.0E+00**
Landbay B	5250-2750	INORG	Iron	7439-89-6	D	7.42E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	5250-2750	INORG	Lead	7439-92-1	B2	4.53E+01						3.5E+02	EqP	1.3E-01
Landbay B	5250-2750	INORG	Manganese	7439-96-5	D	2.26E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	5250-2750	INORG	Mercury	7439-97-6	D	8.59E-02	7.10E-02	**1.2E+00**		NA		3.7E-01	EqP	2.3E-01
Landbay B	5250-2750	INORG	Nickel	7440-02-0	A	3.21E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.5E-01
Landbay B	5250-2750	INORG	Perchlorate	14797-73-0	NC	2.40E-03			3.4E+03	LT	7.0E-07	7.7E+02	LT	3.1E-06
Landbay B	5250-2750	INORG	Silver	7440-22-4	D	2.26E+00	2.30E+00	9.8E-01	3.8E+03	LT	6.0E-04	2.7E+00	LT	8.5E-01
Landbay B	5250-2750	INORG	Strontium	7440-24-6		1.78E+01	3.80E+01	4.7E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay B	5250-2750	INORG	Vanadium	7440-62-2	ID	2.64E+02	2.83E+02	9.3E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.6E-01
Landbay B	5250-2750	INORG	Zinc	7440-66-6	ID	6.98E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01
Landbay B	5400-77	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	5.30E-01				NA		9.6E+03	EqP	5.5E-05
Landbay B	5400-77	PCB	PCBs (total)	1336-36-3	B2	1.23E-01				NA		1.4E+00	EqP	9.0E-02
Landbay B	5400-77	INORG	Aluminum	7429-90-5	ID	3.36E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	5400-77	INORG	Arsenic	7440-38-2	A	9.07E+00	9.90E+00	9.2E-01	1.1E+03	EqP	8.6E-03	8.6E+01	EqP	1.1E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	5400-77	INORG	Barium	7440-39-3	NC	1.47E+02	2.24E+02	6.6E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.5E+01**
Landbay B	5400-77	INORG	Beryllium	7440-41-7	B1	7.00E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay B	5400-77	INORG	Boron	7440-42-8	ID	1.40E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay B	5400-77	INORG	Chromium III	16065-83-1	D	1.01E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay B	5400-77	INORG	Chromium VI	18540-29-9	A	3.28E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay B	5400-77	INORG	Cobalt	7440-48-4	LC	4.91E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	5400-77	INORG	Copper	7440-50-8	D	7.44E+01	1.31E+02	5.7E-01	3.5E+05	EqP	2.1E-04	8.4E+00	EqP	**8.9E+00**
Landbay B	5400-77	INORG	Iron	7439-89-6	D	5.48E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay B	5400-77	INORG	Lead	7439-92-1	B2	2.18E+01						3.5E+02	EqP	6.2E-02
Landbay B	5400-77	INORG	Manganese	7439-96-5	D	2.03E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	5400-77	INORG	Mercury	7439-97-6	D	5.09E-02	7.10E-02	7.2E-01		NA		3.7E-01	EqP	1.4E-01
Landbay B	5400-77	INORG	Nickel	7440-02-0	A	3.26E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.6E-01
Landbay B	5400-77	INORG	Perchlorate	14797-73-0	NC	3.80E-03			3.4E+03	LT	1.1E-06	7.7E+02	LT	4.9E-06
Landbay B	5400-77	INORG	Silver	7440-22-4	D	2.88E-01	2.30E+00	1.3E-01	3.8E+03	LT	7.7E-05	2.7E+00	LT	1.1E-01
Landbay B	5400-77	INORG	Strontium	7440-24-6		3.69E+01	3.80E+01	9.7E-01	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.5E-02
Landbay B	5400-77	INORG	Thallium	7440-28-0	ID	2.39E+00	4.50E+00	5.3E-01				1.1E+00	EqP	**2.1E+00**
Landbay B	5400-77	INORG	Vanadium	7440-62-2	ID	1.61E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay B	5400-77	INORG	Zinc	7440-66-6	ID	9.34E+01	1.02E+02	9.2E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.9E-01
Landbay B	5550-3350	INORG	Aluminum	7429-90-5	ID	2.52E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay B	5550-3350	INORG	Antimony	7440-36-0	ID	1.11E+00	1.70E+00	6.5E-01	1.4E+03	EqP	8.1E-04	2.7E+01	EqP	4.1E-02
Landbay B	5550-3350	INORG	Arsenic	7440-38-2	A	3.90E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay B	5550-3350	INORG	Barium	7440-39-3	NC	8.96E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	5550-3350	INORG	Beryllium	7440-41-7	B1	7.46E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay B	5550-3350	INORG	Boron	7440-42-8	ID	1.52E+01	1.34E+01	**1.1E+00**	9.9E+05	LT	1.5E-05	6.4E-01	LT	**2.4E+01**
Landbay B	5550-3350	INORG	Cadmium	7440-43-9	B1	1.57E+00	2.70E+00	5.8E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.3E-01
Landbay B	5550-3350	INORG	Chromium III	16065-83-1	D	6.07E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.8E-05
Landbay B	5550-3350	INORG	Chromium VI	18540-29-9	A	5.10E-01	4.97E+00	1.0E-01	6.6E+01	LT	7.7E-03	4.4E+00	LT	1.2E-01
Landbay B	5550-3350	INORG	Cobalt	7440-48-4	LC	1.93E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.3E-01
Landbay B	5550-3350	INORG	Copper	7440-50-8	D	2.45E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.1E-05	8.4E+00	EqP	**2.9E+00**
Landbay B	5550-3350	INORG	Iron	7439-89-6	D	4.78E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay B	5550-3350	INORG	Lead	7439-92-1	B2	1.42E+01						3.5E+02	EqP	4.1E-02
Landbay B	5550-3350	INORG	Manganese	7439-96-5	D	6.70E+02	4.27E+03	1.6E-01	3.1E+05	EqP	2.2E-03	1.6E+02	EqP	**4.3E+00**
Landbay B	5550-3350	INORG	Mercury	7439-97-6	D	3.08E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.3E-02
Landbay B	5550-3350	INORG	Nickel	7440-02-0	A	2.40E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.1E-01
Landbay B	5550-3350	INORG	Silver	7440-22-4	D	1.73E+00	2.30E+00	7.5E-01	3.8E+03	LT	4.6E-04	2.7E+00	LT	6.5E-01
Landbay B	5550-3350	INORG	Strontium	7440-24-6		9.31E+00	3.80E+01	2.5E-01	1.6E+07	EqP	5.7E-07	1.1E+03	EqP	8.8E-03
Landbay B	5550-3350	INORG	Vanadium	7440-62-2	ID	1.15E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.4E-04	4.0E+02	EqP	2.9E-01
Landbay B	5550-3350	INORG	Zinc	7440-66-6	ID	2.91E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.3E-06	1.9E+02	EqP	1.5E-01
Landbay B	5700-2600	INORG	Aluminum	7429-90-5	ID	3.17E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	5700-2600	INORG	Antimony	7440-36-0	ID	1.09E+00	1.70E+00	6.4E-01	1.4E+03	EqP	8.0E-04	2.7E+01	EqP	4.0E-02
Landbay B	5700-2600	INORG	Arsenic	7440-38-2	A	4.93E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.7E-02
Landbay B	5700-2600	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	5700-2600	INORG	Beryllium	7440-41-7	B1	3.42E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.0E-05	1.0E+01	EqP	3.3E-02
Landbay B	5700-2600	INORG	Cadmium	7440-43-9	B1	3.09E+00	2.70E+00	**1.1E+00**	1.1E+03	EqP	2.9E-03	2.1E+00	EqP	**1.4E+00**
Landbay B	5700-2600	INORG	Chromium III	16065-83-1	D	1.29E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay B	5700-2600	INORG	Chromium VI	18540-29-9	A	3.47E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay B	5700-2600	INORG	Cobalt	7440-48-4	LC	6.85E+01	8.60E+01	8.0E-01	1.4E+04	EqP	5.0E-03	2.1E+01	EqP	**3.3E+00**
Landbay B	5700-2600	INORG	Copper	7440-50-8	D	3.28E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay B	5700-2600	INORG	Iron	7439-89-6	D	6.02E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay B	5700-2600	INORG	Lead	7439-92-1	B2	2.97E+01						3.5E+02	EqP	8.5E-02
Landbay B	5700-2600	INORG	Manganese	7439-96-5	D	2.23E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	5700-2600	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay B	5700-2600	INORG	Nickel	7440-02-0	A	3.13E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.3E-01
Landbay B	5700-2600	INORG	Perchlorate	14797-73-0	NC	1.90E-03			3.4E+03	LT	5.5E-07	7.7E+02	LT	2.5E-06
Landbay B	5700-2600	INORG	Silver	7440-22-4	D	2.79E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.4E-04	2.7E+00	LT	1.0E+00
Landbay B	5700-2600	INORG	Vanadium	7440-62-2	ID	2.27E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay B	5700-2600	INORG	Zinc	7440-66-6	ID	6.26E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay B	5850-2300	INORG	Aluminum	7429-90-5	ID	3.75E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	5850-2300	INORG	Antimony	7440-36-0	ID	1.23E+00	1.70E+00	7.2E-01	1.4E+03	EqP	9.0E-04	2.7E+01	EqP	4.5E-02
Landbay B	5850-2300	INORG	Arsenic	7440-38-2	A	6.19E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay B	5850-2300	INORG	Barium	7440-39-3	NC	1.52E+02	2.24E+02	6.8E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay B	5850-2300	INORG	Beryllium	7440-41-7	B1	4.10E-01	1.20E+00	3.4E-01	6.8E+03	EqP	6.0E-05	1.0E+01	EqP	3.9E-02
Landbay B	5850-2300	INORG	Cadmium	7440-43-9	B1	3.69E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay B	5850-2300	INORG	Chromium III	16065-83-1	D	1.36E+02	2.61E+02	5.2E-01	2.1E+10	EqP	6.4E-09	3.4E+06	EqP	4.0E-05
Landbay B	5850-2300	INORG	Chromium VI	18540-29-9	A	3.52E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay B	5850-2300	INORG	Cobalt	7440-48-4	LC	7.57E+01	8.60E+01	8.8E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.6E+00**
Landbay B	5850-2300	INORG	Copper	7440-50-8	D	4.01E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay B	5850-2300	INORG	Iron	7439-89-6	D	6.53E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay B	5850-2300	INORG	Lead	7439-92-1	B2	2.36E+01						3.5E+02	EqP	6.7E-02
Landbay B	5850-2300	INORG	Manganese	7439-96-5	D	2.91E+03	4.27E+03	6.8E-01	3.1E+05	EqP	9.4E-03	1.6E+02	EqP	**1.9E+01**
Landbay B	5850-2300	INORG	Mercury	7439-97-6	D	2.00E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.4E-02
Landbay B	5850-2300	INORG	Nickel	7440-02-0	A	3.46E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	5850-2300	INORG	Silver	7440-22-4	D	2.90E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	7.7E-04	2.7E+00	LT	**1.1E+00**
Landbay B	5850-2300	INORG	Vanadium	7440-62-2	ID	2.42E+02	2.83E+02	8.6E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.0E-01
Landbay B	5850-2300	INORG	Zinc	7440-66-6	ID	6.48E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay B	5850-2600	INORG	Aluminum	7429-90-5	ID	3.17E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	5850-2600	INORG	Antimony	7440-36-0	ID	1.09E+00	1.70E+00	6.4E-01	1.4E+03	EqP	8.0E-04	2.7E+01	EqP	4.0E-02
Landbay B	5850-2600	INORG	Arsenic	7440-38-2	A	4.93E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.7E-02
Landbay B	5850-2600	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	5850-2600	INORG	Beryllium	7440-41-7	B1	3.42E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.0E-05	1.0E+01	EqP	3.3E-02
Landbay B	5850-2600	INORG	Cadmium	7440-43-9	B1	3.09E+00	2.70E+00	**1.1E+00**	1.1E+03	EqP	2.9E-03	2.1E+00	EqP	**1.4E+00**
Landbay B	5850-2600	INORG	Chromium III	16065-83-1	D	1.29E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay B	5850-2600	INORG	Chromium VI	18540-29-9	A	3.47E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay B	5850-2600	INORG	Cobalt	7440-48-4	LC	6.85E+01	8.60E+01	8.0E-01	1.4E+04	EqP	5.0E-03	2.1E+01	EqP	**3.3E+00**
Landbay B	5850-2600	INORG	Copper	7440-50-8	D	3.28E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay B	5850-2600	INORG	Iron	7439-89-6	D	6.02E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay B	5850-2600	INORG	Lead	7439-92-1	B2	2.97E+01						3.5E+02	EqP	8.5E-02
Landbay B	5850-2600	INORG	Manganese	7439-96-5	D	2.23E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	5850-2600	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay B	5850-2600	INORG	Nickel	7440-02-0	A	3.13E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.3E-01
Landbay B	5850-2600	INORG	Perchlorate	14797-73-0	NC	3.60E-01			3.4E+03	LT	1.0E-04	7.7E+02	LT	4.7E-04
Landbay B	5850-2600	INORG	Silver	7440-22-4	D	2.79E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.4E-04	2.7E+00	LT	1.0E+00
Landbay B	5850-2600	INORG	Vanadium	7440-62-2	ID	2.27E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay B	5850-2600	INORG	Zinc	7440-66-6	ID	6.26E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay B	5850-2600N	INORG	Perchlorate	14797-73-0	NC	2.50E+01			3.4E+03	LT	7.3E-03	7.7E+02	LT	3.2E-02
Landbay B	5850-2600SE	INORG	Perchlorate	14797-73-0	NC	1.00E+00			3.4E+03	LT	2.9E-04	7.7E+02	LT	1.3E-03
Landbay B	5850-2600SW	INORG	Perchlorate	14797-73-0	NC	1.90E-01			3.4E+03	LT	5.5E-05	7.7E+02	LT	2.5E-04
Landbay B	5850-3350	INORG	Aluminum	7429-90-5	ID	2.71E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay B	5850-3350	INORG	Arsenic	7440-38-2	A	7.12E+00	9.90E+00	7.2E-01	1.1E+03	EqP	6.8E-03	8.6E+01	EqP	8.3E-02
Landbay B	5850-3350	INORG	Barium	7440-39-3	NC	9.43E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay B	5850-3350	INORG	Beryllium	7440-41-7	B1	1.00E+00	1.20E+00	8.3E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.6E-02
Landbay B	5850-3350	INORG	Chromium III	16065-83-1	D	4.55E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay B	5850-3350	INORG	Chromium VI	18540-29-9	A	2.88E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay B	5850-3350	INORG	Cobalt	7440-48-4	LC	2.73E+01	8.60E+01	3.2E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay B	5850-3350	INORG	Copper	7440-50-8	D	2.80E+02	1.31E+02	**2.1E+00**	3.5E+05	EqP	8.1E-04	8.4E+00	EqP	**3.3E+01**
Landbay B	5850-3350	INORG	Iron	7439-89-6	D	5.71E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay B	5850-3350	INORG	Lead	7439-92-1	B2	1.40E+01						3.5E+02	EqP	4.0E-02
Landbay B	5850-3350	INORG	Manganese	7439-96-5	D	1.33E+03	4.27E+03	3.1E-01	3.1E+05	EqP	4.3E-03	1.6E+02	EqP	**8.5E+00**
Landbay B	5850-3350	INORG	Nickel	7440-02-0	A	2.37E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay B	5850-3350	INORG	Perchlorate	14797-73-0	NC	2.00E-03			3.4E+03	LT	5.8E-07	7.7E+02	LT	2.6E-06
Landbay B	5850-3350	INORG	Silver	7440-22-4	D	3.75E-01	2.30E+00	1.6E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay B	5850-3350	INORG	Strontium	7440-24-6		9.33E+00	3.80E+01	2.5E-01	1.6E+07	EqP	5.7E-07	1.1E+03	EqP	8.8E-03
Landbay B	5850-3350	INORG	Thallium	7440-28-0	ID	1.71E+00	4.50E+00	3.8E-01				1.1E+00	EqP	**1.5E+00**
Landbay B	5850-3350	INORG	Vanadium	7440-62-2	ID	1.36E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay B	5850-3350	INORG	Zinc	7440-66-6	ID	3.29E+01	1.02E+02	3.2E-01	5.5E+06	EqP	6.0E-06	1.9E+02	EqP	1.7E-01
Landbay B	5850-3650	INORG	Aluminum	7429-90-5	ID	3.67E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	5850-3650	INORG	Arsenic	7440-38-2	A	5.89E+00	9.90E+00	5.9E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay B	5850-3650	INORG	Barium	7440-39-3	NC	7.05E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.2E-04	3.3E+00	EqP	**2.1E+01**
Landbay B	5850-3650	INORG	Beryllium	7440-41-7	B1	5.67E-01	1.20E+00	4.7E-01	6.8E+03	EqP	8.4E-05	1.0E+01	EqP	5.4E-02
Landbay B	5850-3650	INORG	Chromium III	16065-83-1	D	4.55E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay B	5850-3650	INORG	Chromium VI	18540-29-9	A	2.79E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay B	5850-3650	INORG	Cobalt	7440-48-4	LC	1.62E+01	8.60E+01	1.9E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	7.8E-01
Landbay B	5850-3650	INORG	Copper	7440-50-8	D	2.64E+02	1.31E+02	**2.0E+00**	3.5E+05	EqP	7.6E-04	8.4E+00	EqP	**3.1E+01**
Landbay B	5850-3650	INORG	Iron	7439-89-6	D	6.04E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay B	5850-3650	INORG	Lead	7439-92-1	B2	1.41E+01						3.5E+02	EqP	4.0E-02
Landbay B	5850-3650	INORG	Manganese	7439-96-5	D	3.55E+02	4.27E+03	8.3E-02	3.1E+05	EqP	1.1E-03	1.6E+02	EqP	**2.3E+00**
Landbay B	5850-3650	INORG	Nickel	7440-02-0	A	2.03E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay B	5850-3650	INORG	Perchlorate	14797-73-0	NC	2.00E-03			3.4E+03	LT	5.8E-07	7.7E+02	LT	2.6E-06
Landbay B	5850-3650	INORG	Selenium	7782-49-2	D	1.02E+00	2.50E+00	4.1E-01	2.5E+04	LT	4.1E-05	2.0E+00	LT	5.1E-01
Landbay B	5850-3650	INORG	Silver	7440-22-4	D	2.53E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.7E-05	2.7E+00	LT	9.5E-02
Landbay B	5850-3650	INORG	Strontium	7440-24-6		1.71E+01	3.80E+01	4.5E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.6E-02
Landbay B	5850-3650	INORG	Vanadium	7440-62-2	ID	1.57E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay B	5850-3650	INORG	Zinc	7440-66-6	ID	7.11E+01	1.02E+02	7.0E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	5850-3800	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay B	5850-3800	INORG	Antimony	7440-36-0	ID	1.45E+00	1.70E+00	8.5E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.3E-02
Landbay B	5850-3800	INORG	Arsenic	7440-38-2	A	7.90E+00	9.90E+00	8.0E-01	1.1E+03	EqP	7.5E-03	8.6E+01	EqP	9.2E-02
Landbay B	5850-3800	INORG	Barium	7440-39-3	NC	7.77E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	5850-3800	INORG	Beryllium	7440-41-7	B1	3.50E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.2E-05	1.0E+01	EqP	3.4E-02
Landbay B	5850-3800	INORG	Boron	7440-42-8	ID	1.70E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.7E+01**
Landbay B	5850-3800	INORG	Cadmium	7440-43-9	B1	2.28E+00	2.70E+00	8.4E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay B	5850-3800	INORG	Chromium III	16065-83-1	D	2.27E+01	2.61E+02	8.7E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	6.7E-06
Landbay B	5850-3800	INORG	Cobalt	7440-48-4	LC	3.05E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.5E+00**
Landbay B	5850-3800	INORG	Copper	7440-50-8	D	1.09E+02	1.31E+02	8.3E-01	3.5E+05	EqP	3.1E-04	8.4E+00	EqP	**1.3E+01**
Landbay B	5850-3800	INORG	Iron	7439-89-6	D	6.84E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay B	5850-3800	INORG	Lead	7439-92-1	B2	2.46E+01						3.5E+02	EqP	7.0E-02
Landbay B	5850-3800	INORG	Manganese	7439-96-5	D	1.37E+03	4.27E+03	3.2E-01	3.1E+05	EqP	4.4E-03	1.6E+02	EqP	**8.7E+00**
Landbay B	5850-3800	INORG	Mercury	7439-97-6	D	4.50E-02	7.10E-02	6.3E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	5850-3800	INORG	Nickel	7440-02-0	A	1.07E+01	7.30E+01	1.5E-01	1.2E+05	EqP	8.6E-05	3.4E+01	EqP	3.2E-01
Landbay B	5850-3800	INORG	Silver	7440-22-4	D	2.36E+00	2.30E+00	1.0E+00	3.8E+03	LT	6.3E-04	2.7E+00	LT	8.9E-01
Landbay B	5850-3800	INORG	Strontium	7440-24-6		1.08E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.6E-07	1.1E+03	EqP	1.0E-02
Landbay B	5850-3800	INORG	Vanadium	7440-62-2	ID	2.75E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.9E-01
Landbay B	5850-3800	INORG	Zinc	7440-66-6	ID	4.89E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay B	5850-3950	INORG	Aluminum	7429-90-5	ID	3.30E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	5850-3950	INORG	Antimony	7440-36-0	ID	1.05E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02
Landbay B	5850-3950	INORG	Arsenic	7440-38-2	A	8.06E+00	9.90E+00	8.1E-01	1.1E+03	EqP	7.7E-03	8.6E+01	EqP	9.4E-02
Landbay B	5850-3950	INORG	Barium	7440-39-3	NC	1.08E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.3E+01**
Landbay B	5850-3950	INORG	Beryllium	7440-41-7	B1	5.65E-01	1.20E+00	4.7E-01	6.8E+03	EqP	8.3E-05	1.0E+01	EqP	5.4E-02
Landbay B	5850-3950	INORG	Boron	7440-42-8	ID	1.97E+01	1.34E+01	**1.5E+00**	9.9E+05	LT	2.0E-05	6.4E-01	LT	**3.1E+01**
Landbay B	5850-3950	INORG	Cadmium	7440-43-9	B1	2.36E+00	2.70E+00	8.7E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**
Landbay B	5850-3950	INORG	Chromium III	16065-83-1	D	2.24E+01	2.61E+02	8.6E-02	2.1E+10	EqP	1.0E-09	3.4E+06	EqP	6.6E-06
Landbay B	5850-3950	INORG	Cobalt	7440-48-4	LC	5.65E+01	8.60E+01	6.6E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay B	5850-3950	INORG	Copper	7440-50-8	D	1.22E+02	1.31E+02	9.3E-01	3.5E+05	EqP	3.5E-04	8.4E+00	EqP	**1.5E+01**
Landbay B	5850-3950	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay B	5850-3950	INORG	Lead	7439-92-1	B2	2.36E+01						3.5E+02	EqP	6.7E-02
Landbay B	5850-3950	INORG	Manganese	7439-96-5	D	1.75E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	5850-3950	INORG	Mercury	7439-97-6	D	4.27E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	5850-3950	INORG	Nickel	7440-02-0	A	2.02E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay B	5850-3950	INORG	Perchlorate	14797-73-0	NC	4.60E-03			3.4E+03	LT	1.3E-06	7.7E+02	LT	5.9E-06
Landbay B	5850-3950	INORG	Selenium	7782-49-2	D	1.15E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.7E-05	2.0E+00	LT	5.8E-01
Landbay B	5850-3950	INORG	Silver	7440-22-4	D	2.17E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.2E-01
Landbay B	5850-3950	INORG	Strontium	7440-24-6		1.45E+01	3.80E+01	3.8E-01	1.6E+07	EqP	8.9E-07	1.1E+03	EqP	1.4E-02
Landbay B	5850-3950	INORG	Vanadium	7440-62-2	ID	2.50E+02	2.83E+02	8.8E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.2E-01
Landbay B	5850-3950	INORG	Zinc	7440-66-6	ID	1.29E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.4E-05	1.9E+02	EqP	6.8E-01
Landbay B	6000-2000	VOC	Acetone	67-64-1	ID	1.60E-02			2.0E+06	LT	7.8E-09	6.0E+02	LT	2.7E-05
Landbay B	6000-2000	INORG	Aluminum	7429-90-5	ID	3.35E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6000-2000	INORG	Arsenic	7440-38-2	A	4.13E+00	9.90E+00	4.2E-01	1.1E+03	EqP	3.9E-03	8.6E+01	EqP	4.8E-02
Landbay B	6000-2000	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	6000-2000	INORG	Beryllium	7440-41-7	B1	3.34E-01	1.20E+00	2.8E-01	6.8E+03	EqP	4.9E-05	1.0E+01	EqP	3.2E-02
Landbay B	6000-2000	INORG	Cadmium	7440-43-9	B1	4.40E-01	2.70E+00	1.6E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay B	6000-2000	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay B	6000-2000	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay B	6000-2000	INORG	Cobalt	7440-48-4	LC	4.96E+01	8.60E+01	5.8E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	6000-2000	INORG	Copper	7440-50-8	D	3.55E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay B	6000-2000	INORG	Iron	7439-89-6	D	4.99E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	6000-2000	INORG	Lead	7439-92-1	B2	1.71E+01						3.5E+02	EqP	4.9E-02
Landbay B	6000-2000	INORG	Manganese	7439-96-5	D	1.76E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6000-2000	INORG	Mercury	7439-97-6	D	1.27E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.4E-02
Landbay B	6000-2000	INORG	Nickel	7440-02-0	A	3.48E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	6000-2000	INORG	Silver	7440-22-4	D	2.17E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.2E-01
Landbay B	6000-2000	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay B	6000-2000	INORG	Zinc	7440-66-6	ID	5.67E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	6000-2150	INORG	Aluminum	7429-90-5	ID	3.75E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	6000-2150	INORG	Antimony	7440-36-0	ID	1.23E+00	1.70E+00	7.2E-01	1.4E+03	EqP	9.0E-04	2.7E+01	EqP	4.5E-02
Landbay B	6000-2150	INORG	Arsenic	7440-38-2	A	6.19E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay B	6000-2150	INORG	Barium	7440-39-3	NC	1.52E+02	2.24E+02	6.8E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay B	6000-2150	INORG	Beryllium	7440-41-7	B1	4.10E-01	1.20E+00	3.4E-01	6.8E+03	EqP	6.0E-05	1.0E+01	EqP	3.9E-02
Landbay B	6000-2150	INORG	Cadmium	7440-43-9	B1	3.69E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay B	6000-2150	INORG	Chromium III	16065-83-1	D	1.36E+02	2.61E+02	5.2E-01	2.1E+10	EqP	6.4E-09	3.4E+06	EqP	4.0E-05
Landbay B	6000-2150	INORG	Chromium VI	18540-29-9	A	3.52E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay B	6000-2150	INORG	Cobalt	7440-48-4	LC	7.57E+01	8.60E+01	8.8E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.6E+00**
Landbay B	6000-2150	INORG	Copper	7440-50-8	D	4.01E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay B	6000-2150	INORG	Iron	7439-89-6	D	6.53E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay B	6000-2150	INORG	Lead	7439-92-1	B2	2.36E+01						3.5E+02	EqP	6.7E-02
Landbay B	6000-2150	INORG	Manganese	7439-96-5	D	2.91E+03	4.27E+03	6.8E-01	3.1E+05	EqP	9.4E-03	1.6E+02	EqP	**1.9E+01**
Landbay B	6000-2150	INORG	Mercury	7439-97-6	D	2.00E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.4E-02
Landbay B	6000-2150	INORG	Nickel	7440-02-0	A	3.46E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	6000-2150	INORG	Silver	7440-22-4	D	2.90E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	7.7E-04	2.7E+00	LT	**1.1E+00**
Landbay B	6000-2150	INORG	Vanadium	7440-62-2	ID	2.42E+02	2.83E+02	8.6E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.0E-01
Landbay B	6000-2150	INORG	Zinc	7440-66-6	ID	6.48E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay B	6000-2300	INORG	Aluminum	7429-90-5	ID	3.75E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	6000-2300	INORG	Antimony	7440-36-0	ID	1.23E+00	1.70E+00	7.2E-01	1.4E+03	EqP	9.0E-04	2.7E+01	EqP	4.5E-02
Landbay B	6000-2300	INORG	Arsenic	7440-38-2	A	6.19E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay B	6000-2300	INORG	Barium	7440-39-3	NC	1.52E+02	2.24E+02	6.8E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay B	6000-2300	INORG	Beryllium	7440-41-7	B1	4.10E-01	1.20E+00	3.4E-01	6.8E+03	EqP	6.0E-05	1.0E+01	EqP	3.9E-02
Landbay B	6000-2300	INORG	Cadmium	7440-43-9	B1	3.69E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay B	6000-2300	INORG	Chromium III	16065-83-1	D	1.36E+02	2.61E+02	5.2E-01	2.1E+10	EqP	6.4E-09	3.4E+06	EqP	4.0E-05
Landbay B	6000-2300	INORG	Chromium VI	18540-29-9	A	3.52E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay B	6000-2300	INORG	Cobalt	7440-48-4	LC	7.57E+01	8.60E+01	8.8E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.6E+00**
Landbay B	6000-2300	INORG	Copper	7440-50-8	D	4.01E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay B	6000-2300	INORG	Iron	7439-89-6	D	6.53E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay B	6000-2300	INORG	Lead	7439-92-1	B2	2.36E+01						3.5E+02	EqP	6.7E-02
Landbay B	6000-2300	INORG	Manganese	7439-96-5	D	2.91E+03	4.27E+03	6.8E-01	3.1E+05	EqP	9.4E-03	1.6E+02	EqP	**1.9E+01**
Landbay B	6000-2300	INORG	Mercury	7439-97-6	D	2.00E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.4E-02
Landbay B	6000-2300	INORG	Nickel	7440-02-0	A	3.46E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	6000-2300	INORG	Silver	7440-22-4	D	2.90E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	7.7E-04	2.7E+00	LT	**1.1E+00**
Landbay B	6000-2300	INORG	Vanadium	7440-62-2	ID	2.42E+02	2.83E+02	8.6E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.0E-01
Landbay B	6000-2300	INORG	Zinc	7440-66-6	ID	6.48E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay B	6000-2600	INORG	Aluminum	7429-90-5	ID	3.17E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6000-2600	INORG	Antimony	7440-36-0	ID	1.09E+00	1.70E+00	6.4E-01	1.4E+03	EqP	8.0E-04	2.7E+01	EqP	4.0E-02
Landbay B	6000-2600	INORG	Arsenic	7440-38-2	A	4.93E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.7E-02
Landbay B	6000-2600	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	6000-2600	INORG	Beryllium	7440-41-7	B1	3.42E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.0E-05	1.0E+01	EqP	3.3E-02
Landbay B	6000-2600	INORG	Cadmium	7440-43-9	B1	3.09E+00	2.70E+00	**1.1E+00**	1.1E+03	EqP	2.9E-03	2.1E+00	EqP	**1.4E+00**
Landbay B	6000-2600	INORG	Chromium III	16065-83-1	D	1.29E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay B	6000-2600	INORG	Chromium VI	18540-29-9	A	3.47E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay B	6000-2600	INORG	Cobalt	7440-48-4	LC	6.85E+01	8.60E+01	8.0E-01	1.4E+04	EqP	5.0E-03	2.1E+01	EqP	**3.3E+00**
Landbay B	6000-2600	INORG	Copper	7440-50-8	D	3.28E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay B	6000-2600	INORG	Iron	7439-89-6	D	6.02E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay B	6000-2600	INORG	Lead	7439-92-1	B2	2.97E+01						3.5E+02	EqP	8.5E-02
Landbay B	6000-2600	INORG	Manganese	7439-96-5	D	2.23E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	6000-2600	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay B	6000-2600	INORG	Nickel	7440-02-0	A	3.13E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.3E-01
Landbay B	6000-2600	INORG	Perchlorate	14797-73-0	NC	4.90E-04			3.4E+03	LT	1.4E-07	7.7E+02	LT	6.3E-07
Landbay B	6000-2600	INORG	Silver	7440-22-4	D	2.79E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.4E-04	2.7E+00	LT	1.0E+00
Landbay B	6000-2600	INORG	Vanadium	7440-62-2	ID	2.27E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay B	6000-2600	INORG	Zinc	7440-66-6	ID	6.26E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay B	6000-2750	VOC	Acetone	67-64-1	ID	1.10E-02			2.0E+06	LT	5.4E-09	6.0E+02	LT	1.8E-05
Landbay B	6000-2750	INORG	Aluminum	7429-90-5	ID	3.17E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6000-2750	INORG	Antimony	7440-36-0	ID	1.09E+00	1.70E+00	6.4E-01	1.4E+03	EqP	8.0E-04	2.7E+01	EqP	4.0E-02
Landbay B	6000-2750	INORG	Arsenic	7440-38-2	A	4.93E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.7E-02
Landbay B	6000-2750	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	6000-2750	INORG	Beryllium	7440-41-7	B1	3.42E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.0E-05	1.0E+01	EqP	3.3E-02
Landbay B	6000-2750	INORG	Cadmium	7440-43-9	B1	3.09E+00	2.70E+00	**1.1E+00**	1.1E+03	EqP	2.9E-03	2.1E+00	EqP	**1.4E+00**
Landbay B	6000-2750	INORG	Chromium III	16065-83-1	D	1.29E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay B	6000-2750	INORG	Chromium VI	18540-29-9	A	3.47E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay B	6000-2750	INORG	Cobalt	7440-48-4	LC	6.85E+01	8.60E+01	8.0E-01	1.4E+04	EqP	5.0E-03	2.1E+01	EqP	**3.3E+00**
Landbay B	6000-2750	INORG	Copper	7440-50-8	D	3.28E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay B	6000-2750	INORG	Iron	7439-89-6	D	6.02E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay B	6000-2750	INORG	Lead	7439-92-1	B2	2.97E+01						3.5E+02	EqP	8.5E-02
Landbay B	6000-2750	INORG	Manganese	7439-96-5	D	2.23E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	6000-2750	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay B	6000-2750	INORG	Nickel	7440-02-0	A	3.13E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.3E-01
Landbay B	6000-2750	INORG	Perchlorate	14797-73-0	NC	3.00E-03			3.4E+03	LT	8.7E-07	7.7E+02	LT	3.9E-06
Landbay B	6000-2750	INORG	Silver	7440-22-4	D	2.79E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.4E-04	2.7E+00	LT	1.0E+00
Landbay B	6000-2750	INORG	Vanadium	7440-62-2	ID	2.27E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay B	6000-2750	INORG	Zinc	7440-66-6	ID	6.26E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay B	6000-2900	VOC	Acetone	67-64-1	ID	7.50E-02			2.0E+06	LT	3.7E-08	6.0E+02	LT	1.3E-04
Landbay B	6000-2900	VOC	p-Cymene	99-87-6		1.00E-01						3.4E+01	LT	2.9E-03
Landbay B	6000-2900	VOC	Toluene	108-88-3	ID	1.50E-03				NA		8.0E-01	LT	1.9E-03
Landbay B	6000-2900	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6000-2900	INORG	Antimony	7440-36-0	ID	1.54E+00	1.70E+00	9.1E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.7E-02
Landbay B	6000-2900	INORG	Arsenic	7440-38-2	A	5.33E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.2E-02
Landbay B	6000-2900	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6000-2900	INORG	Beryllium	7440-41-7	B1	4.38E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.5E-05	1.0E+01	EqP	4.2E-02
Landbay B	6000-2900	INORG	Boron	7440-42-8	ID	1.39E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay B	6000-2900	INORG	Cadmium	7440-43-9	B1	1.60E+00	2.70E+00	5.9E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.5E-01
Landbay B	6000-2900	INORG	Chromium III	16065-83-1	D	8.47E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay B	6000-2900	INORG	Chromium VI	18540-29-9	A	1.30E+00	4.97E+00	2.6E-01	6.6E+01	LT	2.0E-02	4.4E+00	LT	3.0E-01
Landbay B	6000-2900	INORG	Cobalt	7440-48-4	LC	2.84E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.1E-03	2.1E+01	EqP	**1.4E+00**
Landbay B	6000-2900	INORG	Copper	7440-50-8	D	3.76E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay B	6000-2900	INORG	Iron	7439-89-6	D	5.50E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay B	6000-2900	INORG	Lead	7439-92-1	B2	2.38E+01						3.5E+02	EqP	6.8E-02
Landbay B	6000-2900	INORG	Manganese	7439-96-5	D	8.32E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.3E+00**
Landbay B	6000-2900	INORG	Mercury	7439-97-6	D	2.06E-02	7.10E-02	2.9E-01		NA		3.7E-01	EqP	5.6E-02
Landbay B	6000-2900	INORG	Nickel	7440-02-0	A	2.89E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.5E-01
Landbay B	6000-2900	INORG	Silver	7440-22-4	D	1.97E+00	2.30E+00	8.6E-01	3.8E+03	LT	5.3E-04	2.7E+00	LT	7.4E-01
Landbay B	6000-2900	INORG	Strontium	7440-24-6		1.60E+01	3.80E+01	4.2E-01	1.6E+07	EqP	9.8E-07	1.1E+03	EqP	1.5E-02
Landbay B	6000-2900	INORG	Vanadium	7440-62-2	ID	1.47E+02	2.83E+02	5.2E-01	1.5E+05	EqP	9.5E-04	4.0E+02	EqP	3.7E-01
Landbay B	6000-2900	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay B	6000-3350	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay B	6000-3350	INORG	Antimony	7440-36-0	ID	1.26E+00	1.70E+00	7.4E-01	1.4E+03	EqP	9.2E-04	2.7E+01	EqP	4.6E-02
Landbay B	6000-3350	INORG	Arsenic	7440-38-2	A	4.36E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay B	6000-3350	INORG	Barium	7440-39-3	NC	8.52E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	6000-3350	INORG	Beryllium	7440-41-7	B1	7.33E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay B	6000-3350	INORG	Boron	7440-42-8	ID	9.29E+00	1.34E+01	6.9E-01	9.9E+05	LT	9.4E-06	6.4E-01	LT	**1.5E+01**
Landbay B	6000-3350	INORG	Cadmium	7440-43-9	B1	6.10E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.6E-04	2.1E+00	EqP	2.9E-01
Landbay B	6000-3350	INORG	Chromium III	16065-83-1	D	3.58E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay B	6000-3350	INORG	Cobalt	7440-48-4	LC	2.04E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.8E-01
Landbay B	6000-3350	INORG	Copper	7440-50-8	D	1.31E+02	1.31E+02	1.0E+00	3.5E+05	EqP	3.8E-04	8.4E+00	EqP	**1.6E+01**
Landbay B	6000-3350	INORG	Iron	7439-89-6	D	3.94E+04	9.52E+04	4.1E-01	4.4E+06	EqP	9.1E-03	1.5E+02	EqP	**2.6E+02**
Landbay B	6000-3350	INORG	Lead	7439-92-1	B2	1.51E+01						3.5E+02	EqP	4.3E-02
Landbay B	6000-3350	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay B	6000-3350	INORG	Mercury	7439-97-6	D	2.53E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay B	6000-3350	INORG	Nickel	7440-02-0	A	1.74E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.1E-01
Landbay B	6000-3350	INORG	Silver	7440-22-4	D	1.69E+00	2.30E+00	7.3E-01	3.8E+03	LT	4.5E-04	2.7E+00	LT	6.4E-01
Landbay B	6000-3350	INORG	Strontium	7440-24-6		5.85E+00	3.80E+01	1.5E-01	1.6E+07	EqP	3.6E-07	1.1E+03	EqP	5.5E-03
Landbay B	6000-3350	INORG	Vanadium	7440-62-2	ID	8.44E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.4E-04	4.0E+02	EqP	2.1E-01
Landbay B	6000-3350	INORG	Zinc	7440-66-6	ID	3.14E+01	1.02E+02	3.1E-01	5.5E+06	EqP	5.7E-06	1.9E+02	EqP	1.7E-01
Landbay B	6000-3500	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay B	6000-3500	INORG	Antimony	7440-36-0	ID	1.26E+00	1.70E+00	7.4E-01	1.4E+03	EqP	9.2E-04	2.7E+01	EqP	4.6E-02
Landbay B	6000-3500	INORG	Arsenic	7440-38-2	A	4.36E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay B	6000-3500	INORG	Barium	7440-39-3	NC	8.52E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	6000-3500	INORG	Beryllium	7440-41-7	B1	7.33E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay B	6000-3500	INORG	Boron	7440-42-8	ID	9.29E+00	1.34E+01	6.9E-01	9.9E+05	LT	9.4E-06	6.4E-01	LT	**1.5E+01**
Landbay B	6000-3500	INORG	Cadmium	7440-43-9	B1	6.10E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.6E-04	2.1E+00	EqP	2.9E-01
Landbay B	6000-3500	INORG	Chromium III	16065-83-1	D	3.58E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay B	6000-3500	INORG	Cobalt	7440-48-4	LC	2.04E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.8E-01
Landbay B	6000-3500	INORG	Copper	7440-50-8	D	1.31E+02	1.31E+02	1.0E+00	3.5E+05	EqP	3.8E-04	8.4E+00	EqP	**1.6E+01**
Landbay B	6000-3500	INORG	Iron	7439-89-6	D	3.94E+04	9.52E+04	4.1E-01	4.4E+06	EqP	9.1E-03	1.5E+02	EqP	**2.6E+02**
Landbay B	6000-3500	INORG	Lead	7439-92-1	B2	1.51E+01						3.5E+02	EqP	4.3E-02
Landbay B	6000-3500	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay B	6000-3500	INORG	Mercury	7439-97-6	D	2.53E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay B	6000-3500	INORG	Nickel	7440-02-0	A	1.74E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.1E-01
Landbay B	6000-3500	INORG	Silver	7440-22-4	D	1.69E+00	2.30E+00	7.3E-01	3.8E+03	LT	4.5E-04	2.7E+00	LT	6.4E-01
Landbay B	6000-3500	INORG	Strontium	7440-24-6		5.85E+00	3.80E+01	1.5E-01	1.6E+07	EqP	3.6E-07	1.1E+03	EqP	5.5E-03
Landbay B	6000-3500	INORG	Vanadium	7440-62-2	ID	8.44E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.4E-04	4.0E+02	EqP	2.1E-01
Landbay B	6000-3500	INORG	Zinc	7440-66-6	ID	3.14E+01	1.02E+02	3.1E-01	5.5E+06	EqP	5.7E-06	1.9E+02	EqP	1.7E-01
Landbay B	6000-3650	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6000-3650	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay B	6000-3650	INORG	Arsenic	7440-38-2	A	3.67E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay B	6000-3650	INORG	Barium	7440-39-3	NC	8.18E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	6000-3650	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay B	6000-3650	INORG	Cadmium	7440-43-9	B1	2.73E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.5E-03	2.1E+00	EqP	**1.3E+00**
Landbay B	6000-3650	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay B	6000-3650	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay B	6000-3650	INORG	Cobalt	7440-48-4	LC	4.92E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	6000-3650	INORG	Copper	7440-50-8	D	1.19E+02	1.31E+02	9.1E-01	3.5E+05	EqP	3.4E-04	8.4E+00	EqP	**1.4E+01**
Landbay B	6000-3650	INORG	Iron	7439-89-6	D	7.37E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	6000-3650	INORG	Lead	7439-92-1	B2	2.27E+01						3.5E+02	EqP	6.5E-02
Landbay B	6000-3650	INORG	Manganese	7439-96-5	D	1.90E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.1E-03	1.6E+02	EqP	**1.2E+01**
Landbay B	6000-3650	INORG	Mercury	7439-97-6	D	4.31E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	6000-3650	INORG	Nickel	7440-02-0	A	2.07E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.1E-01
Landbay B	6000-3650	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay B	6000-3650	INORG	Selenium	7782-49-2	D	1.50E+00	2.50E+00	6.0E-01	2.5E+04	LT	6.1E-05	2.0E+00	LT	7.5E-01
Landbay B	6000-3650	INORG	Silver	7440-22-4	D	4.53E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay B	6000-3650	INORG	Thallium	7440-28-0	ID	3.26E+00	4.50E+00	7.2E-01				1.1E+00	EqP	**2.9E+00**
Landbay B	6000-3650	INORG	Vanadium	7440-62-2	ID	2.72E+02	2.83E+02	9.6E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay B	6000-3650	INORG	Zinc	7440-66-6	ID	5.00E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay B	6000-3800	VOC	Acetone	67-64-1	ID	1.75E-02			2.0E+06	LT	8.6E-09	6.0E+02	LT	2.9E-05
Landbay B	6000-3800	VOC	Cumene	98-82-8	D	1.00E-03				NA		1.0E+00	LT	9.6E-04
Landbay B	6000-3800	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay B	6000-3800	INORG	Antimony	7440-36-0	ID	1.45E+00	1.70E+00	8.5E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.3E-02
Landbay B	6000-3800	INORG	Arsenic	7440-38-2	A	7.90E+00	9.90E+00	8.0E-01	1.1E+03	EqP	7.5E-03	8.6E+01	EqP	9.2E-02
Landbay B	6000-3800	INORG	Barium	7440-39-3	NC	7.77E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	6000-3800	INORG	Beryllium	7440-41-7	B1	3.50E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.2E-05	1.0E+01	EqP	3.4E-02
Landbay B	6000-3800	INORG	Boron	7440-42-8	ID	1.70E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.7E+01**
Landbay B	6000-3800	INORG	Cadmium	7440-43-9	B1	2.28E+00	2.70E+00	8.4E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay B	6000-3800	INORG	Chromium III	16065-83-1	D	2.27E+01	2.61E+02	8.7E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	6.7E-06
Landbay B	6000-3800	INORG	Cobalt	7440-48-4	LC	3.05E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.5E+00**
Landbay B	6000-3800	INORG	Copper	7440-50-8	D	1.09E+02	1.31E+02	8.3E-01	3.5E+05	EqP	3.1E-04	8.4E+00	EqP	**1.3E+01**
Landbay B	6000-3800	INORG	Iron	7439-89-6	D	6.84E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay B	6000-3800	INORG	Lead	7439-92-1	B2	2.46E+01						3.5E+02	EqP	7.0E-02
Landbay B	6000-3800	INORG	Manganese	7439-96-5	D	1.37E+03	4.27E+03	3.2E-01	3.1E+05	EqP	4.4E-03	1.6E+02	EqP	**8.7E+00**
Landbay B	6000-3800	INORG	Mercury	7439-97-6	D	4.50E-02	7.10E-02	6.3E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	6000-3800	INORG	Nickel	7440-02-0	A	1.07E+01	7.30E+01	1.5E-01	1.2E+05	EqP	8.6E-05	3.4E+01	EqP	3.2E-01
Landbay B	6000-3800	INORG	Silver	7440-22-4	D	2.36E+00	2.30E+00	1.0E+00	3.8E+03	LT	6.3E-04	2.7E+00	LT	8.9E-01
Landbay B	6000-3800	INORG	Strontium	7440-24-6		1.08E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.6E-07	1.1E+03	EqP	1.0E-02
Landbay B	6000-3800	INORG	Vanadium	7440-62-2	ID	2.75E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.9E-01
Landbay B	6000-3800	INORG	Zinc	7440-66-6	ID	4.89E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay B	6000-94	SVOC	2-Methylnaphthalene	91-57-6	ID	5.20E-02			3.4E+02	LT	1.5E-04	1.9E+00	LT	2.8E-02
Landbay B	6000-94	PCB	PCBs (total)	1336-36-3	B2	4.73E-01				NA		1.4E+00	EqP	3.4E-01
Landbay B	6000-94	INORG	Aluminum	7429-90-5	ID	2.22E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay B	6000-94	INORG	Arsenic	7440-38-2	A	9.79E+00	9.90E+00	9.9E-01	1.1E+03	EqP	9.3E-03	8.6E+01	EqP	1.1E-01
Landbay B	6000-94	INORG	Barium	7440-39-3	NC	8.09E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	6000-94	INORG	Beryllium	7440-41-7	B1	2.62E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.5E-02
Landbay B	6000-94	INORG	Cadmium	7440-43-9	B1	1.90E+00	2.70E+00	7.1E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	8.9E-01
Landbay B	6000-94	INORG	Chromium III	16065-83-1	D	2.98E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.8E-06
Landbay B	6000-94	INORG	Chromium VI	18540-29-9	A	2.80E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay B	6000-94	INORG	Copper	7440-50-8	D	8.96E+01	1.31E+02	6.8E-01	3.5E+05	EqP	2.6E-04	8.4E+00	EqP	**1.1E+01**
Landbay B	6000-94	INORG	Lead	7439-92-1	B2	2.54E+01						3.5E+02	EqP	7.2E-02
Landbay B	6000-94	INORG	Mercury	7439-97-6	D	5.39E-02	7.10E-02	7.6E-01		NA		3.7E-01	EqP	1.5E-01
Landbay B	6000-94	INORG	Perchlorate	14797-73-0	NC	1.25E-03			3.4E+03	LT	3.6E-07	7.7E+02	LT	1.6E-06
Landbay B	6000-94	INORG	Silver	7440-22-4	D	6.65E-01	2.30E+00	2.9E-01	3.8E+03	LT	1.8E-04	2.7E+00	LT	2.5E-01
Landbay B	6000-94	INORG	Strontium	7440-24-6		8.87E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.4E-07	1.1E+03	EqP	8.4E-03
Landbay B	6150-2150	VOC	Acetone	67-64-1	ID	1.20E-02			2.0E+06	LT	5.9E-09	6.0E+02	LT	2.0E-05
Landbay B	6150-2150	INORG	Aluminum	7429-90-5	ID	3.35E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6150-2150	INORG	Arsenic	7440-38-2	A	4.13E+00	9.90E+00	4.2E-01	1.1E+03	EqP	3.9E-03	8.6E+01	EqP	4.8E-02
Landbay B	6150-2150	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	6150-2150	INORG	Beryllium	7440-41-7	B1	3.34E-01	1.20E+00	2.8E-01	6.8E+03	EqP	4.9E-05	1.0E+01	EqP	3.2E-02
Landbay B	6150-2150	INORG	Cadmium	7440-43-9	B1	4.40E-01	2.70E+00	1.6E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay B	6150-2150	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay B	6150-2150	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay B	6150-2150	INORG	Cobalt	7440-48-4	LC	4.96E+01	8.60E+01	5.8E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	6150-2150	INORG	Copper	7440-50-8	D	3.55E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay B	6150-2150	INORG	Iron	7439-89-6	D	4.99E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	6150-2150	INORG	Lead	7439-92-1	B2	1.71E+01						3.5E+02	EqP	4.9E-02
Landbay B	6150-2150	INORG	Manganese	7439-96-5	D	1.76E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6150-2150	INORG	Mercury	7439-97-6	D	1.27E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.4E-02
Landbay B	6150-2150	INORG	Nickel	7440-02-0	A	3.48E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	6150-2150	INORG	Silver	7440-22-4	D	2.17E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.2E-01
Landbay B	6150-2150	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay B	6150-2150	INORG	Zinc	7440-66-6	ID	5.67E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	6150-3050	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6150-3050	INORG	Antimony	7440-36-0	ID	1.54E+00	1.70E+00	9.1E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.7E-02
Landbay B	6150-3050	INORG	Arsenic	7440-38-2	A	5.33E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.2E-02
Landbay B	6150-3050	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6150-3050	INORG	Beryllium	7440-41-7	B1	4.38E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.5E-05	1.0E+01	EqP	4.2E-02
Landbay B	6150-3050	INORG	Boron	7440-42-8	ID	1.39E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay B	6150-3050	INORG	Cadmium	7440-43-9	B1	1.60E+00	2.70E+00	5.9E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.5E-01
Landbay B	6150-3050	INORG	Chromium III	16065-83-1	D	8.47E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay B	6150-3050	INORG	Chromium VI	18540-29-9	A	1.30E+00	4.97E+00	2.6E-01	6.6E+01	LT	2.0E-02	4.4E+00	LT	3.0E-01
Landbay B	6150-3050	INORG	Cobalt	7440-48-4	LC	2.84E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.1E-03	2.1E+01	EqP	**1.4E+00**
Landbay B	6150-3050	INORG	Copper	7440-50-8	D	3.76E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay B	6150-3050	INORG	Iron	7439-89-6	D	5.50E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay B	6150-3050	INORG	Lead	7439-92-1	B2	2.38E+01						3.5E+02	EqP	6.8E-02
Landbay B	6150-3050	INORG	Manganese	7439-96-5	D	8.32E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.3E+00**
Landbay B	6150-3050	INORG	Mercury	7439-97-6	D	2.06E-02	7.10E-02	2.9E-01		NA		3.7E-01	EqP	5.6E-02
Landbay B	6150-3050	INORG	Nickel	7440-02-0	A	2.89E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.5E-01
Landbay B	6150-3050	INORG	Silver	7440-22-4	D	1.97E+00	2.30E+00	8.6E-01	3.8E+03	LT	5.3E-04	2.7E+00	LT	7.4E-01
Landbay B	6150-3050	INORG	Strontium	7440-24-6		1.60E+01	3.80E+01	4.2E-01	1.6E+07	EqP	9.8E-07	1.1E+03	EqP	1.5E-02
Landbay B	6150-3050	INORG	Vanadium	7440-62-2	ID	1.47E+02	2.83E+02	5.2E-01	1.5E+05	EqP	9.5E-04	4.0E+02	EqP	3.7E-01
Landbay B	6150-3050	INORG	Zinc	7440-66-6	ID	4.83E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay B	6150-3350	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay B	6150-3350	INORG	Antimony	7440-36-0	ID	1.26E+00	1.70E+00	7.4E-01	1.4E+03	EqP	9.2E-04	2.7E+01	EqP	4.6E-02
Landbay B	6150-3350	INORG	Arsenic	7440-38-2	A	4.36E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay B	6150-3350	INORG	Barium	7440-39-3	NC	8.52E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	6150-3350	INORG	Beryllium	7440-41-7	B1	7.33E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay B	6150-3350	INORG	Boron	7440-42-8	ID	9.29E+00	1.34E+01	6.9E-01	9.9E+05	LT	9.4E-06	6.4E-01	LT	**1.5E+01**
Landbay B	6150-3350	INORG	Cadmium	7440-43-9	B1	6.10E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.6E-04	2.1E+00	EqP	2.9E-01
Landbay B	6150-3350	INORG	Chromium III	16065-83-1	D	3.58E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay B	6150-3350	INORG	Cobalt	7440-48-4	LC	2.04E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.8E-01
Landbay B	6150-3350	INORG	Copper	7440-50-8	D	1.31E+02	1.31E+02	1.0E+00	3.5E+05	EqP	3.8E-04	8.4E+00	EqP	**1.6E+01**
Landbay B	6150-3350	INORG	Iron	7439-89-6	D	3.94E+04	9.52E+04	4.1E-01	4.4E+06	EqP	9.1E-03	1.5E+02	EqP	**2.6E+02**
Landbay B	6150-3350	INORG	Lead	7439-92-1	B2	1.51E+01						3.5E+02	EqP	4.3E-02
Landbay B	6150-3350	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay B	6150-3350	INORG	Mercury	7439-97-6	D	2.53E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay B	6150-3350	INORG	Nickel	7440-02-0	A	1.74E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.1E-01
Landbay B	6150-3350	INORG	Silver	7440-22-4	D	1.69E+00	2.30E+00	7.3E-01	3.8E+03	LT	4.5E-04	2.7E+00	LT	6.4E-01
Landbay B	6150-3350	INORG	Strontium	7440-24-6		5.85E+00	3.80E+01	1.5E-01	1.6E+07	EqP	3.6E-07	1.1E+03	EqP	5.5E-03
Landbay B	6150-3350	INORG	Vanadium	7440-62-2	ID	8.44E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.4E-04	4.0E+02	EqP	2.1E-01
Landbay B	6150-3350	INORG	Zinc	7440-66-6	ID	3.14E+01	1.02E+02	3.1E-01	5.5E+06	EqP	5.7E-06	1.9E+02	EqP	1.7E-01
Landbay B	6150-3500	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6150-3500	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay B	6150-3500	INORG	Arsenic	7440-38-2	A	3.67E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay B	6150-3500	INORG	Barium	7440-39-3	NC	8.18E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	6150-3500	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay B	6150-3500	INORG	Cadmium	7440-43-9	B1	2.73E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.5E-03	2.1E+00	EqP	**1.3E+00**
Landbay B	6150-3500	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay B	6150-3500	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay B	6150-3500	INORG	Cobalt	7440-48-4	LC	4.92E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	6150-3500	INORG	Copper	7440-50-8	D	1.19E+02	1.31E+02	9.1E-01	3.5E+05	EqP	3.4E-04	8.4E+00	EqP	**1.4E+01**
Landbay B	6150-3500	INORG	Iron	7439-89-6	D	7.37E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	6150-3500	INORG	Lead	7439-92-1	B2	2.27E+01						3.5E+02	EqP	6.5E-02
Landbay B	6150-3500	INORG	Manganese	7439-96-5	D	1.90E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.1E-03	1.6E+02	EqP	**1.2E+01**
Landbay B	6150-3500	INORG	Mercury	7439-97-6	D	4.31E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	6150-3500	INORG	Nickel	7440-02-0	A	2.07E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.1E-01
Landbay B	6150-3500	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay B	6150-3500	INORG	Selenium	7782-49-2	D	1.50E+00	2.50E+00	6.0E-01	2.5E+04	LT	6.1E-05	2.0E+00	LT	7.5E-01
Landbay B	6150-3500	INORG	Silver	7440-22-4	D	4.53E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay B	6150-3500	INORG	Thallium	7440-28-0	ID	3.26E+00	4.50E+00	7.2E-01				1.1E+00	EqP	**2.9E+00**
Landbay B	6150-3500	INORG	Vanadium	7440-62-2	ID	2.72E+02	2.83E+02	9.6E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay B	6150-3500	INORG	Zinc	7440-66-6	ID	5.00E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay B	6150-3650	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6150-3650	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay B	6150-3650	INORG	Arsenic	7440-38-2	A	3.67E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay B	6150-3650	INORG	Barium	7440-39-3	NC	8.18E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	6150-3650	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay B	6150-3650	INORG	Cadmium	7440-43-9	B1	2.73E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.5E-03	2.1E+00	EqP	**1.3E+00**
Landbay B	6150-3650	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay B	6150-3650	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay B	6150-3650	INORG	Cobalt	7440-48-4	LC	4.92E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	6150-3650	INORG	Copper	7440-50-8	D	1.19E+02	1.31E+02	9.1E-01	3.5E+05	EqP	3.4E-04	8.4E+00	EqP	**1.4E+01**
Landbay B	6150-3650	INORG	Iron	7439-89-6	D	7.37E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	6150-3650	INORG	Lead	7439-92-1	B2	2.27E+01						3.5E+02	EqP	6.5E-02
Landbay B	6150-3650	INORG	Manganese	7439-96-5	D	1.90E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.1E-03	1.6E+02	EqP	**1.2E+01**
Landbay B	6150-3650	INORG	Mercury	7439-97-6	D	4.31E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	6150-3650	INORG	Nickel	7440-02-0	A	2.07E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.1E-01
Landbay B	6150-3650	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay B	6150-3650	INORG	Selenium	7782-49-2	D	1.50E+00	2.50E+00	6.0E-01	2.5E+04	LT	6.1E-05	2.0E+00	LT	7.5E-01
Landbay B	6150-3650	INORG	Silver	7440-22-4	D	4.53E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay B	6150-3650	INORG	Thallium	7440-28-0	ID	3.26E+00	4.50E+00	7.2E-01				1.1E+00	EqP	**2.9E+00**
Landbay B	6150-3650	INORG	Vanadium	7440-62-2	ID	2.72E+02	2.83E+02	9.6E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay B	6150-3650	INORG	Zinc	7440-66-6	ID	5.00E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay B	6150-3800	VOC	Acetone	67-64-1	ID	7.80E-03			2.0E+06	LT	3.8E-09	6.0E+02	LT	1.3E-05
Landbay B	6150-3800	VOC	p-Cymene	99-87-6		1.40E-03						3.4E+01	LT	4.1E-05
Landbay B	6150-3800	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay B	6150-3800	INORG	Antimony	7440-36-0	ID	1.45E+00	1.70E+00	8.5E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.3E-02
Landbay B	6150-3800	INORG	Arsenic	7440-38-2	A	7.90E+00	9.90E+00	8.0E-01	1.1E+03	EqP	7.5E-03	8.6E+01	EqP	9.2E-02
Landbay B	6150-3800	INORG	Barium	7440-39-3	NC	7.77E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	6150-3800	INORG	Beryllium	7440-41-7	B1	3.50E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.2E-05	1.0E+01	EqP	3.4E-02
Landbay B	6150-3800	INORG	Boron	7440-42-8	ID	1.70E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.7E+01**
Landbay B	6150-3800	INORG	Cadmium	7440-43-9	B1	2.28E+00	2.70E+00	8.4E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay B	6150-3800	INORG	Chromium III	16065-83-1	D	2.27E+01	2.61E+02	8.7E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	6.7E-06
Landbay B	6150-3800	INORG	Cobalt	7440-48-4	LC	3.05E+01	8.60E+01	3.5E-01	1.4E+04	EqP	2.2E-03	2.1E+01	EqP	**1.5E+00**
Landbay B	6150-3800	INORG	Copper	7440-50-8	D	1.09E+02	1.31E+02	8.3E-01	3.5E+05	EqP	3.1E-04	8.4E+00	EqP	**1.3E+01**
Landbay B	6150-3800	INORG	Iron	7439-89-6	D	6.84E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay B	6150-3800	INORG	Lead	7439-92-1	B2	2.46E+01						3.5E+02	EqP	7.0E-02
Landbay B	6150-3800	INORG	Manganese	7439-96-5	D	1.37E+03	4.27E+03	3.2E-01	3.1E+05	EqP	4.4E-03	1.6E+02	EqP	**8.7E+00**
Landbay B	6150-3800	INORG	Mercury	7439-97-6	D	4.50E-02	7.10E-02	6.3E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	6150-3800	INORG	Nickel	7440-02-0	A	1.07E+01	7.30E+01	1.5E-01	1.2E+05	EqP	8.6E-05	3.4E+01	EqP	3.2E-01
Landbay B	6150-3800	INORG	Silver	7440-22-4	D	2.36E+00	2.30E+00	1.0E+00	3.8E+03	LT	6.3E-04	2.7E+00	LT	8.9E-01
Landbay B	6150-3800	INORG	Strontium	7440-24-6		1.08E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.6E-07	1.1E+03	EqP	1.0E-02
Landbay B	6150-3800	INORG	Vanadium	7440-62-2	ID	2.75E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.9E-01
Landbay B	6150-3800	INORG	Zinc	7440-66-6	ID	4.89E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay B	6200-96	INORG	Perchlorate	14797-73-0	NC	2.70E-04			3.4E+03	LT	7.8E-08	7.7E+02	LT	3.5E-07
Landbay B	6300-107	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.20E-01				NA		9.6E+03	EqP	2.3E-05
Landbay B	6300-107	PCB	PCBs (total)	1336-36-3	B2	7.97E-02				NA		1.4E+00	EqP	5.8E-02
Landbay B	6300-107	INORG	Aluminum	7429-90-5	ID	3.78E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	6300-107	INORG	Arsenic	7440-38-2	A	6.68E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.8E-02
Landbay B	6300-107	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay B	6300-107	INORG	Beryllium	7440-41-7	B1	4.70E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.9E-05	1.0E+01	EqP	4.5E-02
Landbay B	6300-107	INORG	Cadmium	7440-43-9	B1	7.59E-01	2.70E+00	2.8E-01	1.1E+03	EqP	7.0E-04	2.1E+00	EqP	3.5E-01
Landbay B	6300-107	INORG	Chromium III	16065-83-1	D	2.47E+01	2.61E+02	9.5E-02	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.3E-06
Landbay B	6300-107	INORG	Chromium VI	18540-29-9	A	2.76E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay B	6300-107	INORG	Copper	7440-50-8	D	8.91E+01	1.31E+02	6.8E-01	3.5E+05	EqP	2.6E-04	8.4E+00	EqP	**1.1E+01**
Landbay B	6300-107	INORG	Lead	7439-92-1	B2	1.09E+01						3.5E+02	EqP	3.1E-02
Landbay B	6300-107	INORG	Mercury	7439-97-6	D	2.62E-02	7.10E-02	3.7E-01		NA		3.7E-01	EqP	7.1E-02
Landbay B	6300-107	INORG	Silver	7440-22-4	D	4.40E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay B	6300-107	INORG	Strontium	7440-24-6		1.55E+01	3.80E+01	4.1E-01	1.6E+07	EqP	9.5E-07	1.1E+03	EqP	1.5E-02
Landbay B	6300-2150	VOC	Acetone	67-64-1	ID	1.50E-01			2.0E+06	LT	7.3E-08	6.0E+02	LT	2.5E-04
Landbay B	6300-2150	VOC	2-Butanone	78-93-3	ID	7.00E-03			3.0E+05	LT	2.3E-08	5.6E+03	LT	1.3E-06
Landbay B	6300-2150	INORG	Aluminum	7429-90-5	ID	3.85E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	6300-2150	INORG	Arsenic	7440-38-2	A	2.99E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay B	6300-2150	INORG	Barium	7440-39-3	NC	9.21E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay B	6300-2150	INORG	Beryllium	7440-41-7	B1	6.54E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.3E-02
Landbay B	6300-2150	INORG	Cadmium	7440-43-9	B1	4.59E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.2E-04	2.1E+00	EqP	2.1E-01
Landbay B	6300-2150	INORG	Chromium III	16065-83-1	D	2.24E+02	2.61E+02	8.6E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.6E-05
Landbay B	6300-2150	INORG	Chromium VI	18540-29-9	A	4.12E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay B	6300-2150	INORG	Cobalt	7440-48-4	LC	6.10E+01	8.60E+01	7.1E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay B	6300-2150	INORG	Copper	7440-50-8	D	3.70E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay B	6300-2150	INORG	Iron	7439-89-6	D	6.68E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay B	6300-2150	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	6300-2150	INORG	Manganese	7439-96-5	D	1.84E+03	4.27E+03	4.3E-01	3.1E+05	EqP	5.9E-03	1.6E+02	EqP	**1.2E+01**
Landbay B	6300-2150	INORG	Nickel	7440-02-0	A	4.62E+01	7.30E+01	6.3E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.4E+00**
Landbay B	6300-2150	INORG	Vanadium	7440-62-2	ID	2.20E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay B	6300-2150	INORG	Zinc	7440-66-6	ID	5.25E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay B	6300-2300	INORG	Aluminum	7429-90-5	ID	3.35E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6300-2300	INORG	Arsenic	7440-38-2	A	4.13E+00	9.90E+00	4.2E-01	1.1E+03	EqP	3.9E-03	8.6E+01	EqP	4.8E-02
Landbay B	6300-2300	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	6300-2300	INORG	Beryllium	7440-41-7	B1	3.34E-01	1.20E+00	2.8E-01	6.8E+03	EqP	4.9E-05	1.0E+01	EqP	3.2E-02
Landbay B	6300-2300	INORG	Cadmium	7440-43-9	B1	4.40E-01	2.70E+00	1.6E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay B	6300-2300	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay B	6300-2300	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay B	6300-2300	INORG	Cobalt	7440-48-4	LC	4.96E+01	8.60E+01	5.8E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	6300-2300	INORG	Copper	7440-50-8	D	3.55E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay B	6300-2300	INORG	Iron	7439-89-6	D	4.99E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	6300-2300	INORG	Lead	7439-92-1	B2	1.71E+01						3.5E+02	EqP	4.9E-02
Landbay B	6300-2300	INORG	Manganese	7439-96-5	D	1.76E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6300-2300	INORG	Mercury	7439-97-6	D	1.27E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.4E-02
Landbay B	6300-2300	INORG	Nickel	7440-02-0	A	3.48E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	6300-2300	INORG	Silver	7440-22-4	D	2.17E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.2E-01
Landbay B	6300-2300	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay B	6300-2300	INORG	Zinc	7440-66-6	ID	5.67E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	6300-2450	INORG	Aluminum	7429-90-5	ID	3.35E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6300-2450	INORG	Arsenic	7440-38-2	A	4.13E+00	9.90E+00	4.2E-01	1.1E+03	EqP	3.9E-03	8.6E+01	EqP	4.8E-02
Landbay B	6300-2450	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	6300-2450	INORG	Beryllium	7440-41-7	B1	3.34E-01	1.20E+00	2.8E-01	6.8E+03	EqP	4.9E-05	1.0E+01	EqP	3.2E-02
Landbay B	6300-2450	INORG	Cadmium	7440-43-9	B1	4.40E-01	2.70E+00	1.6E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay B	6300-2450	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay B	6300-2450	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay B	6300-2450	INORG	Cobalt	7440-48-4	LC	4.96E+01	8.60E+01	5.8E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	6300-2450	INORG	Copper	7440-50-8	D	3.55E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay B	6300-2450	INORG	Iron	7439-89-6	D	4.99E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	6300-2450	INORG	Lead	7439-92-1	B2	1.71E+01						3.5E+02	EqP	4.9E-02
Landbay B	6300-2450	INORG	Manganese	7439-96-5	D	1.76E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6300-2450	INORG	Mercury	7439-97-6	D	1.27E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.4E-02
Landbay B	6300-2450	INORG	Nickel	7440-02-0	A	3.48E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay B	6300-2450	INORG	Silver	7440-22-4	D	2.17E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.2E-01
Landbay B	6300-2450	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay B	6300-2450	INORG	Zinc	7440-66-6	ID	5.67E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay B	6300-3350	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay B	6300-3350	INORG	Antimony	7440-36-0	ID	1.26E+00	1.70E+00	7.4E-01	1.4E+03	EqP	9.2E-04	2.7E+01	EqP	4.6E-02
Landbay B	6300-3350	INORG	Arsenic	7440-38-2	A	4.36E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay B	6300-3350	INORG	Barium	7440-39-3	NC	8.52E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	6300-3350	INORG	Beryllium	7440-41-7	B1	7.33E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay B	6300-3350	INORG	Boron	7440-42-8	ID	9.29E+00	1.34E+01	6.9E-01	9.9E+05	LT	9.4E-06	6.4E-01	LT	**1.5E+01**
Landbay B	6300-3350	INORG	Cadmium	7440-43-9	B1	6.10E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.6E-04	2.1E+00	EqP	2.9E-01
Landbay B	6300-3350	INORG	Chromium III	16065-83-1	D	3.58E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay B	6300-3350	INORG	Cobalt	7440-48-4	LC	2.04E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.8E-01
Landbay B	6300-3350	INORG	Copper	7440-50-8	D	1.31E+02	1.31E+02	1.0E+00	3.5E+05	EqP	3.8E-04	8.4E+00	EqP	**1.6E+01**
Landbay B	6300-3350	INORG	Iron	7439-89-6	D	3.94E+04	9.52E+04	4.1E-01	4.4E+06	EqP	9.1E-03	1.5E+02	EqP	**2.6E+02**
Landbay B	6300-3350	INORG	Lead	7439-92-1	B2	1.51E+01						3.5E+02	EqP	4.3E-02
Landbay B	6300-3350	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay B	6300-3350	INORG	Mercury	7439-97-6	D	2.53E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay B	6300-3350	INORG	Nickel	7440-02-0	A	1.74E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.1E-01
Landbay B	6300-3350	INORG	Silver	7440-22-4	D	1.69E+00	2.30E+00	7.3E-01	3.8E+03	LT	4.5E-04	2.7E+00	LT	6.4E-01
Landbay B	6300-3350	INORG	Strontium	7440-24-6		5.85E+00	3.80E+01	1.5E-01	1.6E+07	EqP	3.6E-07	1.1E+03	EqP	5.5E-03
Landbay B	6300-3350	INORG	Vanadium	7440-62-2	ID	8.44E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.4E-04	4.0E+02	EqP	2.1E-01
Landbay B	6300-3350	INORG	Zinc	7440-66-6	ID	3.14E+01	1.02E+02	3.1E-01	5.5E+06	EqP	5.7E-06	1.9E+02	EqP	1.7E-01
Landbay B	6300-3500	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6300-3500	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay B	6300-3500	INORG	Arsenic	7440-38-2	A	3.67E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay B	6300-3500	INORG	Barium	7440-39-3	NC	8.18E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	6300-3500	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay B	6300-3500	INORG	Cadmium	7440-43-9	B1	2.73E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.5E-03	2.1E+00	EqP	**1.3E+00**
Landbay B	6300-3500	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay B	6300-3500	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay B	6300-3500	INORG	Cobalt	7440-48-4	LC	4.92E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay B	6300-3500	INORG	Copper	7440-50-8	D	1.19E+02	1.31E+02	9.1E-01	3.5E+05	EqP	3.4E-04	8.4E+00	EqP	**1.4E+01**
Landbay B	6300-3500	INORG	Iron	7439-89-6	D	7.37E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	6300-3500	INORG	Lead	7439-92-1	B2	2.27E+01						3.5E+02	EqP	6.5E-02
Landbay B	6300-3500	INORG	Manganese	7439-96-5	D	1.90E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.1E-03	1.6E+02	EqP	**1.2E+01**
Landbay B	6300-3500	INORG	Mercury	7439-97-6	D	4.31E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	6300-3500	INORG	Nickel	7440-02-0	A	2.07E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.1E-01
Landbay B	6300-3500	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay B	6300-3500	INORG	Selenium	7782-49-2	D	1.50E+00	2.50E+00	6.0E-01	2.5E+04	LT	6.1E-05	2.0E+00	LT	7.5E-01
Landbay B	6300-3500	INORG	Silver	7440-22-4	D	4.53E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay B	6300-3500	INORG	Thallium	7440-28-0	ID	3.26E+00	4.50E+00	7.2E-01				1.1E+00	EqP	**2.9E+00**
Landbay B	6300-3500	INORG	Vanadium	7440-62-2	ID	2.72E+02	2.83E+02	9.6E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay B	6300-3500	INORG	Zinc	7440-66-6	ID	5.00E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay B	6400-108	SVOC	Benzaldehyde	100-52-7		1.80E-01				NA		3.7E+04	LT	4.9E-06
Landbay B	6400-108	SVOC	Chrysene	218-01-9	B2	5.00E-02				NA			NA	
Landbay B	6400-108	SVOC	Dibenzofuran	132-64-9	D	8.60E-02			3.0E+02	EqP	2.9E-04	3.1E+00	EqP	2.8E-02
Landbay B	6400-108	SVOC	2-Methylnaphthalene	91-57-6	ID	3.30E-01			3.4E+02	LT	9.7E-04	1.9E+00	LT	1.8E-01
Landbay B	6400-108	SVOC	Naphthalene	91-20-3	C	2.00E-01			5.7E+01	LT	3.5E-03	4.4E-01	LT	4.5E-01
Landbay B	6400-108	SVOC	Phenanthrene	85-01-8	D	1.70E-01				NA		3.9E-01	EqP	4.4E-01
Landbay B	6400-108	SVOC	Pyrene	129-00-0	NC	4.20E-02				NA		1.1E-01	EqP	4.0E-01
Landbay B	6400-108	INORG	Aluminum	7429-90-5	ID	1.96E+04	5.34E+04	3.7E-01	3.7E+08	EqP	5.3E-05	2.6E+03	EqP	**7.5E+00**
Landbay B	6400-108	INORG	Arsenic	7440-38-2	A	5.83E+00	9.90E+00	5.9E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.8E-02
Landbay B	6400-108	INORG	Barium	7440-39-3	NC	1.00E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay B	6400-108	INORG	Beryllium	7440-41-7	B1	9.60E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay B	6400-108	INORG	Chromium III	16065-83-1	D	3.55E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay B	6400-108	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay B	6400-108	INORG	Cobalt	7440-48-4	LC	3.93E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	6400-108	INORG	Copper	7440-50-8	D	3.87E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay B	6400-108	INORG	Iron	7439-89-6	D	4.54E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	6400-108	INORG	Lead	7439-92-1	B2	2.77E+01						3.5E+02	EqP	7.9E-02
Landbay B	6400-108	INORG	Manganese	7439-96-5	D	1.65E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.3E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6400-108	INORG	Mercury	7439-97-6	D	4.65E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.3E-01
Landbay B	6400-108	INORG	Nickel	7440-02-0	A	1.34E+01	7.30E+01	1.8E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.0E-01
Landbay B	6400-108	INORG	Strontium	7440-24-6		1.13E+01	3.80E+01	3.0E-01	1.6E+07	EqP	6.9E-07	1.1E+03	EqP	1.1E-02
Landbay B	6400-108	INORG	Vanadium	7440-62-2	ID	1.66E+02	2.83E+02	5.9E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay B	6400-108	INORG	Zinc	7440-66-6	ID	5.23E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.7E-01
Landbay B	6450-2600	INORG	Aluminum	7429-90-5	ID	2.53E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay B	6450-2600	INORG	Antimony	7440-36-0	ID	1.06E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02
Landbay B	6450-2600	INORG	Arsenic	7440-38-2	A	6.67E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.8E-02
Landbay B	6450-2600	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	6450-2600	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay B	6450-2600	INORG	Cadmium	7440-43-9	B1	1.99E-01	2.70E+00	7.4E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.3E-02
Landbay B	6450-2600	INORG	Chromium III	16065-83-1	D	7.99E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.4E-05
Landbay B	6450-2600	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay B	6450-2600	INORG	Cobalt	7440-48-4	LC	3.96E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	6450-2600	INORG	Copper	7440-50-8	D	2.66E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.7E-05	8.4E+00	EqP	**3.2E+00**
Landbay B	6450-2600	INORG	Iron	7439-89-6	D	4.87E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay B	6450-2600	INORG	Lead	7439-92-1	B2	3.82E+01						3.5E+02	EqP	1.1E-01
Landbay B	6450-2600	INORG	Manganese	7439-96-5	D	2.06E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6450-2600	INORG	Mercury	7439-97-6	D	2.21E-02	7.10E-02	3.1E-01		NA		3.7E-01	EqP	6.0E-02
Landbay B	6450-2600	INORG	Nickel	7440-02-0	A	2.20E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.5E-01
Landbay B	6450-2600	INORG	Silver	7440-22-4	D	2.16E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.1E-01
Landbay B	6450-2600	INORG	Vanadium	7440-62-2	ID	1.42E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.2E-04	4.0E+02	EqP	3.5E-01
Landbay B	6450-2600	INORG	Zinc	7440-66-6	ID	7.30E+01	1.02E+02	7.2E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay B	6450-2750	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay B	6450-2750	INORG	Aluminum	7429-90-5	ID	2.53E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay B	6450-2750	INORG	Antimony	7440-36-0	ID	1.06E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02
Landbay B	6450-2750	INORG	Arsenic	7440-38-2	A	6.67E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.8E-02
Landbay B	6450-2750	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	6450-2750	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay B	6450-2750	INORG	Cadmium	7440-43-9	B1	1.99E-01	2.70E+00	7.4E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.3E-02
Landbay B	6450-2750	INORG	Chromium III	16065-83-1	D	7.99E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.4E-05
Landbay B	6450-2750	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay B	6450-2750	INORG	Cobalt	7440-48-4	LC	3.96E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	6450-2750	INORG	Copper	7440-50-8	D	2.66E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.7E-05	8.4E+00	EqP	**3.2E+00**
Landbay B	6450-2750	INORG	Iron	7439-89-6	D	4.87E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay B	6450-2750	INORG	Lead	7439-92-1	B2	3.82E+01						3.5E+02	EqP	1.1E-01
Landbay B	6450-2750	INORG	Manganese	7439-96-5	D	2.06E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay B	6450-2750	INORG	Mercury	7439-97-6	D	2.21E-02	7.10E-02	3.1E-01		NA		3.7E-01	EqP	6.0E-02
Landbay B	6450-2750	INORG	Nickel	7440-02-0	A	2.20E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.5E-01
Landbay B	6450-2750	INORG	Silver	7440-22-4	D	2.16E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.1E-01
Landbay B	6450-2750	INORG	Vanadium	7440-62-2	ID	1.42E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.2E-04	4.0E+02	EqP	3.5E-01
Landbay B	6450-2750	INORG	Zinc	7440-66-6	ID	7.30E+01	1.02E+02	7.2E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay B	6450-2900	INORG	Aluminum	7429-90-5	ID	2.53E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay B	6450-2900	INORG	Antimony	7440-36-0	ID	1.06E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02
Landbay B	6450-2900	INORG	Arsenic	7440-38-2	A	6.67E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.4E-03	8.6E+01	EqP	7.8E-02
Landbay B	6450-2900	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	6450-2900	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay B	6450-2900	INORG	Cadmium	7440-43-9	B1	1.99E-01	2.70E+00	7.4E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.3E-02
Landbay B	6450-2900	INORG	Chromium III	16065-83-1	D	7.99E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.4E-05
Landbay B	6450-2900	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay B	6450-2900	INORG	Cobalt	7440-48-4	LC	3.96E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	6450-2900	INORG	Copper	7440-50-8	D	2.66E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.7E-05	8.4E+00	EqP	**3.2E+00**
Landbay B	6450-2900	INORG	Iron	7439-89-6	D	4.87E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay B	6450-2900	INORG	Lead	7439-92-1	B2	3.82E+01						3.5E+02	EqP	1.1E-01
Landbay B	6450-2900	INORG	Manganese	7439-96-5	D	2.06E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6450-2900	INORG	Mercury	7439-97-6	D	2.21E-02	7.10E-02	3.1E-01		NA		3.7E-01	EqP	6.0E-02
Landbay B	6450-2900	INORG	Nickel	7440-02-0	A	2.20E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.5E-01
Landbay B	6450-2900	INORG	Silver	7440-22-4	D	2.16E+00	2.30E+00	9.4E-01	3.8E+03	LT	5.8E-04	2.7E+00	LT	8.1E-01
Landbay B	6450-2900	INORG	Vanadium	7440-62-2	ID	1.42E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.2E-04	4.0E+02	EqP	3.5E-01
Landbay B	6450-2900	INORG	Zinc	7440-66-6	ID	7.30E+01	1.02E+02	7.2E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay B	6450-3200	INORG	Aluminum	7429-90-5	ID	2.50E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay B	6450-3200	INORG	Antimony	7440-36-0	ID	1.23E+00	1.70E+00	7.2E-01	1.4E+03	EqP	9.0E-04	2.7E+01	EqP	4.5E-02
Landbay B	6450-3200	INORG	Arsenic	7440-38-2	A	4.94E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.8E-02
Landbay B	6450-3200	INORG	Barium	7440-39-3	NC	8.46E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	6450-3200	INORG	Beryllium	7440-41-7	B1	1.49E-01	1.20E+00	1.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay B	6450-3200	INORG	Boron	7440-42-8	ID	1.06E+01	1.34E+01	7.9E-01	9.9E+05	LT	1.1E-05	6.4E-01	LT	**1.7E+01**
Landbay B	6450-3200	INORG	Cadmium	7440-43-9	B1	1.10E+00	2.70E+00	4.1E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.1E-01
Landbay B	6450-3200	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay B	6450-3200	INORG	Chromium VI	18540-29-9	A	6.50E-01	4.97E+00	1.3E-01	6.6E+01	LT	9.8E-03	4.4E+00	LT	1.5E-01
Landbay B	6450-3200	INORG	Cobalt	7440-48-4	LC	2.31E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay B	6450-3200	INORG	Copper	7440-50-8	D	4.00E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay B	6450-3200	INORG	Iron	7439-89-6	D	4.17E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.6E-03	1.5E+02	EqP	**2.8E+02**
Landbay B	6450-3200	INORG	Lead	7439-92-1	B2	1.85E+01						3.5E+02	EqP	5.3E-02
Landbay B	6450-3200	INORG	Manganese	7439-96-5	D	9.78E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay B	6450-3200	INORG	Mercury	7439-97-6	D	3.43E-02	7.10E-02	4.8E-01		NA		3.7E-01	EqP	9.3E-02
Landbay B	6450-3200	INORG	Nickel	7440-02-0	A	2.09E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.2E-01
Landbay B	6450-3200	INORG	Silver	7440-22-4	D	1.62E+00	2.30E+00	7.0E-01	3.8E+03	LT	4.3E-04	2.7E+00	LT	6.1E-01
Landbay B	6450-3200	INORG	Strontium	7440-24-6		6.97E+00	3.80E+01	1.8E-01	1.6E+07	EqP	4.3E-07	1.1E+03	EqP	6.6E-03
Landbay B	6450-3200	INORG	Vanadium	7440-62-2	ID	1.01E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.5E-04	4.0E+02	EqP	2.5E-01
Landbay B	6450-3200	INORG	Zinc	7440-66-6	ID	4.34E+01	1.02E+02	4.3E-01	5.5E+06	EqP	7.9E-06	1.9E+02	EqP	2.3E-01
Landbay B	6450-3350	INORG	Aluminum	7429-90-5	ID	2.50E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay B	6450-3350	INORG	Antimony	7440-36-0	ID	1.23E+00	1.70E+00	7.2E-01	1.4E+03	EqP	9.0E-04	2.7E+01	EqP	4.5E-02
Landbay B	6450-3350	INORG	Arsenic	7440-38-2	A	4.94E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.8E-02
Landbay B	6450-3350	INORG	Barium	7440-39-3	NC	8.46E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	6450-3350	INORG	Beryllium	7440-41-7	B1	7.49E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay B	6450-3350	INORG	Boron	7440-42-8	ID	1.06E+01	1.34E+01	7.9E-01	9.9E+05	LT	1.1E-05	6.4E-01	LT	**1.7E+01**
Landbay B	6450-3350	INORG	Cadmium	7440-43-9	B1	1.10E+00	2.70E+00	4.1E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.1E-01
Landbay B	6450-3350	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay B	6450-3350	INORG	Chromium VI	18540-29-9	A	6.50E-01	4.97E+00	1.3E-01	6.6E+01	LT	9.8E-03	4.4E+00	LT	1.5E-01
Landbay B	6450-3350	INORG	Cobalt	7440-48-4	LC	2.31E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay B	6450-3350	INORG	Copper	7440-50-8	D	4.00E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay B	6450-3350	INORG	Iron	7439-89-6	D	4.17E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.6E-03	1.5E+02	EqP	**2.8E+02**
Landbay B	6450-3350	INORG	Lead	7439-92-1	B2	1.85E+01						3.5E+02	EqP	5.3E-02
Landbay B	6450-3350	INORG	Manganese	7439-96-5	D	9.78E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay B	6450-3350	INORG	Mercury	7439-97-6	D	3.43E-02	7.10E-02	4.8E-01		NA		3.7E-01	EqP	9.3E-02
Landbay B	6450-3350	INORG	Nickel	7440-02-0	A	2.09E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.2E-01
Landbay B	6450-3350	INORG	Silver	7440-22-4	D	1.62E+00	2.30E+00	7.0E-01	3.8E+03	LT	4.3E-04	2.7E+00	LT	6.1E-01
Landbay B	6450-3350	INORG	Strontium	7440-24-6		6.97E+00	3.80E+01	1.8E-01	1.6E+07	EqP	4.3E-07	1.1E+03	EqP	6.6E-03
Landbay B	6450-3350	INORG	Vanadium	7440-62-2	ID	1.01E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.5E-04	4.0E+02	EqP	2.5E-01
Landbay B	6450-3350	INORG	Zinc	7440-66-6	ID	4.34E+01	1.02E+02	4.3E-01	5.5E+06	EqP	7.9E-06	1.9E+02	EqP	2.3E-01
Landbay B	6450-3500	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6450-3500	INORG	Arsenic	7440-38-2	A	5.26E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay B	6450-3500	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6450-3500	INORG	Beryllium	7440-41-7	B1	9.60E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay B	6450-3500	INORG	Cadmium	7440-43-9	B1	3.43E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay B	6450-3500	INORG	Chromium III	16065-83-1	D	4.68E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay B	6450-3500	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay B	6450-3500	INORG	Cobalt	7440-48-4	LC	4.25E+01	8.60E+01	4.9E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.0E+00**
Landbay B	6450-3500	INORG	Copper	7440-50-8	D	5.83E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay B	6450-3500	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay B	6450-3500	INORG	Lead	7439-92-1	B2	2.48E+01						3.5E+02	EqP	7.1E-02
Landbay B	6450-3500	INORG	Manganese	7439-96-5	D	1.99E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6450-3500	INORG	Nickel	7440-02-0	A	2.66E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.9E-01
Landbay B	6450-3500	INORG	Vanadium	7440-62-2	ID	1.96E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay B	6450-3500	INORG	Zinc	7440-66-6	ID	5.27E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay B	6450-3650	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6450-3650	INORG	Arsenic	7440-38-2	A	5.26E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay B	6450-3650	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6450-3650	INORG	Beryllium	7440-41-7	B1	9.60E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay B	6450-3650	INORG	Cadmium	7440-43-9	B1	3.43E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay B	6450-3650	INORG	Chromium III	16065-83-1	D	4.68E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay B	6450-3650	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay B	6450-3650	INORG	Cobalt	7440-48-4	LC	4.25E+01	8.60E+01	4.9E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.0E+00**
Landbay B	6450-3650	INORG	Copper	7440-50-8	D	5.83E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay B	6450-3650	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay B	6450-3650	INORG	Lead	7439-92-1	B2	2.48E+01						3.5E+02	EqP	7.1E-02
Landbay B	6450-3650	INORG	Manganese	7439-96-5	D	1.99E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6450-3650	INORG	Nickel	7440-02-0	A	2.66E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.9E-01
Landbay B	6450-3650	INORG	Vanadium	7440-62-2	ID	1.96E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay B	6450-3650	INORG	Zinc	7440-66-6	ID	5.27E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay B	6600-3350	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6600-3350	INORG	Arsenic	7440-38-2	A	5.26E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay B	6600-3350	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6600-3350	INORG	Beryllium	7440-41-7	B1	9.60E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay B	6600-3350	INORG	Cadmium	7440-43-9	B1	3.43E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay B	6600-3350	INORG	Chromium III	16065-83-1	D	4.68E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay B	6600-3350	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay B	6600-3350	INORG	Cobalt	7440-48-4	LC	4.25E+01	8.60E+01	4.9E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.0E+00**
Landbay B	6600-3350	INORG	Copper	7440-50-8	D	5.83E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay B	6600-3350	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay B	6600-3350	INORG	Lead	7439-92-1	B2	2.48E+01						3.5E+02	EqP	7.1E-02
Landbay B	6600-3350	INORG	Manganese	7439-96-5	D	1.99E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6600-3350	INORG	Nickel	7440-02-0	A	2.66E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.9E-01
Landbay B	6600-3350	INORG	Vanadium	7440-62-2	ID	1.96E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay B	6600-3350	INORG	Zinc	7440-66-6	ID	5.27E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay B	6600-3500	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	6600-3500	INORG	Arsenic	7440-38-2	A	5.26E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay B	6600-3500	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6600-3500	INORG	Beryllium	7440-41-7	B1	9.60E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay B	6600-3500	INORG	Cadmium	7440-43-9	B1	3.43E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay B	6600-3500	INORG	Chromium III	16065-83-1	D	4.68E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay B	6600-3500	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay B	6600-3500	INORG	Cobalt	7440-48-4	LC	4.25E+01	8.60E+01	4.9E-01	1.4E+04	EqP	3.1E-03	2.1E+01	EqP	**2.0E+00**
Landbay B	6600-3500	INORG	Copper	7440-50-8	D	5.83E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay B	6600-3500	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay B	6600-3500	INORG	Lead	7439-92-1	B2	2.48E+01						3.5E+02	EqP	7.1E-02
Landbay B	6600-3500	INORG	Manganese	7439-96-5	D	1.99E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6600-3500	INORG	Nickel	7440-02-0	A	2.66E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.9E-01
Landbay B	6600-3500	INORG	Vanadium	7440-62-2	ID	1.96E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay B	6600-3500	INORG	Zinc	7440-66-6	ID	5.27E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay B	6750-2750	INORG	Aluminum	7429-90-5	ID	3.47E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.4E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6750-2750	INORG	Arsenic	7440-38-2	A	5.05E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay B	6750-2750	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6750-2750	INORG	Beryllium	7440-41-7	B1	7.66E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	6750-2750	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay B	6750-2750	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay B	6750-2750	INORG	Cobalt	7440-48-4	LC	5.86E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay B	6750-2750	INORG	Copper	7440-50-8	D	3.71E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay B	6750-2750	INORG	Iron	7439-89-6	D	7.00E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay B	6750-2750	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	6750-2750	INORG	Manganese	7439-96-5	D	2.06E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6750-2750	INORG	Nickel	7440-02-0	A	3.56E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	6750-2750	INORG	Vanadium	7440-62-2	ID	2.43E+02	2.83E+02	8.6E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay B	6750-2750	INORG	Zinc	7440-66-6	ID	5.60E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay B	6750-2900	INORG	Aluminum	7429-90-5	ID	3.47E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.4E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6750-2900	INORG	Arsenic	7440-38-2	A	5.05E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay B	6750-2900	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6750-2900	INORG	Beryllium	7440-41-7	B1	7.66E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	6750-2900	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay B	6750-2900	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay B	6750-2900	INORG	Cobalt	7440-48-4	LC	5.86E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay B	6750-2900	INORG	Copper	7440-50-8	D	3.71E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay B	6750-2900	INORG	Iron	7439-89-6	D	7.00E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay B	6750-2900	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02
Landbay B	6750-2900	INORG	Manganese	7439-96-5	D	2.06E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6750-2900	INORG	Nickel	7440-02-0	A	3.56E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	6750-2900	INORG	Vanadium	7440-62-2	ID	2.43E+02	2.83E+02	8.6E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay B	6750-2900	INORG	Zinc	7440-66-6	ID	5.60E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay B	6750-3050	VOC	Acetone	67-64-1	ID	2.20E-01			2.0E+06	LT	1.1E-07	6.0E+02	LT	3.7E-04
Landbay B	6750-3050	VOC	2-Butanone	78-93-3	ID	8.00E-03			3.0E+05	LT	2.7E-08	5.6E+03	LT	1.4E-06
Landbay B	6750-3050	INORG	Aluminum	7429-90-5	ID	3.47E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.4E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	6750-3050	INORG	Arsenic	7440-38-2	A	5.05E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay B	6750-3050	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	6750-3050	INORG	Beryllium	7440-41-7	B1	7.66E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	6750-3050	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay B	6750-3050	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay B	6750-3050	INORG	Cobalt	7440-48-4	LC	5.86E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay B	6750-3050	INORG	Copper	7440-50-8	D	3.71E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay B	6750-3050	INORG	Iron	7439-89-6	D	7.00E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay B	6750-3050	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02
Landbay B	6750-3050	INORG	Manganese	7439-96-5	D	2.06E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	6750-3050	INORG	Nickel	7440-02-0	A	3.56E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	6750-3050	INORG	Vanadium	7440-62-2	ID	2.43E+02	2.83E+02	8.6E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay B	6750-3050	INORG	Zinc	7440-66-6	ID	5.60E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay B	6750-3350	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay B	6750-3350	INORG	Arsenic	7440-38-2	A	5.85E+00	9.90E+00	5.9E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.8E-02
Landbay B	6750-3350	INORG	Barium	7440-39-3	NC	9.51E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay B	6750-3350	INORG	Beryllium	7440-41-7	B1	1.05E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay B	6750-3350	INORG	Cadmium	7440-43-9	B1	1.37E-01	2.70E+00	5.1E-02	1.1E+03	EqP	1.3E-04	2.1E+00	EqP	6.4E-02
Landbay B	6750-3350	INORG	Chromium III	16065-83-1	D	5.56E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay B	6750-3350	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	6750-3350	INORG	Cobalt	7440-48-4	LC	4.02E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	6750-3350	INORG	Copper	7440-50-8	D	4.86E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay B	6750-3350	INORG	Iron	7439-89-6	D	5.02E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	6750-3350	INORG	Lead	7439-92-1	B2	2.29E+01						3.5E+02	EqP	6.5E-02
Landbay B	6750-3350	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6750-3350	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay B	6750-3350	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay B	6750-3350	INORG	Zinc	7440-66-6	ID	3.99E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay B	6750-3500	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay B	6750-3500	INORG	Arsenic	7440-38-2	A	5.85E+00	9.90E+00	5.9E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.8E-02
Landbay B	6750-3500	INORG	Barium	7440-39-3	NC	9.51E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay B	6750-3500	INORG	Beryllium	7440-41-7	B1	1.05E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay B	6750-3500	INORG	Cadmium	7440-43-9	B1	1.37E-01	2.70E+00	5.1E-02	1.1E+03	EqP	1.3E-04	2.1E+00	EqP	6.4E-02
Landbay B	6750-3500	INORG	Chromium III	16065-83-1	D	5.56E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay B	6750-3500	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	6750-3500	INORG	Cobalt	7440-48-4	LC	4.02E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	6750-3500	INORG	Copper	7440-50-8	D	4.86E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay B	6750-3500	INORG	Iron	7439-89-6	D	5.02E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	6750-3500	INORG	Lead	7439-92-1	B2	2.29E+01						3.5E+02	EqP	6.5E-02
Landbay B	6750-3500	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6750-3500	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay B	6750-3500	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay B	6750-3500	INORG	Zinc	7440-66-6	ID	3.99E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay B	6800-117	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay B	6900-3200	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay B	6900-3200	INORG	Arsenic	7440-38-2	A	5.85E+00	9.90E+00	5.9E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.8E-02
Landbay B	6900-3200	INORG	Barium	7440-39-3	NC	9.51E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay B	6900-3200	INORG	Beryllium	7440-41-7	B1	1.05E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay B	6900-3200	INORG	Cadmium	7440-43-9	B1	1.37E-01	2.70E+00	5.1E-02	1.1E+03	EqP	1.3E-04	2.1E+00	EqP	6.4E-02
Landbay B	6900-3200	INORG	Chromium III	16065-83-1	D	5.56E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay B	6900-3200	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	6900-3200	INORG	Cobalt	7440-48-4	LC	4.02E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	6900-3200	INORG	Copper	7440-50-8	D	4.86E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay B	6900-3200	INORG	Iron	7439-89-6	D	5.02E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	6900-3200	INORG	Lead	7439-92-1	B2	2.29E+01						3.5E+02	EqP	6.5E-02
Landbay B	6900-3200	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6900-3200	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay B	6900-3200	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay B	6900-3200	INORG	Zinc	7440-66-6	ID	3.99E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay B	6900-3350	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay B	6900-3350	INORG	Arsenic	7440-38-2	A	5.85E+00	9.90E+00	5.9E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.8E-02
Landbay B	6900-3350	INORG	Barium	7440-39-3	NC	9.51E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay B	6900-3350	INORG	Beryllium	7440-41-7	B1	1.05E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay B	6900-3350	INORG	Cadmium	7440-43-9	B1	1.37E-01	2.70E+00	5.1E-02	1.1E+03	EqP	1.3E-04	2.1E+00	EqP	6.4E-02
Landbay B	6900-3350	INORG	Chromium III	16065-83-1	D	5.56E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay B	6900-3350	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	6900-3350	INORG	Cobalt	7440-48-4	LC	4.02E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	6900-3350	INORG	Copper	7440-50-8	D	4.86E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay B	6900-3350	INORG	Iron	7439-89-6	D	5.02E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay B	6900-3350	INORG	Lead	7439-92-1	B2	2.29E+01						3.5E+02	EqP	6.5E-02
Landbay B	6900-3350	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay B	6900-3350	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay B	6900-3350	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay B	6900-3350	INORG	Zinc	7440-66-6	ID	3.99E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay B	7050-3200	INORG	Aluminum	7429-90-5	ID	2.25E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.6E+00**
Landbay B	7050-3200	INORG	Arsenic	7440-38-2	A	3.87E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay B	7050-3200	INORG	Barium	7440-39-3	NC	9.02E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	7050-3200	INORG	Beryllium	7440-41-7	B1	7.65E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	7050-3200	INORG	Chromium III	16065-83-1	D	6.61E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay B	7050-3200	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay B	7050-3200	INORG	Cobalt	7440-48-4	LC	4.15E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay B	7050-3200	INORG	Copper	7440-50-8	D	4.07E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay B	7050-3200	INORG	Iron	7439-89-6	D	4.80E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay B	7050-3200	INORG	Lead	7439-92-1	B2	2.35E+01						3.5E+02	EqP	6.7E-02
Landbay B	7050-3200	INORG	Manganese	7439-96-5	D	1.49E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay B	7050-3200	INORG	Nickel	7440-02-0	A	1.64E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay B	7050-3200	INORG	Vanadium	7440-62-2	ID	1.57E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay B	7050-3200	INORG	Zinc	7440-66-6	ID	3.71E+01	1.02E+02	3.6E-01	5.5E+06	EqP	6.8E-06	1.9E+02	EqP	2.0E-01
Landbay B	7050-3350	INORG	Aluminum	7429-90-5	ID	2.25E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.6E+00**
Landbay B	7050-3350	INORG	Arsenic	7440-38-2	A	3.87E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay B	7050-3350	INORG	Barium	7440-39-3	NC	9.02E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	7050-3350	INORG	Beryllium	7440-41-7	B1	7.65E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	7050-3350	INORG	Chromium III	16065-83-1	D	6.61E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay B	7050-3350	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay B	7050-3350	INORG	Cobalt	7440-48-4	LC	4.15E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay B	7050-3350	INORG	Copper	7440-50-8	D	4.07E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay B	7050-3350	INORG	Iron	7439-89-6	D	4.80E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay B	7050-3350	INORG	Lead	7439-92-1	B2	2.35E+01						3.5E+02	EqP	6.7E-02
Landbay B	7050-3350	INORG	Manganese	7439-96-5	D	1.49E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay B	7050-3350	INORG	Nickel	7440-02-0	A	1.64E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay B	7050-3350	INORG	Vanadium	7440-62-2	ID	1.57E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay B	7050-3350	INORG	Zinc	7440-66-6	ID	3.71E+01	1.02E+02	3.6E-01	5.5E+06	EqP	6.8E-06	1.9E+02	EqP	2.0E-01
Landbay B	70AEC-3	VOC	Acetone	67-64-1	ID	2.90E-02			2.0E+06	LT	1.4E-08	6.0E+02	LT	4.8E-05
Landbay B	70AEC-3	VOC	Benzene	71-43-2	A	8.00E-04			1.6E+02	LT	5.0E-06	1.2E+02	LT	6.9E-06
Landbay B	70AEC-3	VOC	2-Butanone	78-93-3	ID	5.00E-03			3.0E+05	LT	1.7E-08	5.6E+03	LT	8.9E-07
Landbay B	70AEC-3	VOC	1,1-Dichloroethane	75-34-3	SC	4.70E-02			2.5E+04	LT	1.9E-06	1.9E+01	LT	2.5E-03
Landbay B	70AEC-3	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03			5.0E+03	LT	4.0E-07	1.0E+01	LT	2.0E-04
Landbay B	70AEC-3	VOC	Toluene	108-88-3	ID	1.00E-03				NA		8.0E-01	LT	1.3E-03
Landbay B	70AEC-3	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.70E-02				NA		4.4E+00	LT	8.4E-03
Landbay B	70AEC-3	INORG	Perchlorate	14797-73-0	NC	6.30E+00			3.4E+03	LT	1.8E-03	7.7E+02	LT	8.1E-03
Landbay B	70ANEC	INORG	Perchlorate	14797-73-0	NC	4.80E+00			3.4E+03	LT	1.4E-03	7.7E+02	LT	6.2E-03
Landbay B	70B1	PCB	PCBs (total)	1336-36-3	B2	2.11E-02				NA		1.4E+00	EqP	1.5E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	70B1	INORG	Aluminum	7429-90-5	ID	3.05E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	70B1	INORG	Arsenic	7440-38-2	A	5.98E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.7E-03	8.6E+01	EqP	7.0E-02
Landbay B	70B1	INORG	Barium	7440-39-3	NC	6.72E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay B	70B1	INORG	Beryllium	7440-41-7	B1	2.94E-01	1.20E+00	2.5E-01	6.8E+03	EqP	4.3E-05	1.0E+01	EqP	2.8E-02
Landbay B	70B1	INORG	Cadmium	7440-43-9	B1	1.42E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.6E-01
Landbay B	70B1	INORG	Chromium III	16065-83-1	D	4.10E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay B	70B1	INORG	Chromium VI	18540-29-9	A	2.87E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay B	70B1	INORG	Copper	7440-50-8	D	9.82E+01	1.31E+02	7.5E-01	3.5E+05	EqP	2.8E-04	8.4E+00	EqP	**1.2E+01**
Landbay B	70B1	INORG	Lead	7439-92-1	B2	9.04E+00						3.5E+02	EqP	2.6E-02
Landbay B	70B1	INORG	Mercury	7439-97-6	D	5.70E-02	7.10E-02	8.0E-01		NA		3.7E-01	EqP	1.5E-01
Landbay B	70B1	INORG	Perchlorate	14797-73-0	NC	2.00E-01			3.4E+03	LT	5.8E-05	7.7E+02	LT	2.6E-04
Landbay B	70B1	INORG	Silver	7440-22-4	D	3.07E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	8.2E-04	2.7E+00	LT	**1.2E+00**
Landbay B	70B1	INORG	Strontium	7440-24-6		4.42E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.2E-02
Landbay B	70B2	INORG	Aluminum	7429-90-5	ID	3.05E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	70B2	INORG	Arsenic	7440-38-2	A	5.98E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.7E-03	8.6E+01	EqP	7.0E-02
Landbay B	70B2	INORG	Barium	7440-39-3	NC	6.72E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay B	70B2	INORG	Beryllium	7440-41-7	B1	2.94E-01	1.20E+00	2.5E-01	6.8E+03	EqP	4.3E-05	1.0E+01	EqP	2.8E-02
Landbay B	70B2	INORG	Cadmium	7440-43-9	B1	1.42E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.6E-01
Landbay B	70B2	INORG	Chromium III	16065-83-1	D	4.10E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay B	70B2	INORG	Chromium VI	18540-29-9	A	2.87E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay B	70B2	INORG	Copper	7440-50-8	D	9.82E+01	1.31E+02	7.5E-01	3.5E+05	EqP	2.8E-04	8.4E+00	EqP	**1.2E+01**
Landbay B	70B2	INORG	Lead	7439-92-1	B2	9.04E+00						3.5E+02	EqP	2.6E-02
Landbay B	70B2	INORG	Mercury	7439-97-6	D	5.70E-02	7.10E-02	8.0E-01		NA		3.7E-01	EqP	1.5E-01
Landbay B	70B2	INORG	Perchlorate	14797-73-0	NC	4.00E-02			3.4E+03	LT	1.2E-05	7.7E+02	LT	5.2E-05
Landbay B	70B2	INORG	Silver	7440-22-4	D	3.07E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	8.2E-04	2.7E+00	LT	**1.2E+00**
Landbay B	70B2	INORG	Strontium	7440-24-6		4.42E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.2E-02
Landbay B	70B3	INORG	Aluminum	7429-90-5	ID	3.05E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	70B3	INORG	Arsenic	7440-38-2	A	4.46E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay B	70B3	INORG	Barium	7440-39-3	NC	6.72E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay B	70B3	INORG	Beryllium	7440-41-7	B1	1.14E+00	1.20E+00	9.5E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay B	70B3	INORG	Chromium III	16065-83-1	D	4.55E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay B	70B3	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay B	70B3	INORG	Copper	7440-50-8	D	2.29E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.6E-05	8.4E+00	EqP	**2.7E+00**
Landbay B	70B3	INORG	Lead	7439-92-1	B2	6.38E+00						3.5E+02	EqP	1.8E-02
Landbay B	70B3	INORG	Mercury	7439-97-6	D	1.05E-02	7.10E-02	1.5E-01		NA		3.7E-01	EqP	2.8E-02
Landbay B	70B3	INORG	Nickel	7440-02-0	A	2.55E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.5E-01
Landbay B	70B3	INORG	Perchlorate	14797-73-0	NC	8.40E-02			3.4E+03	LT	2.4E-05	7.7E+02	LT	1.1E-04
Landbay B	70B3	INORG	Strontium	7440-24-6		4.42E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.2E-02
Landbay B	70B3	INORG	Zinc	7440-66-6	ID	3.40E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01
Landbay B	70G4	INORG	Perchlorate	14797-73-0	NC	4.60E-02			3.4E+03	LT	1.3E-05	7.7E+02	LT	5.9E-05
Landbay B	73B108	INORG	Perchlorate	14797-73-0	NC	3.60E-03			3.4E+03	LT	1.0E-06	7.7E+02	LT	4.7E-06
Landbay B	73G76	PCB	PCBs (total)	1336-36-3	B2	2.91E-02				NA		1.4E+00	EqP	2.1E-02
Landbay B	73G76	INORG	Aluminum	7429-90-5	ID	3.21E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.7E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	73G76	INORG	Arsenic	7440-38-2	A	4.92E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.7E-02
Landbay B	73G76	INORG	Barium	7440-39-3	NC	8.70E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	73G76	INORG	Beryllium	7440-41-7	B1	7.61E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	73G76	INORG	Chromium III	16065-83-1	D	9.31E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay B	73G76	INORG	Chromium VI	18540-29-9	A	3.22E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay B	73G76	INORG	Cobalt	7440-48-4	LC	4.52E+01	8.60E+01	5.3E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay B	73G76	INORG	Copper	7440-50-8	D	5.02E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**6.0E+00**
Landbay B	73G76	INORG	Iron	7439-89-6	D	5.67E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay B	73G76	INORG	Lead	7439-92-1	B2	2.96E+01						3.5E+02	EqP	8.4E-02
Landbay B	73G76	INORG	Manganese	7439-96-5	D	1.39E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**8.9E+00**
Landbay B	73G76	INORG	Mercury	7439-97-6	D	2.36E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	73G76	INORG	Nickel	7440-02-0	A	3.01E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.9E-01
Landbay B	73G76	INORG	Perchlorate	14797-73-0	NC	3.10E-01			3.4E+03	LT	9.0E-05	7.7E+02	LT	4.0E-04
Landbay B	73G76	INORG	Vanadium	7440-62-2	ID	1.81E+02	2.83E+02	6.4E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay B	73G76	INORG	Zinc	7440-66-6	ID	6.80E+01	1.02E+02	6.7E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay B	73G78	INORG	Perchlorate	14797-73-0	NC	2.30E-03			3.4E+03	LT	6.7E-07	7.7E+02	LT	3.0E-06
Landbay B	73G79	INORG	Perchlorate	14797-73-0	NC	5.40E-03			3.4E+03	LT	1.6E-06	7.7E+02	LT	7.0E-06
Landbay B	73G80	PCB	PCBs (total)	1336-36-3	B2	2.91E-02				NA		1.4E+00	EqP	2.1E-02
Landbay B	73G80	INORG	Aluminum	7429-90-5	ID	3.21E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.7E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	73G80	INORG	Arsenic	7440-38-2	A	4.92E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.7E-02
Landbay B	73G80	INORG	Barium	7440-39-3	NC	8.70E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	73G80	INORG	Beryllium	7440-41-7	B1	7.61E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	73G80	INORG	Chromium III	16065-83-1	D	9.31E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay B	73G80	INORG	Chromium VI	18540-29-9	A	3.22E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay B	73G80	INORG	Cobalt	7440-48-4	LC	4.52E+01	8.60E+01	5.3E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay B	73G80	INORG	Copper	7440-50-8	D	5.02E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**6.0E+00**
Landbay B	73G80	INORG	Iron	7439-89-6	D	5.67E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay B	73G80	INORG	Lead	7439-92-1	B2	2.96E+01						3.5E+02	EqP	8.4E-02
Landbay B	73G80	INORG	Manganese	7439-96-5	D	1.39E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**8.9E+00**
Landbay B	73G80	INORG	Mercury	7439-97-6	D	2.36E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	73G80	INORG	Nickel	7440-02-0	A	3.01E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.9E-01
Landbay B	73G80	INORG	Vanadium	7440-62-2	ID	1.81E+02	2.83E+02	6.4E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay B	73G80	INORG	Zinc	7440-66-6	ID	6.80E+01	1.02E+02	6.7E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay B	73G82	INORG	Perchlorate	14797-73-0	NC	2.10E-02			3.4E+03	LT	6.1E-06	7.7E+02	LT	2.7E-05
Landbay B	73G83	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay B	73G84	PCB	PCBs (total)	1336-36-3	B2	2.91E-02				NA		1.4E+00	EqP	2.1E-02
Landbay B	73G84	INORG	Aluminum	7429-90-5	ID	3.21E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.7E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	73G84	INORG	Arsenic	7440-38-2	A	4.92E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.7E-02
Landbay B	73G84	INORG	Barium	7440-39-3	NC	8.70E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	73G84	INORG	Beryllium	7440-41-7	B1	7.61E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	73G84	INORG	Chromium III	16065-83-1	D	9.31E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay B	73G84	INORG	Chromium VI	18540-29-9	A	3.22E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay B	73G84	INORG	Cobalt	7440-48-4	LC	4.52E+01	8.60E+01	5.3E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay B	73G84	INORG	Copper	7440-50-8	D	5.02E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**6.0E+00**
Landbay B	73G84	INORG	Iron	7439-89-6	D	5.67E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay B	73G84	INORG	Lead	7439-92-1	B2	2.96E+01						3.5E+02	EqP	8.4E-02
Landbay B	73G84	INORG	Manganese	7439-96-5	D	1.39E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**8.9E+00**
Landbay B	73G84	INORG	Mercury	7439-97-6	D	2.36E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	73G84	INORG	Nickel	7440-02-0	A	3.01E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.9E-01
Landbay B	73G84	INORG	Vanadium	7440-62-2	ID	1.81E+02	2.83E+02	6.4E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay B	73G84	INORG	Zinc	7440-66-6	ID	6.80E+01	1.02E+02	6.7E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay B	73G85	INORG	Perchlorate	14797-73-0	NC	3.20E-01			3.4E+03	LT	9.3E-05	7.7E+02	LT	4.1E-04
Landbay B	73G87	PCB	PCBs (total)	1336-36-3	B2	2.91E-02				NA		1.4E+00	EqP	2.1E-02
Landbay B	73G87	INORG	Aluminum	7429-90-5	ID	3.21E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.7E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	73G87	INORG	Arsenic	7440-38-2	A	4.92E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.7E-02
Landbay B	73G87	INORG	Barium	7440-39-3	NC	8.70E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	73G87	INORG	Beryllium	7440-41-7	B1	7.61E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay B	73G87	INORG	Chromium III	16065-83-1	D	9.31E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay B	73G87	INORG	Chromium VI	18540-29-9	A	3.22E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay B	73G87	INORG	Cobalt	7440-48-4	LC	4.52E+01	8.60E+01	5.3E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay B	73G87	INORG	Copper	7440-50-8	D	5.02E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**6.0E+00**
Landbay B	73G87	INORG	Iron	7439-89-6	D	5.67E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay B	73G87	INORG	Lead	7439-92-1	B2	2.96E+01						3.5E+02	EqP	8.4E-02
Landbay B	73G87	INORG	Manganese	7439-96-5	D	1.39E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**8.9E+00**
Landbay B	73G87	INORG	Mercury	7439-97-6	D	2.36E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	73G87	INORG	Nickel	7440-02-0	A	3.01E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.9E-01
Landbay B	73G87	INORG	Vanadium	7440-62-2	ID	1.81E+02	2.83E+02	6.4E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay B	73G87	INORG	Zinc	7440-66-6	ID	6.80E+01	1.02E+02	6.7E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay B	74AEC-2	INORG	Perchlorate	14797-73-0	NC	1.10E+02			3.4E+03	LT	3.2E-02	7.7E+02	LT	1.4E-01
Landbay B	74AEC-2	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.70E+00				NA		1.4E+02	LT	1.2E-02
Landbay B	74AEC-2	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.10E+00				NA		6.0E+01	LT	1.8E-02
Landbay B	74ANEC	INORG	Perchlorate	14797-73-0	NC	1.10E-01			3.4E+03	LT	3.2E-05	7.7E+02	LT	1.4E-04
Landbay B	74B100	INORG	Perchlorate	14797-73-0	NC	3.50E-02			3.4E+03	LT	1.0E-05	7.7E+02	LT	4.5E-05
Landbay B	74B100	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	3.70E-01				NA		1.4E+02	LT	2.6E-03
Landbay B	74B101	INORG	Perchlorate	14797-73-0	NC	6.10E-02			3.4E+03	LT	1.8E-05	7.7E+02	LT	7.9E-05
Landbay B	74B102	INORG	Perchlorate	14797-73-0	NC	1.30E-01			3.4E+03	LT	3.8E-05	7.7E+02	LT	1.7E-04
Landbay B	74B103	INORG	Perchlorate	14797-73-0	NC	2.30E-01			3.4E+03	LT	6.7E-05	7.7E+02	LT	3.0E-04
Landbay B	74B99	INORG	Perchlorate	14797-73-0	NC	1.50E-03			3.4E+03	LT	4.4E-07	7.7E+02	LT	1.9E-06
Landbay B	74G89	INORG	Perchlorate	14797-73-0	NC	8.70E-02			3.4E+03	LT	2.5E-05	7.7E+02	LT	1.1E-04
Landbay B	74G91	INORG	Perchlorate	14797-73-0	NC	4.00E-03			3.4E+03	LT	1.2E-06	7.7E+02	LT	5.2E-06
Landbay B	74G92	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	8.60E-01				NA		9.6E+03	EqP	9.0E-05
Landbay B	74G92	PCB	PCBs (total)	1336-36-3	B2	1.94E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	74G92	INORG	Aluminum	7429-90-5	ID	4.20E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	74G92	INORG	Arsenic	7440-38-2	A	4.43E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay B	74G92	INORG	Barium	7440-39-3	NC	1.36E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay B	74G92	INORG	Beryllium	7440-41-7	B1	8.55E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay B	74G92	INORG	Chromium III	16065-83-1	D	1.13E+02	2.61E+02	4.3E-01	2.1E+10	EqP	5.3E-09	3.4E+06	EqP	3.3E-05
Landbay B	74G92	INORG	Chromium VI	18540-29-9	A	3.36E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay B	74G92	INORG	Cobalt	7440-48-4	LC	4.47E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.1E+00**
Landbay B	74G92	INORG	Copper	7440-50-8	D	6.00E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.1E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	74G92	INORG	Iron	7439-89-6	D	6.22E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay B	74G92	INORG	Lead	7439-92-1	B2	1.98E+01						3.5E+02	EqP	5.7E-02
Landbay B	74G92	INORG	Manganese	7439-96-5	D	1.33E+03	4.27E+03	3.1E-01	3.1E+05	EqP	4.3E-03	1.6E+02	EqP	**8.5E+00**
Landbay B	74G92	INORG	Mercury	7439-97-6	D	2.36E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	74G92	INORG	Nickel	7440-02-0	A	4.54E+01	7.30E+01	6.2E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.3E+00**
Landbay B	74G92	INORG	Perchlorate	14797-73-0	NC	2.60E-03			3.4E+03	LT	7.5E-07	7.7E+02	LT	3.4E-06
Landbay B	74G92	INORG	Silver	7440-22-4	D	6.06E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.3E-01
Landbay B	74G92	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay B	74G92	INORG	Zinc	7440-66-6	ID	6.19E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay B	74G93	INORG	Perchlorate	14797-73-0	NC	1.30E+00			3.4E+03	LT	3.8E-04	7.7E+02	LT	1.7E-03
Landbay B	74G95	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	8.60E-01				NA		9.6E+03	EqP	9.0E-05
Landbay B	74G95	PCB	PCBs (total)	1336-36-3	B2	1.94E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	74G95	INORG	Aluminum	7429-90-5	ID	4.20E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	74G95	INORG	Arsenic	7440-38-2	A	4.43E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay B	74G95	INORG	Barium	7440-39-3	NC	1.36E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay B	74G95	INORG	Beryllium	7440-41-7	B1	8.55E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay B	74G95	INORG	Chromium III	16065-83-1	D	1.13E+02	2.61E+02	4.3E-01	2.1E+10	EqP	5.3E-09	3.4E+06	EqP	3.3E-05
Landbay B	74G95	INORG	Chromium VI	18540-29-9	A	3.36E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay B	74G95	INORG	Cobalt	7440-48-4	LC	4.47E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.1E+00**
Landbay B	74G95	INORG	Copper	7440-50-8	D	6.00E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.1E+00**
Landbay B	74G95	INORG	Iron	7439-89-6	D	6.22E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay B	74G95	INORG	Lead	7439-92-1	B2	1.98E+01						3.5E+02	EqP	5.7E-02
Landbay B	74G95	INORG	Manganese	7439-96-5	D	1.33E+03	4.27E+03	3.1E-01	3.1E+05	EqP	4.3E-03	1.6E+02	EqP	**8.5E+00**
Landbay B	74G95	INORG	Mercury	7439-97-6	D	2.36E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	74G95	INORG	Nickel	7440-02-0	A	4.54E+01	7.30E+01	6.2E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.3E+00**
Landbay B	74G95	INORG	Perchlorate	14797-73-0	NC	7.00E-02			3.4E+03	LT	2.0E-05	7.7E+02	LT	9.0E-05
Landbay B	74G95	INORG	Silver	7440-22-4	D	6.06E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.3E-01
Landbay B	74G95	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay B	74G95	INORG	Zinc	7440-66-6	ID	6.19E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay B	74G97	INORG	Perchlorate	14797-73-0	NC	1.60E+01			3.4E+03	LT	4.6E-03	7.7E+02	LT	2.1E-02
Landbay B	74G98	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	8.60E-01				NA		9.6E+03	EqP	9.0E-05
Landbay B	74G98	PCB	PCBs (total)	1336-36-3	B2	1.94E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	74G98	INORG	Aluminum	7429-90-5	ID	4.20E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	74G98	INORG	Arsenic	7440-38-2	A	4.43E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay B	74G98	INORG	Barium	7440-39-3	NC	1.36E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay B	74G98	INORG	Beryllium	7440-41-7	B1	8.55E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay B	74G98	INORG	Chromium III	16065-83-1	D	1.13E+02	2.61E+02	4.3E-01	2.1E+10	EqP	5.3E-09	3.4E+06	EqP	3.3E-05
Landbay B	74G98	INORG	Chromium VI	18540-29-9	A	3.36E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay B	74G98	INORG	Cobalt	7440-48-4	LC	4.47E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.1E+00**
Landbay B	74G98	INORG	Copper	7440-50-8	D	6.00E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.1E+00**
Landbay B	74G98	INORG	Iron	7439-89-6	D	6.22E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay B	74G98	INORG	Lead	7439-92-1	B2	1.98E+01						3.5E+02	EqP	5.7E-02
Landbay B	74G98	INORG	Manganese	7439-96-5	D	1.33E+03	4.27E+03	3.1E-01	3.1E+05	EqP	4.3E-03	1.6E+02	EqP	**8.5E+00**
Landbay B	74G98	INORG	Mercury	7439-97-6	D	2.36E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay B	74G98	INORG	Nickel	7440-02-0	A	4.54E+01	7.30E+01	6.2E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.3E+00**
Landbay B	74G98	INORG	Perchlorate	14797-73-0	NC	1.70E-03			3.4E+03	LT	4.9E-07	7.7E+02	LT	2.2E-06
Landbay B	74G98	INORG	Silver	7440-22-4	D	6.06E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.3E-01
Landbay B	74G98	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay B	74G98	INORG	Zinc	7440-66-6	ID	6.19E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay B	76AEC-1	INORG	Perchlorate	14797-73-0	NC	5.90E+00			3.4E+03	LT	1.7E-03	7.7E+02	LT	7.6E-03
Landbay B	76AEC-1	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	8.80E-01				NA		1.4E+02	LT	6.1E-03
Landbay B	76AEC-1	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	2.40E+00				NA		6.0E+01	LT	4.0E-02
Landbay B	76ANEC	INORG	Perchlorate	14797-73-0	NC	2.70E+01			3.4E+03	LT	7.8E-03	7.7E+02	LT	3.5E-02
Landbay B	76B12	INORG	Perchlorate	14797-73-0	NC	1.20E-03			3.4E+03	LT	3.5E-07	7.7E+02	LT	1.6E-06
Landbay B	76B13	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.70E-01				NA		6.0E+01	LT	1.1E-02
Landbay B	76B14	INORG	Perchlorate	14797-73-0	NC	1.90E-03			3.4E+03	LT	5.5E-07	7.7E+02	LT	2.5E-06
Landbay B	76B15	INORG	Perchlorate	14797-73-0	NC	5.40E-03			3.4E+03	LT	1.6E-06	7.7E+02	LT	7.0E-06
Landbay B	76G1	INORG	Perchlorate	14797-73-0	NC	2.90E-03			3.4E+03	LT	8.4E-07	7.7E+02	LT	3.7E-06
Landbay B	76G10	INORG	Perchlorate	14797-73-0	NC	2.00E-03			3.4E+03	LT	5.8E-07	7.7E+02	LT	2.6E-06
Landbay B	76G11	INORG	Perchlorate	14797-73-0	NC	8.20E-02			3.4E+03	LT	2.4E-05	7.7E+02	LT	1.1E-04
Landbay B	76G16	INORG	Perchlorate	14797-73-0	NC	7.40E-03			3.4E+03	LT	2.1E-06	7.7E+02	LT	9.6E-06
Landbay B	76G3	PCB	PCBs (total)	1336-36-3	B2	2.04E-02				NA		1.4E+00	EqP	1.5E-02
Landbay B	76G3	INORG	Aluminum	7429-90-5	ID	3.53E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	76G3	INORG	Arsenic	7440-38-2	A	5.49E+00	9.90E+00	5.5E-01	1.1E+03	EqP	5.2E-03	8.6E+01	EqP	6.4E-02
Landbay B	76G3	INORG	Barium	7440-39-3	NC	8.90E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	76G3	INORG	Beryllium	7440-41-7	B1	1.05E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay B	76G3	INORG	Chromium III	16065-83-1	D	6.56E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	1.9E-05
Landbay B	76G3	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay B	76G3	INORG	Cobalt	7440-48-4	LC	1.77E+01	8.60E+01	2.1E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.5E-01
Landbay B	76G3	INORG	Copper	7440-50-8	D	2.01E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.8E-05	8.4E+00	EqP	**2.4E+00**
Landbay B	76G3	INORG	Iron	7439-89-6	D	5.12E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay B	76G3	INORG	Lead	7439-92-1	B2	1.66E+01						3.5E+02	EqP	4.7E-02
Landbay B	76G3	INORG	Manganese	7439-96-5	D	3.53E+02	4.27E+03	8.3E-02	3.1E+05	EqP	1.1E-03	1.6E+02	EqP	**2.3E+00**
Landbay B	76G3	INORG	Mercury	7439-97-6	D	1.71E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.6E-02
Landbay B	76G3	INORG	Nickel	7440-02-0	A	2.86E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.5E-01
Landbay B	76G3	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay B	76G3	INORG	Thallium	7440-28-0	ID	1.61E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay B	76G3	INORG	Vanadium	7440-62-2	ID	1.02E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.5E-01
Landbay B	76G3	INORG	Zinc	7440-66-6	ID	4.02E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.4E-06	1.9E+02	EqP	2.1E-01
Landbay B	76G4	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay B	76G5	PCB	PCBs (total)	1336-36-3	B2	2.04E-02				NA		1.4E+00	EqP	1.5E-02
Landbay B	76G5	INORG	Aluminum	7429-90-5	ID	3.53E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	76G5	INORG	Arsenic	7440-38-2	A	5.49E+00	9.90E+00	5.5E-01	1.1E+03	EqP	5.2E-03	8.6E+01	EqP	6.4E-02
Landbay B	76G5	INORG	Barium	7440-39-3	NC	8.90E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	76G5	INORG	Beryllium	7440-41-7	B1	1.05E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay B	76G5	INORG	Chromium III	16065-83-1	D	6.56E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	1.9E-05
Landbay B	76G5	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay B	76G5	INORG	Cobalt	7440-48-4	LC	1.77E+01	8.60E+01	2.1E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.5E-01
Landbay B	76G5	INORG	Copper	7440-50-8	D	2.01E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.8E-05	8.4E+00	EqP	**2.4E+00**
Landbay B	76G5	INORG	Iron	7439-89-6	D	5.12E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay B	76G5	INORG	Lead	7439-92-1	B2	1.66E+01						3.5E+02	EqP	4.7E-02
Landbay B	76G5	INORG	Manganese	7439-96-5	D	3.53E+02	4.27E+03	8.3E-02	3.1E+05	EqP	1.1E-03	1.6E+02	EqP	**2.3E+00**
Landbay B	76G5	INORG	Mercury	7439-97-6	D	1.71E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.6E-02
Landbay B	76G5	INORG	Nickel	7440-02-0	A	2.86E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.5E-01
Landbay B	76G5	INORG	Perchlorate	14797-73-0	NC	6.00E-03			3.4E+03	LT	1.7E-06	7.7E+02	LT	7.8E-06
Landbay B	76G5	INORG	Thallium	7440-28-0	ID	1.61E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay B	76G5	INORG	Vanadium	7440-62-2	ID	1.02E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.5E-01
Landbay B	76G5	INORG	Zinc	7440-66-6	ID	4.02E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.4E-06	1.9E+02	EqP	2.1E-01
Landbay B	76G6	PCB	PCBs (total)	1336-36-3	B2	2.04E-02				NA		1.4E+00	EqP	1.5E-02
Landbay B	76G6	INORG	Aluminum	7429-90-5	ID	3.53E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	76G6	INORG	Arsenic	7440-38-2	A	5.49E+00	9.90E+00	5.5E-01	1.1E+03	EqP	5.2E-03	8.6E+01	EqP	6.4E-02
Landbay B	76G6	INORG	Barium	7440-39-3	NC	8.90E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	76G6	INORG	Beryllium	7440-41-7	B1	1.05E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay B	76G6	INORG	Chromium III	16065-83-1	D	6.56E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	1.9E-05
Landbay B	76G6	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay B	76G6	INORG	Cobalt	7440-48-4	LC	1.77E+01	8.60E+01	2.1E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.5E-01
Landbay B	76G6	INORG	Copper	7440-50-8	D	2.01E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.8E-05	8.4E+00	EqP	**2.4E+00**
Landbay B	76G6	INORG	Iron	7439-89-6	D	5.12E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay B	76G6	INORG	Lead	7439-92-1	B2	1.66E+01						3.5E+02	EqP	4.7E-02
Landbay B	76G6	INORG	Manganese	7439-96-5	D	3.53E+02	4.27E+03	8.3E-02	3.1E+05	EqP	1.1E-03	1.6E+02	EqP	**2.3E+00**
Landbay B	76G6	INORG	Mercury	7439-97-6	D	1.71E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.6E-02
Landbay B	76G6	INORG	Nickel	7440-02-0	A	2.86E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.5E-01
Landbay B	76G6	INORG	Thallium	7440-28-0	ID	1.61E+00	4.50E+00	3.6E-01				1.1E+00	EqP	**1.4E+00**
Landbay B	76G6	INORG	Vanadium	7440-62-2	ID	1.02E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.5E-01
Landbay B	76G6	INORG	Zinc	7440-66-6	ID	4.02E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.4E-06	1.9E+02	EqP	2.1E-01
Landbay B	76G7	INORG	Perchlorate	14797-73-0	NC	8.50E-04			3.4E+03	LT	2.5E-07	7.7E+02	LT	1.1E-06
Landbay B	76G9	INORG	Perchlorate	14797-73-0	NC	1.50E-03			3.4E+03	LT	4.4E-07	7.7E+02	LT	1.9E-06
Landbay B	81B1	INORG	Aluminum	7429-90-5	ID	3.36E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	81B1	INORG	Barium	7440-39-3	NC	5.01E+01	2.24E+02	2.2E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.5E+01**
Landbay B	81B1	INORG	Beryllium	7440-41-7	B1	3.67E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.4E-05	1.0E+01	EqP	3.5E-02
Landbay B	81B1	INORG	Cadmium	7440-43-9	B1	1.35E+00	2.70E+00	5.0E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.3E-01
Landbay B	81B1	INORG	Chromium III	16065-83-1	D	5.74E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay B	81B1	INORG	Chromium VI	18540-29-9	A	2.98E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	81B1	INORG	Copper	7440-50-8	D	8.79E+01	1.31E+02	6.7E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay B	81B1	INORG	Lead	7439-92-1	B2	1.34E+01						3.5E+02	EqP	3.8E-02
Landbay B	81B1	INORG	Mercury	7439-97-6	D	3.49E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.5E-02
Landbay B	81B1	INORG	Perchlorate	14797-73-0	NC	6.80E-04			3.4E+03	LT	2.0E-07	7.7E+02	LT	8.8E-07
Landbay B	81B1	INORG	Silver	7440-22-4	D	1.10E+00	2.30E+00	4.8E-01	3.8E+03	LT	2.9E-04	2.7E+00	LT	4.1E-01
Landbay B	81B1	INORG	Strontium	7440-24-6		4.81E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.0E-06	1.1E+03	EqP	4.5E-02
Landbay B	81B2	INORG	Aluminum	7429-90-5	ID	3.36E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	81B2	INORG	Barium	7440-39-3	NC	5.01E+01	2.24E+02	2.2E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.5E+01**
Landbay B	81B2	INORG	Beryllium	7440-41-7	B1	3.67E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.4E-05	1.0E+01	EqP	3.5E-02
Landbay B	81B2	INORG	Cadmium	7440-43-9	B1	1.35E+00	2.70E+00	5.0E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.3E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	81B2	INORG	Chromium III	16065-83-1	D	5.74E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay B	81B2	INORG	Chromium VI	18540-29-9	A	2.98E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	81B2	INORG	Copper	7440-50-8	D	8.79E+01	1.31E+02	6.7E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay B	81B2	INORG	Lead	7439-92-1	B2	1.34E+01						3.5E+02	EqP	3.8E-02
Landbay B	81B2	INORG	Mercury	7439-97-6	D	3.49E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.5E-02
Landbay B	81B2	INORG	Perchlorate	14797-73-0	NC	2.20E-04			3.4E+03	LT	6.4E-08	7.7E+02	LT	2.8E-07
Landbay B	81B2	INORG	Silver	7440-22-4	D	1.10E+00	2.30E+00	4.8E-01	3.8E+03	LT	2.9E-04	2.7E+00	LT	4.1E-01
Landbay B	81B2	INORG	Strontium	7440-24-6		4.81E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.0E-06	1.1E+03	EqP	4.5E-02
Landbay B	85AEC-1	VOC	Acetone	67-64-1	ID	7.90E-02			2.0E+06	LT	3.9E-08	6.0E+02	LT	1.3E-04
Landbay B	85AEC-1	VOC	2-Butanone	78-93-3	ID	5.00E-03			3.0E+05	LT	1.7E-08	5.6E+03	LT	8.9E-07
Landbay B	85AEC-1	VOC	Carbon Disulfide	75-15-0		8.00E-03			1.4E+04	LT	5.6E-07	3.7E-01	LT	2.2E-02
Landbay B	85AEC-1	VOC	Methyl Acetate	79-20-9		3.00E-03				NA		5.7E+05	LT	5.3E-09
Landbay B	85AEC-1	INORG	Perchlorate	14797-73-0	NC	1.50E-01			3.4E+03	LT	4.4E-05	7.7E+02	LT	1.9E-04
Landbay B	85AEC-1	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.30E-01				NA		6.0E+01	LT	1.1E-02
Landbay B	85ANEC	INORG	Perchlorate	14797-73-0	NC	2.10E-01			3.4E+03	LT	6.1E-05	7.7E+02	LT	2.7E-04
Landbay B	85B141	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.30E+02				NA		6.0E+01	LT	**2.2E+00**
Landbay B	85B142	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.00E+00				NA		6.0E+01	LT	1.7E-02
Landbay B	85B143	INORG	Perchlorate	14797-73-0	NC	2.80E-02			3.4E+03	LT	8.1E-06	7.7E+02	LT	3.6E-05
Landbay B	85B144	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.90E-01				NA		6.0E+01	LT	1.2E-02
Landbay B	85G54	INORG	Perchlorate	14797-73-0	NC	1.80E-03			3.4E+03	LT	5.2E-07	7.7E+02	LT	2.3E-06
Landbay B	85G55	INORG	Perchlorate	14797-73-0	NC	2.30E-03			3.4E+03	LT	6.7E-07	7.7E+02	LT	3.0E-06
Landbay B	85G56	INORG	Perchlorate	14797-73-0	NC	1.40E-03			3.4E+03	LT	4.1E-07	7.7E+02	LT	1.8E-06
Landbay B	85G57	INORG	Perchlorate	14797-73-0	NC	5.10E-03			3.4E+03	LT	1.5E-06	7.7E+02	LT	6.6E-06
Landbay B	85G58	PCB	PCBs (total)	1336-36-3	B2	1.88E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	85G58	INORG	Aluminum	7429-90-5	ID	2.57E+04	5.34E+04	4.8E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**9.8E+00**
Landbay B	85G58	INORG	Arsenic	7440-38-2	A	5.91E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay B	85G58	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay B	85G58	INORG	Beryllium	7440-41-7	B1	1.26E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay B	85G58	INORG	Chromium III	16065-83-1	D	4.81E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay B	85G58	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay B	85G58	INORG	Cobalt	7440-48-4	LC	3.99E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	85G58	INORG	Copper	7440-50-8	D	5.34E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.4E+00**
Landbay B	85G58	INORG	Iron	7439-89-6	D	4.58E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	85G58	INORG	Lead	7439-92-1	B2	2.42E+01						3.5E+02	EqP	6.9E-02
Landbay B	85G58	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	85G58	INORG	Mercury	7439-97-6	D	4.60E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	85G58	INORG	Nickel	7440-02-0	A	1.86E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.5E-01
Landbay B	85G58	INORG	Thallium	7440-28-0	ID	1.59E+00	4.50E+00	3.5E-01				1.1E+00	EqP	**1.4E+00**
Landbay B	85G58	INORG	Vanadium	7440-62-2	ID	1.23E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.9E-04	4.0E+02	EqP	3.1E-01
Landbay B	85G58	INORG	Zinc	7440-66-6	ID	4.18E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.6E-06	1.9E+02	EqP	2.2E-01
Landbay B	85G59	PCB	PCBs (total)	1336-36-3	B2	1.88E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	85G59	INORG	Aluminum	7429-90-5	ID	2.57E+04	5.34E+04	4.8E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**9.8E+00**
Landbay B	85G59	INORG	Arsenic	7440-38-2	A	5.91E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay B	85G59	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay B	85G59	INORG	Beryllium	7440-41-7	B1	1.26E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay B	85G59	INORG	Chromium III	16065-83-1	D	4.81E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay B	85G59	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay B	85G59	INORG	Cobalt	7440-48-4	LC	3.99E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	85G59	INORG	Copper	7440-50-8	D	5.34E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.4E+00**
Landbay B	85G59	INORG	Iron	7439-89-6	D	4.58E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	85G59	INORG	Lead	7439-92-1	B2	2.42E+01						3.5E+02	EqP	6.9E-02
Landbay B	85G59	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	85G59	INORG	Mercury	7439-97-6	D	4.60E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	85G59	INORG	Nickel	7440-02-0	A	1.86E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.5E-01
Landbay B	85G59	INORG	Thallium	7440-28-0	ID	1.59E+00	4.50E+00	3.5E-01				1.1E+00	EqP	**1.4E+00**
Landbay B	85G59	INORG	Vanadium	7440-62-2	ID	1.23E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.9E-04	4.0E+02	EqP	3.1E-01
Landbay B	85G59	INORG	Zinc	7440-66-6	ID	4.18E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.6E-06	1.9E+02	EqP	2.2E-01
Landbay B	85G60	INORG	Perchlorate	14797-73-0	NC	2.20E-03			3.4E+03	LT	6.4E-07	7.7E+02	LT	2.8E-06
Landbay B	85G62	PCB	PCBs (total)	1336-36-3	B2	1.88E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	85G62	INORG	Aluminum	7429-90-5	ID	2.57E+04	5.34E+04	4.8E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**9.8E+00**
Landbay B	85G62	INORG	Arsenic	7440-38-2	A	5.91E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay B	85G62	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay B	85G62	INORG	Beryllium	7440-41-7	B1	1.26E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay B	85G62	INORG	Chromium III	16065-83-1	D	4.81E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay B	85G62	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay B	85G62	INORG	Cobalt	7440-48-4	LC	3.99E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay B	85G62	INORG	Copper	7440-50-8	D	5.34E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.4E+00**
Landbay B	85G62	INORG	Iron	7439-89-6	D	4.58E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	85G62	INORG	Lead	7439-92-1	B2	2.42E+01						3.5E+02	EqP	6.9E-02
Landbay B	85G62	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay B	85G62	INORG	Mercury	7439-97-6	D	4.60E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.2E-01
Landbay B	85G62	INORG	Nickel	7440-02-0	A	1.86E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.5E-01
Landbay B	85G62	INORG	Perchlorate	14797-73-0	NC	1.50E-03			3.4E+03	LT	4.4E-07	7.7E+02	LT	1.9E-06
Landbay B	85G62	INORG	Thallium	7440-28-0	ID	1.59E+00	4.50E+00	3.5E-01				1.1E+00	EqP	**1.4E+00**
Landbay B	85G62	INORG	Vanadium	7440-62-2	ID	1.23E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.9E-04	4.0E+02	EqP	3.1E-01
Landbay B	85G62	INORG	Zinc	7440-66-6	ID	4.18E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.6E-06	1.9E+02	EqP	2.2E-01
Landbay B	85G63	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay B	85G64	INORG	Perchlorate	14797-73-0	NC	1.10E-02			3.4E+03	LT	3.2E-06	7.7E+02	LT	1.4E-05
Landbay B	86B1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.80E-01				NA		9.6E+03	EqP	1.9E-05
Landbay B	86B1	PCB	PCBs (total)	1336-36-3	B2	3.58E-02				NA		1.4E+00	EqP	2.6E-02
Landbay B	86B1	INORG	Aluminum	7429-90-5	ID	2.44E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay B	86B1	INORG	Arsenic	7440-38-2	A	6.21E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay B	86B1	INORG	Barium	7440-39-3	NC	8.31E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	86B1	INORG	Beryllium	7440-41-7	B1	7.76E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.4E-02
Landbay B	86B1	INORG	Cadmium	7440-43-9	B1	2.11E+00	2.70E+00	7.8E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.9E-01
Landbay B	86B1	INORG	Chromium III	16065-83-1	D	5.69E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay B	86B1	INORG	Chromium VI	18540-29-9	A	2.98E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	86B1	INORG	Copper	7440-50-8	D	1.43E+02	1.31E+02	**1.1E+00**	3.5E+05	EqP	4.1E-04	8.4E+00	EqP	**1.7E+01**
Landbay B	86B1	INORG	Lead	7439-92-1	B2	2.06E+01						3.5E+02	EqP	5.9E-02
Landbay B	86B1	INORG	Mercury	7439-97-6	D	2.24E-01	7.10E-02	**3.2E+00**		NA		3.7E-01	EqP	6.1E-01
Landbay B	86B1	INORG	Silver	7440-22-4	D	1.04E+00	2.30E+00	4.5E-01	3.8E+03	LT	2.8E-04	2.7E+00	LT	3.9E-01
Landbay B	86B1	INORG	Strontium	7440-24-6		2.16E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay B	86B2	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.80E-01				NA		9.6E+03	EqP	1.9E-05
Landbay B	86B2	PCB	PCBs (total)	1336-36-3	B2	3.58E-02				NA		1.4E+00	EqP	2.6E-02
Landbay B	86B2	INORG	Aluminum	7429-90-5	ID	2.44E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay B	86B2	INORG	Arsenic	7440-38-2	A	6.21E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay B	86B2	INORG	Barium	7440-39-3	NC	8.31E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	86B2	INORG	Beryllium	7440-41-7	B1	7.76E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.4E-02
Landbay B	86B2	INORG	Cadmium	7440-43-9	B1	2.11E+00	2.70E+00	7.8E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.9E-01
Landbay B	86B2	INORG	Chromium III	16065-83-1	D	5.69E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay B	86B2	INORG	Chromium VI	18540-29-9	A	2.98E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	86B2	INORG	Copper	7440-50-8	D	1.43E+02	1.31E+02	**1.1E+00**	3.5E+05	EqP	4.1E-04	8.4E+00	EqP	**1.7E+01**
Landbay B	86B2	INORG	Lead	7439-92-1	B2	2.06E+01						3.5E+02	EqP	5.9E-02
Landbay B	86B2	INORG	Mercury	7439-97-6	D	2.24E-01	7.10E-02	**3.2E+00**		NA		3.7E-01	EqP	6.1E-01
Landbay B	86B2	INORG	Perchlorate	14797-73-0	NC	2.00E-04			3.4E+03	LT	5.8E-08	7.7E+02	LT	2.6E-07
Landbay B	86B2	INORG	Silver	7440-22-4	D	1.04E+00	2.30E+00	4.5E-01	3.8E+03	LT	2.8E-04	2.7E+00	LT	3.9E-01
Landbay B	86B2	INORG	Strontium	7440-24-6		2.16E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay B	86G4	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.80E-01				NA		9.6E+03	EqP	1.9E-05
Landbay B	86G4	PCB	PCBs (total)	1336-36-3	B2	3.58E-02				NA		1.4E+00	EqP	2.6E-02
Landbay B	86G4	INORG	Aluminum	7429-90-5	ID	2.44E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay B	86G4	INORG	Arsenic	7440-38-2	A	6.21E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay B	86G4	INORG	Barium	7440-39-3	NC	8.31E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	86G4	INORG	Beryllium	7440-41-7	B1	7.76E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.4E-02
Landbay B	86G4	INORG	Cadmium	7440-43-9	B1	2.11E+00	2.70E+00	7.8E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.9E-01
Landbay B	86G4	INORG	Chromium III	16065-83-1	D	5.69E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay B	86G4	INORG	Chromium VI	18540-29-9	A	2.98E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay B	86G4	INORG	Copper	7440-50-8	D	1.43E+02	1.31E+02	**1.1E+00**	3.5E+05	EqP	4.1E-04	8.4E+00	EqP	**1.7E+01**
Landbay B	86G4	INORG	Lead	7439-92-1	B2	2.06E+01						3.5E+02	EqP	5.9E-02
Landbay B	86G4	INORG	Mercury	7439-97-6	D	2.24E-01	7.10E-02	**3.2E+00**		NA		3.7E-01	EqP	6.1E-01
Landbay B	86G4	INORG	Silver	7440-22-4	D	1.04E+00	2.30E+00	4.5E-01	3.8E+03	LT	2.8E-04	2.7E+00	LT	3.9E-01
Landbay B	86G4	INORG	Strontium	7440-24-6		2.16E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay B	87B1	INORG	Aluminum	7429-90-5	ID	2.68E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay B	87B1	INORG	Barium	7440-39-3	NC	8.14E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	87B1	INORG	Beryllium	7440-41-7	B1	8.01E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay B	87B1	INORG	Cadmium	7440-43-9	B1	1.98E+00	2.70E+00	7.3E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.3E-01
Landbay B	87B1	INORG	Chromium III	16065-83-1	D	1.02E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay B	87B1	INORG	Chromium VI	18540-29-9	A	3.28E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.5E-01
Landbay B	87B1	INORG	Copper	7440-50-8	D	3.06E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.8E-05	8.4E+00	EqP	**3.6E+00**
Landbay B	87B1	INORG	Lead	7439-92-1	B2	2.86E+01						3.5E+02	EqP	8.2E-02
Landbay B	87B1	INORG	Mercury	7439-97-6	D	2.47E-02	7.10E-02	3.5E-01		NA		3.7E-01	EqP	6.7E-02
Landbay B	87B1	INORG	Perchlorate	14797-73-0	NC	1.70E-02			3.4E+03	LT	4.9E-06	7.7E+02	LT	2.2E-05
Landbay B	87B1	INORG	Strontium	7440-24-6		1.00E+01	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.5E-03
Landbay B	87B2	INORG	Aluminum	7429-90-5	ID	2.68E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	87B2	INORG	Barium	7440-39-3	NC	8.14E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	87B2	INORG	Beryllium	7440-41-7	B1	8.01E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay B	87B2	INORG	Cadmium	7440-43-9	B1	1.98E+00	2.70E+00	7.3E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.3E-01
Landbay B	87B2	INORG	Chromium III	16065-83-1	D	1.02E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay B	87B2	INORG	Chromium VI	18540-29-9	A	3.28E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.5E-01
Landbay B	87B2	INORG	Copper	7440-50-8	D	3.06E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.8E-05	8.4E+00	EqP	**3.6E+00**
Landbay B	87B2	INORG	Lead	7439-92-1	B2	2.86E+01						3.5E+02	EqP	8.2E-02
Landbay B	87B2	INORG	Mercury	7439-97-6	D	2.47E-02	7.10E-02	3.5E-01		NA		3.7E-01	EqP	6.7E-02
Landbay B	87B2	INORG	Perchlorate	14797-73-0	NC	6.00E-03			3.4E+03	LT	1.7E-06	7.7E+02	LT	7.8E-06
Landbay B	87B2	INORG	Strontium	7440-24-6		1.00E+01	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.5E-03
Landbay B	87G4	INORG	Aluminum	7429-90-5	ID	2.68E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay B	87G4	INORG	Barium	7440-39-3	NC	8.14E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay B	87G4	INORG	Beryllium	7440-41-7	B1	8.01E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay B	87G4	INORG	Cadmium	7440-43-9	B1	1.98E+00	2.70E+00	7.3E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.3E-01
Landbay B	87G4	INORG	Chromium III	16065-83-1	D	1.02E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay B	87G4	INORG	Chromium VI	18540-29-9	A	3.28E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.5E-01
Landbay B	87G4	INORG	Copper	7440-50-8	D	3.06E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.8E-05	8.4E+00	EqP	**3.6E+00**
Landbay B	87G4	INORG	Lead	7439-92-1	B2	2.86E+01						3.5E+02	EqP	8.2E-02
Landbay B	87G4	INORG	Mercury	7439-97-6	D	2.47E-02	7.10E-02	3.5E-01		NA		3.7E-01	EqP	6.7E-02
Landbay B	87G4	INORG	Strontium	7440-24-6		1.00E+01	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.5E-03
Landbay B	97B1	INORG	Aluminum	7429-90-5	ID	3.17E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	97B1	INORG	Barium	7440-39-3	NC	9.82E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay B	97B1	INORG	Beryllium	7440-41-7	B1	7.90E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay B	97B1	INORG	Cadmium	7440-43-9	B1	1.59E+00	2.70E+00	5.9E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.4E-01
Landbay B	97B1	INORG	Chromium III	16065-83-1	D	1.03E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay B	97B1	INORG	Chromium VI	18540-29-9	A	3.29E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.5E-01
Landbay B	97B1	INORG	Copper	7440-50-8	D	5.74E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay B	97B1	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay B	97B1	INORG	Mercury	7439-97-6	D	3.65E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.9E-02
Landbay B	97B1	INORG	Strontium	7440-24-6		2.28E+01	3.80E+01	6.0E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.2E-02
Landbay B	A6G183	SVOC	2,6-Dinitrotoluene	606-20-2	B2	1.60E-01			5.8E+02	LT	2.7E-04	1.8E+01	LT	8.8E-03
Landbay B	A6G183	INORG	Aluminum	7429-90-5	ID	3.64E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	A6G183	INORG	Barium	7440-39-3	NC	5.03E+01	2.24E+02	2.2E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.5E+01**
Landbay B	A6G183	INORG	Cadmium	7440-43-9	B1	9.87E-01	2.70E+00	3.7E-01	1.1E+03	EqP	9.1E-04	2.1E+00	EqP	4.6E-01
Landbay B	A6G183	INORG	Chromium III	16065-83-1	D	5.16E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay B	A6G183	INORG	Copper	7440-50-8	D	5.68E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.8E+00**
Landbay B	A6G183	INORG	Lead	7439-92-1	B2	4.52E+00						3.5E+02	EqP	1.3E-02
Landbay B	A6G183	INORG	Mercury	7439-97-6	D	1.16E-01	7.10E-02	**1.6E+00**		NA		3.7E-01	EqP	3.1E-01
Landbay B	A6G183	INORG	Perchlorate	14797-73-0	NC	6.80E-03			3.4E+03	LT	2.0E-06	7.7E+02	LT	8.8E-06
Landbay B	A6G183	INORG	Silver	7440-22-4	D	1.86E+00	2.30E+00	8.1E-01	3.8E+03	LT	5.0E-04	2.7E+00	LT	7.0E-01
Landbay B	A6G183	INORG	Strontium	7440-24-6		4.02E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay B	A6G184	INORG	Aluminum	7429-90-5	ID	3.99E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	A6G184	INORG	Barium	7440-39-3	NC	4.22E+01	2.24E+02	1.9E-01	3.2E+05	EqP	1.3E-04	3.3E+00	EqP	**1.3E+01**
Landbay B	A6G184	INORG	Cadmium	7440-43-9	B1	1.84E-01	2.70E+00	6.8E-02	1.1E+03	EqP	1.7E-04	2.1E+00	EqP	8.6E-02
Landbay B	A6G184	INORG	Chromium III	16065-83-1	D	4.58E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.4E-05
Landbay B	A6G184	INORG	Copper	7440-50-8	D	5.27E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.3E+00**
Landbay B	A6G184	INORG	Lead	7439-92-1	B2	1.22E+00						3.5E+02	EqP	3.5E-03
Landbay B	A6G184	INORG	Perchlorate	14797-73-0	NC	2.00E-02			3.4E+03	LT	5.8E-06	7.7E+02	LT	2.6E-05
Landbay B	A6G184	INORG	Silver	7440-22-4	D	8.58E-01	2.30E+00	3.7E-01	3.8E+03	LT	2.3E-04	2.7E+00	LT	3.2E-01
Landbay B	A6G184	INORG	Strontium	7440-24-6		5.14E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.2E-06	1.1E+03	EqP	4.9E-02
Landbay B	A6G185	INORG	Aluminum	7429-90-5	ID	3.49E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.4E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	A6G185	INORG	Arsenic	7440-38-2	A	1.37E+00	9.90E+00	1.4E-01	1.1E+03	EqP	1.3E-03	8.6E+01	EqP	1.6E-02
Landbay B	A6G185	INORG	Barium	7440-39-3	NC	4.39E+01	2.24E+02	2.0E-01	3.2E+05	EqP	1.4E-04	3.3E+00	EqP	**1.3E+01**
Landbay B	A6G185	INORG	Cadmium	7440-43-9	B1	9.00E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.3E-04	2.1E+00	EqP	4.2E-01
Landbay B	A6G185	INORG	Chromium III	16065-83-1	D	6.45E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay B	A6G185	INORG	Copper	7440-50-8	D	8.10E+01	1.31E+02	6.2E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.6E+00**
Landbay B	A6G185	INORG	Perchlorate	14797-73-0	NC	1.80E-02			3.4E+03	LT	5.2E-06	7.7E+02	LT	2.3E-05
Landbay B	A6G185	INORG	Silver	7440-22-4	D	2.51E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.7E-05	2.7E+00	LT	9.4E-02
Landbay B	A6G185	INORG	Strontium	7440-24-6		7.02E+01	3.80E+01	**1.8E+00**	1.6E+07	EqP	4.3E-06	1.1E+03	EqP	6.6E-02
Landbay B	A6G186	INORG	Aluminum	7429-90-5	ID	4.21E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	A6G186	INORG	Arsenic	7440-38-2	A	1.83E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay B	A6G186	INORG	Barium	7440-39-3	NC	6.30E+01	2.24E+02	2.8E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.9E+01**
Landbay B	A6G186	INORG	Cadmium	7440-43-9	B1	6.11E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.6E-04	2.1E+00	EqP	2.9E-01
Landbay B	A6G186	INORG	Chromium III	16065-83-1	D	5.80E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay B	A6G186	INORG	Copper	7440-50-8	D	6.15E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.3E+00**
Landbay B	A6G186	INORG	Lead	7439-92-1	B2	2.52E+00						3.5E+02	EqP	7.2E-03
Landbay B	A6G186	INORG	Perchlorate	14797-73-0	NC	4.70E-02			3.4E+03	LT	1.4E-05	7.7E+02	LT	6.1E-05
Landbay B	A6G186	INORG	Silver	7440-22-4	D	1.23E+00	2.30E+00	5.3E-01	3.8E+03	LT	3.3E-04	2.7E+00	LT	4.6E-01
Landbay B	A6G186	INORG	Strontium	7440-24-6		4.83E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.0E-06	1.1E+03	EqP	4.6E-02
Landbay B	A6G187	INORG	Aluminum	7429-90-5	ID	3.26E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	A6G187	INORG	Barium	7440-39-3	NC	2.75E+01	2.24E+02	1.2E-01	3.2E+05	EqP	8.5E-05	3.3E+00	EqP	**8.3E+00**
Landbay B	A6G187	INORG	Cadmium	7440-43-9	B1	9.64E-01	2.70E+00	3.6E-01	1.1E+03	EqP	8.9E-04	2.1E+00	EqP	4.5E-01
Landbay B	A6G187	INORG	Chromium III	16065-83-1	D	4.12E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay B	A6G187	INORG	Chromium VI	18540-29-9	A	5.50E-01	4.97E+00	1.1E-01	6.6E+01	LT	8.3E-03	4.4E+00	LT	1.3E-01
Landbay B	A6G187	INORG	Copper	7440-50-8	D	6.00E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.1E+00**
Landbay B	A6G187	INORG	Lead	7439-92-1	B2	1.47E+00						3.5E+02	EqP	4.2E-03
Landbay B	A6G187	INORG	Perchlorate	14797-73-0	NC	3.20E-03			3.4E+03	LT	9.3E-07	7.7E+02	LT	4.1E-06
Landbay B	A6G187	INORG	Silver	7440-22-4	D	1.62E+00	2.30E+00	7.0E-01	3.8E+03	LT	4.3E-04	2.7E+00	LT	6.1E-01
Landbay B	A6G187	INORG	Strontium	7440-24-6		4.36E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.1E-02
Landbay B	A6S158	INORG	Aluminum	7429-90-5	ID	2.99E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	A6S158	INORG	Arsenic	7440-38-2	A	1.05E+00	9.90E+00	1.1E-01	1.1E+03	EqP	1.0E-03	8.6E+01	EqP	1.2E-02
Landbay B	A6S158	INORG	Barium	7440-39-3	NC	2.52E+01	2.24E+02	1.1E-01	3.2E+05	EqP	7.8E-05	3.3E+00	EqP	**7.6E+00**
Landbay B	A6S158	INORG	Cadmium	7440-43-9	B1	5.30E-01	2.70E+00	2.0E-01	1.1E+03	EqP	4.9E-04	2.1E+00	EqP	2.5E-01
Landbay B	A6S158	INORG	Chromium III	16065-83-1	D	2.72E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.3E-09	3.4E+06	EqP	8.1E-06
Landbay B	A6S158	INORG	Cobalt	7440-48-4	LC	3.21E+01	8.60E+01	3.7E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay B	A6S158	INORG	Copper	7440-50-8	D	4.89E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay B	A6S158	INORG	Iron	7439-89-6	D	4.48E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	A6S158	INORG	Manganese	7439-96-5	D	1.07E+03	4.27E+03	2.5E-01	3.1E+05	EqP	3.4E-03	1.6E+02	EqP	**6.8E+00**
Landbay B	A6S158	INORG	Nickel	7440-02-0	A	3.23E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.6E-01
Landbay B	A6S158	INORG	Perchlorate	14797-73-0	NC	3.30E-04			3.4E+03	LT	9.6E-08	7.7E+02	LT	4.3E-07
Landbay B	A6S158	INORG	Strontium	7440-24-6		4.63E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.8E-06	1.1E+03	EqP	4.4E-02
Landbay B	A6S158	INORG	Vanadium	7440-62-2	ID	1.61E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay B	A6S158	INORG	Zinc	7440-66-6	ID	4.69E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay B	A7G188	INORG	Aluminum	7429-90-5	ID	3.06E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	A7G188	INORG	Arsenic	7440-38-2	A	8.70E-01	9.90E+00	8.8E-02	1.1E+03	EqP	8.3E-04	8.6E+01	EqP	1.0E-02
Landbay B	A7G188	INORG	Barium	7440-39-3	NC	3.86E+01	2.24E+02	1.7E-01	3.2E+05	EqP	1.2E-04	3.3E+00	EqP	**1.2E+01**
Landbay B	A7G188	INORG	Cadmium	7440-43-9	B1	6.09E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.6E-04	2.1E+00	EqP	2.8E-01
Landbay B	A7G188	INORG	Chromium III	16065-83-1	D	4.17E+01	2.61E+02	1.6E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.2E-05
Landbay B	A7G188	INORG	Copper	7440-50-8	D	6.05E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.2E+00**
Landbay B	A7G188	INORG	Lead	7439-92-1	B2	2.25E+00						3.5E+02	EqP	6.4E-03
Landbay B	A7G188	INORG	Perchlorate	14797-73-0	NC	5.65E-03			3.4E+03	LT	1.6E-06	7.7E+02	LT	7.3E-06
Landbay B	A7G188	INORG	Silver	7440-22-4	D	1.34E+00	2.30E+00	5.8E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.0E-01
Landbay B	A7G188	INORG	Strontium	7440-24-6		4.26E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay B	A7G189	INORG	Aluminum	7429-90-5	ID	2.97E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	A7G189	INORG	Arsenic	7440-38-2	A	7.77E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay B	A7G189	INORG	Barium	7440-39-3	NC	2.24E+02	2.24E+02	1.0E+00	3.2E+05	EqP	6.9E-04	3.3E+00	EqP	**6.8E+01**
Landbay B	A7G189	INORG	Beryllium	7440-41-7	B1	7.47E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay B	A7G189	INORG	Cadmium	7440-43-9	B1	1.59E+00	2.70E+00	5.9E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.4E-01
Landbay B	A7G189	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay B	A7G189	INORG	Copper	7440-50-8	D	3.45E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.9E-05	8.4E+00	EqP	**4.1E+00**
Landbay B	A7G189	INORG	Lead	7439-92-1	B2	1.88E+01						3.5E+02	EqP	5.4E-02
Landbay B	A7G189	INORG	Mercury	7439-97-6	D	1.43E-02	7.10E-02	2.0E-01		NA		3.7E-01	EqP	3.9E-02
Landbay B	A7G189	INORG	Silver	7440-22-4	D	2.42E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	6.5E-04	2.7E+00	LT	9.1E-01
Landbay B	A7G189	INORG	Strontium	7440-24-6		2.44E+01	3.80E+01	6.4E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay B	A7G190	INORG	Aluminum	7429-90-5	ID	2.90E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	A7G190	INORG	Arsenic	7440-38-2	A	9.81E+00	9.90E+00	9.9E-01	1.1E+03	EqP	9.3E-03	8.6E+01	EqP	1.1E-01
Landbay B	A7G190	INORG	Barium	7440-39-3	NC	1.77E+02	2.24E+02	7.9E-01	3.2E+05	EqP	5.5E-04	3.3E+00	EqP	**5.4E+01**
Landbay B	A7G190	INORG	Beryllium	7440-41-7	B1	8.69E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay B	A7G190	INORG	Cadmium	7440-43-9	B1	1.77E+00	2.70E+00	6.6E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.3E-01
Landbay B	A7G190	INORG	Chromium III	16065-83-1	D	1.46E+02	2.61E+02	5.6E-01	2.1E+10	EqP	6.9E-09	3.4E+06	EqP	4.3E-05
Landbay B	A7G190	INORG	Chromium VI	18540-29-9	A	1.80E+00	4.97E+00	3.6E-01	6.6E+01	LT	2.7E-02	4.4E+00	LT	4.1E-01
Landbay B	A7G190	INORG	Copper	7440-50-8	D	3.60E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.3E+00**
Landbay B	A7G190	INORG	Lead	7439-92-1	B2	2.69E+01						3.5E+02	EqP	7.7E-02
Landbay B	A7G190	INORG	Mercury	7439-97-6	D	1.40E-02	7.10E-02	2.0E-01		NA		3.7E-01	EqP	3.8E-02
Landbay B	A7G190	INORG	Perchlorate	14797-73-0	NC	2.40E-04			3.4E+03	LT	7.0E-08	7.7E+02	LT	3.1E-07
Landbay B	A7G190	INORG	Silver	7440-22-4	D	2.56E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	6.8E-04	2.7E+00	LT	9.6E-01
Landbay B	A7G190	INORG	Strontium	7440-24-6		2.22E+01	3.80E+01	5.8E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay B	A7S162	PCB	PCBs (total)	1336-36-3	B2	1.92E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	A7S162	INORG	Aluminum	7429-90-5	ID	3.44E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	A7S162	INORG	Arsenic	7440-38-2	A	1.88E+00	9.90E+00	1.9E-01	1.1E+03	EqP	1.8E-03	8.6E+01	EqP	2.2E-02
Landbay B	A7S162	INORG	Barium	7440-39-3	NC	2.33E+01	2.24E+02	1.0E-01	3.2E+05	EqP	7.2E-05	3.3E+00	EqP	**7.1E+00**
Landbay B	A7S162	INORG	Cadmium	7440-43-9	B1	4.75E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.4E-04	2.1E+00	EqP	2.2E-01
Landbay B	A7S162	INORG	Chromium III	16065-83-1	D	5.33E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	A7S162	INORG	Cobalt	7440-48-4	LC	8.75E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.4E-03	2.1E+01	EqP	**4.2E+00**
Landbay B	A7S162	INORG	Copper	7440-50-8	D	6.37E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay B	A7S162	INORG	Iron	7439-89-6	D	7.39E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	A7S162	INORG	Lead	7439-92-1	B2	8.82E+00						3.5E+02	EqP	2.5E-02
Landbay B	A7S162	INORG	Manganese	7439-96-5	D	5.03E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.6E-02	1.6E+02	EqP	**3.2E+01**
Landbay B	A7S162	INORG	Nickel	7440-02-0	A	3.67E+01	7.30E+01	5.0E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	A7S162	INORG	Perchlorate	14797-73-0	NC	4.50E-03			3.4E+03	LT	1.3E-06	7.7E+02	LT	5.8E-06
Landbay B	A7S162	INORG	Silver	7440-22-4	D	1.35E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay B	A7S162	INORG	Strontium	7440-24-6		4.69E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.4E-02
Landbay B	A7S162	INORG	Thallium	7440-28-0	ID	2.46E+00	4.50E+00	5.5E-01				1.1E+00	EqP	**2.2E+00**
Landbay B	A7S162	INORG	Vanadium	7440-62-2	ID	2.51E+02	2.83E+02	8.9E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay B	A7S162	INORG	Zinc	7440-66-6	ID	5.85E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay B	A7S163	PCB	PCBs (total)	1336-36-3	B2	1.92E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	A7S163	INORG	Aluminum	7429-90-5	ID	3.17E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	A7S163	INORG	Barium	7440-39-3	NC	4.26E+01	2.24E+02	1.9E-01	3.2E+05	EqP	1.3E-04	3.3E+00	EqP	**1.3E+01**
Landbay B	A7S163	INORG	Cadmium	7440-43-9	B1	5.82E-01	2.70E+00	2.2E-01	1.1E+03	EqP	5.4E-04	2.1E+00	EqP	2.7E-01
Landbay B	A7S163	INORG	Chromium III	16065-83-1	D	4.09E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay B	A7S163	INORG	Cobalt	7440-48-4	LC	8.75E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.4E-03	2.1E+01	EqP	**4.2E+00**
Landbay B	A7S163	INORG	Copper	7440-50-8	D	5.78E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay B	A7S163	INORG	Iron	7439-89-6	D	7.39E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay B	A7S163	INORG	Lead	7439-92-1	B2	1.14E+00						3.5E+02	EqP	3.3E-03
Landbay B	A7S163	INORG	Manganese	7439-96-5	D	5.03E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.6E-02	1.6E+02	EqP	**3.2E+01**
Landbay B	A7S163	INORG	Nickel	7440-02-0	A	3.67E+01	7.30E+01	5.0E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	A7S163	INORG	Perchlorate	14797-73-0	NC	2.10E-03			3.4E+03	LT	6.1E-07	7.7E+02	LT	2.7E-06
Landbay B	A7S163	INORG	Silver	7440-22-4	D	1.24E+00	2.30E+00	5.4E-01	3.8E+03	LT	3.3E-04	2.7E+00	LT	4.7E-01
Landbay B	A7S163	INORG	Strontium	7440-24-6		4.02E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay B	A7S163	INORG	Thallium	7440-28-0	ID	2.46E+00	4.50E+00	5.5E-01				1.1E+00	EqP	**2.2E+00**
Landbay B	A7S163	INORG	Vanadium	7440-62-2	ID	2.51E+02	2.83E+02	8.9E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay B	A7S163	INORG	Zinc	7440-66-6	ID	5.85E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay B	A8G193	INORG	Perchlorate	14797-73-0	NC	6.90E-03			3.4E+03	LT	2.0E-06	7.7E+02	LT	8.9E-06
Landbay B	A8G194	INORG	Perchlorate	14797-73-0	NC	7.00E-02			3.4E+03	LT	2.0E-05	7.7E+02	LT	9.0E-05
Landbay B	A8G195	PCB	PCBs (total)	1336-36-3	B2	3.14E-02				NA		1.4E+00	EqP	2.3E-02
Landbay B	A8G195	INORG	Aluminum	7429-90-5	ID	2.93E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	A8G195	INORG	Barium	7440-39-3	NC	4.92E+01	2.24E+02	2.2E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.5E+01**
Landbay B	A8G195	INORG	Cadmium	7440-43-9	B1	6.52E-01	2.70E+00	2.4E-01	1.1E+03	EqP	6.0E-04	2.1E+00	EqP	3.0E-01
Landbay B	A8G195	INORG	Chromium III	16065-83-1	D	4.14E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay B	A8G195	INORG	Chromium VI	18540-29-9	A	7.90E-01	4.97E+00	1.6E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.8E-01
Landbay B	A8G195	INORG	Copper	7440-50-8	D	4.43E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.3E+00**
Landbay B	A8G195	INORG	Lead	7439-92-1	B2	3.18E+00						3.5E+02	EqP	9.1E-03
Landbay B	A8G195	INORG	Perchlorate	14797-73-0	NC	5.60E-02			3.4E+03	LT	1.6E-05	7.7E+02	LT	7.2E-05
Landbay B	A8G195	INORG	Silver	7440-22-4	D	1.42E+00	2.30E+00	6.2E-01	3.8E+03	LT	3.8E-04	2.7E+00	LT	5.3E-01
Landbay B	A8G195	INORG	Strontium	7440-24-6		3.49E+01	3.80E+01	9.2E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.3E-02
Landbay B	A8S154	PCB	PCBs (total)	1336-36-3	B2	9.50E+00				NA		1.4E+00	EqP	**6.9E+00**
Landbay B	A8S154	INORG	Aluminum	7429-90-5	ID	3.60E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	A8S154	INORG	Arsenic	7440-38-2	A	2.57E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.4E-03	8.6E+01	EqP	3.0E-02
Landbay B	A8S154	INORG	Barium	7440-39-3	NC	9.06E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	A8S154	INORG	Beryllium	7440-41-7	B1	8.72E-01	1.20E+00	7.3E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.4E-02
Landbay B	A8S154	INORG	Cadmium	7440-43-9	B1	8.86E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.2E-04	2.1E+00	EqP	4.1E-01
Landbay B	A8S154	INORG	Chromium III	16065-83-1	D	9.01E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.7E-05
Landbay B	A8S154	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay B	A8S154	INORG	Cobalt	7440-48-4	LC	3.55E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay B	A8S154	INORG	Copper	7440-50-8	D	6.22E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.4E+00**
Landbay B	A8S154	INORG	Iron	7439-89-6	D	4.56E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	A8S154	INORG	Lead	7439-92-1	B2	1.76E+01						3.5E+02	EqP	5.0E-02
Landbay B	A8S154	INORG	Manganese	7439-96-5	D	9.90E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.2E-03	1.6E+02	EqP	**6.3E+00**
Landbay B	A8S154	INORG	Mercury	7439-97-6	D	1.63E-02	7.10E-02	2.3E-01		NA		3.7E-01	EqP	4.4E-02
Landbay B	A8S154	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	A8S154	INORG	Vanadium	7440-62-2	ID	1.31E+02	2.83E+02	4.6E-01	1.5E+05	EqP	8.5E-04	4.0E+02	EqP	3.3E-01
Landbay B	A8S154	INORG	Zinc	7440-66-6	ID	5.93E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay B	A8S155	PCB	PCBs (total)	1336-36-3	B2	9.50E+00				NA		1.4E+00	EqP	**6.9E+00**
Landbay B	A8S155	INORG	Aluminum	7429-90-5	ID	3.60E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	A8S155	INORG	Arsenic	7440-38-2	A	2.57E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.4E-03	8.6E+01	EqP	3.0E-02
Landbay B	A8S155	INORG	Barium	7440-39-3	NC	9.06E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	A8S155	INORG	Beryllium	7440-41-7	B1	8.72E-01	1.20E+00	7.3E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.4E-02
Landbay B	A8S155	INORG	Cadmium	7440-43-9	B1	8.86E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.2E-04	2.1E+00	EqP	4.1E-01
Landbay B	A8S155	INORG	Chromium III	16065-83-1	D	9.01E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.7E-05
Landbay B	A8S155	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay B	A8S155	INORG	Cobalt	7440-48-4	LC	3.55E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay B	A8S155	INORG	Copper	7440-50-8	D	6.22E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.4E+00**
Landbay B	A8S155	INORG	Iron	7439-89-6	D	4.56E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	A8S155	INORG	Lead	7439-92-1	B2	1.76E+01						3.5E+02	EqP	5.0E-02
Landbay B	A8S155	INORG	Manganese	7439-96-5	D	9.90E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.2E-03	1.6E+02	EqP	**6.3E+00**
Landbay B	A8S155	INORG	Mercury	7439-97-6	D	1.63E-02	7.10E-02	2.3E-01		NA		3.7E-01	EqP	4.4E-02
Landbay B	A8S155	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	A8S155	INORG	Vanadium	7440-62-2	ID	1.31E+02	2.83E+02	4.6E-01	1.5E+05	EqP	8.5E-04	4.0E+02	EqP	3.3E-01
Landbay B	A8S155	INORG	Zinc	7440-66-6	ID	5.93E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay B	A8S156	INORG	Aluminum	7429-90-5	ID	3.86E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	A8S156	INORG	Arsenic	7440-38-2	A	2.17E+00	9.90E+00	2.2E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.5E-02
Landbay B	A8S156	INORG	Barium	7440-39-3	NC	5.65E+01	2.24E+02	2.5E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.7E+01**
Landbay B	A8S156	INORG	Beryllium	7440-41-7	B1	1.32E-01	1.20E+00	1.1E-01	6.8E+03	EqP	1.9E-05	1.0E+01	EqP	1.3E-02
Landbay B	A8S156	INORG	Cadmium	7440-43-9	B1	3.89E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.6E-04	2.1E+00	EqP	1.8E-01
Landbay B	A8S156	INORG	Chromium III	16065-83-1	D	6.23E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.8E-05
Landbay B	A8S156	INORG	Cobalt	7440-48-4	LC	3.55E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay B	A8S156	INORG	Copper	7440-50-8	D	5.55E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay B	A8S156	INORG	Iron	7439-89-6	D	4.56E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	A8S156	INORG	Lead	7439-92-1	B2	2.72E+00						3.5E+02	EqP	7.8E-03
Landbay B	A8S156	INORG	Manganese	7439-96-5	D	9.90E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.2E-03	1.6E+02	EqP	**6.3E+00**
Landbay B	A8S156	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	A8S156	INORG	Perchlorate	14797-73-0	NC	1.80E-02			3.4E+03	LT	5.2E-06	7.7E+02	LT	2.3E-05
Landbay B	A8S156	INORG	Silver	7440-22-4	D	1.06E+00	2.30E+00	4.6E-01	3.8E+03	LT	2.8E-04	2.7E+00	LT	4.0E-01
Landbay B	A8S156	INORG	Strontium	7440-24-6		5.57E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.4E-06	1.1E+03	EqP	5.3E-02
Landbay B	A8S156	INORG	Vanadium	7440-62-2	ID	1.31E+02	2.83E+02	4.6E-01	1.5E+05	EqP	8.5E-04	4.0E+02	EqP	3.3E-01
Landbay B	A8S156	INORG	Zinc	7440-66-6	ID	5.93E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay B	A8S159	PCB	PCBs (total)	1336-36-3	B2	1.91E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	A8S159	INORG	Aluminum	7429-90-5	ID	3.60E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	A8S159	INORG	Arsenic	7440-38-2	A	2.57E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.4E-03	8.6E+01	EqP	3.0E-02
Landbay B	A8S159	INORG	Barium	7440-39-3	NC	9.06E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay B	A8S159	INORG	Beryllium	7440-41-7	B1	8.72E-01	1.20E+00	7.3E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.4E-02
Landbay B	A8S159	INORG	Cadmium	7440-43-9	B1	8.86E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.2E-04	2.1E+00	EqP	4.1E-01
Landbay B	A8S159	INORG	Chromium III	16065-83-1	D	9.01E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.7E-05
Landbay B	A8S159	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay B	A8S159	INORG	Cobalt	7440-48-4	LC	3.55E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay B	A8S159	INORG	Copper	7440-50-8	D	6.22E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.4E+00**
Landbay B	A8S159	INORG	Iron	7439-89-6	D	4.56E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay B	A8S159	INORG	Lead	7439-92-1	B2	1.76E+01						3.5E+02	EqP	5.0E-02
Landbay B	A8S159	INORG	Manganese	7439-96-5	D	9.90E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.2E-03	1.6E+02	EqP	**6.3E+00**
Landbay B	A8S159	INORG	Mercury	7439-97-6	D	1.63E-02	7.10E-02	2.3E-01		NA		3.7E-01	EqP	4.4E-02
Landbay B	A8S159	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	A8S159	INORG	Perchlorate	14797-73-0	NC	4.80E-03			3.4E+03	LT	1.4E-06	7.7E+02	LT	6.2E-06
Landbay B	A8S159	INORG	Vanadium	7440-62-2	ID	1.31E+02	2.83E+02	4.6E-01	1.5E+05	EqP	8.5E-04	4.0E+02	EqP	3.3E-01
Landbay B	A8S159	INORG	Zinc	7440-66-6	ID	5.93E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay B	A8S169	PCB	PCBs (total)	1336-36-3	B2	1.97E-02				NA		1.4E+00	EqP	1.4E-02
Landbay B	A8S169	INORG	Aluminum	7429-90-5	ID	4.26E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	A8S169	INORG	Arsenic	7440-38-2	A	1.17E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.1E-03	8.6E+01	EqP	1.4E-02
Landbay B	A8S169	INORG	Barium	7440-39-3	NC	3.37E+01	2.24E+02	1.5E-01	3.2E+05	EqP	1.0E-04	3.3E+00	EqP	**1.0E+01**
Landbay B	A8S169	INORG	Cadmium	7440-43-9	B1	1.66E-01	2.70E+00	6.1E-02	1.1E+03	EqP	1.5E-04	2.1E+00	EqP	7.8E-02
Landbay B	A8S169	INORG	Chromium III	16065-83-1	D	4.77E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay B	A8S169	INORG	Chromium VI	18540-29-9	A	7.20E-01	4.97E+00	1.4E-01	6.6E+01	LT	1.1E-02	4.4E+00	LT	1.6E-01
Landbay B	A8S169	INORG	Copper	7440-50-8	D	6.46E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.7E+00**
Landbay B	A8S169	INORG	Lead	7439-92-1	B2	1.87E+00						3.5E+02	EqP	5.3E-03
Landbay B	A8S169	INORG	Perchlorate	14797-73-0	NC	2.30E-02			3.4E+03	LT	6.7E-06	7.7E+02	LT	3.0E-05
Landbay B	A8S169	INORG	Silver	7440-22-4	D	9.47E-01	2.30E+00	4.1E-01	3.8E+03	LT	2.5E-04	2.7E+00	LT	3.6E-01
Landbay B	A8S169	INORG	Strontium	7440-24-6		5.53E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.4E-06	1.1E+03	EqP	5.2E-02
Landbay B	A8S170	INORG	Perchlorate	14797-73-0	NC	3.20E-04			3.4E+03	LT	9.3E-08	7.7E+02	LT	4.1E-07
Landbay B	AB-03	INORG	Aluminum	7429-90-5	ID	2.55E+04	5.34E+04	4.8E-01	3.7E+08	EqP	6.9E-05	2.6E+03	EqP	**9.8E+00**
Landbay B	AB-03	INORG	Barium	7440-39-3	NC	9.78E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay B	AB-03	INORG	Boron	7440-42-8	ID	1.74E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.7E+01**
Landbay B	AB-03	INORG	Cadmium	7440-43-9	B1	1.86E+00	2.70E+00	6.9E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.7E-01
Landbay B	AB-03	INORG	Chromium III	16065-83-1	D	7.77E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.3E-05
Landbay B	AB-03	INORG	Lead	7439-92-1	B2	2.89E+01						3.5E+02	EqP	8.2E-02
Landbay B	AB-03	INORG	Strontium	7440-24-6		1.24E+01	3.80E+01	3.3E-01	1.6E+07	EqP	7.6E-07	1.1E+03	EqP	1.2E-02
Landbay B	AB-03	INORG	Zinc	7440-66-6	ID	4.04E+01	1.02E+02	4.0E-01	5.5E+06	EqP	7.4E-06	1.9E+02	EqP	2.1E-01
Landbay B	AB-03	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	8.50E-08			3.3E-03	EqP	2.6E-05	4.1E-04	EqP	2.1E-04

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay B	AB-06	SVOC	Fluoranthene	206-44-0	D	6.30E-02				NA		1.7E-01	EqP	3.6E-01
Landbay B	AB-06	INORG	Aluminum	7429-90-5	ID	3.47E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.4E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	AB-06	INORG	Barium	7440-39-3	NC	9.98E+01	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay B	AB-06	INORG	Boron	7440-42-8	ID	1.69E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.6E+01**
Landbay B	AB-06	INORG	Cadmium	7440-43-9	B1	2.14E+00	2.70E+00	7.9E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay B	AB-06	INORG	Chromium III	16065-83-1	D	7.13E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay B	AB-06	INORG	Chromium VI	18540-29-9	A	5.80E+00	4.97E+00	**1.2E+00**	6.6E+01	LT	8.7E-02	4.4E+00	LT	**1.3E+00**
Landbay B	AB-06	INORG	Lead	7439-92-1	B2	2.85E+01						3.5E+02	EqP	8.1E-02
Landbay B	AB-06	INORG	Strontium	7440-24-6		2.12E+01	3.80E+01	5.6E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay B	AB-06	INORG	Zinc	7440-66-6	ID	1.34E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.5E-05	1.9E+02	EqP	7.0E-01
Landbay B	AB-06	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	5.15E-07			3.3E-03	EqP	1.6E-04	4.1E-04	EqP	1.3E-03
Landbay B	AB-13	INORG	Aluminum	7429-90-5	ID	3.24E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	AB-13	INORG	Barium	7440-39-3	NC	4.43E+01	2.24E+02	2.0E-01	3.2E+05	EqP	1.4E-04	3.3E+00	EqP	**1.3E+01**
Landbay B	AB-13	INORG	Boron	7440-42-8	ID	6.59E+00	1.34E+01	4.9E-01	9.9E+05	LT	6.7E-06	6.4E-01	LT	**1.0E+01**
Landbay B	AB-13	INORG	Cadmium	7440-43-9	B1	4.87E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.5E-04	2.1E+00	EqP	2.3E-01
Landbay B	AB-13	INORG	Chromium III	16065-83-1	D	2.79E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.3E-09	3.4E+06	EqP	8.3E-06
Landbay B	AB-13	INORG	Chromium VI	18540-29-9	A	1.13E+01	4.97E+00	**2.3E+00**	6.6E+01	LT	1.7E-01	4.4E+00	LT	**2.6E+00**
Landbay B	AB-13	INORG	Lead	7439-92-1	B2	1.08E+01						3.5E+02	EqP	3.1E-02
Landbay B	AB-13	INORG	Silver	7440-22-4	D	5.67E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay B	AB-13	INORG	Strontium	7440-24-6		4.16E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	3.9E-02
Landbay B	AB-13	INORG	Zinc	7440-66-6	ID	6.00E+01	1.02E+02	5.9E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay B	AB-14	INORG	Aluminum	7429-90-5	ID	4.55E+04	5.34E+04	8.5E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay B	AB-14	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay B	AB-14	INORG	Boron	7440-42-8	ID	1.80E+01	1.34E+01	**1.3E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.8E+01**
Landbay B	AB-14	INORG	Cadmium	7440-43-9	B1	1.63E+00	2.70E+00	6.0E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.6E-01
Landbay B	AB-14	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay B	AB-14	INORG	Chromium VI	18540-29-9	A	3.50E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay B	AB-14	INORG	Lead	7439-92-1	B2	2.11E+01						3.5E+02	EqP	6.0E-02
Landbay B	AB-14	INORG	Strontium	7440-24-6		2.65E+01	3.80E+01	7.0E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.5E-02
Landbay B	AB-14	INORG	Zinc	7440-66-6	ID	4.95E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay B	AB-14	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	9.61E-08			3.3E-03	EqP	2.9E-05	4.1E-04	EqP	2.4E-04
Landbay B	AB-15	INORG	Aluminum	7429-90-5	ID	3.81E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	AB-15	INORG	Barium	7440-39-3	NC	1.05E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay B	AB-15	INORG	Boron	7440-42-8	ID	2.05E+01	1.34E+01	**1.5E+00**	9.9E+05	LT	2.1E-05	6.4E-01	LT	**3.2E+01**
Landbay B	AB-15	INORG	Cadmium	7440-43-9	B1	1.91E+00	2.70E+00	7.1E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	8.9E-01
Landbay B	AB-15	INORG	Chromium III	16065-83-1	D	1.41E+02	2.61E+02	5.4E-01	2.1E+10	EqP	6.6E-09	3.4E+06	EqP	4.2E-05
Landbay B	AB-15	INORG	Chromium VI	18540-29-9	A	2.30E+00	4.97E+00	4.6E-01	6.6E+01	LT	3.5E-02	4.4E+00	LT	5.2E-01
Landbay B	AB-15	INORG	Lead	7439-92-1	B2	3.46E+01						3.5E+02	EqP	9.9E-02
Landbay B	AB-15	INORG	Strontium	7440-24-6		1.73E+01	3.80E+01	4.6E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.6E-02
Landbay B	AB-15	INORG	Zinc	7440-66-6	ID	1.14E+02	1.02E+02	**1.1E+00**	5.5E+06	EqP	2.1E-05	1.9E+02	EqP	6.0E-01
Landbay B	AB-16	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	AB-16	INORG	Barium	7440-39-3	NC	9.85E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay B	AB-16	INORG	Boron	7440-42-8	ID	1.44E+01	1.34E+01	**1.1E+00**	9.9E+05	LT	1.5E-05	6.4E-01	LT	**2.3E+01**
Landbay B	AB-16	INORG	Cadmium	7440-43-9	B1	1.38E+00	2.70E+00	5.1E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.5E-01
Landbay B	AB-16	INORG	Chromium III	16065-83-1	D	1.11E+02	2.61E+02	4.3E-01	2.1E+10	EqP	5.2E-09	3.4E+06	EqP	3.3E-05
Landbay B	AB-16	INORG	Chromium VI	18540-29-9	A	1.90E+00	4.97E+00	3.8E-01	6.6E+01	LT	2.9E-02	4.4E+00	LT	4.3E-01
Landbay B	AB-16	INORG	Lead	7439-92-1	B2	1.77E+01						3.5E+02	EqP	5.1E-02
Landbay B	AB-16	INORG	Strontium	7440-24-6		2.37E+01	3.80E+01	6.2E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.2E-02
Landbay B	AB-16	INORG	Zinc	7440-66-6	ID	5.13E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay B	AB-17	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay B	AB-17	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	AB-17	INORG	Boron	7440-42-8	ID	2.04E+01	1.34E+01	**1.5E+00**	9.9E+05	LT	2.1E-05	6.4E-01	LT	**3.2E+01**
Landbay B	AB-17	INORG	Cadmium	7440-43-9	B1	1.84E+00	2.70E+00	6.8E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.6E-01
Landbay B	AB-17	INORG	Chromium III	16065-83-1	D	1.68E+02	2.61E+02	6.5E-01	2.1E+10	EqP	7.9E-09	3.4E+06	EqP	5.0E-05
Landbay B	AB-17	INORG	Lead	7439-92-1	B2	2.56E+01						3.5E+02	EqP	7.3E-02
Landbay B	AB-17	INORG	Strontium	7440-24-6		2.07E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay B	AB-17	INORG	Zinc	7440-66-6	ID	6.86E+01	1.02E+02	6.7E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.6E-01
Landbay B	AB-17	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	6.69E-07			3.3E-03	EqP	2.0E-04	4.1E-04	EqP	1.6E-03
Landbay B	AB-18	SVOC	Fluoranthene	206-44-0	D	9.20E-02				NA		1.7E-01	EqP	5.3E-01
Landbay B	AB-18	INORG	Aluminum	7429-90-5	ID	2.78E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	AB-18	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay B	AB-18	INORG	Boron	7440-42-8	ID	1.87E+01	1.34E+01	**1.4E+00**	9.9E+05	LT	1.9E-05	6.4E-01	LT	**2.9E+01**
Landbay B	AB-18	INORG	Cadmium	7440-43-9	B1	1.81E+00	2.70E+00	6.7E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.5E-01
Landbay B	AB-18	INORG	Chromium III	16065-83-1	D	1.54E+02	2.61E+02	5.9E-01	2.1E+10	EqP	7.2E-09	3.4E+06	EqP	4.6E-05
Landbay B	AB-18	INORG	Lead	7439-92-1	B2	3.40E+01						3.5E+02	EqP	9.7E-02
Landbay B	AB-18	INORG	Strontium	7440-24-6		1.78E+01	3.80E+01	4.7E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay B	AB-18	INORG	Zinc	7440-66-6	ID	8.17E+01	1.02E+02	8.0E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.3E-01
Landbay B	AB-18	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	1.20E-07			3.3E-03	EqP	3.6E-05	4.1E-04	EqP	2.9E-04
Landbay B	AB-19	INORG	Aluminum	7429-90-5	ID	2.06E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.6E-05	2.6E+03	EqP	**7.9E+00**
Landbay B	AB-19	INORG	Barium	7440-39-3	NC	7.50E+01	2.24E+02	3.3E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.3E+01**
Landbay B	AB-19	INORG	Boron	7440-42-8	ID	1.45E+01	1.34E+01	**1.1E+00**	9.9E+05	LT	1.5E-05	6.4E-01	LT	**2.3E+01**
Landbay B	AB-19	INORG	Cadmium	7440-43-9	B1	1.34E+00	2.70E+00	5.0E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.3E-01
Landbay B	AB-19	INORG	Chromium III	16065-83-1	D	6.86E+01	2.61E+02	2.6E-01	2.1E+10	EqP	3.2E-09	3.4E+06	EqP	2.0E-05
Landbay B	AB-19	INORG	Lead	7439-92-1	B2	3.61E+01						3.5E+02	EqP	1.0E-01
Landbay B	AB-19	INORG	Molybdenum	7439-98-7		8.79E-01			2.5E+04	EqP	3.5E-05	3.0E+01	EqP	3.0E-02
Landbay B	AB-19	INORG	Perchlorate	14797-73-0	NC	6.30E-04			3.4E+03	LT	1.8E-07	7.7E+02	LT	8.1E-07
Landbay B	AB-19	INORG	Strontium	7440-24-6		1.19E+01	3.80E+01	3.1E-01	1.6E+07	EqP	7.3E-07	1.1E+03	EqP	1.1E-02
Landbay B	AB-19	INORG	Zinc	7440-66-6	ID	4.82E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.8E-06	1.9E+02	EqP	2.5E-01
Landbay B	AB-19	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	1.32E-07			3.3E-03	EqP	4.0E-05	4.1E-04	EqP	3.2E-04
Landbay B	AB-20	INORG	Aluminum	7429-90-5	ID	1.88E+04	5.34E+04	3.5E-01	3.7E+08	EqP	5.1E-05	2.6E+03	EqP	**7.2E+00**
Landbay B	AB-20	INORG	Barium	7440-39-3	NC	7.83E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	AB-20	INORG	Boron	7440-42-8	ID	1.81E+01	1.34E+01	**1.4E+00**	9.9E+05	LT	1.8E-05	6.4E-01	LT	**2.8E+01**
Landbay B	AB-20	INORG	Cadmium	7440-43-9	B1	1.70E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay B	AB-20	INORG	Chromium III	16065-83-1	D	6.98E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay B	AB-20	INORG	Lead	7439-92-1	B2	3.77E+01						3.5E+02	EqP	1.1E-01
Landbay B	AB-20	INORG	Molybdenum	7439-98-7		2.15E+00			2.5E+04	EqP	8.6E-05	3.0E+01	EqP	7.3E-02
Landbay B	AB-20	INORG	Strontium	7440-24-6		1.14E+01	3.80E+01	3.0E-01	1.6E+07	EqP	7.0E-07	1.1E+03	EqP	1.1E-02
Landbay B	AB-20	INORG	Zinc	7440-66-6	ID	4.94E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay B	AB-21	INORG	Aluminum	7429-90-5	ID	2.21E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay B	AB-21	INORG	Barium	7440-39-3	NC	1.32E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay B	AB-21	INORG	Boron	7440-42-8	ID	1.60E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.6E-05	6.4E-01	LT	**2.5E+01**
Landbay B	AB-21	INORG	Cadmium	7440-43-9	B1	1.60E+00	2.70E+00	5.9E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.5E-01
Landbay B	AB-21	INORG	Chromium III	16065-83-1	D	7.52E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay B	AB-21	INORG	Lead	7439-92-1	B2	3.68E+01						3.5E+02	EqP	1.1E-01
Landbay B	AB-21	INORG	Molybdenum	7439-98-7		1.31E+00			2.5E+04	EqP	5.3E-05	3.0E+01	EqP	4.4E-02
Landbay B	AB-21	INORG	Strontium	7440-24-6		1.19E+01	3.80E+01	3.1E-01	1.6E+07	EqP	7.3E-07	1.1E+03	EqP	1.1E-02
Landbay B	AB-21	INORG	Zinc	7440-66-6	ID	4.38E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.0E-06	1.9E+02	EqP	2.3E-01
Landbay B	AB-22	INORG	Aluminum	7429-90-5	ID	2.31E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.8E+00**
Landbay B	AB-22	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay B	AB-22	INORG	Boron	7440-42-8	ID	1.60E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.6E-05	6.4E-01	LT	**2.5E+01**
Landbay B	AB-22	INORG	Cadmium	7440-43-9	B1	1.83E+00	2.70E+00	6.8E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.6E-01
Landbay B	AB-22	INORG	Chromium III	16065-83-1	D	6.77E+01	2.61E+02	2.6E-01	2.1E+10	EqP	3.2E-09	3.4E+06	EqP	2.0E-05
Landbay B	AB-22	INORG	Lead	7439-92-1	B2	3.89E+01						3.5E+02	EqP	1.1E-01
Landbay B	AB-22	INORG	Molybdenum	7439-98-7		1.60E+00			2.5E+04	EqP	6.4E-05	3.0E+01	EqP	5.4E-02
Landbay B	AB-22	INORG	Strontium	7440-24-6		1.16E+01	3.80E+01	3.1E-01	1.6E+07	EqP	7.1E-07	1.1E+03	EqP	1.1E-02
Landbay B	AB-22	INORG	Zinc	7440-66-6	ID	4.41E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.1E-06	1.9E+02	EqP	2.3E-01
Landbay B	AB-22	CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	B2	7.21E-07			3.3E-03	EqP	2.2E-04	4.1E-04	EqP	1.8E-03
Landbay B	B97AEC-1S	INORG	Perchlorate	14797-73-0	NC	3.30E-01			3.4E+03	LT	9.6E-05	7.7E+02	LT	4.3E-04
Landbay B	BKG-A	INORG	Aluminum	7429-90-5	ID	4.02E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	BKG-A	INORG	Barium	7440-39-3	NC	2.24E+02	2.24E+02	1.0E+00	3.2E+05	EqP	6.9E-04	3.3E+00	EqP	**6.8E+01**
Landbay B	BKG-A	INORG	Chromium III	16065-83-1	D	3.46E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay B	BKG-A	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay B	BKG-A	INORG	Copper	7440-50-8	D	1.01E+02	1.31E+02	7.7E-01	3.5E+05	EqP	2.9E-04	8.4E+00	EqP	**1.2E+01**
Landbay B	BKG-A	INORG	Lead	7439-92-1	B2	1.49E+01						3.5E+02	EqP	4.3E-02
Landbay B	BKG-A	INORG	Strontium	7440-24-6		9.35E+00	3.80E+01	2.5E-01	1.6E+07	EqP	5.7E-07	1.1E+03	EqP	8.8E-03
Landbay B	BKG-B	INORG	Aluminum	7429-90-5	ID	2.69E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay B	BKG-B	INORG	Barium	7440-39-3	NC	6.39E+01	2.24E+02	2.9E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**1.9E+01**
Landbay B	BKG-B	INORG	Chromium III	16065-83-1	D	2.55E+01	2.61E+02	9.8E-02	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.6E-06
Landbay B	BKG-B	INORG	Chromium VI	18540-29-9	A	2.77E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay B	BKG-B	INORG	Copper	7440-50-8	D	4.28E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.1E+00**
Landbay B	BKG-B	INORG	Lead	7439-92-1	B2	1.07E+01						3.5E+02	EqP	3.1E-02
Landbay B	BKG-B	INORG	Strontium	7440-24-6		7.39E+00	3.80E+01	1.9E-01	1.6E+07	EqP	4.5E-07	1.1E+03	EqP	7.0E-03
Landbay B	BKG-C	INORG	Aluminum	7429-90-5	ID	2.67E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay B	BKG-C	INORG	Barium	7440-39-3	NC	6.64E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay B	BKG-C	INORG	Chromium III	16065-83-1	D	2.94E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.7E-06
Landbay B	BKG-C	INORG	Chromium VI	18540-29-9	A	2.79E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay B	BKG-C	INORG	Copper	7440-50-8	D	4.87E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay B	BKG-C	INORG	Lead	7439-92-1	B2	1.47E+01						3.5E+02	EqP	4.2E-02
Landbay B	BKG-C	INORG	Strontium	7440-24-6		8.46E+00	3.80E+01	2.2E-01	1.6E+07	EqP	5.2E-07	1.1E+03	EqP	8.0E-03
Landbay B	BKG-D	INORG	Aluminum	7429-90-5	ID	3.62E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.8E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	BKG-D	INORG	Barium	7440-39-3	NC	6.73E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay B	BKG-D	INORG	Chromium III	16065-83-1	D	3.21E+01	2.61E+02	1.2E-01	2.1E+10	EqP	1.5E-09	3.4E+06	EqP	9.5E-06
Landbay B	BKG-D	INORG	Chromium VI	18540-29-9	A	2.81E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	BKG-D	INORG	Copper	7440-50-8	D	6.12E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.3E+00**
Landbay B	BKG-D	INORG	Lead	7439-92-1	B2	1.39E+01						3.5E+02	EqP	4.0E-02
Landbay B	BKG-D	INORG	Nitrate	14797-55-8		1.10E+00			7.9E+06	LT	1.4E-07	2.0E+06	LT	5.5E-07
Landbay B	BKG-D	INORG	Silver	7440-22-4	D	2.33E-01	2.30E+00	1.0E-01	3.8E+03	LT	6.2E-05	2.7E+00	LT	8.8E-02
Landbay B	BKG-D	INORG	Strontium	7440-24-6		8.73E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.4E-07	1.1E+03	EqP	8.3E-03
Landbay B	BKG-E	INORG	Aluminum	7429-90-5	ID	4.46E+04	5.34E+04	8.4E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay B	BKG-E	INORG	Barium	7440-39-3	NC	7.58E+01	2.24E+02	3.4E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.3E+01**
Landbay B	BKG-E	INORG	Chromium III	16065-83-1	D	6.27E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.9E-05
Landbay B	BKG-E	INORG	Chromium VI	18540-29-9	A	3.02E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.9E-01
Landbay B	BKG-E	INORG	Copper	7440-50-8	D	5.78E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay B	BKG-E	INORG	Lead	7439-92-1	B2	7.48E+00						3.5E+02	EqP	2.1E-02
Landbay B	BKG-E	INORG	Strontium	7440-24-6		8.40E+00	3.80E+01	2.2E-01	1.6E+07	EqP	5.2E-07	1.1E+03	EqP	7.9E-03
Landbay B	BKG-F	INORG	Aluminum	7429-90-5	ID	4.41E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay B	BKG-F	INORG	Barium	7440-39-3	NC	9.33E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay B	BKG-F	INORG	Chromium III	16065-83-1	D	3.51E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay B	BKG-F	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay B	BKG-F	INORG	Copper	7440-50-8	D	1.17E+02	1.31E+02	8.9E-01	3.5E+05	EqP	3.4E-04	8.4E+00	EqP	**1.4E+01**
Landbay B	BKG-F	INORG	Lead	7439-92-1	B2	9.18E+00						3.5E+02	EqP	2.6E-02
Landbay B	BKG-F	INORG	Strontium	7440-24-6		9.24E+00	3.80E+01	2.4E-01	1.6E+07	EqP	5.7E-07	1.1E+03	EqP	8.7E-03
Landbay B	BKG-G	INORG	Aluminum	7429-90-5	ID	3.62E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.8E-05	2.6E+03	EqP	**1.4E+01**
Landbay B	BKG-G	INORG	Barium	7440-39-3	NC	7.91E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	BKG-G	INORG	Chromium III	16065-83-1	D	3.93E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.2E-05
Landbay B	BKG-G	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay B	BKG-G	INORG	Copper	7440-50-8	D	1.14E+02	1.31E+02	8.7E-01	3.5E+05	EqP	3.3E-04	8.4E+00	EqP	**1.4E+01**
Landbay B	BKG-G	INORG	Lead	7439-92-1	B2	1.05E+01						3.5E+02	EqP	3.0E-02
Landbay B	BKG-G	INORG	Nitrate	14797-55-8		1.20E+00			7.9E+06	LT	1.5E-07	2.0E+06	LT	6.0E-07
Landbay B	BKG-G	INORG	Strontium	7440-24-6		8.67E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.3E-07	1.1E+03	EqP	8.2E-03
Landbay B	BKG-H	INORG	Aluminum	7429-90-5	ID	3.72E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay B	BKG-H	INORG	Barium	7440-39-3	NC	8.57E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay B	BKG-H	INORG	Chromium III	16065-83-1	D	4.32E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay B	BKG-H	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay B	BKG-H	INORG	Copper	7440-50-8	D	1.64E+02	1.31E+02	**1.3E+00**	3.5E+05	EqP	4.7E-04	8.4E+00	EqP	**2.0E+01**
Landbay B	BKG-H	INORG	Lead	7439-92-1	B2	1.24E+01						3.5E+02	EqP	3.5E-02
Landbay B	BKG-H	INORG	Nitrate	14797-55-8		1.20E+00			7.9E+06	LT	1.5E-07	2.0E+06	LT	6.0E-07
Landbay B	BKG-H	INORG	Strontium	7440-24-6		9.07E+00	3.80E+01	2.4E-01	1.6E+07	EqP	5.6E-07	1.1E+03	EqP	8.6E-03
Landbay B	BW 78-10	INORG	Perchlorate	14797-73-0	NC	3.00E-02			3.4E+03	LT	8.7E-06	7.7E+02	LT	3.9E-05
Landbay B	BW 78-11	INORG	Perchlorate	14797-73-0	NC	3.66E+00			3.4E+03	LT	1.1E-03	7.7E+02	LT	4.7E-03
Landbay B	BW 78-12	INORG	Perchlorate	14797-73-0	NC	1.00E-02			3.4E+03	LT	2.9E-06	7.7E+02	LT	1.3E-05
Landbay B	DP-119	INORG	Arsenic	7440-38-2	A	8.63E+00	9.90E+00	8.7E-01	1.1E+03	EqP	8.2E-03	8.6E+01	EqP	1.0E-01
Landbay B	DP-119	INORG	Beryllium	7440-41-7	B1	6.41E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.1E-02
Landbay B	DP-119	INORG	Cadmium	7440-43-9	B1	4.66E+01	2.70E+00	**1.7E+01**	1.1E+03	EqP	4.3E-02	2.1E+00	EqP	**2.2E+01**
Landbay B	DP-119	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay B	DP-119	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay B	DP-119	INORG	Copper	7440-50-8	D	3.51E+02	1.31E+02	**2.7E+00**	3.5E+05	EqP	1.0E-03	8.4E+00	EqP	**4.2E+01**
Landbay B	DP-119	INORG	Lead	7439-92-1	B2	2.43E+02						3.5E+02	EqP	6.9E-01
Landbay B	DP-119	INORG	Mercury	7439-97-6	D	1.48E-01	7.10E-02	**2.1E+00**		NA		3.7E-01	EqP	4.0E-01
Landbay B	DP-119	INORG	Nickel	7440-02-0	A	5.13E+01	7.30E+01	7.0E-01	1.2E+05	EqP	4.1E-04	3.4E+01	EqP	**1.5E+00**
Landbay B	DP-119	INORG	Selenium	7782-49-2	D	3.31E+00	2.50E+00	**1.3E+00**	2.5E+04	LT	1.3E-04	2.0E+00	LT	**1.7E+00**
Landbay B	DP-119	INORG	Silver	7440-22-4	D	4.98E+00	2.30E+00	**2.2E+00**	3.8E+03	LT	1.3E-03	2.7E+00	LT	**1.9E+00**
Landbay B	DP-119	INORG	Thallium	7440-28-0	ID	3.06E+00	4.50E+00	6.8E-01				1.1E+00	EqP	**2.7E+00**
Landbay B	DP-119	INORG	Zinc	7440-66-6	ID	6.10E+02	1.02E+02	**6.0E+00**	5.5E+06	EqP	1.1E-04	1.9E+02	EqP	**3.2E+00**
Landbay B	GP 108-02	INORG	Aluminum	7429-90-5	ID	2.93E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	GP 116-02	INORG	Perchlorate	14797-73-0	NC	3.80E-02			3.4E+03	LT	1.1E-05	7.7E+02	LT	4.9E-05
Landbay B	GP 119-02	INORG	Perchlorate	14797-73-0	NC	5.60E-02			3.4E+03	LT	1.6E-05	7.7E+02	LT	7.2E-05
Landbay B	GP 70-04	INORG	Perchlorate	14797-73-0	NC	9.30E-01			3.4E+03	LT	2.7E-04	7.7E+02	LT	1.2E-03
Landbay B	GP 70-05	INORG	Perchlorate	14797-73-0	NC	5.64E+00			3.4E+03	LT	1.6E-03	7.7E+02	LT	7.3E-03
Landbay B	GP 73-03	INORG	Perchlorate	14797-73-0	NC	5.20E-02			3.4E+03	LT	1.5E-05	7.7E+02	LT	6.7E-05
Landbay B	GP 74-03	INORG	Perchlorate	14797-73-0	NC	5.40E-02			3.4E+03	LT	1.6E-05	7.7E+02	LT	7.0E-05
Landbay B	GP 74-06	INORG	Perchlorate	14797-73-0	NC	1.20E+00			3.4E+03	LT	3.5E-04	7.7E+02	LT	1.6E-03
Landbay B	GP 76-05	VOC	1,1-Dichloroethene	75-35-4	C	1.40E+01			5.0E+03	LT	2.8E-03	1.0E+01	LT	**1.4E+00**
Landbay B	GP 76-05	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E+03				NA		4.4E+00	LT	**2.3E+02**
Landbay B	GP 76-05	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	3.30E-01				NA		6.0E+01	LT	5.5E-03
Landbay B	GP 77-02	INORG	Perchlorate	14797-73-0	NC	3.54E-01			3.4E+03	LT	1.0E-04	7.7E+02	LT	4.6E-04
Landbay B	GP 77-05	INORG	Perchlorate	14797-73-0	NC	2.61E+00			3.4E+03	LT	7.6E-04	7.7E+02	LT	3.4E-03
Landbay B	GP 77-06	INORG	Perchlorate	14797-73-0	NC	2.88E-01			3.4E+03	LT	8.4E-05	7.7E+02	LT	3.7E-04
Landbay B	GP 77-12	INORG	Perchlorate	14797-73-0	NC	8.40E-02			3.4E+03	LT	2.4E-05	7.7E+02	LT	1.1E-04
Landbay B	GP 78-01	INORG	Perchlorate	14797-73-0	NC	1.19E+01			3.4E+03	LT	3.5E-03	7.7E+02	LT	1.5E-02
Landbay B	GP 78-03	INORG	Perchlorate	14797-73-0	NC	5.60E+01			3.4E+03	LT	1.6E-02	7.7E+02	LT	7.2E-02
Landbay B	GP 79-01	VOC	Ethyl Benzene	100-41-4	D	8.40E-01				NA		3.6E+01	LT	2.3E-02
Landbay B	GP 79-01	VOC	Xylenes (total)	1330-20-7	ID	1.10E+00				NA		5.2E+00	LT	2.1E-01
Landbay B	GP 79-01	INORG	Arsenic	7440-38-2	A	3.02E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.5E-02
Landbay B	GP 79-01	INORG	Barium	7440-39-3	NC	7.08E+01	2.24E+02	3.2E-01	3.2E+05	EqP	2.2E-04	3.3E+00	EqP	**2.1E+01**
Landbay B	GP 79-01	INORG	Chromium III	16065-83-1	D	7.55E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay B	GP 79-01	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay B	GP 79-01	INORG	Lead	7439-92-1	B2	2.11E+00						3.5E+02	EqP	6.0E-03
Landbay B	GP 79-01	INORG	Silver	7440-22-4	D	5.68E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay B	GP 79-02	VOC	Ethyl Benzene	100-41-4	D	7.70E-01				NA		3.6E+01	LT	2.1E-02
Landbay B	GP 79-02	VOC	Xylenes (total)	1330-20-7	ID	3.60E-01				NA		5.2E+00	LT	6.9E-02
Landbay B	GP 79-02	INORG	Arsenic	7440-38-2	A	3.75E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay B	GP 79-02	INORG	Barium	7440-39-3	NC	6.38E+01	2.24E+02	2.8E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**1.9E+01**
Landbay B	GP 79-02	INORG	Cadmium	7440-43-9	B1	4.66E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.3E-04	2.1E+00	EqP	2.2E-01
Landbay B	GP 79-02	INORG	Chromium III	16065-83-1	D	5.47E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay B	GP 79-02	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay B	GP 79-02	INORG	Lead	7439-92-1	B2	6.30E+00						3.5E+02	EqP	1.8E-02
Landbay B	GP 79-02	INORG	Silver	7440-22-4	D	4.23E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay B	GP 81-01	INORG	Perchlorate	14797-73-0	NC	2.80E-02			3.4E+03	LT	8.1E-06	7.7E+02	LT	3.6E-05
Landbay B	GP 84-01	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.70E-01				NA		6.0E+01	LT	1.1E-02
Landbay B	GP 85-01	INORG	Perchlorate	14797-73-0	NC	1.10E-02			3.4E+03	LT	3.2E-06	7.7E+02	LT	1.4E-05
Landbay B	GP BG-03	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	GP BG-03	INORG	Arsenic	7440-38-2	A	8.95E+00	9.90E+00	9.0E-01	1.1E+03	EqP	8.5E-03	8.6E+01	EqP	1.0E-01
Landbay B	GP BG-03	INORG	Barium	7440-39-3	NC	7.83E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay B	GP BG-03	INORG	Beryllium	7440-41-7	B1	1.05E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay B	GP BG-03	INORG	Chromium III	16065-83-1	D	4.77E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay B	GP BG-03	INORG	Chromium VI	18540-29-9	A	6.80E-01	4.97E+00	1.4E-01	6.6E+01	LT	1.0E-02	4.4E+00	LT	1.5E-01
Landbay B	GP BG-03	INORG	Cobalt	7440-48-4	LC	7.69E+01	8.60E+01	8.9E-01	1.4E+04	EqP	5.6E-03	2.1E+01	EqP	**3.7E+00**
Landbay B	GP BG-03	INORG	Copper	7440-50-8	D	4.56E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.4E+00**
Landbay B	GP BG-03	INORG	Iron	7439-89-6	D	7.24E+04	9.52E+04	7.6E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay B	GP BG-03	INORG	Lead	7439-92-1	B2	3.57E+01						3.5E+02	EqP	1.0E-01
Landbay B	GP BG-03	INORG	Manganese	7439-96-5	D	2.81E+03	4.27E+03	6.6E-01	3.1E+05	EqP	9.0E-03	1.6E+02	EqP	**1.8E+01**
Landbay B	GP BG-03	INORG	Mercury	7439-97-6	D	5.56E-02	7.10E-02	7.8E-01		NA		3.7E-01	EqP	1.5E-01
Landbay B	GP BG-03	INORG	Nickel	7440-02-0	A	1.84E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.4E-01
Landbay B	GP BG-03	INORG	Thallium	7440-28-0	ID	4.47E+00	4.50E+00	9.9E-01				1.1E+00	EqP	**3.9E+00**
Landbay B	GP BG-03	INORG	Vanadium	7440-62-2	ID	2.70E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay B	GP BG-03	INORG	Zinc	7440-66-6	ID	4.89E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay B	GP PP-01	VOC	1,3-Dichlorobenzene	541-73-1	D	1.65E-01				NA		6.0E+01	LT	2.7E-03
Landbay B	GP PP-01	INORG	Arsenic	7440-38-2	A	1.20E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.1E-03	8.6E+01	EqP	1.4E-02
Landbay B	GP PP-01	INORG	Chromium III	16065-83-1	D	1.08E+01	2.61E+02	4.2E-02	2.1E+10	EqP	5.1E-10	3.4E+06	EqP	3.2E-06
Landbay B	GP PP-01	INORG	Chromium VI	18540-29-9	A	2.67E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay B	GP PP-01	INORG	Copper	7440-50-8	D	6.30E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.5E+00**
Landbay B	GP PP-01	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay B	GP PP-01	INORG	Nickel	7440-02-0	A	1.30E+01	7.30E+01	1.8E-01	1.2E+05	EqP	1.0E-04	3.4E+01	EqP	3.8E-01
Landbay B	GP PP-02	VOC	1,3-Dichlorobenzene	541-73-1	D	6.00E-02				NA		6.0E+01	LT	1.0E-03
Landbay B	GP PP-03	VOC	1,3-Dichlorobenzene	541-73-1	D	1.63E-01				NA		6.0E+01	LT	2.7E-03
Landbay B	IM11-1	INORG	Aluminum	7429-90-5	ID	5.10E+04	5.34E+04	9.6E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay B	IM11-1	INORG	Arsenic	7440-38-2	A	5.16E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay B	IM11-1	INORG	Barium	7440-39-3	NC	1.36E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay B	IM11-1	INORG	Beryllium	7440-41-7	B1	1.87E+00	1.20E+00	**1.6E+00**	6.8E+03	EqP	2.8E-04	1.0E+01	EqP	1.8E-01
Landbay B	IM11-1	INORG	Boron	7440-42-8	ID	2.20E+01	1.34E+01	**1.6E+00**	9.9E+05	LT	2.2E-05	6.4E-01	LT	**3.4E+01**
Landbay B	IM11-1	INORG	Chromium III	16065-83-1	D	1.78E+02	2.61E+02	6.8E-01	2.1E+10	EqP	8.4E-09	3.4E+06	EqP	5.3E-05
Landbay B	IM11-1	INORG	Chromium VI	18540-29-9	A	8.50E-01	4.97E+00	1.7E-01	6.6E+01	LT	1.3E-02	4.4E+00	LT	1.9E-01
Landbay B	IM11-1	INORG	Cobalt	7440-48-4	LC	1.01E+02	8.60E+01	**1.2E+00**	1.4E+04	EqP	7.4E-03	2.1E+01	EqP	**4.9E+00**
Landbay B	IM11-1	INORG	Copper	7440-50-8	D	1.02E+02	1.31E+02	7.8E-01	3.5E+05	EqP	2.9E-04	8.4E+00	EqP	**1.2E+01**
Landbay B	IM11-1	INORG	Iron	7439-89-6	D	7.06E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay B	IM11-1	INORG	Lead	7439-92-1	B2	7.83E+00						3.5E+02	EqP	2.2E-02
Landbay B	IM11-1	INORG	Manganese	7439-96-5	D	2.25E+02	4.27E+03	5.3E-02	3.1E+05	EqP	7.2E-04	1.6E+02	EqP	**1.4E+00**
Landbay B	IM11-1	INORG	Nickel	7440-02-0	A	9.30E+01	7.30E+01	**1.3E+00**	1.2E+05	EqP	7.5E-04	3.4E+01	EqP	**2.8E+00**
Landbay B	IM11-1	INORG	Strontium	7440-24-6		3.53E+01	3.80E+01	9.3E-01	1.6E+07	EqP	2.2E-06	1.1E+03	EqP	3.3E-02
Landbay B	IM11-1	INORG	Vanadium	7440-62-2	ID	1.62E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay B	IM11-1	INORG	Zinc	7440-66-6	ID	7.58E+01	1.02E+02	7.4E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.0E-01
Landbay B	IM11-10	INORG	Cobalt	7440-48-4	LC	7.11E+01	8.60E+01	8.3E-01	1.4E+04	EqP	5.2E-03	2.1E+01	EqP	**3.4E+00**
Landbay B	IM11-10	INORG	Manganese	7439-96-5	D	6.24E+03	4.27E+03	**1.5E+00**	3.1E+05	EqP	2.0E-02	1.6E+02	EqP	**4.0E+01**
Landbay B	IM11-2	INORG	Aluminum	7429-90-5	ID	4.19E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay B	IM11-2	INORG	Arsenic	7440-38-2	A	3.35E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay B	IM11-2	INORG	Barium	7440-39-3	NC	9.13E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay B	IM11-2	INORG	Beryllium	7440-41-7	B1	1.17E+00	1.20E+00	9.8E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay B	IM11-2	INORG	Chromium III	16065-83-1	D	6.01E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.8E-05
Landbay B	IM11-2	INORG	Chromium VI	18540-29-9	A	9.55E-01	4.97E+00	1.9E-01	6.6E+01	LT	1.4E-02	4.4E+00	LT	2.2E-01
Landbay B	IM11-2	INORG	Cobalt	7440-48-4	LC	2.08E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	1.0E+00
Landbay B	IM11-2	INORG	Copper	7440-50-8	D	6.24E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.4E+00**
Landbay B	IM11-2	INORG	Iron	7439-89-6	D	7.29E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay B	IM11-2	INORG	Lead	7439-92-1	B2	2.23E+01						3.5E+02	EqP	6.4E-02
Landbay B	IM11-2	INORG	Manganese	7439-96-5	D	4.59E+02	4.27E+03	1.1E-01	3.1E+05	EqP	1.5E-03	1.6E+02	EqP	**2.9E+00**
Landbay B	IM11-2	INORG	Nickel	7440-02-0	A	2.69E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.0E-01
Landbay B	IM11-2	INORG	Silver	7440-22-4	D	2.21E+00	2.30E+00	9.6E-01	3.8E+03	LT	5.9E-04	2.7E+00	LT	8.3E-01
Landbay B	IM11-2	INORG	Strontium	7440-24-6		1.72E+01	3.80E+01	4.5E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.6E-02
Landbay B	IM11-2	INORG	Vanadium	7440-62-2	ID	2.35E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay B	IM11-2	INORG	Zinc	7440-66-6	ID	4.05E+01	1.02E+02	4.0E-01	5.5E+06	EqP	7.4E-06	1.9E+02	EqP	2.1E-01
Landbay B	IM11-3	INORG	Aluminum	7429-90-5	ID	2.84E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay B	IM11-3	INORG	Barium	7440-39-3	NC	5.38E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.6E+01**
Landbay B	IM11-3	INORG	Beryllium	7440-41-7	B1	1.14E+00	1.20E+00	9.5E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay B	IM11-3	INORG	Chromium III	16065-83-1	D	6.48E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay B	IM11-3	INORG	Chromium VI	18540-29-9	A	1.41E+00	4.97E+00	2.8E-01	6.6E+01	LT	2.1E-02	4.4E+00	LT	3.2E-01
Landbay B	IM11-3	INORG	Cobalt	7440-48-4	LC	2.91E+01	8.60E+01	3.4E-01	1.4E+04	EqP	2.1E-03	2.1E+01	EqP	**1.4E+00**
Landbay B	IM11-3	INORG	Copper	7440-50-8	D	1.27E+02	1.31E+02	9.7E-01	3.5E+05	EqP	3.7E-04	8.4E+00	EqP	**1.5E+01**
Landbay B	IM11-3	INORG	Iron	7439-89-6	D	6.53E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay B	IM11-3	INORG	Lead	7439-92-1	B2	7.80E+00						3.5E+02	EqP	2.2E-02
Landbay B	IM11-3	INORG	Manganese	7439-96-5	D	2.27E+02	4.27E+03	5.3E-02	3.1E+05	EqP	7.3E-04	1.6E+02	EqP	**1.4E+00**
Landbay B	IM11-3	INORG	Mercury	7439-97-6	D	9.80E-03	7.10E-02	1.4E-01		NA		3.7E-01	EqP	2.7E-02
Landbay B	IM11-3	INORG	Nickel	7440-02-0	A	4.20E+01	7.30E+01	5.8E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.2E+00**
Landbay B	IM11-3	INORG	Silver	7440-22-4	D	1.94E+00	2.30E+00	8.4E-01	3.8E+03	LT	5.2E-04	2.7E+00	LT	7.3E-01
Landbay B	IM11-3	INORG	Strontium	7440-24-6		1.33E+01	3.80E+01	3.5E-01	1.6E+07	EqP	8.2E-07	1.1E+03	EqP	1.3E-02
Landbay B	IM11-3	INORG	Vanadium	7440-62-2	ID	2.25E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.6E-01
Landbay B	IM11-3	INORG	Zinc	7440-66-6	ID	3.50E+01	1.02E+02	3.4E-01	5.5E+06	EqP	6.4E-06	1.9E+02	EqP	1.8E-01
Landbay B	IM11-4	INORG	Aluminum	7429-90-5	ID	3.13E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay B	IM11-4	INORG	Barium	7440-39-3	NC	1.84E+02	2.24E+02	8.2E-01	3.2E+05	EqP	5.7E-04	3.3E+00	EqP	**5.6E+01**
Landbay B	IM11-4	INORG	Beryllium	7440-41-7	B1	2.20E+00	1.20E+00	**1.8E+00**	6.8E+03	EqP	3.2E-04	1.0E+01	EqP	2.1E-01
Landbay B	IM11-4	INORG	Chromium III	16065-83-1	D	7.26E+01	2.61E+02	2.8E-01	2.1E+10	EqP	3.4E-09	3.4E+06	EqP	2.2E-05
Landbay B	IM11-4	INORG	Chromium VI	18540-29-9	A	1.90E+00	4.97E+00	3.8E-01	6.6E+01	LT	2.9E-02	4.4E+00	LT	4.3E-01
Landbay B	IM11-4	INORG	Cobalt	7440-48-4	LC	3.71E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay B	IM11-4	INORG	Copper	7440-50-8	D	8.63E+01	1.31E+02	6.6E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay B	IM11-4	INORG	Iron	7439-89-6	D	4.64E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay B	IM11-4	INORG	Lead	7439-92-1	B2	7.22E+00						3.5E+02	EqP	2.1E-02
Landbay B	IM11-4	INORG	Manganese	7439-96-5	D	9.01E+01	4.27E+03	2.1E-02	3.1E+05	EqP	2.9E-04	1.6E+02	EqP	5.8E-01
Landbay B	IM11-4	INORG	Mercury	7439-97-6	D	1.55E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay B	IM11-4	INORG	Nickel	7440-02-0	A	3.88E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay B	IM11-4	INORG	Silver	7440-22-4	D	1.28E+00	2.30E+00	5.6E-01	3.8E+03	LT	3.4E-04	2.7E+00	LT	4.8E-01
Landbay B	IM11-4	INORG	Strontium	7440-24-6		2.05E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay B	IM11-4	INORG	Vanadium	7440-62-2	ID	1.10E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.1E-04	4.0E+02	EqP	2.7E-01
Landbay B	IM11-4	INORG	Zinc	7440-66-6	ID	5.16E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay B	IM11-5	INORG	Aluminum	7429-90-5	ID	4.04E+04	5.34E+04	7.6E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay B	IM11-5	INORG	Arsenic	7440-38-2	A	4.53E+00	9.90E+00	4.6E-01	1.1E+03	EqP	4.3E-03	8.6E+01	EqP	5.3E-02
Landbay B	IM11-5	INORG	Barium	7440-39-3	NC	9.32E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay B	IM11-5	INORG	Beryllium	7440-41-7	B1	1.98E+00	1.20E+00	**1.7E+00**	6.8E+03	EqP	2.9E-04	1.0E+01	EqP	1.9E-01
Landbay B	IM11-5	INORG	Boron	7440-42-8	ID	4.70E+00	1.34E+01	3.5E-01	9.9E+05	LT	4.8E-06	6.4E-01	LT	**7.3E+00**
Landbay B	IM11-5	INORG	Chromium III	16065-83-1	D	1.04E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.9E-09	3.4E+06	EqP	3.1E-05
Landbay B	IM11-5	INORG	Chromium VI	18540-29-9	A	1.60E+00	4.97E+00	3.2E-01	6.6E+01	LT	2.4E-02	4.4E+00	LT	3.6E-01
Landbay B	IM11-5	INORG	Cobalt	7440-48-4	LC	6.07E+01	8.60E+01	7.1E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay B	IM11-5	INORG	Copper	7440-50-8	D	9.72E+01	1.31E+02	7.4E-01	3.5E+05	EqP	2.8E-04	8.4E+00	EqP	**1.2E+01**
Landbay B	IM11-5	INORG	Iron	7439-89-6	D	5.83E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay B	IM11-5	INORG	Lead	7439-92-1	B2	7.29E+00						3.5E+02	EqP	2.1E-02
Landbay B	IM11-5	INORG	Manganese	7439-96-5	D	1.20E+02	4.27E+03	2.8E-02	3.1E+05	EqP	3.9E-04	1.6E+02	EqP	7.7E-01
Landbay B	IM11-5	INORG	Mercury	7439-97-6	D	6.60E-03	7.10E-02	9.3E-02		NA		3.7E-01	EqP	1.8E-02
Landbay B	IM11-5	INORG	Nickel	7440-02-0	A	5.81E+01	7.30E+01	8.0E-01	1.2E+05	EqP	4.7E-04	3.4E+01	EqP	**1.7E+00**
Landbay B	IM11-5	INORG	Silver	7440-22-4	D	1.02E+00	2.30E+00	4.4E-01	3.8E+03	LT	2.7E-04	2.7E+00	LT	3.8E-01
Landbay B	IM11-5	INORG	Strontium	7440-24-6		2.51E+01	3.80E+01	6.6E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.4E-02
Landbay B	IM11-5	INORG	Thallium	7440-28-0	ID	4.00E+00	4.50E+00	8.9E-01				1.1E+00	EqP	**3.5E+00**
Landbay B	IM11-5	INORG	Vanadium	7440-62-2	ID	9.81E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay B	IM11-5	INORG	Zinc	7440-66-6	ID	5.12E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay B	IM11-6	INORG	Cobalt	7440-48-4	LC	1.73E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.3E-01
Landbay B	IM11-6	INORG	Manganese	7439-96-5	D	6.55E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.1E-03	1.6E+02	EqP	**4.2E+00**
Landbay B	IM11-7	INORG	Cobalt	7440-48-4	LC	3.85E+01	8.60E+01	4.5E-01	1.4E+04	EqP	2.8E-03	2.1E+01	EqP	**1.8E+00**
Landbay B	IM11-7	INORG	Manganese	7439-96-5	D	1.97E+03	4.27E+03	4.6E-01	3.1E+05	EqP	6.3E-03	1.6E+02	EqP	**1.3E+01**
Landbay B	IM11-8	INORG	Cobalt	7440-48-4	LC	5.56E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay B	IM11-8	INORG	Manganese	7439-96-5	D	1.93E+02	4.27E+03	4.5E-02	3.1E+05	EqP	6.2E-04	1.6E+02	EqP	**1.2E+00**
Landbay B	IM11-9	INORG	Cobalt	7440-48-4	LC	5.63E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay B	IM11-9	INORG	Manganese	7439-96-5	D	4.47E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.9E+01**
Landbay B	SB 77-02	INORG	Perchlorate	14797-73-0	NC	1.21E-01			3.4E+03	LT	3.5E-05	7.7E+02	LT	1.6E-04
Landbay B	SB 78-04	INORG	Perchlorate	14797-73-0	NC	8.20E-02			3.4E+03	LT	2.4E-05	7.7E+02	LT	1.1E-04
Landbay B	SB 78-05	INORG	Perchlorate	14797-73-0	NC	1.80E-01			3.4E+03	LT	5.2E-05	7.7E+02	LT	2.3E-04
Landbay B	SB 78-08	INORG	Perchlorate	14797-73-0	NC	5.20E-02			3.4E+03	LT	1.5E-05	7.7E+02	LT	6.7E-05
Landbay B	SB 78-18	INORG	Perchlorate	14797-73-0	NC	5.00E+00			3.4E+03	LT	1.5E-03	7.7E+02	LT	6.5E-03
Landbay B	SB 78-19	INORG	Perchlorate	14797-73-0	NC	1.60E+00			3.4E+03	LT	4.6E-04	7.7E+02	LT	2.1E-03
Landbay B	SB 78-20	INORG	Perchlorate	14797-73-0	NC	3.30E+01			3.4E+03	LT	9.6E-03	7.7E+02	LT	4.3E-02
Landbay B	SB 78-21	INORG	Perchlorate	14797-73-0	NC	7.50E-02			3.4E+03	LT	2.2E-05	7.7E+02	LT	9.7E-05
Landbay B	SB 78-22	INORG	Perchlorate	14797-73-0	NC	5.50E-02			3.4E+03	LT	1.6E-05	7.7E+02	LT	7.1E-05
Landbay B	SB 78-23	INORG	Perchlorate	14797-73-0	NC	1.10E+00			3.4E+03	LT	3.2E-04	7.7E+02	LT	1.4E-03
Landbay B	SB 78-30	INORG	Perchlorate	14797-73-0	NC	7.90E-02			3.4E+03	LT	2.3E-05	7.7E+02	LT	1.0E-04
Landbay B	SB 78-37	INORG	Perchlorate	14797-73-0	NC	4.00E-02			3.4E+03	LT	1.2E-05	7.7E+02	LT	5.2E-05
Landbay B	SB 78-39	INORG	Perchlorate	14797-73-0	NC	2.60E-02			3.4E+03	LT	7.5E-06	7.7E+02	LT	3.4E-05
Landbay B	SB 78-40	INORG	Perchlorate	14797-73-0	NC	2.30E-01			3.4E+03	LT	6.7E-05	7.7E+02	LT	3.0E-04
Landbay B	SB 78-42	INORG	Perchlorate	14797-73-0	NC	4.40E+00			3.4E+03	LT	1.3E-03	7.7E+02	LT	5.7E-03
Landbay B	SB 78-43	INORG	Perchlorate	14797-73-0	NC	3.70E-02			3.4E+03	LT	1.1E-05	7.7E+02	LT	4.8E-05
Landbay B	SED 40-27	INORG	Perchlorate	14797-73-0	NC	4.60E-02			3.4E+03	LT	1.3E-05	7.7E+02	LT	5.9E-05
Landbay B	S-IMSED-4	PCB	PCBs (total)	1336-36-3	B2	5.97E-02				NA		1.4E+00	EqP	4.3E-02
Landbay B	S-IMSED-6	PCB	PCBs (total)	1336-36-3	B2	2.43E-02				NA		1.4E+00	EqP	1.8E-02
Landbay B	SR-116	INORG	Perchlorate	14797-73-0	NC	1.10E+00			3.4E+03	LT	3.2E-04	7.7E+02	LT	1.4E-03
Landbay B	SR-116	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.60E+01				NA		1.4E+02	LT	1.1E-01
Landbay B	SR-116	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.10E+02				NA		6.0E+01	LT	**1.8E+00**
Landbay B	SR-76B	INORG	Arsenic	7440-38-2	A	2.77E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.6E-03	8.6E+01	EqP	3.2E-02
Landbay B	SR-76B	INORG	Beryllium	7440-41-7	B1	6.37E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay B	SR-76B	INORG	Chromium III	16065-83-1	D	3.83E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay B	SR-76B	INORG	Chromium VI	18540-29-9	A	2.85E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay B	SR-76B	INORG	Copper	7440-50-8	D	5.72E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.8E+00**
Landbay B	SR-76B	INORG	Lead	7439-92-1	B2	2.91E+01						3.5E+02	EqP	8.3E-02
Landbay B	SR-76B	INORG	Mercury	7439-97-6	D	1.48E-01	7.10E-02	**2.1E+00**		NA		3.7E-01	EqP	4.0E-01
Landbay B	SR-76B	INORG	Nickel	7440-02-0	A	2.45E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.2E-01
Landbay B	SR-76B	INORG	Zinc	7440-66-6	ID	1.79E+02	1.02E+02	**1.8E+00**	5.5E+06	EqP	3.3E-05	1.9E+02	EqP	9.4E-01
Landbay B	SR-76B	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.90E+00				NA		6.0E+01	LT	3.2E-02
Landbay B	SR-76S	INORG	Arsenic	7440-38-2	A	3.53E+00	9.90E+00	3.6E-01	1.1E+03	EqP	3.4E-03	8.6E+01	EqP	4.1E-02
Landbay B	SR-76S	INORG	Beryllium	7440-41-7	B1	9.58E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay B	SR-76S	INORG	Cadmium	7440-43-9	B1	1.06E+00	2.70E+00	3.9E-01	1.1E+03	EqP	9.8E-04	2.1E+00	EqP	5.0E-01
Landbay B	SR-76S	INORG	Chromium III	16065-83-1	D	3.92E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.2E-05
Landbay B	SR-76S	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay B	SR-76S	INORG	Copper	7440-50-8	D	4.50E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.4E+00**
Landbay B	SR-76S	INORG	Lead	7439-92-1	B2	2.57E+01						3.5E+02	EqP	7.3E-02
Landbay B	SR-76S	INORG	Mercury	7439-97-6	D	7.18E-02	7.10E-02	1.0E+00		NA		3.7E-01	EqP	1.9E-01
Landbay B	SR-76S	INORG	Nickel	7440-02-0	A	2.36E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay B	SR-76S	INORG	Selenium	7782-49-2	D	1.89E+00	2.50E+00	7.6E-01	2.5E+04	LT	7.7E-05	2.0E+00	LT	9.5E-01
Landbay B	SR-76S	INORG	Thallium	7440-28-0	ID	1.21E+00	4.50E+00	2.7E-01				1.1E+00	EqP	**1.1E+00**
Landbay B	SR-76S	INORG	Zinc	7440-66-6	ID	5.36E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay B	SR-76S	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.50E-01				NA		1.4E+02	LT	1.7E-03
Landbay B	SR-76S	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.10E+01				NA		6.0E+01	LT	1.8E-01
Landbay B	SR-85S	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.40E+02				NA		1.4E+02	LT	9.7E-01
Landbay B	SR-85S	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.40E+02				NA		6.0E+01	LT	**2.3E+00**
Landbay B	SS-108A	INORG	Perchlorate	14797-73-0	NC	1.60E-02			3.4E+03	LT	4.6E-06	7.7E+02	LT	2.1E-05
Landbay B	SS-116B	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	2.00E+00				NA		6.0E+01	LT	3.3E-02
Landbay B	SS-116C	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.10E+02				NA		1.4E+02	LT	7.6E-01
Landbay B	SS-116C	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	2.00E+02				NA		6.0E+01	LT	**3.3E+00**
Landbay B	SS-116D	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	6.60E-01				NA		1.4E+02	LT	4.6E-03
Landbay B	SS-116D	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.40E+00				NA		6.0E+01	LT	2.3E-02
Landbay B	SS-74E	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.80E+01				NA		1.4E+02	LT	1.3E-01
Landbay B	SS-74E	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	2.40E+02				NA		6.0E+01	LT	**4.0E+00**
Landbay B	SS-74G	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	3.90E+02				NA		1.4E+02	LT	**2.7E+00**
Landbay B	SS-74G	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.20E+02				NA		6.0E+01	LT	**2.0E+00**
Landbay B	SS-85A	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.80E+02				NA		6.0E+01	LT	**1.1E+01**
Landbay B	SS-86A	INORG	Perchlorate	14797-73-0	NC	1.45E-02			3.4E+03	LT	4.2E-06	7.7E+02	LT	1.9E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay B	SS-98A	INORG	Perchlorate	14797-73-0	NC	2.50E-03			3.4E+03	LT	7.3E-07	7.7E+02	LT	3.2E-06
Landbay B	SW 70-01	INORG	Perchlorate	14797-73-0	NC	2.60E-02			3.4E+03	LT	7.5E-06	7.7E+02	LT	3.4E-05
Landbay B	SW 74-02	INORG	Perchlorate	14797-73-0	NC	1.02E+00			3.4E+03	LT	3.0E-04	7.7E+02	LT	1.3E-03
Landbay B	SW 74-03	INORG	Perchlorate	14797-73-0	NC	2.00E-02			3.4E+03	LT	5.8E-06	7.7E+02	LT	2.6E-05
Landbay B	SW 78-02	INORG	Perchlorate	14797-73-0	NC	9.96E+00			3.4E+03	LT	2.9E-03	7.7E+02	LT	1.3E-02
Landbay C	23TP2-10	VOC	Acetone	67-64-1	ID	5.40E-02			2.0E+06	LT	2.6E-08	6.0E+02	LT	9.0E-05
Landbay C	23TP2-10	VOC	Carbon Disulfide	75-15-0		1.00E-03			1.4E+04	LT	6.9E-08	3.7E-01	LT	2.7E-03
Landbay C	23TP2-10	PCB	PCBs (total)	1336-36-3	B2	2.84E-02				NA		1.4E+00	EqP	2.1E-02
Landbay C	23TP2-10	INORG	Aluminum	7429-90-5	ID	2.67E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	23TP2-10	INORG	Arsenic	7440-38-2	A	1.05E+01	9.90E+00	**1.1E+00**	1.1E+03	EqP	1.0E-02	8.6E+01	EqP	1.2E-01
Landbay C	23TP2-10	INORG	Barium	7440-39-3	NC	8.93E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	23TP2-10	INORG	Beryllium	7440-41-7	B1	4.35E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.4E-05	1.0E+01	EqP	4.2E-02
Landbay C	23TP2-10	INORG	Cadmium	7440-43-9	B1	1.13E+00	2.70E+00	4.2E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.3E-01
Landbay C	23TP2-10	INORG	Chromium III	16065-83-1	D	1.55E+02	2.61E+02	5.9E-01	2.1E+10	EqP	7.3E-09	3.4E+06	EqP	4.6E-05
Landbay C	23TP2-10	INORG	Copper	7440-50-8	D	1.73E+01	1.31E+02	1.3E-01	3.5E+05	EqP	5.0E-05	8.4E+00	EqP	**2.1E+00**
Landbay C	23TP2-10	INORG	Lead	7439-92-1	B2	2.92E+01						3.5E+02	EqP	8.3E-02
Landbay C	23TP2-10	INORG	Mercury	7439-97-6	D	3.56E-02	7.10E-02	5.0E-01		NA		3.7E-01	EqP	9.6E-02
Landbay C	23TP2-10	INORG	Perchlorate	14797-73-0	NC	2.30E-04			3.4E+03	LT	6.7E-08	7.7E+02	LT	3.0E-07
Landbay C	23TP2-10	INORG	Silver	7440-22-4	D	2.44E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	6.5E-04	2.7E+00	LT	9.2E-01
Landbay C	23TP2-10	INORG	Strontium	7440-24-6		8.92E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.5E-07	1.1E+03	EqP	8.4E-03
Landbay C	23TP3-7	VOC	Acetone	67-64-1	ID	4.30E-02			2.0E+06	LT	2.1E-08	6.0E+02	LT	7.2E-05
Landbay C	23TP3-7	VOC	Carbon Disulfide	75-15-0		4.00E-03			1.4E+04	LT	2.8E-07	3.7E-01	LT	1.1E-02
Landbay C	23TP3-7	VOC	Xylenes (total)	1330-20-7	ID	1.50E-03				NA		5.2E+00	LT	2.9E-04
Landbay C	23TP3-7	INORG	Aluminum	7429-90-5	ID	5.09E+04	5.34E+04	9.5E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**1.9E+01**
Landbay C	23TP3-7	INORG	Arsenic	7440-38-2	A	7.72E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay C	23TP3-7	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	23TP3-7	INORG	Beryllium	7440-41-7	B1	1.35E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	2.0E-04	1.0E+01	EqP	1.3E-01
Landbay C	23TP3-7	INORG	Cadmium	7440-43-9	B1	1.93E+00	2.70E+00	7.1E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.0E-01
Landbay C	23TP3-7	INORG	Chromium III	16065-83-1	D	1.80E+02	2.61E+02	6.9E-01	2.1E+10	EqP	8.4E-09	3.4E+06	EqP	5.3E-05
Landbay C	23TP3-7	INORG	Copper	7440-50-8	D	3.31E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.5E-05	8.4E+00	EqP	**3.9E+00**
Landbay C	23TP3-7	INORG	Lead	7439-92-1	B2	1.99E+01						3.5E+02	EqP	5.7E-02
Landbay C	23TP3-7	INORG	Mercury	7439-97-6	D	3.59E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.7E-02
Landbay C	23TP3-7	INORG	Silver	7440-22-4	D	2.37E+00	2.30E+00	1.0E+00	3.8E+03	LT	6.3E-04	2.7E+00	LT	8.9E-01
Landbay C	23TP3-7	INORG	Strontium	7440-24-6		1.70E+01	3.80E+01	4.5E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay C	23TP4-7	INORG	Aluminum	7429-90-5	ID	4.57E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay C	23TP4-7	INORG	Arsenic	7440-38-2	A	4.54E+00	9.90E+00	4.6E-01	1.1E+03	EqP	4.3E-03	8.6E+01	EqP	5.3E-02
Landbay C	23TP4-7	INORG	Barium	7440-39-3	NC	1.42E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay C	23TP4-7	INORG	Chromium III	16065-83-1	D	1.61E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.6E-09	3.4E+06	EqP	4.8E-05
Landbay C	23TP4-7	INORG	Chromium VI	18540-29-9	A	9.10E-01	4.97E+00	1.8E-01	6.6E+01	LT	1.4E-02	4.4E+00	LT	2.1E-01
Landbay C	23TP4-7	INORG	Copper	7440-50-8	D	5.43E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay C	23TP4-7	INORG	Lead	7439-92-1	B2	1.28E+01						3.5E+02	EqP	3.7E-02
Landbay C	23TP4-7	INORG	Perchlorate	14797-73-0	NC	2.60E-02			3.4E+03	LT	7.5E-06	7.7E+02	LT	3.4E-05
Landbay C	23TP4-7	INORG	Silver	7440-22-4	D	2.09E+00	2.30E+00	9.1E-01	3.8E+03	LT	5.6E-04	2.7E+00	LT	7.9E-01
Landbay C	23TP4-7	INORG	Strontium	7440-24-6		6.95E+01	3.80E+01	**1.8E+00**	1.6E+07	EqP	4.3E-06	1.1E+03	EqP	6.6E-02
Landbay C	23TP5-12	VOC	Acetone	67-64-1	ID	4.50E-02			2.0E+06	LT	2.2E-08	6.0E+02	LT	7.5E-05
Landbay C	23TP5-12	SVOC	Acenaphthene	83-32-9	ID	5.70E-02				NA		2.3E+00	LT	2.5E-02
Landbay C	23TP5-12	SVOC	Anthracene	120-12-7	ID	1.30E-01				NA		1.4E-02	EqP	**9.1E+00**
Landbay C	23TP5-12	SVOC	Benzo(a)anthracene	56-55-3	B2	3.80E-01				NA		2.9E-01	EqP	**1.3E+00**
Landbay C	23TP5-12	SVOC	Benzo(a)pyrene	50-32-8	B2	2.60E-01				NA		4.8E-01	EqP	5.4E-01
Landbay C	23TP5-12	SVOC	Benzo(b)fluoranthene	205-99-2	B2	4.00E-01				NA			NA	
Landbay C	23TP5-12	SVOC	Benzo(g,h,i)perylene	191-24-2	D	2.10E-01				NA			NA	
Landbay C	23TP5-12	SVOC	Benzo(k)fluoranthene	207-08-9	B2	1.60E-01				NA			NA	
Landbay C	23TP5-12	SVOC	Carbazole	86-74-8	B2	5.40E-02				NA			NA	
Landbay C	23TP5-12	SVOC	Chrysene	218-01-9	B2	3.60E-01				NA			NA	
Landbay C	23TP5-12	SVOC	Fluoranthene	206-44-0	D	7.90E-01				NA		1.7E-01	EqP	**4.6E+00**
Landbay C	23TP5-12	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	1.60E-01				NA			NA	
Landbay C	23TP5-12	SVOC	Phenanthrene	85-01-8	D	5.90E-01				NA		3.9E-01	EqP	**1.5E+00**
Landbay C	23TP5-12	SVOC	Pyrene	129-00-0	NC	7.40E-01				NA		1.1E-01	EqP	**7.0E+00**
Landbay C	23TP5-12	PCB	PCBs (total)	1336-36-3	B2	5.43E-02				NA		1.4E+00	EqP	4.0E-02
Landbay C	23TP5-12	INORG	Aluminum	7429-90-5	ID	4.60E+04	5.34E+04	8.6E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.8E+01**
Landbay C	23TP5-12	INORG	Arsenic	7440-38-2	A	3.99E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay C	23TP5-12	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay C	23TP5-12	INORG	Cadmium	7440-43-9	B1	1.23E+00	2.70E+00	4.6E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.8E-01
Landbay C	23TP5-12	INORG	Chromium III	16065-83-1	D	1.03E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay C	23TP5-12	INORG	Chromium VI	18540-29-9	A	1.10E+00	4.97E+00	2.2E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.5E-01
Landbay C	23TP5-12	INORG	Copper	7440-50-8	D	5.50E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay C	23TP5-12	INORG	Lead	7439-92-1	B2	9.55E+00						3.5E+02	EqP	2.7E-02
Landbay C	23TP5-12	INORG	Mercury	7439-97-6	D	1.32E-02	7.10E-02	1.9E-01		NA		3.7E-01	EqP	3.6E-02
Landbay C	23TP5-12	INORG	Perchlorate	14797-73-0	NC	2.80E-02			3.4E+03	LT	8.1E-06	7.7E+02	LT	3.6E-05
Landbay C	23TP5-12	INORG	Silver	7440-22-4	D	1.64E+00	2.30E+00	7.1E-01	3.8E+03	LT	4.4E-04	2.7E+00	LT	6.2E-01
Landbay C	23TP5-12	INORG	Strontium	7440-24-6		4.79E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.5E-02
Landbay C	25TP1-25	VOC	Acetone	67-64-1	ID	5.45E-02			2.0E+06	LT	2.7E-08	6.0E+02	LT	9.1E-05
Landbay C	25TP1-25	INORG	Aluminum	7429-90-5	ID	2.94E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	25TP1-25	INORG	Barium	7440-39-3	NC	4.59E+01	2.24E+02	2.0E-01	3.2E+05	EqP	1.4E-04	3.3E+00	EqP	**1.4E+01**
Landbay C	25TP1-25	INORG	Beryllium	7440-41-7	B1	8.23E-01	1.20E+00	6.9E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay C	25TP1-25	INORG	Chromium III	16065-83-1	D	5.25E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay C	25TP1-25	INORG	Copper	7440-50-8	D	5.73E+00	1.31E+02	4.4E-02	3.5E+05	EqP	1.6E-05	8.4E+00	EqP	6.8E-01
Landbay C	25TP1-25	INORG	Lead	7439-92-1	B2	7.71E+00						3.5E+02	EqP	2.2E-02
Landbay C	25TP1-25	INORG	Mercury	7439-97-6	D	1.30E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.5E-02
Landbay C	25TP1-25	INORG	Strontium	7440-24-6		8.42E+00	3.80E+01	2.2E-01	1.6E+07	EqP	5.2E-07	1.1E+03	EqP	8.0E-03
Landbay C	25TP2-30	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay C	25TP2-30	INORG	Aluminum	7429-90-5	ID	3.36E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay C	25TP2-30	INORG	Arsenic	7440-38-2	A	7.11E+00	9.90E+00	7.2E-01	1.1E+03	EqP	6.8E-03	8.6E+01	EqP	8.3E-02
Landbay C	25TP2-30	INORG	Barium	7440-39-3	NC	7.78E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay C	25TP2-30	INORG	Beryllium	7440-41-7	B1	1.65E+00	1.20E+00	**1.4E+00**	6.8E+03	EqP	2.4E-04	1.0E+01	EqP	1.6E-01
Landbay C	25TP2-30	INORG	Chromium III	16065-83-1	D	6.08E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.8E-05
Landbay C	25TP2-30	INORG	Copper	7440-50-8	D	7.51E+00	1.31E+02	5.7E-02	3.5E+05	EqP	2.2E-05	8.4E+00	EqP	8.9E-01
Landbay C	25TP2-30	INORG	Lead	7439-92-1	B2	3.97E+00						3.5E+02	EqP	1.1E-02
Landbay C	25TP2-30	INORG	Mercury	7439-97-6	D	1.55E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay C	25TP2-30	INORG	Perchlorate	14797-73-0	NC	4.50E-04			3.4E+03	LT	1.3E-07	7.7E+02	LT	5.8E-07
Landbay C	25TP2-30	INORG	Strontium	7440-24-6		1.14E+01	3.80E+01	3.0E-01	1.6E+07	EqP	7.0E-07	1.1E+03	EqP	1.1E-02
Landbay C	25TP3-10	VOC	Acetone	67-64-1	ID	2.40E-02			2.0E+06	LT	1.2E-08	6.0E+02	LT	4.0E-05
Landbay C	25TP3-10	INORG	Aluminum	7429-90-5	ID	2.70E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	25TP3-10	INORG	Arsenic	7440-38-2	A	5.32E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.2E-02
Landbay C	25TP3-10	INORG	Barium	7440-39-3	NC	5.18E+01	2.24E+02	2.3E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.6E+01**
Landbay C	25TP3-10	INORG	Beryllium	7440-41-7	B1	6.61E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay C	25TP3-10	INORG	Chromium III	16065-83-1	D	3.94E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.2E-05
Landbay C	25TP3-10	INORG	Chromium VI	18540-29-9	A	6.60E-01	4.97E+00	1.3E-01	6.6E+01	LT	9.9E-03	4.4E+00	LT	1.5E-01
Landbay C	25TP3-10	INORG	Copper	7440-50-8	D	4.51E+00	1.31E+02	3.4E-02	3.5E+05	EqP	1.3E-05	8.4E+00	EqP	5.4E-01
Landbay C	25TP3-10	INORG	Lead	7439-92-1	B2	4.33E+00						3.5E+02	EqP	1.2E-02
Landbay C	25TP3-10	INORG	Mercury	7439-97-6	D	2.47E-02	7.10E-02	3.5E-01		NA		3.7E-01	EqP	6.7E-02
Landbay C	25TP3-10	INORG	Strontium	7440-24-6		4.11E+00	3.80E+01	1.1E-01	1.6E+07	EqP	2.5E-07	1.1E+03	EqP	3.9E-03
Landbay C	25TP4-25	VOC	Acetone	67-64-1	ID	1.30E-02			2.0E+06	LT	6.4E-09	6.0E+02	LT	2.2E-05
Landbay C	25TP4-25	SVOC	Nitrobenzene	98-95-3	LC	1.10E-01			2.1E+02	LT	5.3E-04	8.8E+01	LT	1.3E-03
Landbay C	25TP4-25	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay C	25TP4-25	INORG	Arsenic	7440-38-2	A	4.46E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay C	25TP4-25	INORG	Barium	7440-39-3	NC	5.45E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.7E+01**
Landbay C	25TP4-25	INORG	Beryllium	7440-41-7	B1	7.53E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay C	25TP4-25	INORG	Chromium III	16065-83-1	D	5.11E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay C	25TP4-25	INORG	Chromium VI	18540-29-9	A	1.50E+00	4.97E+00	3.0E-01	6.6E+01	LT	2.3E-02	4.4E+00	LT	3.4E-01
Landbay C	25TP4-25	INORG	Copper	7440-50-8	D	4.66E+00	1.31E+02	3.6E-02	3.5E+05	EqP	1.3E-05	8.4E+00	EqP	5.5E-01
Landbay C	25TP4-25	INORG	Lead	7439-92-1	B2	4.35E+00						3.5E+02	EqP	1.2E-02
Landbay C	25TP4-25	INORG	Mercury	7439-97-6	D	1.42E-02	7.10E-02	2.0E-01		NA		3.7E-01	EqP	3.8E-02
Landbay C	25TP4-25	INORG	Perchlorate	14797-73-0	NC	7.70E-03			3.4E+03	LT	2.2E-06	7.7E+02	LT	1.0E-05
Landbay C	25TP4-25	INORG	Strontium	7440-24-6		9.71E+00	3.80E+01	2.6E-01	1.6E+07	EqP	6.0E-07	1.1E+03	EqP	9.2E-03
Landbay C	26TP1-5	VOC	Acetone	67-64-1	ID	1.80E-02			2.0E+06	LT	8.8E-09	6.0E+02	LT	3.0E-05
Landbay C	26TP1-5	INORG	Aluminum	7429-90-5	ID	3.09E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	26TP1-5	INORG	Arsenic	7440-38-2	A	5.42E+00	9.90E+00	5.5E-01	1.1E+03	EqP	5.2E-03	8.6E+01	EqP	6.3E-02
Landbay C	26TP1-5	INORG	Barium	7440-39-3	NC	5.28E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.6E+01**
Landbay C	26TP1-5	INORG	Beryllium	7440-41-7	B1	1.10E+00	1.20E+00	9.2E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.1E-01
Landbay C	26TP1-5	INORG	Chromium III	16065-83-1	D	6.65E+01	2.61E+02	2.6E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay C	26TP1-5	INORG	Chromium VI	18540-29-9	A	2.00E+00	4.97E+00	4.0E-01	6.6E+01	LT	3.0E-02	4.4E+00	LT	4.5E-01
Landbay C	26TP1-5	INORG	Copper	7440-50-8	D	3.72E+00	1.31E+02	2.8E-02	3.5E+05	EqP	1.1E-05	8.4E+00	EqP	4.4E-01
Landbay C	26TP1-5	INORG	Lead	7439-92-1	B2	4.14E+00						3.5E+02	EqP	1.2E-02
Landbay C	26TP1-5	INORG	Mercury	7439-97-6	D	3.53E-02	7.10E-02	5.0E-01		NA		3.7E-01	EqP	9.6E-02
Landbay C	26TP1-5	INORG	Perchlorate	14797-73-0	NC	3.10E-04			3.4E+03	LT	9.0E-08	7.7E+02	LT	4.0E-07
Landbay C	26TP1-5	INORG	Strontium	7440-24-6		1.20E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay C	26TP2-7	VOC	Acetone	67-64-1	ID	1.40E-02			2.0E+06	LT	6.9E-09	6.0E+02	LT	2.3E-05
Landbay C	26TP2-7	INORG	Aluminum	7429-90-5	ID	2.94E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	26TP2-7	INORG	Arsenic	7440-38-2	A	7.67E+00	9.90E+00	7.7E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	8.9E-02
Landbay C	26TP2-7	INORG	Barium	7440-39-3	NC	6.49E+01	2.24E+02	2.9E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**2.0E+01**
Landbay C	26TP2-7	INORG	Beryllium	7440-41-7	B1	1.29E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay C	26TP2-7	INORG	Chromium III	16065-83-1	D	7.07E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay C	26TP2-7	INORG	Chromium VI	18540-29-9	A	8.90E-01	4.97E+00	1.8E-01	6.6E+01	LT	1.3E-02	4.4E+00	LT	2.0E-01
Landbay C	26TP2-7	INORG	Copper	7440-50-8	D	6.38E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay C	26TP2-7	INORG	Lead	7439-92-1	B2	9.27E+00						3.5E+02	EqP	2.6E-02
Landbay C	26TP2-7	INORG	Mercury	7439-97-6	D	2.75E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.4E-02
Landbay C	26TP2-7	INORG	Perchlorate	14797-73-0	NC	5.30E-04			3.4E+03	LT	1.5E-07	7.7E+02	LT	6.9E-07
Landbay C	26TP2-7	INORG	Strontium	7440-24-6		1.36E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.4E-07	1.1E+03	EqP	1.3E-02
Landbay C	27TP1-7	VOC	Acetone	67-64-1	ID	6.60E-02			2.0E+06	LT	3.2E-08	6.0E+02	LT	1.1E-04
Landbay C	27TP1-7	INORG	Aluminum	7429-90-5	ID	2.16E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.3E+00**
Landbay C	27TP1-7	INORG	Arsenic	7440-38-2	A	7.45E+00	9.90E+00	7.5E-01	1.1E+03	EqP	7.1E-03	8.6E+01	EqP	8.7E-02
Landbay C	27TP1-7	INORG	Barium	7440-39-3	NC	5.01E+01	2.24E+02	2.2E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.5E+01**
Landbay C	27TP1-7	INORG	Beryllium	7440-41-7	B1	9.34E-01	1.20E+00	7.8E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.0E-02
Landbay C	27TP1-7	INORG	Chromium III	16065-83-1	D	4.10E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay C	27TP1-7	INORG	Copper	7440-50-8	D	5.42E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay C	27TP1-7	INORG	Lead	7439-92-1	B2	2.41E+02						3.5E+02	EqP	6.9E-01
Landbay C	27TP1-7	INORG	Mercury	7439-97-6	D	2.10E-02	7.10E-02	3.0E-01		NA		3.7E-01	EqP	5.7E-02
Landbay C	27TP1-7	INORG	Perchlorate	14797-73-0	NC	2.30E-04			3.4E+03	LT	6.7E-08	7.7E+02	LT	3.0E-07
Landbay C	27TP1-7	INORG	Silver	7440-22-4	D	4.31E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay C	27TP1-7	INORG	Strontium	7440-24-6		9.24E+00	3.80E+01	2.4E-01	1.6E+07	EqP	5.7E-07	1.1E+03	EqP	8.7E-03
Landbay C	27TP2-7	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay C	27TP2-7	INORG	Aluminum	7429-90-5	ID	2.74E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	27TP2-7	INORG	Arsenic	7440-38-2	A	7.12E+00	9.90E+00	7.2E-01	1.1E+03	EqP	6.8E-03	8.6E+01	EqP	8.3E-02
Landbay C	27TP2-7	INORG	Barium	7440-39-3	NC	5.07E+01	2.24E+02	2.3E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.5E+01**
Landbay C	27TP2-7	INORG	Beryllium	7440-41-7	B1	8.07E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay C	27TP2-7	INORG	Chromium III	16065-83-1	D	6.43E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay C	27TP2-7	INORG	Copper	7440-50-8	D	1.59E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay C	27TP2-7	INORG	Lead	7439-92-1	B2	2.49E+01						3.5E+02	EqP	7.1E-02
Landbay C	27TP2-7	INORG	Strontium	7440-24-6		1.40E+01	3.80E+01	3.7E-01	1.6E+07	EqP	8.6E-07	1.1E+03	EqP	1.3E-02
Landbay C	6150-1850	INORG	Aluminum	7429-90-5	ID	3.89E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay C	6150-1850	INORG	Arsenic	7440-38-2	A	5.40E+00	9.90E+00	5.5E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.3E-02
Landbay C	6150-1850	INORG	Barium	7440-39-3	NC	1.38E+02	2.24E+02	6.2E-01	3.2E+05	EqP	4.3E-04	3.3E+00	EqP	**4.2E+01**
Landbay C	6150-1850	INORG	Beryllium	7440-41-7	B1	7.01E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay C	6150-1850	INORG	Chromium III	16065-83-1	D	2.05E+02	2.61E+02	7.9E-01	2.1E+10	EqP	9.6E-09	3.4E+06	EqP	6.1E-05
Landbay C	6150-1850	INORG	Chromium VI	18540-29-9	A	3.99E+00	4.97E+00	8.0E-01	6.6E+01	LT	6.0E-02	4.4E+00	LT	9.1E-01
Landbay C	6150-1850	INORG	Cobalt	7440-48-4	LC	7.64E+01	8.60E+01	8.9E-01	1.4E+04	EqP	5.6E-03	2.1E+01	EqP	**3.7E+00**
Landbay C	6150-1850	INORG	Copper	7440-50-8	D	2.95E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.5E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	6150-1850	INORG	Iron	7439-89-6	D	6.35E+04	9.52E+04	6.7E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	6150-1850	INORG	Lead	7439-92-1	B2	2.34E+01						3.5E+02	EqP	6.7E-02
Landbay C	6150-1850	INORG	Manganese	7439-96-5	D	3.06E+03	4.27E+03	7.2E-01	3.1E+05	EqP	9.8E-03	1.6E+02	EqP	**2.0E+01**
Landbay C	6150-1850	INORG	Nickel	7440-02-0	A	4.63E+01	7.30E+01	6.3E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.4E+00**
Landbay C	6150-1850	INORG	Strontium	7440-24-6		1.66E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay C	6150-1850	INORG	Thallium	7440-28-0	ID	1.77E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.6E+00**
Landbay C	6150-1850	INORG	Vanadium	7440-62-2	ID	1.98E+02	2.83E+02	7.0E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay C	6150-1850	INORG	Zinc	7440-66-6	ID	5.93E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	6300-1850	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay C	6300-1850	INORG	Arsenic	7440-38-2	A	4.46E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay C	6300-1850	INORG	Barium	7440-39-3	NC	1.05E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	6300-1850	INORG	Beryllium	7440-41-7	B1	6.35E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay C	6300-1850	INORG	Cadmium	7440-43-9	B1	4.13E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.8E-04	2.1E+00	EqP	1.9E-01
Landbay C	6300-1850	INORG	Chromium III	16065-83-1	D	1.65E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.8E-09	3.4E+06	EqP	4.9E-05
Landbay C	6300-1850	INORG	Chromium VI	18540-29-9	A	3.72E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay C	6300-1850	INORG	Cobalt	7440-48-4	LC	6.30E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay C	6300-1850	INORG	Copper	7440-50-8	D	3.51E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay C	6300-1850	INORG	Iron	7439-89-6	D	5.78E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay C	6300-1850	INORG	Lead	7439-92-1	B2	1.96E+01						3.5E+02	EqP	5.6E-02
Landbay C	6300-1850	INORG	Manganese	7439-96-5	D	2.26E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	6300-1850	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay C	6300-1850	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay C	6300-1850	INORG	Zinc	7440-66-6	ID	5.13E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay C	6450-1700	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay C	6450-1700	INORG	Arsenic	7440-38-2	A	4.46E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay C	6450-1700	INORG	Barium	7440-39-3	NC	1.05E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	6450-1700	INORG	Beryllium	7440-41-7	B1	6.35E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay C	6450-1700	INORG	Cadmium	7440-43-9	B1	4.13E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.8E-04	2.1E+00	EqP	1.9E-01
Landbay C	6450-1700	INORG	Chromium III	16065-83-1	D	1.65E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.8E-09	3.4E+06	EqP	4.9E-05
Landbay C	6450-1700	INORG	Chromium VI	18540-29-9	A	3.72E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay C	6450-1700	INORG	Cobalt	7440-48-4	LC	6.30E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay C	6450-1700	INORG	Copper	7440-50-8	D	3.51E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay C	6450-1700	INORG	Iron	7439-89-6	D	5.78E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay C	6450-1700	INORG	Lead	7439-92-1	B2	1.96E+01						3.5E+02	EqP	5.6E-02
Landbay C	6450-1700	INORG	Manganese	7439-96-5	D	2.26E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	6450-1700	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay C	6450-1700	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay C	6450-1700	INORG	Zinc	7440-66-6	ID	5.13E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay C	6450-1850	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay C	6450-1850	INORG	Arsenic	7440-38-2	A	4.46E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay C	6450-1850	INORG	Barium	7440-39-3	NC	1.05E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	6450-1850	INORG	Beryllium	7440-41-7	B1	6.35E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay C	6450-1850	INORG	Cadmium	7440-43-9	B1	4.13E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.8E-04	2.1E+00	EqP	1.9E-01
Landbay C	6450-1850	INORG	Chromium III	16065-83-1	D	1.65E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.8E-09	3.4E+06	EqP	4.9E-05
Landbay C	6450-1850	INORG	Chromium VI	18540-29-9	A	3.72E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay C	6450-1850	INORG	Cobalt	7440-48-4	LC	6.30E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay C	6450-1850	INORG	Copper	7440-50-8	D	3.51E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay C	6450-1850	INORG	Iron	7439-89-6	D	5.78E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay C	6450-1850	INORG	Lead	7439-92-1	B2	1.96E+01						3.5E+02	EqP	5.6E-02
Landbay C	6450-1850	INORG	Manganese	7439-96-5	D	2.26E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	6450-1850	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay C	6450-1850	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay C	6450-1850	INORG	Zinc	7440-66-6	ID	5.13E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay C	6450-2000	INORG	Aluminum	7429-90-5	ID	3.85E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay C	6450-2000	INORG	Arsenic	7440-38-2	A	2.99E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay C	6450-2000	INORG	Barium	7440-39-3	NC	9.21E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay C	6450-2000	INORG	Beryllium	7440-41-7	B1	6.54E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.3E-02
Landbay C	6450-2000	INORG	Cadmium	7440-43-9	B1	4.59E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.2E-04	2.1E+00	EqP	2.1E-01
Landbay C	6450-2000	INORG	Chromium III	16065-83-1	D	2.24E+02	2.61E+02	8.6E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.6E-05
Landbay C	6450-2000	INORG	Chromium VI	18540-29-9	A	4.12E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay C	6450-2000	INORG	Cobalt	7440-48-4	LC	6.10E+01	8.60E+01	7.1E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay C	6450-2000	INORG	Copper	7440-50-8	D	3.70E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay C	6450-2000	INORG	Iron	7439-89-6	D	6.68E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay C	6450-2000	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay C	6450-2000	INORG	Manganese	7439-96-5	D	1.84E+03	4.27E+03	4.3E-01	3.1E+05	EqP	5.9E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	6450-2000	INORG	Nickel	7440-02-0	A	4.62E+01	7.30E+01	6.3E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.4E+00**
Landbay C	6450-2000	INORG	Vanadium	7440-62-2	ID	2.20E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay C	6450-2000	INORG	Zinc	7440-66-6	ID	5.25E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay C	6450-2150	INORG	Aluminum	7429-90-5	ID	3.85E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay C	6450-2150	INORG	Arsenic	7440-38-2	A	2.99E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay C	6450-2150	INORG	Barium	7440-39-3	NC	9.21E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay C	6450-2150	INORG	Beryllium	7440-41-7	B1	6.54E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.3E-02
Landbay C	6450-2150	INORG	Cadmium	7440-43-9	B1	4.59E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.2E-04	2.1E+00	EqP	2.1E-01
Landbay C	6450-2150	INORG	Chromium III	16065-83-1	D	2.24E+02	2.61E+02	8.6E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.6E-05
Landbay C	6450-2150	INORG	Chromium VI	18540-29-9	A	4.12E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay C	6450-2150	INORG	Cobalt	7440-48-4	LC	6.10E+01	8.60E+01	7.1E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay C	6450-2150	INORG	Copper	7440-50-8	D	3.70E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay C	6450-2150	INORG	Iron	7439-89-6	D	6.68E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay C	6450-2150	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay C	6450-2150	INORG	Manganese	7439-96-5	D	1.84E+03	4.27E+03	4.3E-01	3.1E+05	EqP	5.9E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	6450-2150	INORG	Nickel	7440-02-0	A	4.62E+01	7.30E+01	6.3E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.4E+00**
Landbay C	6450-2150	INORG	Vanadium	7440-62-2	ID	2.20E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay C	6450-2150	INORG	Zinc	7440-66-6	ID	5.25E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay C	6500-111	INORG	Aluminum	7429-90-5	ID	5.17E+04	5.34E+04	9.7E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay C	6500-111	INORG	Arsenic	7440-38-2	A	8.58E+00	9.90E+00	8.7E-01	1.1E+03	EqP	8.2E-03	8.6E+01	EqP	1.0E-01
Landbay C	6500-111	INORG	Barium	7440-39-3	NC	1.44E+02	2.24E+02	6.4E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay C	6500-111	INORG	Beryllium	7440-41-7	B1	4.98E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.3E-05	1.0E+01	EqP	4.8E-02
Landbay C	6500-111	INORG	Boron	7440-42-8	ID	6.14E+00	1.34E+01	4.6E-01	9.9E+05	LT	6.2E-06	6.4E-01	LT	**9.6E+00**
Landbay C	6500-111	INORG	Chromium III	16065-83-1	D	2.13E+02	2.61E+02	8.2E-01	2.1E+10	EqP	1.0E-08	3.4E+06	EqP	6.3E-05
Landbay C	6500-111	INORG	Chromium VI	18540-29-9	A	4.05E+00	4.97E+00	8.2E-01	6.6E+01	LT	6.1E-02	4.4E+00	LT	9.2E-01
Landbay C	6500-111	INORG	Cobalt	7440-48-4	LC	4.91E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay C	6500-111	INORG	Copper	7440-50-8	D	5.16E+01	1.31E+02	3.9E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.1E+00**
Landbay C	6500-111	INORG	Iron	7439-89-6	D	6.31E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	6500-111	INORG	Lead	7439-92-1	B2	1.03E+01						3.5E+02	EqP	2.9E-02
Landbay C	6500-111	INORG	Manganese	7439-96-5	D	1.87E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	6500-111	INORG	Mercury	7439-97-6	D	2.90E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.8E-02
Landbay C	6500-111	INORG	Nickel	7440-02-0	A	4.98E+01	7.30E+01	6.8E-01	1.2E+05	EqP	4.0E-04	3.4E+01	EqP	**1.5E+00**
Landbay C	6500-111	INORG	Silver	7440-22-4	D	2.70E-01	2.30E+00	1.2E-01	3.8E+03	LT	7.2E-05	2.7E+00	LT	1.0E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	6500-111	INORG	Strontium	7440-24-6		3.31E+01	3.80E+01	8.7E-01	1.6E+07	EqP	2.0E-06	1.1E+03	EqP	3.1E-02
Landbay C	6500-111	INORG	Thallium	7440-28-0	ID	3.42E+00	4.50E+00	7.6E-01				1.1E+00	EqP	**3.0E+00**
Landbay C	6500-111	INORG	Vanadium	7440-62-2	ID	2.01E+02	2.83E+02	7.1E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.0E-01
Landbay C	6500-111	INORG	Zinc	7440-66-6	ID	5.96E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	6600-1850	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay C	6600-1850	INORG	Arsenic	7440-38-2	A	4.46E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay C	6600-1850	INORG	Barium	7440-39-3	NC	1.05E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	6600-1850	INORG	Beryllium	7440-41-7	B1	6.35E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay C	6600-1850	INORG	Cadmium	7440-43-9	B1	4.13E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.8E-04	2.1E+00	EqP	1.9E-01
Landbay C	6600-1850	INORG	Chromium III	16065-83-1	D	1.65E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.8E-09	3.4E+06	EqP	4.9E-05
Landbay C	6600-1850	INORG	Chromium VI	18540-29-9	A	3.72E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay C	6600-1850	INORG	Cobalt	7440-48-4	LC	6.30E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay C	6600-1850	INORG	Copper	7440-50-8	D	3.51E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay C	6600-1850	INORG	Iron	7439-89-6	D	5.78E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay C	6600-1850	INORG	Lead	7439-92-1	B2	1.96E+01						3.5E+02	EqP	5.6E-02
Landbay C	6600-1850	INORG	Manganese	7439-96-5	D	2.26E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	6600-1850	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay C	6600-1850	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay C	6600-1850	INORG	Zinc	7440-66-6	ID	5.13E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay C	6600-2000	INORG	Aluminum	7429-90-5	ID	3.85E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay C	6600-2000	INORG	Arsenic	7440-38-2	A	2.99E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay C	6600-2000	INORG	Barium	7440-39-3	NC	9.21E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay C	6600-2000	INORG	Beryllium	7440-41-7	B1	6.54E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.3E-02
Landbay C	6600-2000	INORG	Cadmium	7440-43-9	B1	4.59E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.2E-04	2.1E+00	EqP	2.1E-01
Landbay C	6600-2000	INORG	Chromium III	16065-83-1	D	2.24E+02	2.61E+02	8.6E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.6E-05
Landbay C	6600-2000	INORG	Chromium VI	18540-29-9	A	4.12E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay C	6600-2000	INORG	Cobalt	7440-48-4	LC	6.10E+01	8.60E+01	7.1E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay C	6600-2000	INORG	Copper	7440-50-8	D	3.70E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay C	6600-2000	INORG	Iron	7439-89-6	D	6.68E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay C	6600-2000	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay C	6600-2000	INORG	Manganese	7439-96-5	D	1.84E+03	4.27E+03	4.3E-01	3.1E+05	EqP	5.9E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	6600-2000	INORG	Nickel	7440-02-0	A	4.62E+01	7.30E+01	6.3E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.4E+00**
Landbay C	6600-2000	INORG	Vanadium	7440-62-2	ID	2.20E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay C	6600-2000	INORG	Zinc	7440-66-6	ID	5.25E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay C	6600-2300	VOC	Acetone	67-64-1	ID	2.80E-01			2.0E+06	LT	1.4E-07	6.0E+02	LT	4.7E-04
Landbay C	6600-2300	VOC	2-Butanone	78-93-3	ID	9.00E-03			3.0E+05	LT	3.0E-08	5.6E+03	LT	1.6E-06
Landbay C	6600-2300	VOC	Cumene	98-82-8	D	2.00E-03				NA		1.0E+00	LT	1.9E-03
Landbay C	6600-2300	INORG	Aluminum	7429-90-5	ID	3.68E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay C	6600-2300	INORG	Arsenic	7440-38-2	A	3.22E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay C	6600-2300	INORG	Barium	7440-39-3	NC	9.40E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay C	6600-2300	INORG	Beryllium	7440-41-7	B1	6.28E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay C	6600-2300	INORG	Cadmium	7440-43-9	B1	4.92E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.5E-04	2.1E+00	EqP	2.3E-01
Landbay C	6600-2300	INORG	Chromium III	16065-83-1	D	1.87E+02	2.61E+02	7.2E-01	2.1E+10	EqP	8.8E-09	3.4E+06	EqP	5.5E-05
Landbay C	6600-2300	INORG	Chromium VI	18540-29-9	A	3.87E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay C	6600-2300	INORG	Cobalt	7440-48-4	LC	5.92E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay C	6600-2300	INORG	Copper	7440-50-8	D	3.16E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.1E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	6600-2300	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay C	6600-2300	INORG	Lead	7439-92-1	B2	2.28E+01						3.5E+02	EqP	6.5E-02
Landbay C	6600-2300	INORG	Manganese	7439-96-5	D	2.19E+03	4.27E+03	5.1E-01	3.1E+05	EqP	7.0E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	6600-2300	INORG	Nickel	7440-02-0	A	3.47E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay C	6600-2300	INORG	Vanadium	7440-62-2	ID	2.26E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.6E-01
Landbay C	6600-2300	INORG	Zinc	7440-66-6	ID	5.71E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay C	6750-1850	VOC	Acetone	67-64-1	ID	3.48E-02			2.0E+06	LT	1.7E-08	6.0E+02	LT	5.8E-05
Landbay C	6750-1850	INORG	Aluminum	7429-90-5	ID	2.67E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	6750-1850	INORG	Arsenic	7440-38-2	A	7.82E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay C	6750-1850	INORG	Barium	7440-39-3	NC	8.43E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay C	6750-1850	INORG	Beryllium	7440-41-7	B1	6.48E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.2E-02
Landbay C	6750-1850	INORG	Cadmium	7440-43-9	B1	3.72E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.4E-04	2.1E+00	EqP	1.7E-01
Landbay C	6750-1850	INORG	Chromium III	16065-83-1	D	1.41E+02	2.61E+02	5.4E-01	2.1E+10	EqP	6.6E-09	3.4E+06	EqP	4.2E-05
Landbay C	6750-1850	INORG	Chromium VI	18540-29-9	A	3.56E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.1E-01
Landbay C	6750-1850	INORG	Cobalt	7440-48-4	LC	4.70E+01	8.60E+01	5.5E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.3E+00**
Landbay C	6750-1850	INORG	Copper	7440-50-8	D	1.86E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay C	6750-1850	INORG	Iron	7439-89-6	D	6.94E+04	9.52E+04	7.3E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay C	6750-1850	INORG	Lead	7439-92-1	B2	3.08E+01						3.5E+02	EqP	8.8E-02
Landbay C	6750-1850	INORG	Manganese	7439-96-5	D	2.51E+03	4.27E+03	5.9E-01	3.1E+05	EqP	8.1E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	6750-1850	INORG	Nickel	7440-02-0	A	1.78E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.3E-01
Landbay C	6750-1850	INORG	Thallium	7440-28-0	ID	2.13E+00	4.50E+00	4.7E-01				1.1E+00	EqP	**1.9E+00**
Landbay C	6750-1850	INORG	Vanadium	7440-62-2	ID	2.41E+02	2.83E+02	8.5E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.0E-01
Landbay C	6750-1850	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	6750-2000	VOC	Cumene	98-82-8	D	1.51E+00				NA		1.0E+00	LT	**1.4E+00**
Landbay C	6750-2000	VOC	p-Cymene	99-87-6		5.66E-01						3.4E+01	LT	1.7E-02
Landbay C	6750-2000	VOC	n-Propylbenzene	103-65-1	ID	5.23E-02				NA		5.1E+01	LT	1.0E-03
Landbay C	6750-2000	VOC	Styrene	100-42-5		1.41E-01				NA		2.9E+01	LT	4.9E-03
Landbay C	6750-2000	VOC	Toluene	108-88-3	ID	1.01E-01				NA		8.0E-01	LT	1.3E-01
Landbay C	6750-2000	INORG	Aluminum	7429-90-5	ID	3.24E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	6750-2000	INORG	Arsenic	7440-38-2	A	5.01E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.8E-02
Landbay C	6750-2000	INORG	Barium	7440-39-3	NC	1.09E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay C	6750-2000	INORG	Beryllium	7440-41-7	B1	6.32E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.1E-02
Landbay C	6750-2000	INORG	Cadmium	7440-43-9	B1	4.48E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay C	6750-2000	INORG	Chromium III	16065-83-1	D	1.55E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.3E-09	3.4E+06	EqP	4.6E-05
Landbay C	6750-2000	INORG	Chromium VI	18540-29-9	A	3.65E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay C	6750-2000	INORG	Cobalt	7440-48-4	LC	6.29E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay C	6750-2000	INORG	Copper	7440-50-8	D	2.96E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.5E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	6750-2000	INORG	Iron	7439-89-6	D	6.09E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay C	6750-2000	INORG	Lead	7439-92-1	B2	2.48E+01						3.5E+02	EqP	7.1E-02
Landbay C	6750-2000	INORG	Manganese	7439-96-5	D	2.11E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.8E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	6750-2000	INORG	Nickel	7440-02-0	A	3.33E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay C	6750-2000	INORG	Vanadium	7440-62-2	ID	1.93E+02	2.83E+02	6.8E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay C	6750-2000	INORG	Zinc	7440-66-6	ID	5.82E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	6750-2300	INORG	Aluminum	7429-90-5	ID	3.68E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay C	6750-2300	INORG	Arsenic	7440-38-2	A	3.22E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay C	6750-2300	INORG	Barium	7440-39-3	NC	9.40E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay C	6750-2300	INORG	Beryllium	7440-41-7	B1	6.28E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay C	6750-2300	INORG	Cadmium	7440-43-9	B1	4.92E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.5E-04	2.1E+00	EqP	2.3E-01
Landbay C	6750-2300	INORG	Chromium III	16065-83-1	D	1.87E+02	2.61E+02	7.2E-01	2.1E+10	EqP	8.8E-09	3.4E+06	EqP	5.5E-05
Landbay C	6750-2300	INORG	Chromium VI	18540-29-9	A	3.87E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay C	6750-2300	INORG	Cobalt	7440-48-4	LC	5.92E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay C	6750-2300	INORG	Copper	7440-50-8	D	3.16E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.1E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	6750-2300	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay C	6750-2300	INORG	Lead	7439-92-1	B2	2.28E+01						3.5E+02	EqP	6.5E-02
Landbay C	6750-2300	INORG	Manganese	7439-96-5	D	2.19E+03	4.27E+03	5.1E-01	3.1E+05	EqP	7.0E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	6750-2300	INORG	Nickel	7440-02-0	A	3.47E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay C	6750-2300	INORG	Vanadium	7440-62-2	ID	2.26E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.6E-01
Landbay C	6750-2300	INORG	Zinc	7440-66-6	ID	5.71E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay C	6900-1850	INORG	Aluminum	7429-90-5	ID	2.67E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	6900-1850	INORG	Arsenic	7440-38-2	A	7.82E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay C	6900-1850	INORG	Barium	7440-39-3	NC	8.43E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay C	6900-1850	INORG	Beryllium	7440-41-7	B1	6.48E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.2E-02
Landbay C	6900-1850	INORG	Cadmium	7440-43-9	B1	3.72E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.4E-04	2.1E+00	EqP	1.7E-01
Landbay C	6900-1850	INORG	Chromium III	16065-83-1	D	1.41E+02	2.61E+02	5.4E-01	2.1E+10	EqP	6.6E-09	3.4E+06	EqP	4.2E-05
Landbay C	6900-1850	INORG	Chromium VI	18540-29-9	A	3.56E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.1E-01
Landbay C	6900-1850	INORG	Cobalt	7440-48-4	LC	4.70E+01	8.60E+01	5.5E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.3E+00**
Landbay C	6900-1850	INORG	Copper	7440-50-8	D	1.86E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay C	6900-1850	INORG	Iron	7439-89-6	D	6.94E+04	9.52E+04	7.3E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay C	6900-1850	INORG	Lead	7439-92-1	B2	3.08E+01						3.5E+02	EqP	8.8E-02
Landbay C	6900-1850	INORG	Manganese	7439-96-5	D	2.51E+03	4.27E+03	5.9E-01	3.1E+05	EqP	8.1E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	6900-1850	INORG	Nickel	7440-02-0	A	1.78E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.3E-01
Landbay C	6900-1850	INORG	Thallium	7440-28-0	ID	2.13E+00	4.50E+00	4.7E-01				1.1E+00	EqP	**1.9E+00**
Landbay C	6900-1850	INORG	Vanadium	7440-62-2	ID	2.41E+02	2.83E+02	8.5E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.0E-01
Landbay C	6900-1850	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	6900-2000	INORG	Aluminum	7429-90-5	ID	3.24E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	6900-2000	INORG	Arsenic	7440-38-2	A	5.01E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.8E-02
Landbay C	6900-2000	INORG	Barium	7440-39-3	NC	1.09E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay C	6900-2000	INORG	Beryllium	7440-41-7	B1	6.32E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.1E-02
Landbay C	6900-2000	INORG	Cadmium	7440-43-9	B1	4.48E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay C	6900-2000	INORG	Chromium III	16065-83-1	D	1.55E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.3E-09	3.4E+06	EqP	4.6E-05
Landbay C	6900-2000	INORG	Chromium VI	18540-29-9	A	3.65E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay C	6900-2000	INORG	Cobalt	7440-48-4	LC	6.29E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay C	6900-2000	INORG	Copper	7440-50-8	D	2.96E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.5E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	6900-2000	INORG	Iron	7439-89-6	D	6.09E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay C	6900-2000	INORG	Lead	7439-92-1	B2	2.48E+01						3.5E+02	EqP	7.1E-02
Landbay C	6900-2000	INORG	Manganese	7439-96-5	D	2.11E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.8E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	6900-2000	INORG	Nickel	7440-02-0	A	3.33E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	6900-2000	INORG	Vanadium	7440-62-2	ID	1.93E+02	2.83E+02	6.8E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay C	6900-2000	INORG	Zinc	7440-66-6	ID	5.82E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	6900-2150	INORG	Aluminum	7429-90-5	ID	3.24E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	6900-2150	INORG	Arsenic	7440-38-2	A	5.01E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.8E-02
Landbay C	6900-2150	INORG	Barium	7440-39-3	NC	1.09E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay C	6900-2150	INORG	Beryllium	7440-41-7	B1	6.32E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.1E-02
Landbay C	6900-2150	INORG	Cadmium	7440-43-9	B1	4.48E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay C	6900-2150	INORG	Chromium III	16065-83-1	D	1.55E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.3E-09	3.4E+06	EqP	4.6E-05
Landbay C	6900-2150	INORG	Chromium VI	18540-29-9	A	3.65E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay C	6900-2150	INORG	Cobalt	7440-48-4	LC	6.29E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay C	6900-2150	INORG	Copper	7440-50-8	D	2.96E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.5E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	6900-2150	INORG	Iron	7439-89-6	D	6.09E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay C	6900-2150	INORG	Lead	7439-92-1	B2	2.48E+01						3.5E+02	EqP	7.1E-02
Landbay C	6900-2150	INORG	Manganese	7439-96-5	D	2.11E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.8E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	6900-2150	INORG	Nickel	7440-02-0	A	3.33E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay C	6900-2150	INORG	Vanadium	7440-62-2	ID	1.93E+02	2.83E+02	6.8E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay C	6900-2150	INORG	Zinc	7440-66-6	ID	5.82E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	6900-2300	INORG	Aluminum	7429-90-5	ID	2.75E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	6900-2300	INORG	Arsenic	7440-38-2	A	4.17E+00	9.90E+00	4.2E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	4.9E-02
Landbay C	6900-2300	INORG	Barium	7440-39-3	NC	9.76E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	6900-2300	INORG	Beryllium	7440-41-7	B1	6.77E-01	1.20E+00	5.6E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay C	6900-2300	INORG	Cadmium	7440-43-9	B1	2.85E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.6E-04	2.1E+00	EqP	1.3E-01
Landbay C	6900-2300	INORG	Chromium III	16065-83-1	D	1.42E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.2E-05
Landbay C	6900-2300	INORG	Chromium VI	18540-29-9	A	3.56E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay C	6900-2300	INORG	Cobalt	7440-48-4	LC	5.22E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay C	6900-2300	INORG	Copper	7440-50-8	D	2.61E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay C	6900-2300	INORG	Iron	7439-89-6	D	5.87E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.9E+02**
Landbay C	6900-2300	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay C	6900-2300	INORG	Manganese	7439-96-5	D	2.14E+03	4.27E+03	5.0E-01	3.1E+05	EqP	6.9E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	6900-2300	INORG	Nickel	7440-02-0	A	2.73E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.1E-01
Landbay C	6900-2300	INORG	Vanadium	7440-62-2	ID	1.88E+02	2.83E+02	6.6E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.7E-01
Landbay C	6900-2300	INORG	Zinc	7440-66-6	ID	5.34E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay C	6900-2450	VOC	Acetone	67-64-1	ID	2.10E-01			2.0E+06	LT	1.0E-07	6.0E+02	LT	3.5E-04
Landbay C	6900-2450	VOC	2-Butanone	78-93-3	ID	7.00E-03			3.0E+05	LT	2.3E-08	5.6E+03	LT	1.3E-06
Landbay C	6900-2450	VOC	Cumene	98-82-8	D	2.00E-03				NA		1.0E+00	LT	1.9E-03
Landbay C	6900-2450	VOC	p-Cymene	99-87-6		6.00E-03						3.4E+01	LT	1.8E-04
Landbay C	6900-2450	VOC	Toluene	108-88-3	ID	3.00E-03				NA		8.0E-01	LT	3.8E-03
Landbay C	6900-2450	INORG	Aluminum	7429-90-5	ID	3.68E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay C	6900-2450	INORG	Arsenic	7440-38-2	A	3.22E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay C	6900-2450	INORG	Barium	7440-39-3	NC	9.40E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay C	6900-2450	INORG	Beryllium	7440-41-7	B1	6.28E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay C	6900-2450	INORG	Cadmium	7440-43-9	B1	4.92E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.5E-04	2.1E+00	EqP	2.3E-01
Landbay C	6900-2450	INORG	Chromium III	16065-83-1	D	1.87E+02	2.61E+02	7.2E-01	2.1E+10	EqP	8.8E-09	3.4E+06	EqP	5.5E-05
Landbay C	6900-2450	INORG	Chromium VI	18540-29-9	A	3.87E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay C	6900-2450	INORG	Cobalt	7440-48-4	LC	5.92E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay C	6900-2450	INORG	Copper	7440-50-8	D	3.16E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.1E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	6900-2450	INORG	Iron	7439-89-6	D	6.83E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay C	6900-2450	INORG	Lead	7439-92-1	B2	2.28E+01						3.5E+02	EqP	6.5E-02
Landbay C	6900-2450	INORG	Manganese	7439-96-5	D	2.19E+03	4.27E+03	5.1E-01	3.1E+05	EqP	7.0E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	6900-2450	INORG	Nickel	7440-02-0	A	3.47E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay C	6900-2450	INORG	Vanadium	7440-62-2	ID	2.26E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.6E-01
Landbay C	6900-2450	INORG	Zinc	7440-66-6	ID	5.71E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay C	7000-120	INORG	Aluminum	7429-90-5	ID	3.72E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay C	7000-120	INORG	Antimony	7440-36-0	ID	7.88E-01	1.70E+00	4.6E-01	1.4E+03	EqP	5.7E-04	2.7E+01	EqP	2.9E-02
Landbay C	7000-120	INORG	Arsenic	7440-38-2	A	1.06E+01	9.90E+00	**1.1E+00**	1.1E+03	EqP	1.0E-02	8.6E+01	EqP	1.2E-01
Landbay C	7000-120	INORG	Barium	7440-39-3	NC	1.31E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay C	7000-120	INORG	Beryllium	7440-41-7	B1	7.66E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay C	7000-120	INORG	Boron	7440-42-8	ID	4.84E+00	1.34E+01	3.6E-01	9.9E+05	LT	4.9E-06	6.4E-01	LT	**7.6E+00**
Landbay C	7000-120	INORG	Chromium III	16065-83-1	D	1.73E+02	2.61E+02	6.6E-01	2.1E+10	EqP	8.1E-09	3.4E+06	EqP	5.1E-05
Landbay C	7000-120	INORG	Chromium VI	18540-29-9	A	3.77E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.6E-01
Landbay C	7000-120	INORG	Cobalt	7440-48-4	LC	7.06E+01	8.60E+01	8.2E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay C	7000-120	INORG	Copper	7440-50-8	D	3.78E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay C	7000-120	INORG	Iron	7439-89-6	D	7.24E+04	9.52E+04	7.6E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay C	7000-120	INORG	Lead	7439-92-1	B2	2.24E+01						3.5E+02	EqP	6.4E-02
Landbay C	7000-120	INORG	Manganese	7439-96-5	D	2.97E+03	4.27E+03	6.9E-01	3.1E+05	EqP	9.5E-03	1.6E+02	EqP	**1.9E+01**
Landbay C	7000-120	INORG	Mercury	7439-97-6	D	4.01E-02	7.10E-02	5.6E-01		NA		3.7E-01	EqP	1.1E-01
Landbay C	7000-120	INORG	Nickel	7440-02-0	A	3.44E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay C	7000-120	INORG	Silver	7440-22-4	D	2.20E-01	2.30E+00	9.6E-02	3.8E+03	LT	5.9E-05	2.7E+00	LT	8.3E-02
Landbay C	7000-120	INORG	Strontium	7440-24-6		1.49E+01	3.80E+01	3.9E-01	1.6E+07	EqP	9.1E-07	1.1E+03	EqP	1.4E-02
Landbay C	7000-120	INORG	Thallium	7440-28-0	ID	2.20E+00	4.50E+00	4.9E-01				1.1E+00	EqP	**1.9E+00**
Landbay C	7000-120	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay C	7000-120	INORG	Zinc	7440-66-6	ID	6.17E+01	1.02E+02	6.0E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay C	7000-121	SVOC	Benzaldehyde	100-52-7		3.50E-01				NA		3.7E+04	LT	9.5E-06
Landbay C	7000-121	INORG	Aluminum	7429-90-5	ID	2.90E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7000-121	INORG	Arsenic	7440-38-2	A	9.56E+00	9.90E+00	9.7E-01	1.1E+03	EqP	9.1E-03	8.6E+01	EqP	1.1E-01
Landbay C	7000-121	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay C	7000-121	INORG	Beryllium	7440-41-7	B1	6.19E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay C	7000-121	INORG	Boron	7440-42-8	ID	5.64E+00	1.34E+01	4.2E-01	9.9E+05	LT	5.7E-06	6.4E-01	LT	**8.8E+00**
Landbay C	7000-121	INORG	Chromium III	16065-83-1	D	1.38E+02	2.61E+02	5.3E-01	2.1E+10	EqP	6.5E-09	3.4E+06	EqP	4.1E-05
Landbay C	7000-121	INORG	Chromium VI	18540-29-9	A	3.53E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay C	7000-121	INORG	Cobalt	7440-48-4	LC	5.42E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay C	7000-121	INORG	Copper	7440-50-8	D	3.23E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.3E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	7000-121	INORG	Iron	7439-89-6	D	5.84E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.9E+02**
Landbay C	7000-121	INORG	Lead	7439-92-1	B2	3.92E+01						3.5E+02	EqP	1.1E-01
Landbay C	7000-121	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7000-121	INORG	Mercury	7439-97-6	D	6.49E-02	7.10E-02	9.1E-01		NA		3.7E-01	EqP	1.8E-01
Landbay C	7000-121	INORG	Nickel	7440-02-0	A	3.08E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay C	7000-121	INORG	Silver	7440-22-4	D	5.13E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay C	7000-121	INORG	Strontium	7440-24-6		1.81E+01	3.80E+01	4.8E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay C	7000-121	INORG	Thallium	7440-28-0	ID	1.48E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay C	7000-121	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay C	7000-121	INORG	Zinc	7440-66-6	ID	6.68E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay C	7000-122	INORG	Perchlorate	14797-73-0	NC	2.50E-04			3.4E+03	LT	7.3E-08	7.7E+02	LT	3.2E-07
Landbay C	7050-1700	INORG	Aluminum	7429-90-5	ID	2.67E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7050-1700	INORG	Arsenic	7440-38-2	A	7.82E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay C	7050-1700	INORG	Barium	7440-39-3	NC	8.43E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay C	7050-1700	INORG	Beryllium	7440-41-7	B1	6.48E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.2E-02
Landbay C	7050-1700	INORG	Cadmium	7440-43-9	B1	3.72E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.4E-04	2.1E+00	EqP	1.7E-01
Landbay C	7050-1700	INORG	Chromium III	16065-83-1	D	1.41E+02	2.61E+02	5.4E-01	2.1E+10	EqP	6.6E-09	3.4E+06	EqP	4.2E-05
Landbay C	7050-1700	INORG	Chromium VI	18540-29-9	A	3.56E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.1E-01
Landbay C	7050-1700	INORG	Cobalt	7440-48-4	LC	4.70E+01	8.60E+01	5.5E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.3E+00**
Landbay C	7050-1700	INORG	Copper	7440-50-8	D	1.86E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay C	7050-1700	INORG	Iron	7439-89-6	D	6.94E+04	9.52E+04	7.3E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay C	7050-1700	INORG	Lead	7439-92-1	B2	3.08E+01						3.5E+02	EqP	8.8E-02
Landbay C	7050-1700	INORG	Manganese	7439-96-5	D	2.51E+03	4.27E+03	5.9E-01	3.1E+05	EqP	8.1E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7050-1700	INORG	Nickel	7440-02-0	A	1.78E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.3E-01
Landbay C	7050-1700	INORG	Thallium	7440-28-0	ID	2.13E+00	4.50E+00	4.7E-01				1.1E+00	EqP	**1.9E+00**
Landbay C	7050-1700	INORG	Vanadium	7440-62-2	ID	2.41E+02	2.83E+02	8.5E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.0E-01
Landbay C	7050-1700	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	7050-1850	INORG	Aluminum	7429-90-5	ID	2.67E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7050-1850	INORG	Arsenic	7440-38-2	A	7.82E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay C	7050-1850	INORG	Barium	7440-39-3	NC	8.43E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay C	7050-1850	INORG	Beryllium	7440-41-7	B1	6.48E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.2E-02
Landbay C	7050-1850	INORG	Cadmium	7440-43-9	B1	3.72E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.4E-04	2.1E+00	EqP	1.7E-01
Landbay C	7050-1850	INORG	Chromium III	16065-83-1	D	1.41E+02	2.61E+02	5.4E-01	2.1E+10	EqP	6.6E-09	3.4E+06	EqP	4.2E-05
Landbay C	7050-1850	INORG	Chromium VI	18540-29-9	A	3.56E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.1E-01
Landbay C	7050-1850	INORG	Cobalt	7440-48-4	LC	4.70E+01	8.60E+01	5.5E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.3E+00**
Landbay C	7050-1850	INORG	Copper	7440-50-8	D	1.86E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay C	7050-1850	INORG	Iron	7439-89-6	D	6.94E+04	9.52E+04	7.3E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay C	7050-1850	INORG	Lead	7439-92-1	B2	3.08E+01						3.5E+02	EqP	8.8E-02
Landbay C	7050-1850	INORG	Manganese	7439-96-5	D	2.51E+03	4.27E+03	5.9E-01	3.1E+05	EqP	8.1E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7050-1850	INORG	Nickel	7440-02-0	A	1.78E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.3E-01
Landbay C	7050-1850	INORG	Thallium	7440-28-0	ID	2.13E+00	4.50E+00	4.7E-01				1.1E+00	EqP	**1.9E+00**
Landbay C	7050-1850	INORG	Vanadium	7440-62-2	ID	2.41E+02	2.83E+02	8.5E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.0E-01
Landbay C	7050-1850	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	7050-2150	INORG	Aluminum	7429-90-5	ID	3.24E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	7050-2150	INORG	Arsenic	7440-38-2	A	5.01E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.8E-02
Landbay C	7050-2150	INORG	Barium	7440-39-3	NC	1.09E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay C	7050-2150	INORG	Beryllium	7440-41-7	B1	6.32E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.1E-02
Landbay C	7050-2150	INORG	Cadmium	7440-43-9	B1	4.48E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay C	7050-2150	INORG	Chromium III	16065-83-1	D	1.55E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.3E-09	3.4E+06	EqP	4.6E-05
Landbay C	7050-2150	INORG	Chromium VI	18540-29-9	A	3.65E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay C	7050-2150	INORG	Cobalt	7440-48-4	LC	6.29E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	7050-2150	INORG	Copper	7440-50-8	D	2.96E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.5E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	7050-2150	INORG	Iron	7439-89-6	D	6.09E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay C	7050-2150	INORG	Lead	7439-92-1	B2	2.48E+01						3.5E+02	EqP	7.1E-02
Landbay C	7050-2150	INORG	Manganese	7439-96-5	D	2.11E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.8E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7050-2150	INORG	Nickel	7440-02-0	A	3.33E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay C	7050-2150	INORG	Vanadium	7440-62-2	ID	1.93E+02	2.83E+02	6.8E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay C	7050-2150	INORG	Zinc	7440-66-6	ID	5.82E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	7050-2300	INORG	Aluminum	7429-90-5	ID	2.75E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7050-2300	INORG	Arsenic	7440-38-2	A	4.17E+00	9.90E+00	4.2E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	4.9E-02
Landbay C	7050-2300	INORG	Barium	7440-39-3	NC	9.76E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	7050-2300	INORG	Beryllium	7440-41-7	B1	6.77E-01	1.20E+00	5.6E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay C	7050-2300	INORG	Cadmium	7440-43-9	B1	2.85E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.6E-04	2.1E+00	EqP	1.3E-01
Landbay C	7050-2300	INORG	Chromium III	16065-83-1	D	1.42E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.2E-05
Landbay C	7050-2300	INORG	Chromium VI	18540-29-9	A	3.56E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay C	7050-2300	INORG	Cobalt	7440-48-4	LC	5.22E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay C	7050-2300	INORG	Copper	7440-50-8	D	2.61E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay C	7050-2300	INORG	Iron	7439-89-6	D	5.87E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.9E+02**
Landbay C	7050-2300	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay C	7050-2300	INORG	Manganese	7439-96-5	D	2.14E+03	4.27E+03	5.0E-01	3.1E+05	EqP	6.9E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	7050-2300	INORG	Nickel	7440-02-0	A	2.73E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.1E-01
Landbay C	7050-2300	INORG	Vanadium	7440-62-2	ID	1.88E+02	2.83E+02	6.6E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.7E-01
Landbay C	7050-2300	INORG	Zinc	7440-66-6	ID	5.34E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay C	7050-2900	INORG	Aluminum	7429-90-5	ID	3.47E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.4E-05	2.6E+03	EqP	**1.3E+01**
Landbay C	7050-2900	INORG	Arsenic	7440-38-2	A	5.05E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay C	7050-2900	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay C	7050-2900	INORG	Beryllium	7440-41-7	B1	7.66E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay C	7050-2900	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay C	7050-2900	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay C	7050-2900	INORG	Cobalt	7440-48-4	LC	5.86E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay C	7050-2900	INORG	Copper	7440-50-8	D	3.71E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay C	7050-2900	INORG	Iron	7439-89-6	D	7.00E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay C	7050-2900	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02
Landbay C	7050-2900	INORG	Manganese	7439-96-5	D	2.06E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7050-2900	INORG	Nickel	7440-02-0	A	3.56E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay C	7050-2900	INORG	Vanadium	7440-62-2	ID	2.43E+02	2.83E+02	8.6E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay C	7050-2900	INORG	Zinc	7440-66-6	ID	5.60E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay C	7200-138	INORG	Perchlorate	14797-73-0	NC	2.75E-04			3.4E+03	LT	8.0E-08	7.7E+02	LT	3.6E-07
Landbay C	7200-2000	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7200-2000	INORG	Arsenic	7440-38-2	A	4.97E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.8E-02
Landbay C	7200-2000	INORG	Barium	7440-39-3	NC	1.75E+02	2.24E+02	7.8E-01	3.2E+05	EqP	5.4E-04	3.3E+00	EqP	**5.3E+01**
Landbay C	7200-2000	INORG	Beryllium	7440-41-7	B1	6.96E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay C	7200-2000	INORG	Cadmium	7440-43-9	B1	4.04E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay C	7200-2000	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay C	7200-2000	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay C	7200-2000	INORG	Cobalt	7440-48-4	LC	4.35E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7200-2000	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay C	7200-2000	INORG	Iron	7439-89-6	D	6.33E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	7200-2000	INORG	Lead	7439-92-1	B2	2.44E+01						3.5E+02	EqP	7.0E-02
Landbay C	7200-2000	INORG	Manganese	7439-96-5	D	2.58E+03	4.27E+03	6.0E-01	3.1E+05	EqP	8.3E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7200-2000	INORG	Nickel	7440-02-0	A	2.45E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.2E-01
Landbay C	7200-2000	INORG	Vanadium	7440-62-2	ID	2.11E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay C	7200-2000	INORG	Zinc	7440-66-6	ID	5.84E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	7200-2150	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7200-2150	INORG	Arsenic	7440-38-2	A	4.97E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.8E-02
Landbay C	7200-2150	INORG	Barium	7440-39-3	NC	1.75E+02	2.24E+02	7.8E-01	3.2E+05	EqP	5.4E-04	3.3E+00	EqP	**5.3E+01**
Landbay C	7200-2150	INORG	Beryllium	7440-41-7	B1	6.96E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay C	7200-2150	INORG	Cadmium	7440-43-9	B1	4.04E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay C	7200-2150	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay C	7200-2150	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay C	7200-2150	INORG	Cobalt	7440-48-4	LC	4.35E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7200-2150	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay C	7200-2150	INORG	Iron	7439-89-6	D	6.33E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	7200-2150	INORG	Lead	7439-92-1	B2	2.44E+01						3.5E+02	EqP	7.0E-02
Landbay C	7200-2150	INORG	Manganese	7439-96-5	D	2.58E+03	4.27E+03	6.0E-01	3.1E+05	EqP	8.3E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7200-2150	INORG	Nickel	7440-02-0	A	2.45E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.2E-01
Landbay C	7200-2150	INORG	Vanadium	7440-62-2	ID	2.11E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay C	7200-2150	INORG	Zinc	7440-66-6	ID	5.84E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	7200-2300	INORG	Aluminum	7429-90-5	ID	2.75E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7200-2300	INORG	Arsenic	7440-38-2	A	4.17E+00	9.90E+00	4.2E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	4.9E-02
Landbay C	7200-2300	INORG	Barium	7440-39-3	NC	9.76E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	7200-2300	INORG	Beryllium	7440-41-7	B1	6.77E-01	1.20E+00	5.6E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay C	7200-2300	INORG	Cadmium	7440-43-9	B1	2.85E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.6E-04	2.1E+00	EqP	1.3E-01
Landbay C	7200-2300	INORG	Chromium III	16065-83-1	D	1.42E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.2E-05
Landbay C	7200-2300	INORG	Chromium VI	18540-29-9	A	3.56E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay C	7200-2300	INORG	Cobalt	7440-48-4	LC	5.22E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay C	7200-2300	INORG	Copper	7440-50-8	D	2.61E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.5E-05	8.4E+00	EqP	**3.1E+00**
Landbay C	7200-2300	INORG	Iron	7439-89-6	D	5.87E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.9E+02**
Landbay C	7200-2300	INORG	Lead	7439-92-1	B2	1.95E+01						3.5E+02	EqP	5.6E-02
Landbay C	7200-2300	INORG	Manganese	7439-96-5	D	2.14E+03	4.27E+03	5.0E-01	3.1E+05	EqP	6.9E-03	1.6E+02	EqP	**1.4E+01**
Landbay C	7200-2300	INORG	Nickel	7440-02-0	A	2.73E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.1E-01
Landbay C	7200-2300	INORG	Vanadium	7440-62-2	ID	1.88E+02	2.83E+02	6.6E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.7E-01
Landbay C	7200-2300	INORG	Zinc	7440-66-6	ID	5.34E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay C	7200-2450	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7200-2450	INORG	Arsenic	7440-38-2	A	5.35E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.2E-02
Landbay C	7200-2450	INORG	Barium	7440-39-3	NC	9.98E+01	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	7200-2450	INORG	Beryllium	7440-41-7	B1	8.11E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay C	7200-2450	INORG	Chromium III	16065-83-1	D	1.36E+02	2.61E+02	5.2E-01	2.1E+10	EqP	6.4E-09	3.4E+06	EqP	4.0E-05
Landbay C	7200-2450	INORG	Chromium VI	18540-29-9	A	3.52E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay C	7200-2450	INORG	Cobalt	7440-48-4	LC	7.61E+01	8.60E+01	8.8E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.7E+00**
Landbay C	7200-2450	INORG	Copper	7440-50-8	D	2.82E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.4E+00**
Landbay C	7200-2450	INORG	Iron	7439-89-6	D	7.06E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay C	7200-2450	INORG	Lead	7439-92-1	B2	2.76E+01						3.5E+02	EqP	7.9E-02
Landbay C	7200-2450	INORG	Manganese	7439-96-5	D	2.34E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.5E-03	1.6E+02	EqP	**1.5E+01**
Landbay C	7200-2450	INORG	Mercury	7439-97-6	D	4.93E-02	7.10E-02	6.9E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	7200-2450	INORG	Nickel	7440-02-0	A	2.51E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay C	7200-2450	INORG	Vanadium	7440-62-2	ID	2.59E+02	2.83E+02	9.2E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.5E-01
Landbay C	7200-2450	INORG	Zinc	7440-66-6	ID	4.56E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.3E-06	1.9E+02	EqP	2.4E-01
Landbay C	7200-2600	PCB	PCBs (total)	1336-36-3	B2	5.34E-02				NA		1.4E+00	EqP	3.9E-02
Landbay C	7200-2600	INORG	Aluminum	7429-90-5	ID	2.10E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.7E-05	2.6E+03	EqP	**8.0E+00**
Landbay C	7200-2600	INORG	Arsenic	7440-38-2	A	5.64E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay C	7200-2600	INORG	Barium	7440-39-3	NC	8.21E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay C	7200-2600	INORG	Beryllium	7440-41-7	B1	8.13E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay C	7200-2600	INORG	Chromium III	16065-83-1	D	1.09E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.1E-09	3.4E+06	EqP	3.2E-05
Landbay C	7200-2600	INORG	Chromium VI	18540-29-9	A	3.33E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay C	7200-2600	INORG	Cobalt	7440-48-4	LC	5.95E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.9E+00**
Landbay C	7200-2600	INORG	Copper	7440-50-8	D	1.67E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay C	7200-2600	INORG	Iron	7439-89-6	D	6.37E+04	9.52E+04	6.7E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	7200-2600	INORG	Lead	7439-92-1	B2	3.01E+01						3.5E+02	EqP	8.6E-02
Landbay C	7200-2600	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7200-2600	INORG	Mercury	7439-97-6	D	7.21E-02	7.10E-02	1.0E+00		NA		3.7E-01	EqP	2.0E-01
Landbay C	7200-2600	INORG	Nickel	7440-02-0	A	1.58E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay C	7200-2600	INORG	Vanadium	7440-62-2	ID	2.28E+02	2.83E+02	8.1E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay C	7200-2600	INORG	Zinc	7440-66-6	ID	4.41E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.1E-06	1.9E+02	EqP	2.3E-01
Landbay C	7200-2750	PCB	PCBs (total)	1336-36-3	B2	5.34E-02				NA		1.4E+00	EqP	3.9E-02
Landbay C	7200-2750	INORG	Aluminum	7429-90-5	ID	2.10E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.7E-05	2.6E+03	EqP	**8.0E+00**
Landbay C	7200-2750	INORG	Arsenic	7440-38-2	A	5.64E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay C	7200-2750	INORG	Barium	7440-39-3	NC	8.21E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay C	7200-2750	INORG	Beryllium	7440-41-7	B1	8.13E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay C	7200-2750	INORG	Chromium III	16065-83-1	D	1.09E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.1E-09	3.4E+06	EqP	3.2E-05
Landbay C	7200-2750	INORG	Chromium VI	18540-29-9	A	3.33E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay C	7200-2750	INORG	Cobalt	7440-48-4	LC	5.95E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.9E+00**
Landbay C	7200-2750	INORG	Copper	7440-50-8	D	1.67E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay C	7200-2750	INORG	Iron	7439-89-6	D	6.37E+04	9.52E+04	6.7E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	7200-2750	INORG	Lead	7439-92-1	B2	3.01E+01						3.5E+02	EqP	8.6E-02
Landbay C	7200-2750	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7200-2750	INORG	Mercury	7439-97-6	D	7.21E-02	7.10E-02	1.0E+00		NA		3.7E-01	EqP	2.0E-01
Landbay C	7200-2750	INORG	Nickel	7440-02-0	A	1.58E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay C	7200-2750	INORG	Vanadium	7440-62-2	ID	2.28E+02	2.83E+02	8.1E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay C	7200-2750	INORG	Zinc	7440-66-6	ID	4.41E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.1E-06	1.9E+02	EqP	2.3E-01
Landbay C	7200-3050	INORG	Aluminum	7429-90-5	ID	2.25E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.6E+00**
Landbay C	7200-3050	INORG	Arsenic	7440-38-2	A	3.87E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay C	7200-3050	INORG	Barium	7440-39-3	NC	9.02E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7200-3050	INORG	Beryllium	7440-41-7	B1	7.65E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay C	7200-3050	INORG	Chromium III	16065-83-1	D	6.61E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay C	7200-3050	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay C	7200-3050	INORG	Cobalt	7440-48-4	LC	4.15E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay C	7200-3050	INORG	Copper	7440-50-8	D	4.07E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay C	7200-3050	INORG	Iron	7439-89-6	D	4.80E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay C	7200-3050	INORG	Lead	7439-92-1	B2	2.35E+01						3.5E+02	EqP	6.7E-02
Landbay C	7200-3050	INORG	Manganese	7439-96-5	D	1.49E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay C	7200-3050	INORG	Nickel	7440-02-0	A	1.64E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay C	7200-3050	INORG	Vanadium	7440-62-2	ID	1.57E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay C	7200-3050	INORG	Zinc	7440-66-6	ID	3.71E+01	1.02E+02	3.6E-01	5.5E+06	EqP	6.8E-06	1.9E+02	EqP	2.0E-01
Landbay C	7200-3200	INORG	Aluminum	7429-90-5	ID	2.25E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.6E+00**
Landbay C	7200-3200	INORG	Arsenic	7440-38-2	A	3.87E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay C	7200-3200	INORG	Barium	7440-39-3	NC	9.02E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7200-3200	INORG	Beryllium	7440-41-7	B1	7.65E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay C	7200-3200	INORG	Chromium III	16065-83-1	D	6.61E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay C	7200-3200	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay C	7200-3200	INORG	Cobalt	7440-48-4	LC	4.15E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay C	7200-3200	INORG	Copper	7440-50-8	D	4.07E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay C	7200-3200	INORG	Iron	7439-89-6	D	4.80E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay C	7200-3200	INORG	Lead	7439-92-1	B2	2.35E+01						3.5E+02	EqP	6.7E-02
Landbay C	7200-3200	INORG	Manganese	7439-96-5	D	1.49E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay C	7200-3200	INORG	Nickel	7440-02-0	A	1.64E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay C	7200-3200	INORG	Vanadium	7440-62-2	ID	1.57E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay C	7200-3200	INORG	Zinc	7440-66-6	ID	3.71E+01	1.02E+02	3.6E-01	5.5E+06	EqP	6.8E-06	1.9E+02	EqP	2.0E-01
Landbay C	7350-1850	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7350-1850	INORG	Arsenic	7440-38-2	A	4.97E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.8E-02
Landbay C	7350-1850	INORG	Barium	7440-39-3	NC	1.75E+02	2.24E+02	7.8E-01	3.2E+05	EqP	5.4E-04	3.3E+00	EqP	**5.3E+01**
Landbay C	7350-1850	INORG	Beryllium	7440-41-7	B1	6.96E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay C	7350-1850	INORG	Cadmium	7440-43-9	B1	4.04E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay C	7350-1850	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay C	7350-1850	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay C	7350-1850	INORG	Cobalt	7440-48-4	LC	4.35E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7350-1850	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay C	7350-1850	INORG	Iron	7439-89-6	D	6.33E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	7350-1850	INORG	Lead	7439-92-1	B2	2.44E+01						3.5E+02	EqP	7.0E-02
Landbay C	7350-1850	INORG	Manganese	7439-96-5	D	2.58E+03	4.27E+03	6.0E-01	3.1E+05	EqP	8.3E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7350-1850	INORG	Nickel	7440-02-0	A	2.45E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.2E-01
Landbay C	7350-1850	INORG	Vanadium	7440-62-2	ID	2.11E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay C	7350-1850	INORG	Zinc	7440-66-6	ID	5.84E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	7350-2000	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7350-2000	INORG	Arsenic	7440-38-2	A	4.97E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.8E-02
Landbay C	7350-2000	INORG	Barium	7440-39-3	NC	1.75E+02	2.24E+02	7.8E-01	3.2E+05	EqP	5.4E-04	3.3E+00	EqP	**5.3E+01**
Landbay C	7350-2000	INORG	Beryllium	7440-41-7	B1	6.96E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay C	7350-2000	INORG	Cadmium	7440-43-9	B1	4.04E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay C	7350-2000	INORG	Chromium III	16065-83-1	D	1.16E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay C	7350-2000	INORG	Chromium VI	18540-29-9	A	3.38E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay C	7350-2000	INORG	Cobalt	7440-48-4	LC	4.35E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7350-2000	INORG	Copper	7440-50-8	D	2.79E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay C	7350-2000	INORG	Iron	7439-89-6	D	6.33E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	7350-2000	INORG	Lead	7439-92-1	B2	2.44E+01						3.5E+02	EqP	7.0E-02
Landbay C	7350-2000	INORG	Manganese	7439-96-5	D	2.58E+03	4.27E+03	6.0E-01	3.1E+05	EqP	8.3E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7350-2000	INORG	Nickel	7440-02-0	A	2.45E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.2E-01
Landbay C	7350-2000	INORG	Vanadium	7440-62-2	ID	2.11E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay C	7350-2000	INORG	Zinc	7440-66-6	ID	5.84E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	7350-2300	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7350-2300	INORG	Arsenic	7440-38-2	A	5.35E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.2E-02
Landbay C	7350-2300	INORG	Barium	7440-39-3	NC	9.98E+01	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	7350-2300	INORG	Beryllium	7440-41-7	B1	8.11E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay C	7350-2300	INORG	Chromium III	16065-83-1	D	1.36E+02	2.61E+02	5.2E-01	2.1E+10	EqP	6.4E-09	3.4E+06	EqP	4.0E-05
Landbay C	7350-2300	INORG	Chromium VI	18540-29-9	A	3.52E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay C	7350-2300	INORG	Cobalt	7440-48-4	LC	7.61E+01	8.60E+01	8.8E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.7E+00**
Landbay C	7350-2300	INORG	Copper	7440-50-8	D	2.82E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.4E+00**
Landbay C	7350-2300	INORG	Iron	7439-89-6	D	7.06E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay C	7350-2300	INORG	Lead	7439-92-1	B2	2.76E+01						3.5E+02	EqP	7.9E-02
Landbay C	7350-2300	INORG	Manganese	7439-96-5	D	2.34E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.5E-03	1.6E+02	EqP	**1.5E+01**
Landbay C	7350-2300	INORG	Mercury	7439-97-6	D	4.93E-02	7.10E-02	6.9E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	7350-2300	INORG	Nickel	7440-02-0	A	2.51E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay C	7350-2300	INORG	Vanadium	7440-62-2	ID	2.59E+02	2.83E+02	9.2E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.5E-01
Landbay C	7350-2300	INORG	Zinc	7440-66-6	ID	4.56E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.3E-06	1.9E+02	EqP	2.4E-01
Landbay C	7350-2450	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7350-2450	INORG	Arsenic	7440-38-2	A	5.35E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.2E-02
Landbay C	7350-2450	INORG	Barium	7440-39-3	NC	9.98E+01	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	7350-2450	INORG	Beryllium	7440-41-7	B1	8.11E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay C	7350-2450	INORG	Chromium III	16065-83-1	D	1.36E+02	2.61E+02	5.2E-01	2.1E+10	EqP	6.4E-09	3.4E+06	EqP	4.0E-05
Landbay C	7350-2450	INORG	Chromium VI	18540-29-9	A	3.52E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay C	7350-2450	INORG	Cobalt	7440-48-4	LC	7.61E+01	8.60E+01	8.8E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.7E+00**
Landbay C	7350-2450	INORG	Copper	7440-50-8	D	2.82E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.4E+00**
Landbay C	7350-2450	INORG	Iron	7439-89-6	D	7.06E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay C	7350-2450	INORG	Lead	7439-92-1	B2	2.76E+01						3.5E+02	EqP	7.9E-02
Landbay C	7350-2450	INORG	Manganese	7439-96-5	D	2.34E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.5E-03	1.6E+02	EqP	**1.5E+01**
Landbay C	7350-2450	INORG	Mercury	7439-97-6	D	4.93E-02	7.10E-02	6.9E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	7350-2450	INORG	Nickel	7440-02-0	A	2.51E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay C	7350-2450	INORG	Vanadium	7440-62-2	ID	2.59E+02	2.83E+02	9.2E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.5E-01
Landbay C	7350-2450	INORG	Zinc	7440-66-6	ID	4.56E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.3E-06	1.9E+02	EqP	2.4E-01
Landbay C	7350-2750	PCB	PCBs (total)	1336-36-3	B2	5.34E-02				NA		1.4E+00	EqP	3.9E-02
Landbay C	7350-2750	INORG	Aluminum	7429-90-5	ID	2.10E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.7E-05	2.6E+03	EqP	**8.0E+00**
Landbay C	7350-2750	INORG	Arsenic	7440-38-2	A	5.64E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay C	7350-2750	INORG	Barium	7440-39-3	NC	8.21E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay C	7350-2750	INORG	Beryllium	7440-41-7	B1	8.13E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay C	7350-2750	INORG	Chromium III	16065-83-1	D	1.09E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.1E-09	3.4E+06	EqP	3.2E-05
Landbay C	7350-2750	INORG	Chromium VI	18540-29-9	A	3.33E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay C	7350-2750	INORG	Cobalt	7440-48-4	LC	5.95E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.9E+00**
Landbay C	7350-2750	INORG	Copper	7440-50-8	D	1.67E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay C	7350-2750	INORG	Iron	7439-89-6	D	6.37E+04	9.52E+04	6.7E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	7350-2750	INORG	Lead	7439-92-1	B2	3.01E+01						3.5E+02	EqP	8.6E-02
Landbay C	7350-2750	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7350-2750	INORG	Mercury	7439-97-6	D	7.21E-02	7.10E-02	1.0E+00		NA		3.7E-01	EqP	2.0E-01
Landbay C	7350-2750	INORG	Nickel	7440-02-0	A	1.58E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay C	7350-2750	INORG	Vanadium	7440-62-2	ID	2.28E+02	2.83E+02	8.1E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay C	7350-2750	INORG	Zinc	7440-66-6	ID	4.41E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.1E-06	1.9E+02	EqP	2.3E-01
Landbay C	7350-2900	PCB	PCBs (total)	1336-36-3	B2	5.34E-02				NA		1.4E+00	EqP	3.9E-02
Landbay C	7350-2900	INORG	Aluminum	7429-90-5	ID	2.10E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.7E-05	2.6E+03	EqP	**8.0E+00**
Landbay C	7350-2900	INORG	Arsenic	7440-38-2	A	5.64E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay C	7350-2900	INORG	Barium	7440-39-3	NC	8.21E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay C	7350-2900	INORG	Beryllium	7440-41-7	B1	8.13E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay C	7350-2900	INORG	Chromium III	16065-83-1	D	1.09E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.1E-09	3.4E+06	EqP	3.2E-05
Landbay C	7350-2900	INORG	Chromium VI	18540-29-9	A	3.33E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay C	7350-2900	INORG	Cobalt	7440-48-4	LC	5.95E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.9E+00**
Landbay C	7350-2900	INORG	Copper	7440-50-8	D	1.67E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay C	7350-2900	INORG	Iron	7439-89-6	D	6.37E+04	9.52E+04	6.7E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.2E+02**
Landbay C	7350-2900	INORG	Lead	7439-92-1	B2	3.01E+01						3.5E+02	EqP	8.6E-02
Landbay C	7350-2900	INORG	Manganese	7439-96-5	D	2.47E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay C	7350-2900	INORG	Mercury	7439-97-6	D	7.21E-02	7.10E-02	1.0E+00		NA		3.7E-01	EqP	2.0E-01
Landbay C	7350-2900	INORG	Nickel	7440-02-0	A	1.58E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay C	7350-2900	INORG	Vanadium	7440-62-2	ID	2.28E+02	2.83E+02	8.1E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.7E-01
Landbay C	7350-2900	INORG	Zinc	7440-66-6	ID	4.41E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.1E-06	1.9E+02	EqP	2.3E-01
Landbay C	7350-3050	INORG	Aluminum	7429-90-5	ID	1.79E+04	5.34E+04	3.4E-01	3.7E+08	EqP	4.8E-05	2.6E+03	EqP	**6.9E+00**
Landbay C	7350-3050	INORG	Antimony	7440-36-0	ID	1.39E+00	1.70E+00	8.2E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.1E-02
Landbay C	7350-3050	INORG	Arsenic	7440-38-2	A	3.84E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay C	7350-3050	INORG	Barium	7440-39-3	NC	3.49E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay C	7350-3050	INORG	Beryllium	7440-41-7	B1	5.28E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay C	7350-3050	INORG	Cadmium	7440-43-9	B1	1.80E+00	2.70E+00	6.7E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.4E-01
Landbay C	7350-3050	INORG	Chromium III	16065-83-1	D	7.02E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay C	7350-3050	INORG	Chromium VI	18540-29-9	A	3.07E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	7.0E-01
Landbay C	7350-3050	INORG	Cobalt	7440-48-4	LC	1.67E+01	8.60E+01	1.9E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.0E-01
Landbay C	7350-3050	INORG	Copper	7440-50-8	D	1.67E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay C	7350-3050	INORG	Iron	7439-89-6	D	5.35E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay C	7350-3050	INORG	Lead	7439-92-1	B2	1.94E+01						3.5E+02	EqP	5.5E-02
Landbay C	7350-3050	INORG	Mercury	7439-97-6	D	2.09E-02	7.10E-02	2.9E-01		NA		3.7E-01	EqP	5.7E-02
Landbay C	7350-3050	INORG	Nickel	7440-02-0	A	8.58E+00	7.30E+01	1.2E-01	1.2E+05	EqP	6.9E-05	3.4E+01	EqP	2.5E-01
Landbay C	7350-3050	INORG	Perchlorate	14797-73-0	NC	8.90E-04			3.4E+03	LT	2.6E-07	7.7E+02	LT	1.2E-06
Landbay C	7350-3050	INORG	Silver	7440-22-4	D	8.12E-01	2.30E+00	3.5E-01	3.8E+03	LT	2.2E-04	2.7E+00	LT	3.1E-01
Landbay C	7350-3050	INORG	Thallium	7440-28-0	ID	3.68E+00	4.50E+00	8.2E-01				1.1E+00	EqP	**3.2E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	7350-3050	INORG	Vanadium	7440-62-2	ID	1.57E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay C	7350-3050	INORG	Zinc	7440-66-6	ID	2.97E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.4E-06	1.9E+02	EqP	1.6E-01
Landbay C	7350-3200	INORG	Aluminum	7429-90-5	ID	2.49E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.5E+00**
Landbay C	7350-3200	INORG	Arsenic	7440-38-2	A	3.30E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay C	7350-3200	INORG	Barium	7440-39-3	NC	7.76E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay C	7350-3200	INORG	Beryllium	7440-41-7	B1	6.33E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.1E-02
Landbay C	7350-3200	INORG	Cadmium	7440-43-9	B1	9.29E-01	2.70E+00	3.4E-01	1.1E+03	EqP	8.6E-04	2.1E+00	EqP	4.3E-01
Landbay C	7350-3200	INORG	Chromium III	16065-83-1	D	6.70E+01	2.61E+02	2.6E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay C	7350-3200	INORG	Chromium VI	18540-29-9	A	3.05E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay C	7350-3200	INORG	Cobalt	7440-48-4	LC	2.66E+01	8.60E+01	3.1E-01	1.4E+04	EqP	1.9E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	7350-3200	INORG	Copper	7440-50-8	D	2.86E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.2E-05	8.4E+00	EqP	**3.4E+00**
Landbay C	7350-3200	INORG	Iron	7439-89-6	D	3.85E+04	9.52E+04	4.0E-01	4.4E+06	EqP	8.8E-03	1.5E+02	EqP	**2.5E+02**
Landbay C	7350-3200	INORG	Lead	7439-92-1	B2	3.03E+01						3.5E+02	EqP	8.6E-02
Landbay C	7350-3200	INORG	Mercury	7439-97-6	D	3.92E-02	7.10E-02	5.5E-01		NA		3.7E-01	EqP	1.1E-01
Landbay C	7350-3200	INORG	Nickel	7440-02-0	A	1.33E+01	7.30E+01	1.8E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	3.9E-01
Landbay C	7350-3200	INORG	Perchlorate	14797-73-0	NC	5.70E-04			3.4E+03	LT	1.7E-07	7.7E+02	LT	7.4E-07
Landbay C	7350-3200	INORG	Silver	7440-22-4	D	7.10E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay C	7350-3200	INORG	Thallium	7440-28-0	ID	3.31E+00	4.50E+00	7.4E-01				1.1E+00	EqP	**2.9E+00**
Landbay C	7350-3200	INORG	Vanadium	7440-62-2	ID	1.29E+02	2.83E+02	4.6E-01	1.5E+05	EqP	8.3E-04	4.0E+02	EqP	3.2E-01
Landbay C	7350-3200	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	7500-144	INORG	Perchlorate	14797-73-0	NC	2.40E-04			3.4E+03	LT	7.0E-08	7.7E+02	LT	3.1E-07
Landbay C	7500-145	INORG	Aluminum	7429-90-5	ID	3.07E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	7500-145	INORG	Arsenic	7440-38-2	A	3.33E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay C	7500-145	INORG	Barium	7440-39-3	NC	6.04E+01	2.24E+02	2.7E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.8E+01**
Landbay C	7500-145	INORG	Beryllium	7440-41-7	B1	1.43E-01	1.20E+00	1.2E-01	6.8E+03	EqP	2.1E-05	1.0E+01	EqP	1.4E-02
Landbay C	7500-145	INORG	Cadmium	7440-43-9	B1	8.57E-01	2.70E+00	3.2E-01	1.1E+03	EqP	7.9E-04	2.1E+00	EqP	4.0E-01
Landbay C	7500-145	INORG	Chromium III	16065-83-1	D	4.75E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	7500-145	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	7500-145	INORG	Copper	7440-50-8	D	4.46E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.3E+00**
Landbay C	7500-145	INORG	Lead	7439-92-1	B2	1.59E+01						3.5E+02	EqP	4.5E-02
Landbay C	7500-145	INORG	Mercury	7439-97-6	D	2.35E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.4E-02
Landbay C	7500-145	INORG	Perchlorate	14797-73-0	NC	5.20E-04			3.4E+03	LT	1.5E-07	7.7E+02	LT	6.7E-07
Landbay C	7500-145	INORG	Silver	7440-22-4	D	1.93E+02	2.30E+00	**8.4E+01**	3.8E+03	LT	5.1E-02	2.7E+00	LT	**7.3E+01**
Landbay C	7500-145	INORG	Strontium	7440-24-6		3.97E+01	3.80E+01	1.0E+00	1.6E+07	EqP	2.4E-06	1.1E+03	EqP	3.8E-02
Landbay C	7500-146	PCB	PCBs (total)	1336-36-3	B2	2.51E-01				NA		1.4E+00	EqP	1.8E-01
Landbay C	7500-146	INORG	Aluminum	7429-90-5	ID	1.76E+04	5.34E+04	3.3E-01	3.7E+08	EqP	4.8E-05	2.6E+03	EqP	**6.7E+00**
Landbay C	7500-146	INORG	Arsenic	7440-38-2	A	3.88E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay C	7500-146	INORG	Barium	7440-39-3	NC	1.36E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.1E+01**
Landbay C	7500-146	INORG	Beryllium	7440-41-7	B1	9.24E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay C	7500-146	INORG	Cadmium	7440-43-9	B1	6.30E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.8E-04	2.1E+00	EqP	2.9E-01
Landbay C	7500-146	INORG	Chromium III	16065-83-1	D	3.10E+01	2.61E+02	1.2E-01	2.1E+10	EqP	1.5E-09	3.4E+06	EqP	9.2E-06
Landbay C	7500-146	INORG	Chromium VI	18540-29-9	A	2.80E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay C	7500-146	INORG	Copper	7440-50-8	D	2.68E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.7E-05	8.4E+00	EqP	**3.2E+00**
Landbay C	7500-146	INORG	Lead	7439-92-1	B2	5.57E+01						3.5E+02	EqP	1.6E-01
Landbay C	7500-146	INORG	Mercury	7439-97-6	D	1.18E-01	7.10E-02	**1.7E+00**		NA		3.7E-01	EqP	3.2E-01
Landbay C	7500-146	INORG	Silver	7440-22-4	D	8.57E-01	2.30E+00	3.7E-01	3.8E+03	LT	2.3E-04	2.7E+00	LT	3.2E-01
Landbay C	7500-146	INORG	Strontium	7440-24-6		7.61E+00	3.80E+01	2.0E-01	1.6E+07	EqP	4.7E-07	1.1E+03	EqP	7.2E-03
Landbay C	7500-1700	INORG	Aluminum	7429-90-5	ID	2.31E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.8E+00**
Landbay C	7500-1700	INORG	Antimony	7440-36-0	ID	9.95E-01	1.70E+00	5.9E-01	1.4E+03	EqP	7.3E-04	2.7E+01	EqP	3.7E-02
Landbay C	7500-1700	INORG	Arsenic	7440-38-2	A	3.99E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay C	7500-1700	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay C	7500-1700	INORG	Beryllium	7440-41-7	B1	6.20E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay C	7500-1700	INORG	Cadmium	7440-43-9	B1	4.11E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.8E-04	2.1E+00	EqP	1.9E-01
Landbay C	7500-1700	INORG	Chromium III	16065-83-1	D	4.93E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.5E-05
Landbay C	7500-1700	INORG	Chromium VI	18540-29-9	A	2.93E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay C	7500-1700	INORG	Cobalt	7440-48-4	LC	2.42E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay C	7500-1700	INORG	Copper	7440-50-8	D	1.39E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay C	7500-1700	INORG	Iron	7439-89-6	D	4.14E+04	9.52E+04	4.3E-01	4.4E+06	EqP	9.5E-03	1.5E+02	EqP	**2.7E+02**
Landbay C	7500-1700	INORG	Lead	7439-92-1	B2	2.58E+01						3.5E+02	EqP	7.4E-02
Landbay C	7500-1700	INORG	Manganese	7439-96-5	D	2.41E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay C	7500-1700	INORG	Mercury	7439-97-6	D	3.57E-02	7.10E-02	5.0E-01		NA		3.7E-01	EqP	9.7E-02
Landbay C	7500-1700	INORG	Nickel	7440-02-0	A	1.42E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.2E-01
Landbay C	7500-1700	INORG	Silver	7440-22-4	D	7.13E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay C	7500-1700	INORG	Vanadium	7440-62-2	ID	1.17E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.5E-04	4.0E+02	EqP	2.9E-01
Landbay C	7500-1700	INORG	Zinc	7440-66-6	ID	6.22E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay C	7500-1850	INORG	Aluminum	7429-90-5	ID	2.31E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.8E+00**
Landbay C	7500-1850	INORG	Antimony	7440-36-0	ID	9.95E-01	1.70E+00	5.9E-01	1.4E+03	EqP	7.3E-04	2.7E+01	EqP	3.7E-02
Landbay C	7500-1850	INORG	Arsenic	7440-38-2	A	3.99E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay C	7500-1850	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay C	7500-1850	INORG	Beryllium	7440-41-7	B1	6.20E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay C	7500-1850	INORG	Cadmium	7440-43-9	B1	4.11E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.8E-04	2.1E+00	EqP	1.9E-01
Landbay C	7500-1850	INORG	Chromium III	16065-83-1	D	4.93E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.5E-05
Landbay C	7500-1850	INORG	Chromium VI	18540-29-9	A	2.93E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay C	7500-1850	INORG	Cobalt	7440-48-4	LC	2.42E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay C	7500-1850	INORG	Copper	7440-50-8	D	1.39E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay C	7500-1850	INORG	Iron	7439-89-6	D	4.14E+04	9.52E+04	4.3E-01	4.4E+06	EqP	9.5E-03	1.5E+02	EqP	**2.7E+02**
Landbay C	7500-1850	INORG	Lead	7439-92-1	B2	2.58E+01						3.5E+02	EqP	7.4E-02
Landbay C	7500-1850	INORG	Manganese	7439-96-5	D	2.41E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay C	7500-1850	INORG	Mercury	7439-97-6	D	3.57E-02	7.10E-02	5.0E-01		NA		3.7E-01	EqP	9.7E-02
Landbay C	7500-1850	INORG	Nickel	7440-02-0	A	1.42E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.2E-01
Landbay C	7500-1850	INORG	Silver	7440-22-4	D	7.13E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay C	7500-1850	INORG	Vanadium	7440-62-2	ID	1.17E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.5E-04	4.0E+02	EqP	2.9E-01
Landbay C	7500-1850	INORG	Zinc	7440-66-6	ID	6.22E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay C	7500-2000	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7500-2000	INORG	Arsenic	7440-38-2	A	3.44E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay C	7500-2000	INORG	Barium	7440-39-3	NC	8.85E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7500-2000	INORG	Beryllium	7440-41-7	B1	8.75E-01	1.20E+00	7.3E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.4E-02
Landbay C	7500-2000	INORG	Chromium III	16065-83-1	D	6.31E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay C	7500-2000	INORG	Chromium VI	18540-29-9	A	3.02E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.9E-01
Landbay C	7500-2000	INORG	Cobalt	7440-48-4	LC	2.28E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay C	7500-2000	INORG	Copper	7440-50-8	D	2.42E+01	1.31E+02	1.8E-01	3.5E+05	EqP	7.0E-05	8.4E+00	EqP	**2.9E+00**
Landbay C	7500-2000	INORG	Iron	7439-89-6	D	4.63E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay C	7500-2000	INORG	Lead	7439-92-1	B2	2.05E+01						3.5E+02	EqP	5.9E-02
Landbay C	7500-2000	INORG	Manganese	7439-96-5	D	8.13E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.2E+00**
Landbay C	7500-2000	INORG	Mercury	7439-97-6	D	5.45E-02	7.10E-02	7.7E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	7500-2000	INORG	Nickel	7440-02-0	A	2.19E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.5E-01
Landbay C	7500-2000	INORG	Vanadium	7440-62-2	ID	1.04E+02	2.83E+02	3.7E-01	1.5E+05	EqP	6.7E-04	4.0E+02	EqP	2.6E-01
Landbay C	7500-2000	INORG	Zinc	7440-66-6	ID	4.16E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.6E-06	1.9E+02	EqP	2.2E-01
Landbay C	7500-2300	PCB	PCBs (total)	1336-36-3	B2	1.46E-02				NA		1.4E+00	EqP	1.1E-02
Landbay C	7500-2300	INORG	Aluminum	7429-90-5	ID	2.14E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.2E+00**
Landbay C	7500-2300	INORG	Arsenic	7440-38-2	A	6.59E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay C	7500-2300	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7500-2300	INORG	Beryllium	7440-41-7	B1	1.27E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay C	7500-2300	INORG	Cadmium	7440-43-9	B1	8.63E-02	2.70E+00	3.2E-02	1.1E+03	EqP	8.0E-05	2.1E+00	EqP	4.0E-02
Landbay C	7500-2300	INORG	Chromium III	16065-83-1	D	7.13E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay C	7500-2300	INORG	Chromium VI	18540-29-9	A	3.08E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	7.0E-01
Landbay C	7500-2300	INORG	Cobalt	7440-48-4	LC	4.16E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay C	7500-2300	INORG	Copper	7440-50-8	D	1.58E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay C	7500-2300	INORG	Iron	7439-89-6	D	5.89E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay C	7500-2300	INORG	Lead	7439-92-1	B2	2.55E+01						3.5E+02	EqP	7.3E-02
Landbay C	7500-2300	INORG	Manganese	7439-96-5	D	2.07E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7500-2300	INORG	Mercury	7439-97-6	D	5.91E-02	7.10E-02	8.3E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7500-2300	INORG	Nickel	7440-02-0	A	1.77E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay C	7500-2300	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay C	7500-2300	INORG	Zinc	7440-66-6	ID	3.34E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.1E-06	1.9E+02	EqP	1.8E-01
Landbay C	7500-2450	VOC	Acetone	67-64-1	ID	2.30E-01			2.0E+06	LT	1.1E-07	6.0E+02	LT	3.8E-04
Landbay C	7500-2450	VOC	2-Butanone	78-93-3	ID	1.40E-02			3.0E+05	LT	4.7E-08	5.6E+03	LT	2.5E-06
Landbay C	7500-2450	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	7500-2450	INORG	Arsenic	7440-38-2	A	5.35E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.2E-02
Landbay C	7500-2450	INORG	Barium	7440-39-3	NC	9.98E+01	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	7500-2450	INORG	Beryllium	7440-41-7	B1	8.11E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay C	7500-2450	INORG	Chromium III	16065-83-1	D	1.36E+02	2.61E+02	5.2E-01	2.1E+10	EqP	6.4E-09	3.4E+06	EqP	4.0E-05
Landbay C	7500-2450	INORG	Chromium VI	18540-29-9	A	3.52E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay C	7500-2450	INORG	Cobalt	7440-48-4	LC	7.61E+01	8.60E+01	8.8E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.7E+00**
Landbay C	7500-2450	INORG	Copper	7440-50-8	D	2.82E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.4E+00**
Landbay C	7500-2450	INORG	Iron	7439-89-6	D	7.06E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay C	7500-2450	INORG	Lead	7439-92-1	B2	2.76E+01						3.5E+02	EqP	7.9E-02
Landbay C	7500-2450	INORG	Manganese	7439-96-5	D	2.34E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.5E-03	1.6E+02	EqP	**1.5E+01**
Landbay C	7500-2450	INORG	Mercury	7439-97-6	D	4.93E-02	7.10E-02	6.9E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	7500-2450	INORG	Nickel	7440-02-0	A	2.51E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay C	7500-2450	INORG	Vanadium	7440-62-2	ID	2.59E+02	2.83E+02	9.2E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.5E-01
Landbay C	7500-2450	INORG	Zinc	7440-66-6	ID	4.56E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.3E-06	1.9E+02	EqP	2.4E-01
Landbay C	7500-2900	INORG	Aluminum	7429-90-5	ID	2.60E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**1.0E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	7500-2900	INORG	Arsenic	7440-38-2	A	3.59E+00	9.90E+00	3.6E-01	1.1E+03	EqP	3.4E-03	8.6E+01	EqP	4.2E-02
Landbay C	7500-2900	INORG	Barium	7440-39-3	NC	1.23E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay C	7500-2900	INORG	Beryllium	7440-41-7	B1	9.16E-01	1.20E+00	7.6E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.8E-02
Landbay C	7500-2900	INORG	Cadmium	7440-43-9	B1	9.78E-01	2.70E+00	3.6E-01	1.1E+03	EqP	9.0E-04	2.1E+00	EqP	4.6E-01
Landbay C	7500-2900	INORG	Chromium III	16065-83-1	D	8.00E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay C	7500-2900	INORG	Chromium VI	18540-29-9	A	3.14E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay C	7500-2900	INORG	Cobalt	7440-48-4	LC	7.78E+01	8.60E+01	9.0E-01	1.4E+04	EqP	5.7E-03	2.1E+01	EqP	**3.7E+00**
Landbay C	7500-2900	INORG	Copper	7440-50-8	D	2.46E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.1E-05	8.4E+00	EqP	**2.9E+00**
Landbay C	7500-2900	INORG	Iron	7439-89-6	D	3.73E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.6E-03	1.5E+02	EqP	**2.5E+02**
Landbay C	7500-2900	INORG	Lead	7439-92-1	B2	2.49E+01						3.5E+02	EqP	7.1E-02
Landbay C	7500-2900	INORG	Manganese	7439-96-5	D	4.27E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay C	7500-2900	INORG	Mercury	7439-97-6	D	7.36E-02	7.10E-02	1.0E+00		NA		3.7E-01	EqP	2.0E-01
Landbay C	7500-2900	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay C	7500-2900	INORG	Perchlorate	14797-73-0	NC	1.50E-03			3.4E+03	LT	4.4E-07	7.7E+02	LT	1.9E-06
Landbay C	7500-2900	INORG	Silver	7440-22-4	D	9.16E-01	2.30E+00	4.0E-01	3.8E+03	LT	2.4E-04	2.7E+00	LT	3.4E-01
Landbay C	7500-2900	INORG	Thallium	7440-28-0	ID	2.20E+00	4.50E+00	4.9E-01				1.1E+00	EqP	**1.9E+00**
Landbay C	7500-2900	INORG	Vanadium	7440-62-2	ID	1.13E+02	2.83E+02	4.0E-01	1.5E+05	EqP	7.3E-04	4.0E+02	EqP	2.8E-01
Landbay C	7500-2900	INORG	Zinc	7440-66-6	ID	4.94E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay C	7500-3050	INORG	Aluminum	7429-90-5	ID	1.98E+04	5.34E+04	3.7E-01	3.7E+08	EqP	5.4E-05	2.6E+03	EqP	**7.6E+00**
Landbay C	7500-3050	INORG	Antimony	7440-36-0	ID	1.07E+00	1.70E+00	6.3E-01	1.4E+03	EqP	7.8E-04	2.7E+01	EqP	3.9E-02
Landbay C	7500-3050	INORG	Arsenic	7440-38-2	A	1.70E+00	9.90E+00	1.7E-01	1.1E+03	EqP	1.6E-03	8.6E+01	EqP	2.0E-02
Landbay C	7500-3050	INORG	Barium	7440-39-3	NC	5.46E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.7E+01**
Landbay C	7500-3050	INORG	Beryllium	7440-41-7	B1	8.42E-01	1.20E+00	7.0E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	8.1E-02
Landbay C	7500-3050	INORG	Cadmium	7440-43-9	B1	8.28E-01	2.70E+00	3.1E-01	1.1E+03	EqP	7.6E-04	2.1E+00	EqP	3.9E-01
Landbay C	7500-3050	INORG	Chromium III	16065-83-1	D	3.14E+01	2.61E+02	1.2E-01	2.1E+10	EqP	1.5E-09	3.4E+06	EqP	9.3E-06
Landbay C	7500-3050	INORG	Chromium VI	18540-29-9	A	2.81E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay C	7500-3050	INORG	Cobalt	7440-48-4	LC	1.11E+01	8.60E+01	1.3E-01	1.4E+04	EqP	8.1E-04	2.1E+01	EqP	5.3E-01
Landbay C	7500-3050	INORG	Copper	7440-50-8	D	4.07E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay C	7500-3050	INORG	Iron	7439-89-6	D	3.17E+04	9.52E+04	3.3E-01	4.4E+06	EqP	7.3E-03	1.5E+02	EqP	**2.1E+02**
Landbay C	7500-3050	INORG	Lead	7439-92-1	B2	1.28E+01						3.5E+02	EqP	3.7E-02
Landbay C	7500-3050	INORG	Mercury	7439-97-6	D	2.94E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	8.0E-02
Landbay C	7500-3050	INORG	Nickel	7440-02-0	A	1.00E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.1E-05	3.4E+01	EqP	3.0E-01
Landbay C	7500-3050	INORG	Perchlorate	14797-73-0	NC	5.60E-04			3.4E+03	LT	1.6E-07	7.7E+02	LT	7.2E-07
Landbay C	7500-3050	INORG	Selenium	7782-49-2	D	1.35E+00	2.50E+00	5.4E-01	2.5E+04	LT	5.5E-05	2.0E+00	LT	6.8E-01
Landbay C	7500-3050	INORG	Silver	7440-22-4	D	6.32E-01	2.30E+00	2.7E-01	3.8E+03	LT	1.7E-04	2.7E+00	LT	2.4E-01
Landbay C	7500-3050	INORG	Thallium	7440-28-0	ID	2.73E+00	4.50E+00	6.1E-01				1.1E+00	EqP	**2.4E+00**
Landbay C	7500-3050	INORG	Vanadium	7440-62-2	ID	7.58E+01	2.83E+02	2.7E-01	1.5E+05	EqP	4.9E-04	4.0E+02	EqP	1.9E-01
Landbay C	7500-3050	INORG	Zinc	7440-66-6	ID	3.43E+01	1.02E+02	3.4E-01	5.5E+06	EqP	6.3E-06	1.9E+02	EqP	1.8E-01
Landbay C	7600-147	INORG	Perchlorate	14797-73-0	NC	6.20E-04			3.4E+03	LT	1.8E-07	7.7E+02	LT	8.0E-07
Landbay C	7650-1700	SVOC	Phenol	108-95-2	ID	7.60E-02			4.9E+05	LT	1.5E-07	1.6E+00	LT	4.8E-02
Landbay C	7650-1700	INORG	Aluminum	7429-90-5	ID	2.19E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay C	7650-1700	INORG	Arsenic	7440-38-2	A	2.37E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay C	7650-1700	INORG	Barium	7440-39-3	NC	9.05E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7650-1700	INORG	Beryllium	7440-41-7	B1	8.50E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.1E-02
Landbay C	7650-1700	INORG	Cadmium	7440-43-9	B1	2.03E-01	2.70E+00	7.5E-02	1.1E+03	EqP	1.9E-04	2.1E+00	EqP	9.5E-02
Landbay C	7650-1700	INORG	Chromium III	16065-83-1	D	3.39E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay C	7650-1700	INORG	Chromium VI	18540-29-9	A	2.82E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay C	7650-1700	INORG	Cobalt	7440-48-4	LC	1.68E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.1E-01
Landbay C	7650-1700	INORG	Copper	7440-50-8	D	6.18E+00	1.31E+02	4.7E-02	3.5E+05	EqP	1.8E-05	8.4E+00	EqP	7.4E-01
Landbay C	7650-1700	INORG	Iron	7439-89-6	D	2.94E+04	9.52E+04	3.1E-01	4.4E+06	EqP	6.8E-03	1.5E+02	EqP	**1.9E+02**
Landbay C	7650-1700	INORG	Lead	7439-92-1	B2	1.42E+01						3.5E+02	EqP	4.1E-02
Landbay C	7650-1700	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay C	7650-1700	INORG	Mercury	7439-97-6	D	2.72E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.4E-02
Landbay C	7650-1700	INORG	Nickel	7440-02-0	A	1.60E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay C	7650-1700	INORG	Silver	7440-22-4	D	4.28E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay C	7650-1700	INORG	Thallium	7440-28-0	ID	1.04E+00	4.50E+00	2.3E-01				1.1E+00	EqP	9.1E-01
Landbay C	7650-1700	INORG	Vanadium	7440-62-2	ID	6.90E+01	2.83E+02	2.4E-01	1.5E+05	EqP	4.5E-04	4.0E+02	EqP	1.7E-01
Landbay C	7650-1700	INORG	Zinc	7440-66-6	ID	2.77E+01	1.02E+02	2.7E-01	5.5E+06	EqP	5.1E-06	1.9E+02	EqP	1.5E-01
Landbay C	7650-2150	VOC	Cumene	98-82-8	D	2.20E-01				NA		1.0E+00	LT	2.1E-01
Landbay C	7650-2150	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7650-2150	INORG	Arsenic	7440-38-2	A	3.44E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay C	7650-2150	INORG	Barium	7440-39-3	NC	8.85E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7650-2150	INORG	Beryllium	7440-41-7	B1	8.75E-01	1.20E+00	7.3E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.4E-02
Landbay C	7650-2150	INORG	Chromium III	16065-83-1	D	6.31E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay C	7650-2150	INORG	Chromium VI	18540-29-9	A	3.02E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.9E-01
Landbay C	7650-2150	INORG	Cobalt	7440-48-4	LC	2.28E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay C	7650-2150	INORG	Copper	7440-50-8	D	2.42E+01	1.31E+02	1.8E-01	3.5E+05	EqP	7.0E-05	8.4E+00	EqP	**2.9E+00**
Landbay C	7650-2150	INORG	Iron	7439-89-6	D	4.63E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay C	7650-2150	INORG	Lead	7439-92-1	B2	2.05E+01						3.5E+02	EqP	5.9E-02
Landbay C	7650-2150	INORG	Manganese	7439-96-5	D	8.13E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.2E+00**
Landbay C	7650-2150	INORG	Mercury	7439-97-6	D	5.45E-02	7.10E-02	7.7E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	7650-2150	INORG	Nickel	7440-02-0	A	2.19E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.5E-01
Landbay C	7650-2150	INORG	Vanadium	7440-62-2	ID	1.04E+02	2.83E+02	3.7E-01	1.5E+05	EqP	6.7E-04	4.0E+02	EqP	2.6E-01
Landbay C	7650-2150	INORG	Zinc	7440-66-6	ID	4.16E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.6E-06	1.9E+02	EqP	2.2E-01
Landbay C	7650-2300	PCB	PCBs (total)	1336-36-3	B2	1.46E-02				NA		1.4E+00	EqP	1.1E-02
Landbay C	7650-2300	INORG	Aluminum	7429-90-5	ID	2.14E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.2E+00**
Landbay C	7650-2300	INORG	Arsenic	7440-38-2	A	6.59E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay C	7650-2300	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7650-2300	INORG	Beryllium	7440-41-7	B1	1.27E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay C	7650-2300	INORG	Cadmium	7440-43-9	B1	8.63E-02	2.70E+00	3.2E-02	1.1E+03	EqP	8.0E-05	2.1E+00	EqP	4.0E-02
Landbay C	7650-2300	INORG	Chromium III	16065-83-1	D	7.13E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay C	7650-2300	INORG	Chromium VI	18540-29-9	A	3.08E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	7.0E-01
Landbay C	7650-2300	INORG	Cobalt	7440-48-4	LC	4.16E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay C	7650-2300	INORG	Copper	7440-50-8	D	1.58E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay C	7650-2300	INORG	Iron	7439-89-6	D	5.89E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay C	7650-2300	INORG	Lead	7439-92-1	B2	2.55E+01						3.5E+02	EqP	7.3E-02
Landbay C	7650-2300	INORG	Manganese	7439-96-5	D	2.07E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7650-2300	INORG	Mercury	7439-97-6	D	5.91E-02	7.10E-02	8.3E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7650-2300	INORG	Nickel	7440-02-0	A	1.77E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay C	7650-2300	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay C	7650-2300	INORG	Zinc	7440-66-6	ID	3.34E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.1E-06	1.9E+02	EqP	1.8E-01
Landbay C	7650-2450	PCB	PCBs (total)	1336-36-3	B2	1.46E-02				NA		1.4E+00	EqP	1.1E-02
Landbay C	7650-2450	INORG	Aluminum	7429-90-5	ID	2.14E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.2E+00**
Landbay C	7650-2450	INORG	Arsenic	7440-38-2	A	6.59E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay C	7650-2450	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7650-2450	INORG	Beryllium	7440-41-7	B1	1.27E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay C	7650-2450	INORG	Cadmium	7440-43-9	B1	8.63E-02	2.70E+00	3.2E-02	1.1E+03	EqP	8.0E-05	2.1E+00	EqP	4.0E-02
Landbay C	7650-2450	INORG	Chromium III	16065-83-1	D	7.13E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay C	7650-2450	INORG	Chromium VI	18540-29-9	A	3.08E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	7.0E-01
Landbay C	7650-2450	INORG	Cobalt	7440-48-4	LC	4.16E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay C	7650-2450	INORG	Copper	7440-50-8	D	1.58E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay C	7650-2450	INORG	Iron	7439-89-6	D	5.89E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay C	7650-2450	INORG	Lead	7439-92-1	B2	2.55E+01						3.5E+02	EqP	7.3E-02
Landbay C	7650-2450	INORG	Manganese	7439-96-5	D	2.07E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7650-2450	INORG	Mercury	7439-97-6	D	5.91E-02	7.10E-02	8.3E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7650-2450	INORG	Nickel	7440-02-0	A	1.77E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay C	7650-2450	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay C	7650-2450	INORG	Zinc	7440-66-6	ID	3.34E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.1E-06	1.9E+02	EqP	1.8E-01
Landbay C	7650-2600	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7650-2600	INORG	Arsenic	7440-38-2	A	3.39E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	4.0E-02
Landbay C	7650-2600	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay C	7650-2600	INORG	Beryllium	7440-41-7	B1	9.83E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.4E-02
Landbay C	7650-2600	INORG	Chromium III	16065-83-1	D	5.26E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay C	7650-2600	INORG	Chromium VI	18540-29-9	A	2.95E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay C	7650-2600	INORG	Cobalt	7440-48-4	LC	2.72E+01	8.60E+01	3.2E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	7650-2600	INORG	Copper	7440-50-8	D	6.90E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay C	7650-2600	INORG	Iron	7439-89-6	D	3.99E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.2E-03	1.5E+02	EqP	**2.6E+02**
Landbay C	7650-2600	INORG	Lead	7439-92-1	B2	1.86E+01						3.5E+02	EqP	5.3E-02
Landbay C	7650-2600	INORG	Manganese	7439-96-5	D	1.94E+03	4.27E+03	4.5E-01	3.1E+05	EqP	6.2E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	7650-2600	INORG	Mercury	7439-97-6	D	5.75E-02	7.10E-02	8.1E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7650-2600	INORG	Nickel	7440-02-0	A	2.62E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.7E-01
Landbay C	7650-2600	INORG	Silver	7440-22-4	D	1.12E+00	2.30E+00	4.9E-01	3.8E+03	LT	3.0E-04	2.7E+00	LT	4.2E-01
Landbay C	7650-2600	INORG	Vanadium	7440-62-2	ID	9.82E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay C	7650-2600	INORG	Zinc	7440-66-6	ID	3.97E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay C	7650-2750	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7650-2750	INORG	Arsenic	7440-38-2	A	3.39E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	4.0E-02
Landbay C	7650-2750	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay C	7650-2750	INORG	Beryllium	7440-41-7	B1	9.83E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.4E-02
Landbay C	7650-2750	INORG	Chromium III	16065-83-1	D	5.26E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay C	7650-2750	INORG	Chromium VI	18540-29-9	A	2.95E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay C	7650-2750	INORG	Cobalt	7440-48-4	LC	2.72E+01	8.60E+01	3.2E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	7650-2750	INORG	Copper	7440-50-8	D	6.90E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay C	7650-2750	INORG	Iron	7439-89-6	D	3.99E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.2E-03	1.5E+02	EqP	**2.6E+02**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	7650-2750	INORG	Lead	7439-92-1	B2	1.86E+01						3.5E+02	EqP	5.3E-02
Landbay C	7650-2750	INORG	Manganese	7439-96-5	D	1.94E+03	4.27E+03	4.5E-01	3.1E+05	EqP	6.2E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	7650-2750	INORG	Mercury	7439-97-6	D	5.75E-02	7.10E-02	8.1E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7650-2750	INORG	Nickel	7440-02-0	A	2.62E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.7E-01
Landbay C	7650-2750	INORG	Silver	7440-22-4	D	1.12E+00	2.30E+00	4.9E-01	3.8E+03	LT	3.0E-04	2.7E+00	LT	4.2E-01
Landbay C	7650-2750	INORG	Vanadium	7440-62-2	ID	9.82E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay C	7650-2750	INORG	Zinc	7440-66-6	ID	3.97E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay C	7650-2900	INORG	Aluminum	7429-90-5	ID	2.03E+04	5.34E+04	3.8E-01	3.7E+08	EqP	5.5E-05	2.6E+03	EqP	**7.8E+00**
Landbay C	7650-2900	INORG	Arsenic	7440-38-2	A	3.21E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.7E-02
Landbay C	7650-2900	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay C	7650-2900	INORG	Beryllium	7440-41-7	B1	7.94E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay C	7650-2900	INORG	Chromium III	16065-83-1	D	4.75E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	7650-2900	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	7650-2900	INORG	Cobalt	7440-48-4	LC	1.93E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.3E-01
Landbay C	7650-2900	INORG	Copper	7440-50-8	D	3.18E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	7650-2900	INORG	Iron	7439-89-6	D	4.25E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.8E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	7650-2900	INORG	Lead	7439-92-1	B2	2.13E+01						3.5E+02	EqP	6.1E-02
Landbay C	7650-2900	INORG	Manganese	7439-96-5	D	2.05E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7650-2900	INORG	Mercury	7439-97-6	D	5.63E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	7650-2900	INORG	Nickel	7440-02-0	A	1.57E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay C	7650-2900	INORG	Vanadium	7440-62-2	ID	1.08E+02	2.83E+02	3.8E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay C	7650-2900	INORG	Zinc	7440-66-6	ID	3.92E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay C	7650-3050	PCB	PCBs (total)	1336-36-3	B2	2.44E-02				NA		1.4E+00	EqP	1.8E-02
Landbay C	7650-3050	INORG	Aluminum	7429-90-5	ID	2.35E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay C	7650-3050	INORG	Arsenic	7440-38-2	A	5.67E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay C	7650-3050	INORG	Barium	7440-39-3	NC	1.01E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.1E+01**
Landbay C	7650-3050	INORG	Beryllium	7440-41-7	B1	6.99E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay C	7650-3050	INORG	Chromium III	16065-83-1	D	6.55E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	1.9E-05
Landbay C	7650-3050	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay C	7650-3050	INORG	Cobalt	7440-48-4	LC	4.45E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7650-3050	INORG	Copper	7440-50-8	D	4.64E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.5E+00**
Landbay C	7650-3050	INORG	Iron	7439-89-6	D	5.33E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay C	7650-3050	INORG	Lead	7439-92-1	B2	2.45E+01						3.5E+02	EqP	7.0E-02
Landbay C	7650-3050	INORG	Manganese	7439-96-5	D	1.76E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay C	7650-3050	INORG	Mercury	7439-97-6	D	5.92E-02	7.10E-02	8.3E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7650-3050	INORG	Nickel	7440-02-0	A	1.87E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.5E-01
Landbay C	7650-3050	INORG	Strontium	7440-24-6		2.02E+01	3.80E+01	5.3E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay C	7650-3050	INORG	Thallium	7440-28-0	ID	2.97E+00	4.50E+00	6.6E-01				1.1E+00	EqP	**2.6E+00**
Landbay C	7650-3050	INORG	Vanadium	7440-62-2	ID	1.75E+02	2.83E+02	6.2E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.4E-01
Landbay C	7650-3050	INORG	Zinc	7440-66-6	ID	9.07E+01	1.02E+02	8.9E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.8E-01
Landbay C	7800-1700	INORG	Aluminum	7429-90-5	ID	3.01E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	7800-1700	INORG	Arsenic	7440-38-2	A	3.72E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay C	7800-1700	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay C	7800-1700	INORG	Beryllium	7440-41-7	B1	8.59E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay C	7800-1700	INORG	Cadmium	7440-43-9	B1	1.31E+00	2.70E+00	4.9E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.1E-01
Landbay C	7800-1700	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay C	7800-1700	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay C	7800-1700	INORG	Cobalt	7440-48-4	LC	4.38E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7800-1700	INORG	Copper	7440-50-8	D	6.91E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay C	7800-1700	INORG	Iron	7439-89-6	D	4.21E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	7800-1700	INORG	Lead	7439-92-1	B2	3.38E+01						3.5E+02	EqP	9.6E-02
Landbay C	7800-1700	INORG	Manganese	7439-96-5	D	1.86E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	7800-1700	INORG	Mercury	7439-97-6	D	2.56E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay C	7800-1700	INORG	Nickel	7440-02-0	A	1.97E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.8E-01
Landbay C	7800-1700	INORG	Perchlorate	14797-73-0	NC	8.30E-04			3.4E+03	LT	2.4E-07	7.7E+02	LT	1.1E-06
Landbay C	7800-1700	INORG	Silver	7440-22-4	D	4.14E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay C	7800-1700	INORG	Thallium	7440-28-0	ID	2.31E+00	4.50E+00	5.1E-01				1.1E+00	EqP	**2.0E+00**
Landbay C	7800-1700	INORG	Vanadium	7440-62-2	ID	9.43E+01	2.83E+02	3.3E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay C	7800-1700	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	7800-1850	VOC	Acetone	67-64-1	ID	1.60E-01			2.0E+06	LT	7.8E-08	6.0E+02	LT	2.7E-04
Landbay C	7800-1850	VOC	2-Butanone	78-93-3	ID	7.00E-03			3.0E+05	LT	2.3E-08	5.6E+03	LT	1.3E-06
Landbay C	7800-1850	VOC	Methyl Acetate	79-20-9		5.00E-02				NA		5.7E+05	LT	8.8E-08
Landbay C	7800-1850	INORG	Aluminum	7429-90-5	ID	3.01E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	7800-1850	INORG	Arsenic	7440-38-2	A	3.72E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay C	7800-1850	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay C	7800-1850	INORG	Beryllium	7440-41-7	B1	8.59E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay C	7800-1850	INORG	Cadmium	7440-43-9	B1	1.31E+00	2.70E+00	4.9E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.1E-01
Landbay C	7800-1850	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay C	7800-1850	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay C	7800-1850	INORG	Cobalt	7440-48-4	LC	4.38E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7800-1850	INORG	Copper	7440-50-8	D	6.91E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay C	7800-1850	INORG	Iron	7439-89-6	D	4.21E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	7800-1850	INORG	Lead	7439-92-1	B2	3.38E+01						3.5E+02	EqP	9.6E-02
Landbay C	7800-1850	INORG	Manganese	7439-96-5	D	1.86E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	7800-1850	INORG	Mercury	7439-97-6	D	2.56E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay C	7800-1850	INORG	Nickel	7440-02-0	A	1.97E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.8E-01
Landbay C	7800-1850	INORG	Perchlorate	14797-73-0	NC	8.30E-04			3.4E+03	LT	2.4E-07	7.7E+02	LT	1.1E-06
Landbay C	7800-1850	INORG	Silver	7440-22-4	D	4.14E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay C	7800-1850	INORG	Thallium	7440-28-0	ID	2.31E+00	4.50E+00	5.1E-01				1.1E+00	EqP	**2.0E+00**
Landbay C	7800-1850	INORG	Vanadium	7440-62-2	ID	9.43E+01	2.83E+02	3.3E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay C	7800-1850	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	7800-2000	INORG	Aluminum	7429-90-5	ID	2.65E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7800-2000	INORG	Arsenic	7440-38-2	A	5.92E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay C	7800-2000	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	7800-2000	INORG	Beryllium	7440-41-7	B1	1.18E+00	1.20E+00	9.8E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay C	7800-2000	INORG	Chromium III	16065-83-1	D	4.66E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	7800-2000	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	7800-2000	INORG	Cobalt	7440-48-4	LC	2.61E+01	8.60E+01	3.0E-01	1.4E+04	EqP	1.9E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	7800-2000	INORG	Copper	7440-50-8	D	1.10E+01	1.31E+02	8.4E-02	3.5E+05	EqP	3.2E-05	8.4E+00	EqP	**1.3E+00**
Landbay C	7800-2000	INORG	Iron	7439-89-6	D	4.97E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay C	7800-2000	INORG	Lead	7439-92-1	B2	2.28E+01						3.5E+02	EqP	6.5E-02
Landbay C	7800-2000	INORG	Manganese	7439-96-5	D	9.59E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.1E+00**
Landbay C	7800-2000	INORG	Mercury	7439-97-6	D	6.11E-02	7.10E-02	8.6E-01		NA		3.7E-01	EqP	1.7E-01
Landbay C	7800-2000	INORG	Nickel	7440-02-0	A	1.75E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay C	7800-2000	INORG	Vanadium	7440-62-2	ID	1.03E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.6E-01
Landbay C	7800-2000	INORG	Zinc	7440-66-6	ID	3.81E+01	1.02E+02	3.7E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay C	7800-2150	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7800-2150	INORG	Arsenic	7440-38-2	A	3.44E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay C	7800-2150	INORG	Barium	7440-39-3	NC	8.85E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7800-2150	INORG	Beryllium	7440-41-7	B1	8.75E-01	1.20E+00	7.3E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.4E-02
Landbay C	7800-2150	INORG	Chromium III	16065-83-1	D	6.31E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay C	7800-2150	INORG	Chromium VI	18540-29-9	A	3.02E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.9E-01
Landbay C	7800-2150	INORG	Cobalt	7440-48-4	LC	2.28E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay C	7800-2150	INORG	Copper	7440-50-8	D	2.42E+01	1.31E+02	1.8E-01	3.5E+05	EqP	7.0E-05	8.4E+00	EqP	**2.9E+00**
Landbay C	7800-2150	INORG	Iron	7439-89-6	D	4.63E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay C	7800-2150	INORG	Lead	7439-92-1	B2	2.05E+01						3.5E+02	EqP	5.9E-02
Landbay C	7800-2150	INORG	Manganese	7439-96-5	D	8.13E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.2E+00**
Landbay C	7800-2150	INORG	Mercury	7439-97-6	D	5.45E-02	7.10E-02	7.7E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	7800-2150	INORG	Nickel	7440-02-0	A	2.19E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.5E-01
Landbay C	7800-2150	INORG	Vanadium	7440-62-2	ID	1.04E+02	2.83E+02	3.7E-01	1.5E+05	EqP	6.7E-04	4.0E+02	EqP	2.6E-01
Landbay C	7800-2150	INORG	Zinc	7440-66-6	ID	4.16E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.6E-06	1.9E+02	EqP	2.2E-01
Landbay C	7800-2300	PCB	PCBs (total)	1336-36-3	B2	1.46E-02				NA		1.4E+00	EqP	1.1E-02
Landbay C	7800-2300	INORG	Aluminum	7429-90-5	ID	2.14E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.2E+00**
Landbay C	7800-2300	INORG	Arsenic	7440-38-2	A	6.59E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay C	7800-2300	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay C	7800-2300	INORG	Beryllium	7440-41-7	B1	1.27E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay C	7800-2300	INORG	Cadmium	7440-43-9	B1	8.63E-02	2.70E+00	3.2E-02	1.1E+03	EqP	8.0E-05	2.1E+00	EqP	4.0E-02
Landbay C	7800-2300	INORG	Chromium III	16065-83-1	D	7.13E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay C	7800-2300	INORG	Chromium VI	18540-29-9	A	3.08E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	7.0E-01
Landbay C	7800-2300	INORG	Cobalt	7440-48-4	LC	4.16E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay C	7800-2300	INORG	Copper	7440-50-8	D	1.58E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay C	7800-2300	INORG	Iron	7439-89-6	D	5.89E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay C	7800-2300	INORG	Lead	7439-92-1	B2	2.55E+01						3.5E+02	EqP	7.3E-02
Landbay C	7800-2300	INORG	Manganese	7439-96-5	D	2.07E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7800-2300	INORG	Mercury	7439-97-6	D	5.91E-02	7.10E-02	8.3E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7800-2300	INORG	Nickel	7440-02-0	A	1.77E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay C	7800-2300	INORG	Vanadium	7440-62-2	ID	1.55E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay C	7800-2300	INORG	Zinc	7440-66-6	ID	3.34E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.1E-06	1.9E+02	EqP	1.8E-01
Landbay C	7800-2450	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7800-2450	INORG	Arsenic	7440-38-2	A	3.39E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	4.0E-02
Landbay C	7800-2450	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay C	7800-2450	INORG	Beryllium	7440-41-7	B1	9.83E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.4E-02
Landbay C	7800-2450	INORG	Chromium III	16065-83-1	D	5.26E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay C	7800-2450	INORG	Chromium VI	18540-29-9	A	2.95E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay C	7800-2450	INORG	Cobalt	7440-48-4	LC	2.72E+01	8.60E+01	3.2E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	7800-2450	INORG	Copper	7440-50-8	D	6.90E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay C	7800-2450	INORG	Iron	7439-89-6	D	3.99E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.2E-03	1.5E+02	EqP	**2.6E+02**
Landbay C	7800-2450	INORG	Lead	7439-92-1	B2	1.86E+01						3.5E+02	EqP	5.3E-02
Landbay C	7800-2450	INORG	Manganese	7439-96-5	D	1.94E+03	4.27E+03	4.5E-01	3.1E+05	EqP	6.2E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	7800-2450	INORG	Mercury	7439-97-6	D	5.75E-02	7.10E-02	8.1E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7800-2450	INORG	Nickel	7440-02-0	A	2.62E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.7E-01
Landbay C	7800-2450	INORG	Silver	7440-22-4	D	1.12E+00	2.30E+00	4.9E-01	3.8E+03	LT	3.0E-04	2.7E+00	LT	4.2E-01
Landbay C	7800-2450	INORG	Vanadium	7440-62-2	ID	9.82E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay C	7800-2450	INORG	Zinc	7440-66-6	ID	3.97E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay C	7800-2600	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7800-2600	INORG	Arsenic	7440-38-2	A	3.39E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	4.0E-02
Landbay C	7800-2600	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay C	7800-2600	INORG	Beryllium	7440-41-7	B1	9.83E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.4E-02
Landbay C	7800-2600	INORG	Chromium III	16065-83-1	D	5.26E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay C	7800-2600	INORG	Chromium VI	18540-29-9	A	2.95E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay C	7800-2600	INORG	Cobalt	7440-48-4	LC	2.72E+01	8.60E+01	3.2E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	7800-2600	INORG	Copper	7440-50-8	D	6.90E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay C	7800-2600	INORG	Iron	7439-89-6	D	3.99E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.2E-03	1.5E+02	EqP	**2.6E+02**
Landbay C	7800-2600	INORG	Lead	7439-92-1	B2	1.86E+01						3.5E+02	EqP	5.3E-02
Landbay C	7800-2600	INORG	Manganese	7439-96-5	D	1.94E+03	4.27E+03	4.5E-01	3.1E+05	EqP	6.2E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	7800-2600	INORG	Mercury	7439-97-6	D	5.75E-02	7.10E-02	8.1E-01		NA		3.7E-01	EqP	1.6E-01
Landbay C	7800-2600	INORG	Nickel	7440-02-0	A	2.62E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.7E-01
Landbay C	7800-2600	INORG	Silver	7440-22-4	D	1.12E+00	2.30E+00	4.9E-01	3.8E+03	LT	3.0E-04	2.7E+00	LT	4.2E-01
Landbay C	7800-2600	INORG	Vanadium	7440-62-2	ID	9.82E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay C	7800-2600	INORG	Zinc	7440-66-6	ID	3.97E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay C	7800-2750	VOC	Acetone	67-64-1	ID	3.10E-01			2.0E+06	LT	1.5E-07	6.0E+02	LT	5.2E-04
Landbay C	7800-2750	VOC	2-Butanone	78-93-3	ID	1.70E-02			3.0E+05	LT	5.7E-08	5.6E+03	LT	3.0E-06
Landbay C	7800-2750	INORG	Aluminum	7429-90-5	ID	2.03E+04	5.34E+04	3.8E-01	3.7E+08	EqP	5.5E-05	2.6E+03	EqP	**7.8E+00**
Landbay C	7800-2750	INORG	Arsenic	7440-38-2	A	3.21E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.7E-02
Landbay C	7800-2750	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay C	7800-2750	INORG	Beryllium	7440-41-7	B1	7.94E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay C	7800-2750	INORG	Chromium III	16065-83-1	D	4.75E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	7800-2750	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	7800-2750	INORG	Cobalt	7440-48-4	LC	1.93E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.3E-01
Landbay C	7800-2750	INORG	Copper	7440-50-8	D	3.18E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	7800-2750	INORG	Iron	7439-89-6	D	4.25E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.8E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	7800-2750	INORG	Lead	7439-92-1	B2	2.13E+01						3.5E+02	EqP	6.1E-02
Landbay C	7800-2750	INORG	Manganese	7439-96-5	D	2.05E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7800-2750	INORG	Mercury	7439-97-6	D	5.63E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	7800-2750	INORG	Nickel	7440-02-0	A	1.57E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay C	7800-2750	INORG	Vanadium	7440-62-2	ID	1.08E+02	2.83E+02	3.8E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay C	7800-2750	INORG	Zinc	7440-66-6	ID	3.92E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay C	7950-1700	VOC	Acetone	67-64-1	ID	1.80E-01			2.0E+06	LT	8.8E-08	6.0E+02	LT	3.0E-04
Landbay C	7950-1700	VOC	2-Butanone	78-93-3	ID	7.00E-03			3.0E+05	LT	2.3E-08	5.6E+03	LT	1.3E-06
Landbay C	7950-1700	VOC	Methyl Acetate	79-20-9		2.20E-02				NA		5.7E+05	LT	3.9E-08
Landbay C	7950-1700	INORG	Aluminum	7429-90-5	ID	3.01E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	7950-1700	INORG	Arsenic	7440-38-2	A	3.72E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay C	7950-1700	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay C	7950-1700	INORG	Beryllium	7440-41-7	B1	8.59E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay C	7950-1700	INORG	Cadmium	7440-43-9	B1	1.31E+00	2.70E+00	4.9E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.1E-01
Landbay C	7950-1700	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay C	7950-1700	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay C	7950-1700	INORG	Cobalt	7440-48-4	LC	4.38E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7950-1700	INORG	Copper	7440-50-8	D	6.91E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay C	7950-1700	INORG	Iron	7439-89-6	D	4.21E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	7950-1700	INORG	Lead	7439-92-1	B2	3.38E+01						3.5E+02	EqP	9.6E-02
Landbay C	7950-1700	INORG	Manganese	7439-96-5	D	1.86E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	7950-1700	INORG	Mercury	7439-97-6	D	2.56E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay C	7950-1700	INORG	Nickel	7440-02-0	A	1.97E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.8E-01
Landbay C	7950-1700	INORG	Perchlorate	14797-73-0	NC	8.30E-04			3.4E+03	LT	2.4E-07	7.7E+02	LT	1.1E-06
Landbay C	7950-1700	INORG	Silver	7440-22-4	D	4.14E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay C	7950-1700	INORG	Thallium	7440-28-0	ID	2.31E+00	4.50E+00	5.1E-01				1.1E+00	EqP	**2.0E+00**
Landbay C	7950-1700	INORG	Vanadium	7440-62-2	ID	9.43E+01	2.83E+02	3.3E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay C	7950-1700	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	7950-1850	VOC	Acetone	67-64-1	ID	1.30E-01			2.0E+06	LT	6.4E-08	6.0E+02	LT	2.2E-04
Landbay C	7950-1850	VOC	2-Butanone	78-93-3	ID	6.00E-03			3.0E+05	LT	2.0E-08	5.6E+03	LT	1.1E-06
Landbay C	7950-1850	VOC	Methyl Acetate	79-20-9		1.40E-02				NA		5.7E+05	LT	2.5E-08
Landbay C	7950-1850	INORG	Aluminum	7429-90-5	ID	3.01E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	7950-1850	INORG	Arsenic	7440-38-2	A	3.72E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.3E-02
Landbay C	7950-1850	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay C	7950-1850	INORG	Beryllium	7440-41-7	B1	8.59E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay C	7950-1850	INORG	Cadmium	7440-43-9	B1	1.31E+00	2.70E+00	4.9E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.1E-01
Landbay C	7950-1850	INORG	Chromium III	16065-83-1	D	4.33E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay C	7950-1850	INORG	Chromium VI	18540-29-9	A	2.89E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.6E-01
Landbay C	7950-1850	INORG	Cobalt	7440-48-4	LC	4.38E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay C	7950-1850	INORG	Copper	7440-50-8	D	6.91E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay C	7950-1850	INORG	Iron	7439-89-6	D	4.21E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	7950-1850	INORG	Lead	7439-92-1	B2	3.38E+01						3.5E+02	EqP	9.6E-02
Landbay C	7950-1850	INORG	Manganese	7439-96-5	D	1.86E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay C	7950-1850	INORG	Mercury	7439-97-6	D	2.56E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay C	7950-1850	INORG	Nickel	7440-02-0	A	1.97E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.8E-01
Landbay C	7950-1850	INORG	Perchlorate	14797-73-0	NC	8.30E-04			3.4E+03	LT	2.4E-07	7.7E+02	LT	1.1E-06
Landbay C	7950-1850	INORG	Silver	7440-22-4	D	4.14E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay C	7950-1850	INORG	Thallium	7440-28-0	ID	2.31E+00	4.50E+00	5.1E-01				1.1E+00	EqP	**2.0E+00**
Landbay C	7950-1850	INORG	Vanadium	7440-62-2	ID	9.43E+01	2.83E+02	3.3E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay C	7950-1850	INORG	Zinc	7440-66-6	ID	4.23E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.7E-06	1.9E+02	EqP	2.2E-01
Landbay C	7950-2000	INORG	Aluminum	7429-90-5	ID	2.65E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7950-2000	INORG	Arsenic	7440-38-2	A	5.92E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay C	7950-2000	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	7950-2000	INORG	Beryllium	7440-41-7	B1	1.18E+00	1.20E+00	9.8E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay C	7950-2000	INORG	Chromium III	16065-83-1	D	4.66E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	7950-2000	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	7950-2000	INORG	Cobalt	7440-48-4	LC	2.61E+01	8.60E+01	3.0E-01	1.4E+04	EqP	1.9E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	7950-2000	INORG	Copper	7440-50-8	D	1.10E+01	1.31E+02	8.4E-02	3.5E+05	EqP	3.2E-05	8.4E+00	EqP	**1.3E+00**
Landbay C	7950-2000	INORG	Iron	7439-89-6	D	4.97E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay C	7950-2000	INORG	Lead	7439-92-1	B2	2.28E+01						3.5E+02	EqP	6.5E-02
Landbay C	7950-2000	INORG	Manganese	7439-96-5	D	9.59E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.1E+00**
Landbay C	7950-2000	INORG	Mercury	7439-97-6	D	6.11E-02	7.10E-02	8.6E-01		NA		3.7E-01	EqP	1.7E-01
Landbay C	7950-2000	INORG	Nickel	7440-02-0	A	1.75E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay C	7950-2000	INORG	Vanadium	7440-62-2	ID	1.03E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.6E-01
Landbay C	7950-2000	INORG	Zinc	7440-66-6	ID	3.81E+01	1.02E+02	3.7E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay C	7950-2150	INORG	Aluminum	7429-90-5	ID	2.65E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	7950-2150	INORG	Arsenic	7440-38-2	A	5.92E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay C	7950-2150	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	7950-2150	INORG	Beryllium	7440-41-7	B1	1.18E+00	1.20E+00	9.8E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay C	7950-2150	INORG	Chromium III	16065-83-1	D	4.66E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	7950-2150	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	7950-2150	INORG	Cobalt	7440-48-4	LC	2.61E+01	8.60E+01	3.0E-01	1.4E+04	EqP	1.9E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	7950-2150	INORG	Copper	7440-50-8	D	1.10E+01	1.31E+02	8.4E-02	3.5E+05	EqP	3.2E-05	8.4E+00	EqP	**1.3E+00**
Landbay C	7950-2150	INORG	Iron	7439-89-6	D	4.97E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay C	7950-2150	INORG	Lead	7439-92-1	B2	2.28E+01						3.5E+02	EqP	6.5E-02
Landbay C	7950-2150	INORG	Manganese	7439-96-5	D	9.59E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.1E+00**
Landbay C	7950-2150	INORG	Mercury	7439-97-6	D	6.11E-02	7.10E-02	8.6E-01		NA		3.7E-01	EqP	1.7E-01
Landbay C	7950-2150	INORG	Nickel	7440-02-0	A	1.75E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay C	7950-2150	INORG	Vanadium	7440-62-2	ID	1.03E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.6E-01
Landbay C	7950-2150	INORG	Zinc	7440-66-6	ID	3.81E+01	1.02E+02	3.7E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay C	7950-2300	INORG	Aluminum	7429-90-5	ID	2.50E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay C	7950-2300	INORG	Arsenic	7440-38-2	A	3.28E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay C	7950-2300	INORG	Barium	7440-39-3	NC	7.83E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay C	7950-2300	INORG	Beryllium	7440-41-7	B1	8.95E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay C	7950-2300	INORG	Chromium III	16065-83-1	D	3.97E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay C	7950-2300	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay C	7950-2300	INORG	Cobalt	7440-48-4	LC	1.44E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.0E-03	2.1E+01	EqP	6.9E-01
Landbay C	7950-2300	INORG	Copper	7440-50-8	D	1.19E+01	1.31E+02	9.1E-02	3.5E+05	EqP	3.4E-05	8.4E+00	EqP	**1.4E+00**
Landbay C	7950-2300	INORG	Iron	7439-89-6	D	3.52E+04	9.52E+04	3.7E-01	4.4E+06	EqP	8.1E-03	1.5E+02	EqP	**2.3E+02**
Landbay C	7950-2300	INORG	Lead	7439-92-1	B2	1.50E+01						3.5E+02	EqP	4.3E-02
Landbay C	7950-2300	INORG	Manganese	7439-96-5	D	6.75E+02	4.27E+03	1.6E-01	3.1E+05	EqP	2.2E-03	1.6E+02	EqP	**4.3E+00**
Landbay C	7950-2300	INORG	Mercury	7439-97-6	D	4.63E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	7950-2300	INORG	Nickel	7440-02-0	A	1.68E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay C	7950-2300	INORG	Vanadium	7440-62-2	ID	7.81E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.0E-04	4.0E+02	EqP	2.0E-01
Landbay C	7950-2300	INORG	Zinc	7440-66-6	ID	3.40E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay C	7950-2450	INORG	Aluminum	7429-90-5	ID	2.50E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay C	7950-2450	INORG	Arsenic	7440-38-2	A	3.28E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay C	7950-2450	INORG	Barium	7440-39-3	NC	7.83E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay C	7950-2450	INORG	Beryllium	7440-41-7	B1	8.95E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay C	7950-2450	INORG	Chromium III	16065-83-1	D	3.97E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay C	7950-2450	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay C	7950-2450	INORG	Cobalt	7440-48-4	LC	1.44E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.0E-03	2.1E+01	EqP	6.9E-01
Landbay C	7950-2450	INORG	Copper	7440-50-8	D	1.19E+01	1.31E+02	9.1E-02	3.5E+05	EqP	3.4E-05	8.4E+00	EqP	**1.4E+00**
Landbay C	7950-2450	INORG	Iron	7439-89-6	D	3.52E+04	9.52E+04	3.7E-01	4.4E+06	EqP	8.1E-03	1.5E+02	EqP	**2.3E+02**
Landbay C	7950-2450	INORG	Lead	7439-92-1	B2	1.50E+01						3.5E+02	EqP	4.3E-02
Landbay C	7950-2450	INORG	Manganese	7439-96-5	D	6.75E+02	4.27E+03	1.6E-01	3.1E+05	EqP	2.2E-03	1.6E+02	EqP	**4.3E+00**
Landbay C	7950-2450	INORG	Mercury	7439-97-6	D	4.63E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	7950-2450	INORG	Nickel	7440-02-0	A	1.68E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay C	7950-2450	INORG	Vanadium	7440-62-2	ID	7.81E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.0E-04	4.0E+02	EqP	2.0E-01
Landbay C	7950-2450	INORG	Zinc	7440-66-6	ID	3.40E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01
Landbay C	7950-2600	INORG	Aluminum	7429-90-5	ID	2.03E+04	5.34E+04	3.8E-01	3.7E+08	EqP	5.5E-05	2.6E+03	EqP	**7.8E+00**
Landbay C	7950-2600	INORG	Arsenic	7440-38-2	A	3.21E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.7E-02
Landbay C	7950-2600	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay C	7950-2600	INORG	Beryllium	7440-41-7	B1	7.94E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay C	7950-2600	INORG	Chromium III	16065-83-1	D	4.75E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	7950-2600	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	7950-2600	INORG	Cobalt	7440-48-4	LC	1.93E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.3E-01
Landbay C	7950-2600	INORG	Copper	7440-50-8	D	3.18E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	7950-2600	INORG	Iron	7439-89-6	D	4.25E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.8E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	7950-2600	INORG	Lead	7439-92-1	B2	2.13E+01						3.5E+02	EqP	6.1E-02
Landbay C	7950-2600	INORG	Manganese	7439-96-5	D	2.05E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	7950-2600	INORG	Mercury	7439-97-6	D	5.63E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	7950-2600	INORG	Nickel	7440-02-0	A	1.57E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay C	7950-2600	INORG	Vanadium	7440-62-2	ID	1.08E+02	2.83E+02	3.8E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay C	7950-2600	INORG	Zinc	7440-66-6	ID	3.92E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay C	8100-1700	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay C	8100-1700	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay C	8100-1700	INORG	Barium	7440-39-3	NC	9.92E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	8100-1700	INORG	Beryllium	7440-41-7	B1	1.04E+00	1.20E+00	8.7E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay C	8100-1700	INORG	Chromium III	16065-83-1	D	4.58E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.4E-05
Landbay C	8100-1700	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	8100-1700	INORG	Cobalt	7440-48-4	LC	1.73E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.3E-01
Landbay C	8100-1700	INORG	Copper	7440-50-8	D	9.28E+00	1.31E+02	7.1E-02	3.5E+05	EqP	2.7E-05	8.4E+00	EqP	**1.1E+00**
Landbay C	8100-1700	INORG	Iron	7439-89-6	D	4.21E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	8100-1700	INORG	Lead	7439-92-1	B2	1.96E+01						3.5E+02	EqP	5.6E-02
Landbay C	8100-1700	INORG	Manganese	7439-96-5	D	7.40E+02	4.27E+03	1.7E-01	3.1E+05	EqP	2.4E-03	1.6E+02	EqP	**4.7E+00**
Landbay C	8100-1700	INORG	Mercury	7439-97-6	D	5.64E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	8100-1700	INORG	Nickel	7440-02-0	A	1.69E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay C	8100-1700	INORG	Vanadium	7440-62-2	ID	9.69E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.4E-01
Landbay C	8100-1700	INORG	Zinc	7440-66-6	ID	3.85E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay C	8100-1850	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay C	8100-1850	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay C	8100-1850	INORG	Barium	7440-39-3	NC	9.92E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	8100-1850	INORG	Beryllium	7440-41-7	B1	1.04E+00	1.20E+00	8.7E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay C	8100-1850	INORG	Chromium III	16065-83-1	D	4.58E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.4E-05
Landbay C	8100-1850	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	8100-1850	INORG	Cobalt	7440-48-4	LC	1.73E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.3E-01
Landbay C	8100-1850	INORG	Copper	7440-50-8	D	9.28E+00	1.31E+02	7.1E-02	3.5E+05	EqP	2.7E-05	8.4E+00	EqP	**1.1E+00**
Landbay C	8100-1850	INORG	Iron	7439-89-6	D	4.21E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	8100-1850	INORG	Lead	7439-92-1	B2	1.96E+01						3.5E+02	EqP	5.6E-02
Landbay C	8100-1850	INORG	Manganese	7439-96-5	D	7.40E+02	4.27E+03	1.7E-01	3.1E+05	EqP	2.4E-03	1.6E+02	EqP	**4.7E+00**
Landbay C	8100-1850	INORG	Mercury	7439-97-6	D	5.64E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	8100-1850	INORG	Nickel	7440-02-0	A	1.69E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay C	8100-1850	INORG	Vanadium	7440-62-2	ID	9.69E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.4E-01
Landbay C	8100-1850	INORG	Zinc	7440-66-6	ID	3.85E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay C	8100-2000	INORG	Aluminum	7429-90-5	ID	2.65E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	8100-2000	INORG	Arsenic	7440-38-2	A	5.92E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.9E-02
Landbay C	8100-2000	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay C	8100-2000	INORG	Beryllium	7440-41-7	B1	1.18E+00	1.20E+00	9.8E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay C	8100-2000	INORG	Chromium III	16065-83-1	D	4.66E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	8100-2000	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	8100-2000	INORG	Cobalt	7440-48-4	LC	2.61E+01	8.60E+01	3.0E-01	1.4E+04	EqP	1.9E-03	2.1E+01	EqP	**1.3E+00**
Landbay C	8100-2000	INORG	Copper	7440-50-8	D	1.10E+01	1.31E+02	8.4E-02	3.5E+05	EqP	3.2E-05	8.4E+00	EqP	**1.3E+00**
Landbay C	8100-2000	INORG	Iron	7439-89-6	D	4.97E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay C	8100-2000	INORG	Lead	7439-92-1	B2	2.28E+01						3.5E+02	EqP	6.5E-02
Landbay C	8100-2000	INORG	Manganese	7439-96-5	D	9.59E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.1E+00**
Landbay C	8100-2000	INORG	Mercury	7439-97-6	D	6.11E-02	7.10E-02	8.6E-01		NA		3.7E-01	EqP	1.7E-01
Landbay C	8100-2000	INORG	Nickel	7440-02-0	A	1.75E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.2E-01
Landbay C	8100-2000	INORG	Vanadium	7440-62-2	ID	1.03E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.6E-01
Landbay C	8100-2000	INORG	Zinc	7440-66-6	ID	3.81E+01	1.02E+02	3.7E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay C	8100-2150	INORG	Aluminum	7429-90-5	ID	2.50E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay C	8100-2150	INORG	Arsenic	7440-38-2	A	3.28E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay C	8100-2150	INORG	Barium	7440-39-3	NC	7.83E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay C	8100-2150	INORG	Beryllium	7440-41-7	B1	8.95E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay C	8100-2150	INORG	Chromium III	16065-83-1	D	3.97E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay C	8100-2150	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay C	8100-2150	INORG	Cobalt	7440-48-4	LC	1.44E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.0E-03	2.1E+01	EqP	6.9E-01
Landbay C	8100-2150	INORG	Copper	7440-50-8	D	1.19E+01	1.31E+02	9.1E-02	3.5E+05	EqP	3.4E-05	8.4E+00	EqP	**1.4E+00**
Landbay C	8100-2150	INORG	Iron	7439-89-6	D	3.52E+04	9.52E+04	3.7E-01	4.4E+06	EqP	8.1E-03	1.5E+02	EqP	**2.3E+02**
Landbay C	8100-2150	INORG	Lead	7439-92-1	B2	1.50E+01						3.5E+02	EqP	4.3E-02
Landbay C	8100-2150	INORG	Manganese	7439-96-5	D	6.75E+02	4.27E+03	1.6E-01	3.1E+05	EqP	2.2E-03	1.6E+02	EqP	**4.3E+00**
Landbay C	8100-2150	INORG	Mercury	7439-97-6	D	4.63E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	8100-2150	INORG	Nickel	7440-02-0	A	1.68E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay C	8100-2150	INORG	Vanadium	7440-62-2	ID	7.81E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.0E-04	4.0E+02	EqP	2.0E-01
Landbay C	8100-2150	INORG	Zinc	7440-66-6	ID	3.40E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01
Landbay C	8100-2300	INORG	Aluminum	7429-90-5	ID	2.50E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay C	8100-2300	INORG	Arsenic	7440-38-2	A	3.28E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.8E-02
Landbay C	8100-2300	INORG	Barium	7440-39-3	NC	7.83E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.4E+01**
Landbay C	8100-2300	INORG	Beryllium	7440-41-7	B1	8.95E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay C	8100-2300	INORG	Chromium III	16065-83-1	D	3.97E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay C	8100-2300	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay C	8100-2300	INORG	Cobalt	7440-48-4	LC	1.44E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.0E-03	2.1E+01	EqP	6.9E-01
Landbay C	8100-2300	INORG	Copper	7440-50-8	D	1.19E+01	1.31E+02	9.1E-02	3.5E+05	EqP	3.4E-05	8.4E+00	EqP	**1.4E+00**
Landbay C	8100-2300	INORG	Iron	7439-89-6	D	3.52E+04	9.52E+04	3.7E-01	4.4E+06	EqP	8.1E-03	1.5E+02	EqP	**2.3E+02**
Landbay C	8100-2300	INORG	Lead	7439-92-1	B2	1.50E+01						3.5E+02	EqP	4.3E-02
Landbay C	8100-2300	INORG	Manganese	7439-96-5	D	6.75E+02	4.27E+03	1.6E-01	3.1E+05	EqP	2.2E-03	1.6E+02	EqP	**4.3E+00**
Landbay C	8100-2300	INORG	Mercury	7439-97-6	D	4.63E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	8100-2300	INORG	Nickel	7440-02-0	A	1.68E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay C	8100-2300	INORG	Vanadium	7440-62-2	ID	7.81E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.0E-04	4.0E+02	EqP	2.0E-01
Landbay C	8100-2300	INORG	Zinc	7440-66-6	ID	3.40E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01
Landbay C	8100-2450	INORG	Aluminum	7429-90-5	ID	2.03E+04	5.34E+04	3.8E-01	3.7E+08	EqP	5.5E-05	2.6E+03	EqP	**7.8E+00**
Landbay C	8100-2450	INORG	Arsenic	7440-38-2	A	3.21E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.1E-03	8.6E+01	EqP	3.7E-02
Landbay C	8100-2450	INORG	Barium	7440-39-3	NC	1.30E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay C	8100-2450	INORG	Beryllium	7440-41-7	B1	7.94E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay C	8100-2450	INORG	Chromium III	16065-83-1	D	4.75E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay C	8100-2450	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	8100-2450	INORG	Cobalt	7440-48-4	LC	1.93E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.3E-01
Landbay C	8100-2450	INORG	Copper	7440-50-8	D	3.18E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	8100-2450	INORG	Iron	7439-89-6	D	4.25E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.8E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	8100-2450	INORG	Lead	7439-92-1	B2	2.13E+01						3.5E+02	EqP	6.1E-02
Landbay C	8100-2450	INORG	Manganese	7439-96-5	D	2.05E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay C	8100-2450	INORG	Mercury	7439-97-6	D	5.63E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	8100-2450	INORG	Nickel	7440-02-0	A	1.57E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay C	8100-2450	INORG	Vanadium	7440-62-2	ID	1.08E+02	2.83E+02	3.8E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay C	8100-2450	INORG	Zinc	7440-66-6	ID	3.92E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay C	8200-158	INORG	Aluminum	7429-90-5	ID	2.26E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.7E+00**
Landbay C	8200-158	INORG	Arsenic	7440-38-2	A	5.83E+00	9.90E+00	5.9E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.8E-02
Landbay C	8200-158	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay C	8200-158	INORG	Beryllium	7440-41-7	B1	8.52E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay C	8200-158	INORG	Cadmium	7440-43-9	B1	4.30E-01	2.70E+00	1.6E-01	1.1E+03	EqP	4.0E-04	2.1E+00	EqP	2.0E-01
Landbay C	8200-158	INORG	Chromium III	16065-83-1	D	3.55E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay C	8200-158	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay C	8200-158	INORG	Copper	7440-50-8	D	7.57E+01	1.31E+02	5.8E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**9.0E+00**
Landbay C	8200-158	INORG	Lead	7439-92-1	B2	2.43E+01						3.5E+02	EqP	6.9E-02
Landbay C	8200-158	INORG	Mercury	7439-97-6	D	4.23E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.1E-01
Landbay C	8200-158	INORG	Perchlorate	14797-73-0	NC	5.60E-04			3.4E+03	LT	1.6E-07	7.7E+02	LT	7.2E-07
Landbay C	8200-158	INORG	Silver	7440-22-4	D	5.65E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay C	8200-158	INORG	Strontium	7440-24-6		1.12E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.9E-07	1.1E+03	EqP	1.1E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay C	8250-1550	SVOC	Fluoranthene	206-44-0	D	8.60E-02				NA		1.7E-01	EqP	5.0E-01
Landbay C	8250-1550	SVOC	Phenanthrene	85-01-8	D	4.60E-02				NA		3.9E-01	EqP	1.2E-01
Landbay C	8250-1550	SVOC	Pyrene	129-00-0	NC	6.40E-02				NA		1.1E-01	EqP	6.1E-01
Landbay C	8250-1550	INORG	Aluminum	7429-90-5	ID	2.76E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay C	8250-1550	INORG	Arsenic	7440-38-2	A	5.61E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay C	8250-1550	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay C	8250-1550	INORG	Beryllium	7440-41-7	B1	1.07E+00	1.20E+00	8.9E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay C	8250-1550	INORG	Chromium III	16065-83-1	D	4.15E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay C	8250-1550	INORG	Chromium VI	18540-29-9	A	2.87E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay C	8250-1550	INORG	Cobalt	7440-48-4	LC	2.24E+01	8.60E+01	2.6E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	**1.1E+00**
Landbay C	8250-1550	INORG	Copper	7440-50-8	D	5.53E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay C	8250-1550	INORG	Iron	7439-89-6	D	3.87E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.6E+02**
Landbay C	8250-1550	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay C	8250-1550	INORG	Manganese	7439-96-5	D	8.66E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.8E-03	1.6E+02	EqP	**5.5E+00**
Landbay C	8250-1550	INORG	Mercury	7439-97-6	D	4.89E-02	7.10E-02	6.9E-01		NA		3.7E-01	EqP	1.3E-01
Landbay C	8250-1550	INORG	Nickel	7440-02-0	A	2.03E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay C	8250-1550	INORG	Vanadium	7440-62-2	ID	7.90E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.1E-04	4.0E+02	EqP	2.0E-01
Landbay C	8250-1550	INORG	Zinc	7440-66-6	ID	4.70E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay C	8250-1700	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay C	8250-1700	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay C	8250-1700	INORG	Barium	7440-39-3	NC	9.92E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	8250-1700	INORG	Beryllium	7440-41-7	B1	1.04E+00	1.20E+00	8.7E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay C	8250-1700	INORG	Chromium III	16065-83-1	D	4.58E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.4E-05
Landbay C	8250-1700	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	8250-1700	INORG	Cobalt	7440-48-4	LC	1.73E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.3E-01
Landbay C	8250-1700	INORG	Copper	7440-50-8	D	9.28E+00	1.31E+02	7.1E-02	3.5E+05	EqP	2.7E-05	8.4E+00	EqP	**1.1E+00**
Landbay C	8250-1700	INORG	Iron	7439-89-6	D	4.21E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	8250-1700	INORG	Lead	7439-92-1	B2	1.96E+01						3.5E+02	EqP	5.6E-02
Landbay C	8250-1700	INORG	Manganese	7439-96-5	D	7.40E+02	4.27E+03	1.7E-01	3.1E+05	EqP	2.4E-03	1.6E+02	EqP	**4.7E+00**
Landbay C	8250-1700	INORG	Mercury	7439-97-6	D	5.64E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	8250-1700	INORG	Nickel	7440-02-0	A	1.69E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay C	8250-1700	INORG	Vanadium	7440-62-2	ID	9.69E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.4E-01
Landbay C	8250-1700	INORG	Zinc	7440-66-6	ID	3.85E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay C	8250-1850	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay C	8250-1850	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay C	8250-1850	INORG	Barium	7440-39-3	NC	9.92E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	8250-1850	INORG	Beryllium	7440-41-7	B1	1.04E+00	1.20E+00	8.7E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay C	8250-1850	INORG	Chromium III	16065-83-1	D	4.58E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.4E-05
Landbay C	8250-1850	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	8250-1850	INORG	Cobalt	7440-48-4	LC	1.73E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.3E-01
Landbay C	8250-1850	INORG	Copper	7440-50-8	D	9.28E+00	1.31E+02	7.1E-02	3.5E+05	EqP	2.7E-05	8.4E+00	EqP	**1.1E+00**
Landbay C	8250-1850	INORG	Iron	7439-89-6	D	4.21E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay C	8250-1850	INORG	Lead	7439-92-1	B2	1.96E+01						3.5E+02	EqP	5.6E-02
Landbay C	8250-1850	INORG	Manganese	7439-96-5	D	7.40E+02	4.27E+03	1.7E-01	3.1E+05	EqP	2.4E-03	1.6E+02	EqP	**4.7E+00**
Landbay C	8250-1850	INORG	Mercury	7439-97-6	D	5.64E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay C	8250-1850	INORG	Nickel	7440-02-0	A	1.69E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay C	8250-1850	INORG	Vanadium	7440-62-2	ID	9.69E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.4E-01
Landbay C	8250-1850	INORG	Zinc	7440-66-6	ID	3.85E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay C	8250-2000	INORG	Aluminum	7429-90-5	ID	2.72E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	8250-2000	INORG	Arsenic	7440-38-2	A	8.40E+00	9.90E+00	8.5E-01	1.1E+03	EqP	8.0E-03	8.6E+01	EqP	9.8E-02
Landbay C	8250-2000	INORG	Barium	7440-39-3	NC	6.81E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay C	8250-2000	INORG	Beryllium	7440-41-7	B1	1.12E+00	1.20E+00	9.3E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay C	8250-2000	INORG	Chromium III	16065-83-1	D	5.47E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay C	8250-2000	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay C	8250-2000	INORG	Cobalt	7440-48-4	LC	2.03E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.8E-01
Landbay C	8250-2000	INORG	Copper	7440-50-8	D	5.21E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.2E+00**
Landbay C	8250-2000	INORG	Iron	7439-89-6	D	4.89E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay C	8250-2000	INORG	Lead	7439-92-1	B2	3.55E+01						3.5E+02	EqP	1.0E-01
Landbay C	8250-2000	INORG	Manganese	7439-96-5	D	8.30E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.3E+00**
Landbay C	8250-2000	INORG	Mercury	7439-97-6	D	3.21E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay C	8250-2000	INORG	Nickel	7440-02-0	A	1.81E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.4E-01
Landbay C	8250-2000	INORG	Selenium	7782-49-2	D	1.98E+00	2.50E+00	7.9E-01	2.5E+04	LT	8.0E-05	2.0E+00	LT	9.9E-01
Landbay C	8250-2000	INORG	Strontium	7440-24-6		6.39E+00	3.80E+01	1.7E-01	1.6E+07	EqP	3.9E-07	1.1E+03	EqP	6.0E-03
Landbay C	8250-2000	INORG	Thallium	7440-28-0	ID	3.48E+00	4.50E+00	7.7E-01				1.1E+00	EqP	**3.1E+00**
Landbay C	8250-2000	INORG	Vanadium	7440-62-2	ID	1.09E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay C	8250-2000	INORG	Zinc	7440-66-6	ID	4.71E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay C	8250-2150	INORG	Aluminum	7429-90-5	ID	2.22E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay C	8250-2150	INORG	Arsenic	7440-38-2	A	4.79E+00	9.90E+00	4.8E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay C	8250-2150	INORG	Barium	7440-39-3	NC	6.95E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay C	8250-2150	INORG	Beryllium	7440-41-7	B1	7.23E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay C	8250-2150	INORG	Chromium III	16065-83-1	D	5.49E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay C	8250-2150	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay C	8250-2150	INORG	Cobalt	7440-48-4	LC	2.06E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.9E-01
Landbay C	8250-2150	INORG	Copper	7440-50-8	D	2.97E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.6E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	8250-2150	INORG	Iron	7439-89-6	D	3.74E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.6E-03	1.5E+02	EqP	**2.5E+02**
Landbay C	8250-2150	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay C	8250-2150	INORG	Manganese	7439-96-5	D	8.13E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.2E+00**
Landbay C	8250-2150	INORG	Mercury	7439-97-6	D	3.48E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay C	8250-2150	INORG	Nickel	7440-02-0	A	1.97E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.8E-01
Landbay C	8250-2150	INORG	Silver	7440-22-4	D	5.11E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay C	8250-2150	INORG	Strontium	7440-24-6		1.35E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.3E-07	1.1E+03	EqP	1.3E-02
Landbay C	8250-2150	INORG	Vanadium	7440-62-2	ID	1.02E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.5E-01
Landbay C	8250-2150	INORG	Zinc	7440-66-6	ID	5.86E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	8250-2300	INORG	Aluminum	7429-90-5	ID	2.22E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay C	8250-2300	INORG	Arsenic	7440-38-2	A	4.79E+00	9.90E+00	4.8E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay C	8250-2300	INORG	Barium	7440-39-3	NC	6.95E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay C	8250-2300	INORG	Beryllium	7440-41-7	B1	7.23E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay C	8250-2300	INORG	Chromium III	16065-83-1	D	5.49E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay C	8250-2300	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay C	8250-2300	INORG	Cobalt	7440-48-4	LC	2.06E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.9E-01
Landbay C	8250-2300	INORG	Copper	7440-50-8	D	2.97E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.6E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	8250-2300	INORG	Iron	7439-89-6	D	3.74E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.6E-03	1.5E+02	EqP	**2.5E+02**
Landbay C	8250-2300	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay C	8250-2300	INORG	Manganese	7439-96-5	D	8.13E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.2E+00**
Landbay C	8250-2300	INORG	Mercury	7439-97-6	D	3.48E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay C	8250-2300	INORG	Nickel	7440-02-0	A	1.97E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.8E-01
Landbay C	8250-2300	INORG	Silver	7440-22-4	D	5.11E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay C	8250-2300	INORG	Strontium	7440-24-6		1.35E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.3E-07	1.1E+03	EqP	1.3E-02
Landbay C	8250-2300	INORG	Vanadium	7440-62-2	ID	1.02E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.5E-01
Landbay C	8250-2300	INORG	Zinc	7440-66-6	ID	5.86E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	8400-1700	INORG	Aluminum	7429-90-5	ID	2.72E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	8400-1700	INORG	Arsenic	7440-38-2	A	8.40E+00	9.90E+00	8.5E-01	1.1E+03	EqP	8.0E-03	8.6E+01	EqP	9.8E-02
Landbay C	8400-1700	INORG	Barium	7440-39-3	NC	6.81E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay C	8400-1700	INORG	Beryllium	7440-41-7	B1	1.12E+00	1.20E+00	9.3E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay C	8400-1700	INORG	Chromium III	16065-83-1	D	5.47E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay C	8400-1700	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay C	8400-1700	INORG	Cobalt	7440-48-4	LC	2.03E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.8E-01
Landbay C	8400-1700	INORG	Copper	7440-50-8	D	5.21E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.2E+00**
Landbay C	8400-1700	INORG	Iron	7439-89-6	D	4.89E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay C	8400-1700	INORG	Lead	7439-92-1	B2	3.55E+01						3.5E+02	EqP	1.0E-01
Landbay C	8400-1700	INORG	Manganese	7439-96-5	D	8.30E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.3E+00**
Landbay C	8400-1700	INORG	Mercury	7439-97-6	D	3.21E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay C	8400-1700	INORG	Nickel	7440-02-0	A	1.81E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.4E-01
Landbay C	8400-1700	INORG	Selenium	7782-49-2	D	1.98E+00	2.50E+00	7.9E-01	2.5E+04	LT	8.0E-05	2.0E+00	LT	9.9E-01
Landbay C	8400-1700	INORG	Strontium	7440-24-6		6.39E+00	3.80E+01	1.7E-01	1.6E+07	EqP	3.9E-07	1.1E+03	EqP	6.0E-03
Landbay C	8400-1700	INORG	Thallium	7440-28-0	ID	3.48E+00	4.50E+00	7.7E-01				1.1E+00	EqP	**3.1E+00**
Landbay C	8400-1700	INORG	Vanadium	7440-62-2	ID	1.09E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay C	8400-1700	INORG	Zinc	7440-66-6	ID	4.71E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay C	8400-1850	VOC	Acetone	67-64-1	ID	2.20E-02			2.0E+06	LT	1.1E-08	6.0E+02	LT	3.7E-05
Landbay C	8400-1850	INORG	Aluminum	7429-90-5	ID	2.72E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	8400-1850	INORG	Arsenic	7440-38-2	A	8.40E+00	9.90E+00	8.5E-01	1.1E+03	EqP	8.0E-03	8.6E+01	EqP	9.8E-02
Landbay C	8400-1850	INORG	Barium	7440-39-3	NC	6.81E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay C	8400-1850	INORG	Beryllium	7440-41-7	B1	1.12E+00	1.20E+00	9.3E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay C	8400-1850	INORG	Chromium III	16065-83-1	D	5.47E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay C	8400-1850	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay C	8400-1850	INORG	Cobalt	7440-48-4	LC	2.03E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.8E-01
Landbay C	8400-1850	INORG	Copper	7440-50-8	D	5.21E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.2E+00**
Landbay C	8400-1850	INORG	Iron	7439-89-6	D	4.89E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay C	8400-1850	INORG	Lead	7439-92-1	B2	3.55E+01						3.5E+02	EqP	1.0E-01
Landbay C	8400-1850	INORG	Manganese	7439-96-5	D	8.30E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.3E+00**
Landbay C	8400-1850	INORG	Mercury	7439-97-6	D	3.21E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay C	8400-1850	INORG	Nickel	7440-02-0	A	1.81E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.4E-01
Landbay C	8400-1850	INORG	Selenium	7782-49-2	D	1.98E+00	2.50E+00	7.9E-01	2.5E+04	LT	8.0E-05	2.0E+00	LT	9.9E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	8400-1850	INORG	Strontium	7440-24-6		6.39E+00	3.80E+01	1.7E-01	1.6E+07	EqP	3.9E-07	1.1E+03	EqP	6.0E-03
Landbay C	8400-1850	INORG	Thallium	7440-28-0	ID	3.48E+00	4.50E+00	7.7E-01				1.1E+00	EqP	**3.1E+00**
Landbay C	8400-1850	INORG	Vanadium	7440-62-2	ID	1.09E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay C	8400-1850	INORG	Zinc	7440-66-6	ID	4.71E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay C	8400-2000	INORG	Aluminum	7429-90-5	ID	2.22E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay C	8400-2000	INORG	Arsenic	7440-38-2	A	4.79E+00	9.90E+00	4.8E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay C	8400-2000	INORG	Barium	7440-39-3	NC	6.95E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay C	8400-2000	INORG	Beryllium	7440-41-7	B1	7.23E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay C	8400-2000	INORG	Chromium III	16065-83-1	D	5.49E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay C	8400-2000	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay C	8400-2000	INORG	Cobalt	7440-48-4	LC	2.06E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.9E-01
Landbay C	8400-2000	INORG	Copper	7440-50-8	D	2.97E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.6E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	8400-2000	INORG	Iron	7439-89-6	D	3.74E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.6E-03	1.5E+02	EqP	**2.5E+02**
Landbay C	8400-2000	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay C	8400-2000	INORG	Manganese	7439-96-5	D	8.13E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.2E+00**
Landbay C	8400-2000	INORG	Mercury	7439-97-6	D	3.48E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay C	8400-2000	INORG	Nickel	7440-02-0	A	1.97E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.8E-01
Landbay C	8400-2000	INORG	Silver	7440-22-4	D	5.11E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay C	8400-2000	INORG	Strontium	7440-24-6		1.35E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.3E-07	1.1E+03	EqP	1.3E-02
Landbay C	8400-2000	INORG	Vanadium	7440-62-2	ID	1.02E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.5E-01
Landbay C	8400-2000	INORG	Zinc	7440-66-6	ID	5.86E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	8400-2150	INORG	Aluminum	7429-90-5	ID	2.22E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay C	8400-2150	INORG	Arsenic	7440-38-2	A	4.79E+00	9.90E+00	4.8E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay C	8400-2150	INORG	Barium	7440-39-3	NC	6.95E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay C	8400-2150	INORG	Beryllium	7440-41-7	B1	7.23E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay C	8400-2150	INORG	Chromium III	16065-83-1	D	5.49E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay C	8400-2150	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay C	8400-2150	INORG	Cobalt	7440-48-4	LC	2.06E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.9E-01
Landbay C	8400-2150	INORG	Copper	7440-50-8	D	2.97E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.6E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	8400-2150	INORG	Iron	7439-89-6	D	3.74E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.6E-03	1.5E+02	EqP	**2.5E+02**
Landbay C	8400-2150	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay C	8400-2150	INORG	Manganese	7439-96-5	D	8.13E+02	4.27E+03	1.9E-01	3.1E+05	EqP	2.6E-03	1.6E+02	EqP	**5.2E+00**
Landbay C	8400-2150	INORG	Mercury	7439-97-6	D	3.48E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay C	8400-2150	INORG	Nickel	7440-02-0	A	1.97E+01	7.30E+01	2.7E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	5.8E-01
Landbay C	8400-2150	INORG	Silver	7440-22-4	D	5.11E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	1.9E-01
Landbay C	8400-2150	INORG	Strontium	7440-24-6		1.35E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.3E-07	1.1E+03	EqP	1.3E-02
Landbay C	8400-2150	INORG	Vanadium	7440-62-2	ID	1.02E+02	2.83E+02	3.6E-01	1.5E+05	EqP	6.6E-04	4.0E+02	EqP	2.5E-01
Landbay C	8400-2150	INORG	Zinc	7440-66-6	ID	5.86E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	87G3	INORG	Aluminum	7429-90-5	ID	2.68E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay C	87G3	INORG	Barium	7440-39-3	NC	8.14E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay C	87G3	INORG	Beryllium	7440-41-7	B1	8.01E-01	1.20E+00	6.7E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.7E-02
Landbay C	87G3	INORG	Cadmium	7440-43-9	B1	1.98E+00	2.70E+00	7.3E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.3E-01
Landbay C	87G3	INORG	Chromium III	16065-83-1	D	1.02E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay C	87G3	INORG	Chromium VI	18540-29-9	A	3.28E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.5E-01
Landbay C	87G3	INORG	Copper	7440-50-8	D	3.06E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.8E-05	8.4E+00	EqP	**3.6E+00**
Landbay C	87G3	INORG	Lead	7439-92-1	B2	2.86E+01						3.5E+02	EqP	8.2E-02
Landbay C	87G3	INORG	Mercury	7439-97-6	D	2.47E-02	7.10E-02	3.5E-01		NA		3.7E-01	EqP	6.7E-02
Landbay C	87G3	INORG	Strontium	7440-24-6		1.00E+01	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.5E-03
Landbay C	88B1	PCB	PCBs (total)	1336-36-3	B2	2.28E-02				NA		1.4E+00	EqP	1.7E-02
Landbay C	88B1	INORG	Aluminum	7429-90-5	ID	3.38E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay C	88B1	INORG	Barium	7440-39-3	NC	6.18E+01	2.24E+02	2.8E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.9E+01**
Landbay C	88B1	INORG	Beryllium	7440-41-7	B1	4.93E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.3E-05	1.0E+01	EqP	4.7E-02
Landbay C	88B1	INORG	Cadmium	7440-43-9	B1	2.10E+00	2.70E+00	7.8E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.8E-01
Landbay C	88B1	INORG	Chromium III	16065-83-1	D	8.76E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay C	88B1	INORG	Chromium VI	18540-29-9	A	3.19E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay C	88B1	INORG	Copper	7440-50-8	D	6.29E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.5E+00**
Landbay C	88B1	INORG	Lead	7439-92-1	B2	2.10E+01						3.5E+02	EqP	6.0E-02
Landbay C	88B1	INORG	Mercury	7439-97-6	D	9.76E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.6E-01
Landbay C	88B1	INORG	Strontium	7440-24-6		4.47E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.2E-02
Landbay C	88B2	PCB	PCBs (total)	1336-36-3	B2	2.28E-02				NA		1.4E+00	EqP	1.7E-02
Landbay C	88B2	INORG	Aluminum	7429-90-5	ID	3.38E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay C	88B2	INORG	Barium	7440-39-3	NC	6.18E+01	2.24E+02	2.8E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.9E+01**
Landbay C	88B2	INORG	Beryllium	7440-41-7	B1	4.93E-01	1.20E+00	4.1E-01	6.8E+03	EqP	7.3E-05	1.0E+01	EqP	4.7E-02
Landbay C	88B2	INORG	Cadmium	7440-43-9	B1	2.10E+00	2.70E+00	7.8E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.8E-01
Landbay C	88B2	INORG	Chromium III	16065-83-1	D	8.76E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay C	88B2	INORG	Chromium VI	18540-29-9	A	3.19E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay C	88B2	INORG	Copper	7440-50-8	D	6.29E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.5E+00**
Landbay C	88B2	INORG	Lead	7439-92-1	B2	2.10E+01						3.5E+02	EqP	6.0E-02
Landbay C	88B2	INORG	Mercury	7439-97-6	D	9.76E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.6E-01
Landbay C	88B2	INORG	Strontium	7440-24-6		4.47E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.2E-02
Landbay C	90B1	INORG	Aluminum	7429-90-5	ID	3.15E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	90B1	INORG	Barium	7440-39-3	NC	6.12E+01	2.24E+02	2.7E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.9E+01**
Landbay C	90B1	INORG	Beryllium	7440-41-7	B1	4.82E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.1E-05	1.0E+01	EqP	4.6E-02
Landbay C	90B1	INORG	Cadmium	7440-43-9	B1	2.75E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.5E-03	2.1E+00	EqP	**1.3E+00**
Landbay C	90B1	INORG	Chromium III	16065-83-1	D	6.04E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.8E-05
Landbay C	90B1	INORG	Chromium VI	18540-29-9	A	3.00E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay C	90B1	INORG	Copper	7440-50-8	D	1.08E+02	1.31E+02	8.2E-01	3.5E+05	EqP	3.1E-04	8.4E+00	EqP	**1.3E+01**
Landbay C	90B1	INORG	Lead	7439-92-1	B2	1.94E+01						3.5E+02	EqP	5.5E-02
Landbay C	90B1	INORG	Mercury	7439-97-6	D	1.04E-01	7.10E-02	**1.5E+00**		NA		3.7E-01	EqP	2.8E-01
Landbay C	90B1	INORG	Strontium	7440-24-6		4.49E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.8E-06	1.1E+03	EqP	4.2E-02
Landbay C	90B2	INORG	Aluminum	7429-90-5	ID	3.15E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	90B2	INORG	Barium	7440-39-3	NC	6.12E+01	2.24E+02	2.7E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.9E+01**
Landbay C	90B2	INORG	Beryllium	7440-41-7	B1	4.82E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.1E-05	1.0E+01	EqP	4.6E-02
Landbay C	90B2	INORG	Cadmium	7440-43-9	B1	2.75E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.5E-03	2.1E+00	EqP	**1.3E+00**
Landbay C	90B2	INORG	Chromium III	16065-83-1	D	6.04E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.8E-05
Landbay C	90B2	INORG	Chromium VI	18540-29-9	A	3.00E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay C	90B2	INORG	Copper	7440-50-8	D	1.08E+02	1.31E+02	8.2E-01	3.5E+05	EqP	3.1E-04	8.4E+00	EqP	**1.3E+01**
Landbay C	90B2	INORG	Lead	7439-92-1	B2	1.94E+01						3.5E+02	EqP	5.5E-02
Landbay C	90B2	INORG	Mercury	7439-97-6	D	1.04E-01	7.10E-02	**1.5E+00**		NA		3.7E-01	EqP	2.8E-01
Landbay C	90B2	INORG	Strontium	7440-24-6		4.49E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.8E-06	1.1E+03	EqP	4.2E-02
Landbay C	90B2	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.10E+01				NA		6.0E+01	LT	1.8E-01
Landbay C	93B1	INORG	Perchlorate	14797-73-0	NC	4.10E-04			3.4E+03	LT	1.2E-07	7.7E+02	LT	5.3E-07
Landbay C	95AB1	INORG	Perchlorate	14797-73-0	NC	3.50E-04			3.4E+03	LT	1.0E-07	7.7E+02	LT	4.5E-07
Landbay C	97B2	INORG	Aluminum	7429-90-5	ID	3.17E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay C	97B2	INORG	Barium	7440-39-3	NC	9.82E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay C	97B2	INORG	Beryllium	7440-41-7	B1	7.90E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay C	97B2	INORG	Cadmium	7440-43-9	B1	1.59E+00	2.70E+00	5.9E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.4E-01
Landbay C	97B2	INORG	Chromium III	16065-83-1	D	1.03E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay C	97B2	INORG	Chromium VI	18540-29-9	A	3.29E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.5E-01
Landbay C	97B2	INORG	Copper	7440-50-8	D	5.74E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay C	97B2	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay C	97B2	INORG	Mercury	7439-97-6	D	3.65E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.9E-02
Landbay C	97B2	INORG	Strontium	7440-24-6		2.28E+01	3.80E+01	6.0E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.2E-02
Landbay C	99B1	INORG	Perchlorate	14797-73-0	NC	2.00E-04			3.4E+03	LT	5.8E-08	7.7E+02	LT	2.6E-07
Landbay C	GP 221-05	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.13E-01				NA		9.6E+03	EqP	1.2E-05
Landbay C	GP 221-05	INORG	Chromium III	16065-83-1	D	7.79E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay C	GP 221-05	INORG	Chromium VI	18540-29-9	A	3.12E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay C	GP 221-05	INORG	Copper	7440-50-8	D	2.90E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.4E-05	8.4E+00	EqP	**3.5E+00**
Landbay C	GP 221-05	INORG	Nickel	7440-02-0	A	5.75E+01	7.30E+01	7.9E-01	1.2E+05	EqP	4.6E-04	3.4E+01	EqP	**1.7E+00**
Landbay C	GP 221-05	INORG	Zinc	7440-66-6	ID	3.70E+01	1.02E+02	3.6E-01	5.5E+06	EqP	6.8E-06	1.9E+02	EqP	1.9E-01
Landbay C	GP 221-06	INORG	Arsenic	7440-38-2	A	2.00E+00	9.90E+00	2.0E-01	1.1E+03	EqP	1.9E-03	8.6E+01	EqP	2.3E-02
Landbay C	GP 221-06	INORG	Chromium III	16065-83-1	D	1.02E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay C	GP 221-06	INORG	Chromium VI	18540-29-9	A	3.28E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.5E-01
Landbay C	GP 221-06	INORG	Copper	7440-50-8	D	9.80E+00	1.31E+02	7.5E-02	3.5E+05	EqP	2.8E-05	8.4E+00	EqP	**1.2E+00**
Landbay C	GP 221-06	INORG	Lead	7439-92-1	B2	3.00E+01						3.5E+02	EqP	8.6E-02
Landbay C	GP 221-06	INORG	Nickel	7440-02-0	A	8.60E+00	7.30E+01	1.2E-01	1.2E+05	EqP	6.9E-05	3.4E+01	EqP	2.5E-01
Landbay C	GP 221-07	INORG	Beryllium	7440-41-7	B1	1.17E+00	1.20E+00	9.8E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay C	GP 221-07	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay C	GP 221-07	INORG	Chromium VI	18540-29-9	A	1.10E+00	4.97E+00	2.2E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.5E-01
Landbay C	GP 221-12	INORG	Beryllium	7440-41-7	B1	9.16E-01	1.20E+00	7.6E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.8E-02
Landbay C	GP 221-12	INORG	Chromium III	16065-83-1	D	1.89E+02	2.61E+02	7.3E-01	2.1E+10	EqP	8.9E-09	3.4E+06	EqP	5.6E-05
Landbay C	GP 221-12	INORG	Chromium VI	18540-29-9	A	3.88E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay C	GP 221-15	INORG	Chromium III	16065-83-1	D	1.04E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.9E-09	3.4E+06	EqP	3.1E-05
Landbay C	GP 221-15	INORG	Chromium VI	18540-29-9	A	3.30E+00	4.97E+00	6.6E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay C	GP 221-16	INORG	Chromium III	16065-83-1	D	1.64E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.7E-09	3.4E+06	EqP	4.9E-05
Landbay C	GP 221-16	INORG	Chromium VI	18540-29-9	A	3.71E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.4E-01
Landbay C	GP 96-03	INORG	Perchlorate	14797-73-0	NC	6.70E-02			3.4E+03	LT	1.9E-05	7.7E+02	LT	8.7E-05
Landbay C	GP 97-01	INORG	Chromium III	16065-83-1	D	1.37E+02	2.61E+02	5.3E-01	2.1E+10	EqP	6.4E-09	3.4E+06	EqP	4.1E-05
Landbay C	GP 97-01	INORG	Chromium VI	18540-29-9	A	3.53E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay C	GP 97-02	INORG	Chromium III	16065-83-1	D	5.11E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay C	GP 97-02	INORG	Chromium VI	18540-29-9	A	2.94E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay C	GP 97-03	INORG	Chromium III	16065-83-1	D	7.44E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay C	GP 97-03	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.0E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	GP 97-04	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay C	GP 97-04	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay C	GP BG-01	INORG	Aluminum	7429-90-5	ID	1.77E+04	5.34E+04	3.3E-01	3.7E+08	EqP	4.8E-05	2.6E+03	EqP	**6.8E+00**
Landbay C	GP BG-01	INORG	Arsenic	7440-38-2	A	3.77E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay C	GP BG-01	INORG	Barium	7440-39-3	NC	5.12E+01	2.24E+02	2.3E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.6E+01**
Landbay C	GP BG-01	INORG	Beryllium	7440-41-7	B1	8.45E-01	1.20E+00	7.0E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	8.1E-02
Landbay C	GP BG-01	INORG	Chromium III	16065-83-1	D	4.92E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.5E-05
Landbay C	GP BG-01	INORG	Chromium VI	18540-29-9	A	7.10E-01	4.97E+00	1.4E-01	6.6E+01	LT	1.1E-02	4.4E+00	LT	1.6E-01
Landbay C	GP BG-01	INORG	Cobalt	7440-48-4	LC	1.31E+01	8.60E+01	1.5E-01	1.4E+04	EqP	9.5E-04	2.1E+01	EqP	6.3E-01
Landbay C	GP BG-01	INORG	Copper	7440-50-8	D	1.84E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.3E-05	8.4E+00	EqP	**2.2E+00**
Landbay C	GP BG-01	INORG	Iron	7439-89-6	D	3.17E+04	9.52E+04	3.3E-01	4.4E+06	EqP	7.3E-03	1.5E+02	EqP	**2.1E+02**
Landbay C	GP BG-01	INORG	Lead	7439-92-1	B2	1.26E+01						3.5E+02	EqP	3.6E-02
Landbay C	GP BG-01	INORG	Manganese	7439-96-5	D	9.06E+02	4.27E+03	2.1E-01	3.1E+05	EqP	2.9E-03	1.6E+02	EqP	**5.8E+00**
Landbay C	GP BG-01	INORG	Mercury	7439-97-6	D	2.84E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.7E-02
Landbay C	GP BG-01	INORG	Nickel	7440-02-0	A	1.17E+01	7.30E+01	1.6E-01	1.2E+05	EqP	9.4E-05	3.4E+01	EqP	3.5E-01
Landbay C	GP BG-01	INORG	Thallium	7440-28-0	ID	2.21E+00	4.50E+00	4.9E-01				1.1E+00	EqP	**1.9E+00**
Landbay C	GP BG-01	INORG	Vanadium	7440-62-2	ID	9.32E+01	2.83E+02	3.3E-01	1.5E+05	EqP	6.0E-04	4.0E+02	EqP	2.3E-01
Landbay C	GP BG-01	INORG	Zinc	7440-66-6	ID	2.64E+01	1.02E+02	2.6E-01	5.5E+06	EqP	4.8E-06	1.9E+02	EqP	1.4E-01
Landbay C	GP NPB-01	INORG	Chromium III	16065-83-1	D	3.49E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay C	GP NPB-01	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay C	GP NPB-02	INORG	Chromium III	16065-83-1	D	1.04E+02	2.61E+02	4.0E-01	2.1E+10	EqP	4.9E-09	3.4E+06	EqP	3.1E-05
Landbay C	GP NPB-03	INORG	Chromium III	16065-83-1	D	5.50E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay C	GP NPB-03	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.7E-01
Landbay C	HA BG-01	INORG	Aluminum	7429-90-5	ID	2.08E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.6E-05	2.6E+03	EqP	**8.0E+00**
Landbay C	HA BG-01	INORG	Arsenic	7440-38-2	A	8.91E+00	9.90E+00	9.0E-01	1.1E+03	EqP	8.5E-03	8.6E+01	EqP	1.0E-01
Landbay C	HA BG-01	INORG	Barium	7440-39-3	NC	1.11E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.4E+01**
Landbay C	HA BG-01	INORG	Beryllium	7440-41-7	B1	1.09E+00	1.20E+00	9.1E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay C	HA BG-01	INORG	Chromium III	16065-83-1	D	5.37E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay C	HA BG-01	INORG	Chromium VI	18540-29-9	A	2.96E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay C	HA BG-01	INORG	Cobalt	7440-48-4	LC	2.25E+01	8.60E+01	2.6E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	**1.1E+00**
Landbay C	HA BG-01	INORG	Copper	7440-50-8	D	7.88E+00	1.31E+02	6.0E-02	3.5E+05	EqP	2.3E-05	8.4E+00	EqP	9.4E-01
Landbay C	HA BG-01	INORG	Iron	7439-89-6	D	4.69E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay C	HA BG-01	INORG	Lead	7439-92-1	B2	2.08E+01						3.5E+02	EqP	5.9E-02
Landbay C	HA BG-01	INORG	Manganese	7439-96-5	D	8.83E+02	4.27E+03	2.1E-01	3.1E+05	EqP	2.8E-03	1.6E+02	EqP	**5.6E+00**
Landbay C	HA BG-01	INORG	Mercury	7439-97-6	D	3.69E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	1.0E-01
Landbay C	HA BG-01	INORG	Nickel	7440-02-0	A	1.31E+01	7.30E+01	1.8E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	3.9E-01
Landbay C	HA BG-01	INORG	Thallium	7440-28-0	ID	2.38E+00	4.50E+00	5.3E-01				1.1E+00	EqP	**2.1E+00**
Landbay C	HA BG-01	INORG	Vanadium	7440-62-2	ID	1.08E+02	2.83E+02	3.8E-01	1.5E+05	EqP	7.0E-04	4.0E+02	EqP	2.7E-01
Landbay C	HA BG-01	INORG	Zinc	7440-66-6	ID	3.21E+01	1.02E+02	3.1E-01	5.5E+06	EqP	5.9E-06	1.9E+02	EqP	1.7E-01
Landbay C	IM13-1	INORG	Aluminum	7429-90-5	ID	6.22E+04	5.34E+04	**1.2E+00**	3.7E+08	EqP	1.7E-04	2.6E+03	EqP	**2.4E+01**
Landbay C	IM13-1	INORG	Antimony	7440-36-0	ID	2.01E+00	1.70E+00	**1.2E+00**	1.4E+03	EqP	1.5E-03	2.7E+01	EqP	7.4E-02
Landbay C	IM13-1	INORG	Arsenic	7440-38-2	A	2.66E+00	9.90E+00	2.7E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.1E-02
Landbay C	IM13-1	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay C	IM13-1	INORG	Beryllium	7440-41-7	B1	6.46E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.2E-02
Landbay C	IM13-1	INORG	Boron	7440-42-8	ID	1.23E+01	1.34E+01	9.2E-01	9.9E+05	LT	1.2E-05	6.4E-01	LT	**1.9E+01**
Landbay C	IM13-1	INORG	Cadmium	7440-43-9	B1	6.59E-01	2.70E+00	2.4E-01	1.1E+03	EqP	6.1E-04	2.1E+00	EqP	3.1E-01
Landbay C	IM13-1	INORG	Chromium III	16065-83-1	D	2.10E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay C	IM13-1	INORG	Chromium VI	18540-29-9	A	3.30E+00	4.97E+00	6.6E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay C	IM13-1	INORG	Cobalt	7440-48-4	LC	3.83E+01	8.60E+01	4.5E-01	1.4E+04	EqP	2.8E-03	2.1E+01	EqP	**1.8E+00**
Landbay C	IM13-1	INORG	Copper	7440-50-8	D	4.90E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay C	IM13-1	INORG	Iron	7439-89-6	D	7.34E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay C	IM13-1	INORG	Lead	7439-92-1	B2	1.05E+01						3.5E+02	EqP	3.0E-02
Landbay C	IM13-1	INORG	Manganese	7439-96-5	D	9.24E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.0E-03	1.6E+02	EqP	**5.9E+00**
Landbay C	IM13-1	INORG	Mercury	7439-97-6	D	5.20E-03	7.10E-02	7.3E-02		NA		3.7E-01	EqP	1.4E-02
Landbay C	IM13-1	INORG	Nickel	7440-02-0	A	6.82E+01	7.30E+01	9.3E-01	1.2E+05	EqP	5.5E-04	3.4E+01	EqP	**2.0E+00**
Landbay C	IM13-1	INORG	Selenium	7782-49-2	D	4.11E+00	2.50E+00	**1.6E+00**	2.5E+04	LT	1.7E-04	2.0E+00	LT	**2.1E+00**
Landbay C	IM13-1	INORG	Silver	7440-22-4	D	2.24E+00	2.30E+00	9.7E-01	3.8E+03	LT	6.0E-04	2.7E+00	LT	8.4E-01
Landbay C	IM13-1	INORG	Strontium	7440-24-6		3.36E+01	3.80E+01	8.8E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.2E-02
Landbay C	IM13-1	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay C	IM13-1	INORG	Zinc	7440-66-6	ID	5.87E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay C	IM13-2	INORG	Aluminum	7429-90-5	ID	5.59E+04	5.34E+04	1.0E+00	3.7E+08	EqP	1.5E-04	2.6E+03	EqP	**2.1E+01**
Landbay C	IM13-2	INORG	Antimony	7440-36-0	ID	2.34E+00	1.70E+00	**1.4E+00**	1.4E+03	EqP	1.7E-03	2.7E+01	EqP	8.6E-02
Landbay C	IM13-2	INORG	Arsenic	7440-38-2	A	2.97E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay C	IM13-2	INORG	Barium	7440-39-3	NC	8.58E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay C	IM13-2	INORG	Beryllium	7440-41-7	B1	6.56E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay C	IM13-2	INORG	Boron	7440-42-8	ID	1.24E+01	1.34E+01	9.3E-01	9.9E+05	LT	1.3E-05	6.4E-01	LT	**1.9E+01**
Landbay C	IM13-2	INORG	Cadmium	7440-43-9	B1	5.09E-01	2.70E+00	1.9E-01	1.1E+03	EqP	4.7E-04	2.1E+00	EqP	2.4E-01
Landbay C	IM13-2	INORG	Chromium III	16065-83-1	D	2.69E+02	2.61E+02	1.0E+00	2.1E+10	EqP	1.3E-08	3.4E+06	EqP	8.0E-05
Landbay C	IM13-2	INORG	Chromium VI	18540-29-9	A	5.50E+00	4.97E+00	**1.1E+00**	6.6E+01	LT	8.3E-02	4.4E+00	LT	**1.3E+00**
Landbay C	IM13-2	INORG	Cobalt	7440-48-4	LC	3.92E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay C	IM13-2	INORG	Copper	7440-50-8	D	4.89E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay C	IM13-2	INORG	Iron	7439-89-6	D	7.81E+04	9.52E+04	8.2E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.2E+02**
Landbay C	IM13-2	INORG	Lead	7439-92-1	B2	1.08E+01						3.5E+02	EqP	3.1E-02
Landbay C	IM13-2	INORG	Manganese	7439-96-5	D	9.22E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.0E-03	1.6E+02	EqP	**5.9E+00**
Landbay C	IM13-2	INORG	Mercury	7439-97-6	D	9.20E-03	7.10E-02	1.3E-01		NA		3.7E-01	EqP	2.5E-02
Landbay C	IM13-2	INORG	Nickel	7440-02-0	A	6.60E+01	7.30E+01	9.0E-01	1.2E+05	EqP	5.3E-04	3.4E+01	EqP	**2.0E+00**
Landbay C	IM13-2	INORG	Selenium	7782-49-2	D	4.81E+00	2.50E+00	**1.9E+00**	2.5E+04	LT	2.0E-04	2.0E+00	LT	**2.4E+00**
Landbay C	IM13-2	INORG	Silver	7440-22-4	D	2.49E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	6.6E-04	2.7E+00	LT	9.4E-01
Landbay C	IM13-2	INORG	Strontium	7440-24-6		2.44E+01	3.80E+01	6.4E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay C	IM13-2	INORG	Vanadium	7440-62-2	ID	1.60E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay C	IM13-2	INORG	Zinc	7440-66-6	ID	6.87E+01	1.02E+02	6.7E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.6E-01
Landbay C	IM13-3	INORG	Aluminum	7429-90-5	ID	4.00E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay C	IM13-3	INORG	Arsenic	7440-38-2	A	9.84E-01	9.90E+00	9.9E-02	1.1E+03	EqP	9.4E-04	8.6E+01	EqP	1.1E-02
Landbay C	IM13-3	INORG	Barium	7440-39-3	NC	5.84E+01	2.24E+02	2.6E-01	3.2E+05	EqP	1.8E-04	3.3E+00	EqP	**1.8E+01**
Landbay C	IM13-3	INORG	Beryllium	7440-41-7	B1	1.63E-01	1.20E+00	1.4E-01	6.8E+03	EqP	2.4E-05	1.0E+01	EqP	1.6E-02
Landbay C	IM13-3	INORG	Boron	7440-42-8	ID	3.63E+00	1.34E+01	2.7E-01	9.9E+05	LT	3.7E-06	6.4E-01	LT	**5.7E+00**
Landbay C	IM13-3	INORG	Cadmium	7440-43-9	B1	3.97E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay C	IM13-3	INORG	Chromium III	16065-83-1	D	6.35E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay C	IM13-3	INORG	Chromium VI	18540-29-9	A	8.90E-01	4.97E+00	1.8E-01	6.6E+01	LT	1.3E-02	4.4E+00	LT	2.0E-01
Landbay C	IM13-3	INORG	Cobalt	7440-48-4	LC	1.80E+01	8.60E+01	2.1E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.6E-01
Landbay C	IM13-3	INORG	Copper	7440-50-8	D	6.10E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.3E+00**
Landbay C	IM13-3	INORG	Iron	7439-89-6	D	3.22E+04	9.52E+04	3.4E-01	4.4E+06	EqP	7.4E-03	1.5E+02	EqP	**2.1E+02**
Landbay C	IM13-3	INORG	Lead	7439-92-1	B2	2.64E+00						3.5E+02	EqP	7.5E-03
Landbay C	IM13-3	INORG	Manganese	7439-96-5	D	4.42E+02	4.27E+03	1.0E-01	3.1E+05	EqP	1.4E-03	1.6E+02	EqP	**2.8E+00**
Landbay C	IM13-3	INORG	Nickel	7440-02-0	A	2.95E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.7E-01
Landbay C	IM13-3	INORG	Selenium	7782-49-2	D	1.54E+00	2.50E+00	6.2E-01	2.5E+04	LT	6.3E-05	2.0E+00	LT	7.7E-01
Landbay C	IM13-3	INORG	Silver	7440-22-4	D	7.54E-01	2.30E+00	3.3E-01	3.8E+03	LT	2.0E-04	2.7E+00	LT	2.8E-01
Landbay C	IM13-3	INORG	Strontium	7440-24-6		5.20E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.2E-06	1.1E+03	EqP	4.9E-02
Landbay C	IM13-3	INORG	Vanadium	7440-62-2	ID	1.06E+02	2.83E+02	3.7E-01	1.5E+05	EqP	6.8E-04	4.0E+02	EqP	2.6E-01
Landbay C	IM13-3	INORG	Zinc	7440-66-6	ID	3.10E+01	1.02E+02	3.0E-01	5.5E+06	EqP	5.7E-06	1.9E+02	EqP	1.6E-01
Landbay C	IM13-4	INORG	Aluminum	7429-90-5	ID	3.75E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay C	IM13-4	INORG	Barium	7440-39-3	NC	4.16E+01	2.24E+02	1.9E-01	3.2E+05	EqP	1.3E-04	3.3E+00	EqP	**1.3E+01**
Landbay C	IM13-4	INORG	Beryllium	7440-41-7	B1	1.80E-01	1.20E+00	1.5E-01	6.8E+03	EqP	2.7E-05	1.0E+01	EqP	1.7E-02
Landbay C	IM13-4	INORG	Boron	7440-42-8	ID	1.50E+00	1.34E+01	1.1E-01	9.9E+05	LT	1.5E-06	6.4E-01	LT	**2.3E+00**
Landbay C	IM13-4	INORG	Cadmium	7440-43-9	B1	6.25E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.8E-04	2.1E+00	EqP	2.9E-01
Landbay C	IM13-4	INORG	Chromium III	16065-83-1	D	9.61E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay C	IM13-4	INORG	Chromium VI	18540-29-9	A	1.60E+00	4.97E+00	3.2E-01	6.6E+01	LT	2.4E-02	4.4E+00	LT	3.6E-01
Landbay C	IM13-4	INORG	Cobalt	7440-48-4	LC	2.41E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay C	IM13-4	INORG	Copper	7440-50-8	D	5.49E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay C	IM13-4	INORG	Iron	7439-89-6	D	4.35E+04	9.52E+04	4.6E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay C	IM13-4	INORG	Lead	7439-92-1	B2	3.77E+00						3.5E+02	EqP	1.1E-02
Landbay C	IM13-4	INORG	Manganese	7439-96-5	D	5.93E+02	4.27E+03	1.4E-01	3.1E+05	EqP	1.9E-03	1.6E+02	EqP	**3.8E+00**
Landbay C	IM13-4	INORG	Nickel	7440-02-0	A	4.09E+01	7.30E+01	5.6E-01	1.2E+05	EqP	3.3E-04	3.4E+01	EqP	**1.2E+00**
Landbay C	IM13-4	INORG	Selenium	7782-49-2	D	2.32E+00	2.50E+00	9.3E-01	2.5E+04	LT	9.4E-05	2.0E+00	LT	**1.2E+00**
Landbay C	IM13-4	INORG	Silver	7440-22-4	D	1.16E+00	2.30E+00	5.0E-01	3.8E+03	LT	3.1E-04	2.7E+00	LT	4.4E-01
Landbay C	IM13-4	INORG	Strontium	7440-24-6		3.61E+01	3.80E+01	9.5E-01	1.6E+07	EqP	2.2E-06	1.1E+03	EqP	3.4E-02
Landbay C	IM13-4	INORG	Vanadium	7440-62-2	ID	9.62E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.2E-04	4.0E+02	EqP	2.4E-01
Landbay C	IM13-4	INORG	Zinc	7440-66-6	ID	4.44E+01	1.02E+02	4.4E-01	5.5E+06	EqP	8.1E-06	1.9E+02	EqP	2.3E-01
Landbay C	IM13-5	INORG	Aluminum	7429-90-5	ID	5.34E+04	5.34E+04	1.0E+00	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay C	IM13-5	INORG	Antimony	7440-36-0	ID	1.32E+00	1.70E+00	7.8E-01	1.4E+03	EqP	9.6E-04	2.7E+01	EqP	4.9E-02
Landbay C	IM13-5	INORG	Arsenic	7440-38-2	A	1.48E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay C	IM13-5	INORG	Barium	7440-39-3	NC	9.62E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay C	IM13-5	INORG	Beryllium	7440-41-7	B1	3.33E-01	1.20E+00	2.8E-01	6.8E+03	EqP	4.9E-05	1.0E+01	EqP	3.2E-02
Landbay C	IM13-5	INORG	Cadmium	7440-43-9	B1	5.30E-01	2.70E+00	2.0E-01	1.1E+03	EqP	4.9E-04	2.1E+00	EqP	2.5E-01
Landbay C	IM13-5	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay C	IM13-5	INORG	Chromium VI	18540-29-9	A	2.50E+00	4.97E+00	5.0E-01	6.6E+01	LT	3.8E-02	4.4E+00	LT	5.7E-01
Landbay C	IM13-5	INORG	Cobalt	7440-48-4	LC	2.47E+01	8.60E+01	2.9E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay C	IM13-5	INORG	Copper	7440-50-8	D	4.06E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay C	IM13-5	INORG	Iron	7439-89-6	D	4.59E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.0E+02**
Landbay C	IM13-5	INORG	Lead	7439-92-1	B2	4.13E+00						3.5E+02	EqP	1.2E-02
Landbay C	IM13-5	INORG	Manganese	7439-96-5	D	5.15E+02	4.27E+03	1.2E-01	3.1E+05	EqP	1.7E-03	1.6E+02	EqP	**3.3E+00**
Landbay C	IM13-5	INORG	Nickel	7440-02-0	A	4.80E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay C	IM13-5	INORG	Selenium	7782-49-2	D	2.15E+00	2.50E+00	8.6E-01	2.5E+04	LT	8.7E-05	2.0E+00	LT	**1.1E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay C	IM13-5	INORG	Silver	7440-22-4	D	1.18E+00	2.30E+00	5.1E-01	3.8E+03	LT	3.1E-04	2.7E+00	LT	4.4E-01
Landbay C	IM13-5	INORG	Strontium	7440-24-6		4.57E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.8E-06	1.1E+03	EqP	4.3E-02
Landbay C	IM13-5	INORG	Vanadium	7440-62-2	ID	9.31E+01	2.83E+02	3.3E-01	1.5E+05	EqP	6.0E-04	4.0E+02	EqP	2.3E-01
Landbay C	IM13-5	INORG	Zinc	7440-66-6	ID	4.17E+01	1.02E+02	4.1E-01	5.5E+06	EqP	7.6E-06	1.9E+02	EqP	2.2E-01
Landbay C	SB PBN-01	INORG	Cobalt	7440-48-4	LC	7.80E+00	8.60E+01	9.1E-02	1.4E+04	EqP	5.7E-04	2.1E+01	EqP	3.7E-01
Landbay C	SB PBN-02	INORG	Cobalt	7440-48-4	LC	9.30E+00	8.60E+01	1.1E-01	1.4E+04	EqP	6.8E-04	2.1E+01	EqP	4.5E-01
Landbay C	SB PBN-02	INORG	Perchlorate	14797-73-0	NC	1.00E-02			3.4E+03	LT	2.9E-06	7.7E+02	LT	1.3E-05
Landbay C	SR-90	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	7.10E-01				NA		6.0E+01	LT	1.2E-02
Landbay C	SS-96A	INORG	Perchlorate	14797-73-0	NC	7.20E-02			3.4E+03	LT	2.1E-05	7.7E+02	LT	9.3E-05
Landbay C	TP 221-02	INORG	Arsenic	7440-38-2	A	1.60E+00	9.90E+00	1.6E-01	1.1E+03	EqP	1.5E-03	8.6E+01	EqP	1.9E-02
Landbay C	TP 221-02	INORG	Chromium III	16065-83-1	D	1.31E+02	2.61E+02	5.0E-01	2.1E+10	EqP	6.1E-09	3.4E+06	EqP	3.9E-05
Landbay C	TP 221-02	INORG	Chromium VI	18540-29-9	A	3.48E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay C	TP 221-02	INORG	Copper	7440-50-8	D	3.90E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay C	TP 221-02	INORG	Lead	7439-92-1	B2	2.40E+01						3.5E+02	EqP	6.8E-02
Landbay C	TP 221-02	INORG	Nickel	7440-02-0	A	7.30E+01	7.30E+01	1.0E+00	1.2E+05	EqP	5.9E-04	3.4E+01	EqP	**2.2E+00**
Landbay C	TP 221-02	INORG	Zinc	7440-66-6	ID	1.71E+02	1.02E+02	**1.7E+00**	5.5E+06	EqP	3.1E-05	1.9E+02	EqP	9.0E-01
Landbay C	TP 97-01	VOC	1,3-Dichlorobenzene	541-73-1	D	1.61E-01				NA		6.0E+01	LT	2.7E-03
Landbay C	TP 97-01	INORG	Arsenic	7440-38-2	A	9.00E-01	9.90E+00	9.1E-02	1.1E+03	EqP	8.6E-04	8.6E+01	EqP	1.0E-02
Landbay C	TP 97-01	INORG	Chromium III	16065-83-1	D	4.81E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay C	TP 97-01	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay C	TP 97-01	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	TP 97-01	INORG	Lead	7439-92-1	B2	2.08E+00						3.5E+02	EqP	5.9E-03
Landbay C	TP 97-01	INORG	Nickel	7440-02-0	A	3.15E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.3E-01
Landbay C	TP 97-01	INORG	Zinc	7440-66-6	ID	3.20E+01	1.02E+02	3.1E-01	5.5E+06	EqP	5.9E-06	1.9E+02	EqP	1.7E-01
Landbay C	TP 97-02	VOC	1,3-Dichlorobenzene	541-73-1	D	1.64E-01				NA		6.0E+01	LT	2.7E-03
Landbay C	TP 97-02	INORG	Arsenic	7440-38-2	A	6.00E-01	9.90E+00	6.1E-02	1.1E+03	EqP	5.7E-04	8.6E+01	EqP	7.0E-03
Landbay C	TP 97-02	INORG	Chromium III	16065-83-1	D	3.32E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	9.8E-06
Landbay C	TP 97-02	INORG	Chromium VI	18540-29-9	A	2.82E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay C	TP 97-02	INORG	Copper	7440-50-8	D	3.30E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.5E-05	8.4E+00	EqP	**3.9E+00**
Landbay C	TP 97-02	INORG	Nickel	7440-02-0	A	3.60E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay C	TP 97-02	INORG	Zinc	7440-66-6	ID	3.40E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01
Landbay C	TP NPB-02	INORG	Chromium III	16065-83-1	D	1.33E+01	2.61E+02	5.1E-02	2.1E+10	EqP	6.2E-10	3.4E+06	EqP	3.9E-06
Landbay C	TP NPB-02	INORG	Chromium VI	18540-29-9	A	2.68E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay C	TP NPB-02	INORG	Copper	7440-50-8	D	5.30E+00	1.31E+02	4.0E-02	3.5E+05	EqP	1.5E-05	8.4E+00	EqP	6.3E-01
Landbay C	TP NPB-02	INORG	Lead	7439-92-1	B2	4.90E+00						3.5E+02	EqP	1.4E-02
Landbay C	TP NPB-02	INORG	Nickel	7440-02-0	A	5.90E+00	7.30E+01	8.1E-02	1.2E+05	EqP	4.8E-05	3.4E+01	EqP	1.7E-01
Landbay C	TP NPB-03	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	5.10E-02				NA		9.6E+03	EqP	5.3E-06
Landbay C	TP NPB-03	INORG	Arsenic	7440-38-2	A	2.20E+00	9.90E+00	2.2E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.6E-02
Landbay C	TP NPB-03	INORG	Chromium III	16065-83-1	D	5.90E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.7E-05
Landbay C	TP NPB-03	INORG	Chromium VI	18540-29-9	A	2.99E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay C	TP NPB-03	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay C	TP NPB-03	INORG	Lead	7439-92-1	B2	2.70E+01						3.5E+02	EqP	7.7E-02
Landbay C	TP NPB-03	INORG	Nickel	7440-02-0	A	2.10E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.2E-01
Landbay C	TP NPB-03	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay D	10TP1-7	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay D	10TP1-7	INORG	Aluminum	7429-90-5	ID	5.16E+04	5.34E+04	9.7E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay D	10TP1-7	INORG	Arsenic	7440-38-2	A	1.74E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.0E-02
Landbay D	10TP1-7	INORG	Barium	7440-39-3	NC	6.82E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay D	10TP1-7	INORG	Cadmium	7440-43-9	B1	8.66E-01	2.70E+00	3.2E-01	1.1E+03	EqP	8.0E-04	2.1E+00	EqP	4.0E-01
Landbay D	10TP1-7	INORG	Chromium III	16065-83-1	D	8.46E+01	2.61E+02	3.2E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay D	10TP1-7	INORG	Copper	7440-50-8	D	4.70E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.6E+00**
Landbay D	10TP1-7	INORG	Lead	7439-92-1	B2	3.82E+00						3.5E+02	EqP	1.1E-02
Landbay D	10TP1-7	INORG	Silver	7440-22-4	D	6.79E-01	2.30E+00	3.0E-01	3.8E+03	LT	1.8E-04	2.7E+00	LT	2.6E-01
Landbay D	10TP1-7	INORG	Strontium	7440-24-6		4.38E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.1E-02
Landbay D	10TP2-7	INORG	Aluminum	7429-90-5	ID	4.64E+04	5.34E+04	8.7E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay D	10TP2-7	INORG	Barium	7440-39-3	NC	3.57E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay D	10TP2-7	INORG	Chromium III	16065-83-1	D	3.68E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay D	10TP2-7	INORG	Copper	7440-50-8	D	5.47E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay D	10TP2-7	INORG	Lead	7439-92-1	B2	8.57E-01						3.5E+02	EqP	2.4E-03
Landbay D	10TP2-7	INORG	Perchlorate	14797-73-0	NC	2.10E-02			3.4E+03	LT	6.1E-06	7.7E+02	LT	2.7E-05
Landbay D	10TP2-7	INORG	Strontium	7440-24-6		6.59E+01	3.80E+01	**1.7E+00**	1.6E+07	EqP	4.0E-06	1.1E+03	EqP	6.2E-02
Landbay D	11 GP-02	PCB	PCBs (total)	1336-36-3	B2	1.71E-02				NA		1.4E+00	EqP	1.2E-02
Landbay D	13B1	INORG	Aluminum	7429-90-5	ID	4.29E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	13B1	INORG	Arsenic	7440-38-2	A	2.75E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.6E-03	8.6E+01	EqP	3.2E-02
Landbay D	13B1	INORG	Barium	7440-39-3	NC	1.64E+02	2.24E+02	7.3E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay D	13B1	INORG	Beryllium	7440-41-7	B1	1.08E-01	1.20E+00	9.0E-02	6.8E+03	EqP	1.6E-05	1.0E+01	EqP	1.0E-02
Landbay D	13B1	INORG	Chromium III	16065-83-1	D	5.90E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.7E-05
Landbay D	13B1	INORG	Chromium VI	18540-29-9	A	6.50E-01	4.97E+00	1.3E-01	6.6E+01	LT	9.8E-03	4.4E+00	LT	1.5E-01
Landbay D	13B1	INORG	Copper	7440-50-8	D	5.17E+01	1.31E+02	3.9E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.2E+00**
Landbay D	13B1	INORG	Lead	7439-92-1	B2	5.87E+00						3.5E+02	EqP	1.7E-02
Landbay D	13B1	INORG	Mercury	7439-97-6	D	2.19E-02	7.10E-02	3.1E-01		NA		3.7E-01	EqP	5.9E-02
Landbay D	13B1	INORG	Silver	7440-22-4	D	2.10E+00	2.30E+00	9.1E-01	3.8E+03	LT	5.6E-04	2.7E+00	LT	7.9E-01
Landbay D	13B1	INORG	Strontium	7440-24-6		3.45E+01	3.80E+01	9.1E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.3E-02
Landbay D	15 GP-01	PCB	PCBs (total)	1336-36-3	B2	8.44E-02				NA		1.4E+00	EqP	6.1E-02
Landbay D	15 GP-02	PCB	PCBs (total)	1336-36-3	B2	5.50E-01				NA		1.4E+00	EqP	4.0E-01
Landbay D	15 GP-03	PCB	PCBs (total)	1336-36-3	B2	2.64E-02				NA		1.4E+00	EqP	1.9E-02
Landbay D	15 GP-04	PCB	PCBs (total)	1336-36-3	B2	1.25E+01				NA		1.4E+00	EqP	**9.1E+00**
Landbay D	15 GP-05	PCB	PCBs (total)	1336-36-3	B2	4.23E-02				NA		1.4E+00	EqP	3.1E-02
Landbay D	15 GP-08	PCB	PCBs (total)	1336-36-3	B2	3.59E-02				NA		1.4E+00	EqP	2.6E-02
Landbay D	15 GP-11	PCB	PCBs (total)	1336-36-3	B2	8.31E-01				NA		1.4E+00	EqP	6.0E-01
Landbay D	15 GP-12	PCB	PCBs (total)	1336-36-3	B2	5.49E-02				NA		1.4E+00	EqP	4.0E-02
Landbay D	15 GP-17	PCB	PCBs (total)	1336-36-3	B2	1.62E-02				NA		1.4E+00	EqP	1.2E-02
Landbay D	15 GP-20	PCB	PCBs (total)	1336-36-3	B2	9.74E-02				NA		1.4E+00	EqP	7.1E-02
Landbay D	15 GP-23	PCB	PCBs (total)	1336-36-3	B2	1.59E-02				NA		1.4E+00	EqP	1.2E-02
Landbay D	15 GP-25	PCB	PCBs (total)	1336-36-3	B2	2.91E-01				NA		1.4E+00	EqP	2.1E-01
Landbay D	15 GP-26	PCB	PCBs (total)	1336-36-3	B2	1.98E-02				NA		1.4E+00	EqP	1.4E-02
Landbay D	15 GP-29	PCB	PCBs (total)	1336-36-3	B2	2.78E-02				NA		1.4E+00	EqP	2.0E-02
Landbay D	15 GP-32	PCB	PCBs (total)	1336-36-3	B2	3.01E-02				NA		1.4E+00	EqP	2.2E-02
Landbay D	15 GP-33	PCB	PCBs (total)	1336-36-3	B2	2.33E-02				NA		1.4E+00	EqP	1.7E-02
Landbay D	151B1	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	151B1	INORG	Arsenic	7440-38-2	A	1.87E+00	9.90E+00	1.9E-01	1.1E+03	EqP	1.8E-03	8.6E+01	EqP	2.2E-02
Landbay D	151B1	INORG	Barium	7440-39-3	NC	4.91E+01	2.24E+02	2.2E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.5E+01**
Landbay D	151B1	INORG	Chromium III	16065-83-1	D	9.21E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.3E-09	3.4E+06	EqP	2.7E-05
Landbay D	151B1	INORG	Chromium VI	18540-29-9	A	1.30E+00	4.97E+00	2.6E-01	6.6E+01	LT	2.0E-02	4.4E+00	LT	3.0E-01
Landbay D	151B1	INORG	Copper	7440-50-8	D	5.73E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay D	151B1	INORG	Lead	7439-92-1	B2	1.27E+00						3.5E+02	EqP	3.6E-03
Landbay D	151B1	INORG	Silver	7440-22-4	D	1.55E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay D	151B1	INORG	Strontium	7440-24-6		4.54E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.8E-06	1.1E+03	EqP	4.3E-02
Landbay D	152B1	SVOC	Phenanthrene	85-01-8	D	4.20E-02				NA		3.9E-01	EqP	1.1E-01
Landbay D	152B1	INORG	Aluminum	7429-90-5	ID	3.34E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	152B1	INORG	Arsenic	7440-38-2	A	5.29E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.2E-02
Landbay D	152B1	INORG	Barium	7440-39-3	NC	8.07E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay D	152B1	INORG	Beryllium	7440-41-7	B1	9.84E-02	1.20E+00	8.2E-02	6.8E+03	EqP	1.5E-05	1.0E+01	EqP	9.4E-03
Landbay D	152B1	INORG	Cadmium	7440-43-9	B1	6.24E-01	2.70E+00	2.3E-01	1.1E+03	EqP	5.8E-04	2.1E+00	EqP	2.9E-01
Landbay D	152B1	INORG	Chromium III	16065-83-1	D	6.19E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.8E-05
Landbay D	152B1	INORG	Copper	7440-50-8	D	4.82E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.7E+00**
Landbay D	152B1	INORG	Lead	7439-92-1	B2	6.58E+00						3.5E+02	EqP	1.9E-02
Landbay D	152B1	INORG	Silver	7440-22-4	D	2.25E+00	2.30E+00	9.8E-01	3.8E+03	LT	6.0E-04	2.7E+00	LT	8.5E-01
Landbay D	152B1	INORG	Strontium	7440-24-6		4.07E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay D	15ANEC	INORG	Perchlorate	14797-73-0	NC	1.30E+00			3.4E+03	LT	3.8E-04	7.7E+02	LT	1.7E-03
Landbay D	17AB1	INORG	Perchlorate	14797-73-0	NC	9.50E-02			3.4E+03	LT	2.8E-05	7.7E+02	LT	1.2E-04
Landbay D	2 GP-01	PCB	PCBs (total)	1336-36-3	B2	2.59E-02				NA		1.4E+00	EqP	1.9E-02
Landbay D	2 GP-02	PCB	PCBs (total)	1336-36-3	B2	3.63E-01				NA		1.4E+00	EqP	2.6E-01
Landbay D	2 GP-06	PCB	PCBs (total)	1336-36-3	B2	3.58E+00				NA		1.4E+00	EqP	**2.6E+00**
Landbay D	2 GP-07	PCB	PCBs (total)	1336-36-3	B2	3.61E-02				NA		1.4E+00	EqP	2.6E-02
Landbay D	2 GP-08	PCB	PCBs (total)	1336-36-3	B2	1.87E-02				NA		1.4E+00	EqP	1.4E-02
Landbay D	2 GP-11	PCB	PCBs (total)	1336-36-3	B2	7.73E+00				NA		1.4E+00	EqP	**5.6E+00**
Landbay D	2 GP-20	PCB	PCBs (total)	1336-36-3	B2	6.01E-02				NA		1.4E+00	EqP	4.4E-02
Landbay D	2 GP-23	PCB	PCBs (total)	1336-36-3	B2	3.47E-02				NA		1.4E+00	EqP	2.5E-02
Landbay D	2 SED-01	PCB	PCBs (total)	1336-36-3	B2	3.06E-02				NA		1.4E+00	EqP	2.2E-02
Landbay D	2 SED-01	INORG	Aluminum	7429-90-5	ID	2.64E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	2 SED-01	INORG	Arsenic	7440-38-2	A	6.83E+00	9.90E+00	6.9E-01	1.1E+03	EqP	6.5E-03	8.6E+01	EqP	8.0E-02
Landbay D	2 SED-01	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	2 SED-01	INORG	Boron	7440-42-8	ID	1.39E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay D	2 SED-01	INORG	Cadmium	7440-43-9	B1	1.64E+00	2.70E+00	6.1E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.7E-01
Landbay D	2 SED-01	INORG	Chromium III	16065-83-1	D	1.42E+02	2.61E+02	5.4E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.2E-05
Landbay D	2 SED-01	INORG	Chromium VI	18540-29-9	A	1.10E+00	4.97E+00	2.2E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.5E-01
Landbay D	2 SED-01	INORG	Cobalt	7440-48-4	LC	3.56E+01	8.60E+01	4.1E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay D	2 SED-01	INORG	Copper	7440-50-8	D	2.47E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.1E-05	8.4E+00	EqP	**2.9E+00**
Landbay D	2 SED-01	INORG	Iron	7439-89-6	D	7.52E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay D	2 SED-01	INORG	Lead	7439-92-1	B2	1.82E+01						3.5E+02	EqP	5.2E-02
Landbay D	2 SED-01	INORG	Manganese	7439-96-5	D	2.17E+03	4.27E+03	5.1E-01	3.1E+05	EqP	7.0E-03	1.6E+02	EqP	**1.4E+01**
Landbay D	2 SED-01	INORG	Mercury	7439-97-6	D	6.39E-02	7.10E-02	9.0E-01		NA		3.7E-01	EqP	1.7E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	2 SED-01	INORG	Nickel	7440-02-0	A	2.62E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.7E-01
Landbay D	2 SED-01	INORG	Strontium	7440-24-6		3.42E+01	3.80E+01	9.0E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.2E-02
Landbay D	2 SED-01	INORG	Vanadium	7440-62-2	ID	3.31E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.1E-03	4.0E+02	EqP	8.3E-01
Landbay D	2 SED-01	INORG	Zinc	7440-66-6	ID	6.30E+01	1.02E+02	6.2E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.3E-01
Landbay D	22B1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.20E-01				NA		9.6E+03	EqP	3.3E-05
Landbay D	22B1	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	22B1	INORG	Arsenic	7440-38-2	A	5.55E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay D	22B1	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	22B1	INORG	Beryllium	7440-41-7	B1	8.21E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay D	22B1	INORG	Cadmium	7440-43-9	B1	2.24E+00	2.70E+00	8.3E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	1.0E+00
Landbay D	22B1	INORG	Chromium III	16065-83-1	D	2.26E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.7E-05
Landbay D	22B1	INORG	Chromium VI	18540-29-9	A	4.14E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay D	22B1	INORG	Copper	7440-50-8	D	2.81E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	22B1	INORG	Lead	7439-92-1	B2	2.39E+01						3.5E+02	EqP	6.8E-02
Landbay D	22B1	INORG	Mercury	7439-97-6	D	3.78E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay D	22B1	INORG	Perchlorate	14797-73-0	NC	3.20E-04			3.4E+03	LT	9.3E-08	7.7E+02	LT	4.1E-07
Landbay D	22B1	INORG	Strontium	7440-24-6		1.67E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay D	22B2	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.20E-01				NA		9.6E+03	EqP	3.3E-05
Landbay D	22B2	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	22B2	INORG	Arsenic	7440-38-2	A	5.55E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay D	22B2	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	22B2	INORG	Beryllium	7440-41-7	B1	8.21E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay D	22B2	INORG	Cadmium	7440-43-9	B1	2.24E+00	2.70E+00	8.3E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	1.0E+00
Landbay D	22B2	INORG	Chromium III	16065-83-1	D	2.26E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.7E-05
Landbay D	22B2	INORG	Chromium VI	18540-29-9	A	4.14E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay D	22B2	INORG	Copper	7440-50-8	D	2.81E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	22B2	INORG	Lead	7439-92-1	B2	2.39E+01						3.5E+02	EqP	6.8E-02
Landbay D	22B2	INORG	Mercury	7439-97-6	D	3.78E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay D	22B2	INORG	Perchlorate	14797-73-0	NC	3.40E-03			3.4E+03	LT	9.9E-07	7.7E+02	LT	4.4E-06
Landbay D	22B2	INORG	Strontium	7440-24-6		1.67E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay D	22B3	VOC	Acetone	67-64-1	ID	1.03E-02			2.0E+06	LT	5.0E-09	6.0E+02	LT	1.7E-05
Landbay D	22B3	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.20E-01				NA		9.6E+03	EqP	3.3E-05
Landbay D	22B3	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	22B3	INORG	Arsenic	7440-38-2	A	5.55E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay D	22B3	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	22B3	INORG	Beryllium	7440-41-7	B1	8.21E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay D	22B3	INORG	Cadmium	7440-43-9	B1	2.24E+00	2.70E+00	8.3E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	1.0E+00
Landbay D	22B3	INORG	Chromium III	16065-83-1	D	2.26E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.7E-05
Landbay D	22B3	INORG	Chromium VI	18540-29-9	A	4.14E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay D	22B3	INORG	Copper	7440-50-8	D	2.81E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	22B3	INORG	Lead	7439-92-1	B2	2.39E+01						3.5E+02	EqP	6.8E-02
Landbay D	22B3	INORG	Mercury	7439-97-6	D	3.78E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay D	22B3	INORG	Perchlorate	14797-73-0	NC	2.95E-02			3.4E+03	LT	8.6E-06	7.7E+02	LT	3.8E-05
Landbay D	22B3	INORG	Strontium	7440-24-6		1.67E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay D	22B4	VOC	Acetone	67-64-1	ID	1.40E-02			2.0E+06	LT	6.9E-09	6.0E+02	LT	2.3E-05
Landbay D	22B4	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.20E-01				NA		9.6E+03	EqP	3.3E-05
Landbay D	22B4	PCB	PCBs (total)	1336-36-3	B2	1.90E-02				NA		1.4E+00	EqP	1.4E-02
Landbay D	22B4	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	22B4	INORG	Arsenic	7440-38-2	A	5.55E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay D	22B4	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	22B4	INORG	Beryllium	7440-41-7	B1	8.21E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay D	22B4	INORG	Cadmium	7440-43-9	B1	2.24E+00	2.70E+00	8.3E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	1.0E+00
Landbay D	22B4	INORG	Chromium III	16065-83-1	D	2.26E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.7E-05
Landbay D	22B4	INORG	Chromium VI	18540-29-9	A	4.14E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay D	22B4	INORG	Copper	7440-50-8	D	2.81E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	22B4	INORG	Lead	7439-92-1	B2	2.39E+01						3.5E+02	EqP	6.8E-02
Landbay D	22B4	INORG	Mercury	7439-97-6	D	3.78E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay D	22B4	INORG	Perchlorate	14797-73-0	NC	4.30E-03			3.4E+03	LT	1.2E-06	7.7E+02	LT	5.6E-06
Landbay D	22B4	INORG	Strontium	7440-24-6		1.67E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay D	22G5	INORG	Perchlorate	14797-73-0	NC	1.10E+01			3.4E+03	LT	3.2E-03	7.7E+02	LT	1.4E-02
Landbay D	22G6	INORG	Perchlorate	14797-73-0	NC	8.40E+00			3.4E+03	LT	2.4E-03	7.7E+02	LT	1.1E-02
Landbay D	24B1	INORG	Aluminum	7429-90-5	ID	3.62E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.8E-05	2.6E+03	EqP	**1.4E+01**
Landbay D	24B1	INORG	Arsenic	7440-38-2	A	2.34E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.2E-03	8.6E+01	EqP	2.7E-02
Landbay D	24B1	INORG	Barium	7440-39-3	NC	9.19E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	24B1	INORG	Beryllium	7440-41-7	B1	6.88E-02	1.20E+00	5.7E-02	6.8E+03	EqP	1.0E-05	1.0E+01	EqP	6.6E-03
Landbay D	24B1	INORG	Cadmium	7440-43-9	B1	2.13E-01	2.70E+00	7.9E-02	1.1E+03	EqP	2.0E-04	2.1E+00	EqP	1.0E-01
Landbay D	24B1	INORG	Chromium III	16065-83-1	D	4.38E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay D	24B1	INORG	Chromium VI	18540-29-9	A	1.10E+00	4.97E+00	2.2E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.5E-01
Landbay D	24B1	INORG	Copper	7440-50-8	D	6.43E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.7E+00**
Landbay D	24B1	INORG	Lead	7439-92-1	B2	2.93E+01						3.5E+02	EqP	8.4E-02
Landbay D	24B1	INORG	Mercury	7439-97-6	D	3.80E-02	7.10E-02	5.4E-01		NA		3.7E-01	EqP	1.0E-01
Landbay D	24B1	INORG	Silver	7440-22-4	D	1.21E+00	2.30E+00	5.3E-01	3.8E+03	LT	3.2E-04	2.7E+00	LT	4.6E-01
Landbay D	24B1	INORG	Strontium	7440-24-6		5.25E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.2E-06	1.1E+03	EqP	5.0E-02
Landbay D	2550-2300	INORG	Aluminum	7429-90-5	ID	2.60E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	2550-2300	INORG	Antimony	7440-36-0	ID	1.40E+00	1.70E+00	8.2E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.2E-02
Landbay D	2550-2300	INORG	Arsenic	7440-38-2	A	6.22E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay D	2550-2300	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	2550-2300	INORG	Beryllium	7440-41-7	B1	4.78E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay D	2550-2300	INORG	Cadmium	7440-43-9	B1	1.71E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay D	2550-2300	INORG	Chromium III	16065-83-1	D	9.97E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay D	2550-2300	INORG	Chromium VI	18540-29-9	A	3.27E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay D	2550-2300	INORG	Cobalt	7440-48-4	LC	3.12E+01	8.60E+01	3.6E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay D	2550-2300	INORG	Copper	7440-50-8	D	2.81E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	2550-2300	INORG	Iron	7439-89-6	D	6.54E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay D	2550-2300	INORG	Lead	7439-92-1	B2	2.57E+01						3.5E+02	EqP	7.3E-02
Landbay D	2550-2300	INORG	Manganese	7439-96-5	D	1.62E+03	4.27E+03	3.8E-01	3.1E+05	EqP	5.2E-03	1.6E+02	EqP	**1.0E+01**
Landbay D	2550-2300	INORG	Mercury	7439-97-6	D	4.23E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.1E-01
Landbay D	2550-2300	INORG	Nickel	7440-02-0	A	1.68E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay D	2550-2300	INORG	Selenium	7782-49-2	D	1.75E+00	2.50E+00	7.0E-01	2.5E+04	LT	7.1E-05	2.0E+00	LT	8.8E-01
Landbay D	2550-2300	INORG	Silver	7440-22-4	D	1.64E+00	2.30E+00	7.1E-01	3.8E+03	LT	4.4E-04	2.7E+00	LT	6.2E-01
Landbay D	2550-2300	INORG	Strontium	7440-24-6		1.55E+01	3.80E+01	4.1E-01	1.6E+07	EqP	9.5E-07	1.1E+03	EqP	1.5E-02
Landbay D	2550-2300	INORG	Vanadium	7440-62-2	ID	2.83E+02	2.83E+02	1.0E+00	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	7.1E-01
Landbay D	2550-2300	INORG	Zinc	7440-66-6	ID	6.24E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay D	2550-2450	INORG	Aluminum	7429-90-5	ID	2.60E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	2550-2450	INORG	Antimony	7440-36-0	ID	1.40E+00	1.70E+00	8.2E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.2E-02
Landbay D	2550-2450	INORG	Arsenic	7440-38-2	A	6.22E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay D	2550-2450	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	2550-2450	INORG	Beryllium	7440-41-7	B1	4.78E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay D	2550-2450	INORG	Cadmium	7440-43-9	B1	1.71E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay D	2550-2450	INORG	Chromium III	16065-83-1	D	9.97E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay D	2550-2450	INORG	Chromium VI	18540-29-9	A	3.27E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay D	2550-2450	INORG	Cobalt	7440-48-4	LC	3.12E+01	8.60E+01	3.6E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay D	2550-2450	INORG	Copper	7440-50-8	D	2.81E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	2550-2450	INORG	Iron	7439-89-6	D	6.54E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay D	2550-2450	INORG	Lead	7439-92-1	B2	2.57E+01						3.5E+02	EqP	7.3E-02
Landbay D	2550-2450	INORG	Manganese	7439-96-5	D	1.62E+03	4.27E+03	3.8E-01	3.1E+05	EqP	5.2E-03	1.6E+02	EqP	**1.0E+01**
Landbay D	2550-2450	INORG	Mercury	7439-97-6	D	4.23E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.1E-01
Landbay D	2550-2450	INORG	Nickel	7440-02-0	A	1.68E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay D	2550-2450	INORG	Selenium	7782-49-2	D	1.75E+00	2.50E+00	7.0E-01	2.5E+04	LT	7.1E-05	2.0E+00	LT	8.8E-01
Landbay D	2550-2450	INORG	Silver	7440-22-4	D	1.64E+00	2.30E+00	7.1E-01	3.8E+03	LT	4.4E-04	2.7E+00	LT	6.2E-01
Landbay D	2550-2450	INORG	Strontium	7440-24-6		1.55E+01	3.80E+01	4.1E-01	1.6E+07	EqP	9.5E-07	1.1E+03	EqP	1.5E-02
Landbay D	2550-2450	INORG	Vanadium	7440-62-2	ID	2.83E+02	2.83E+02	1.0E+00	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	7.1E-01
Landbay D	2550-2450	INORG	Zinc	7440-66-6	ID	6.24E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay D	2550-2600	INORG	Aluminum	7429-90-5	ID	2.60E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	2550-2600	INORG	Antimony	7440-36-0	ID	1.40E+00	1.70E+00	8.2E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.2E-02
Landbay D	2550-2600	INORG	Arsenic	7440-38-2	A	6.22E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay D	2550-2600	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	2550-2600	INORG	Beryllium	7440-41-7	B1	4.78E-01	1.20E+00	4.0E-01	6.8E+03	EqP	7.0E-05	1.0E+01	EqP	4.6E-02
Landbay D	2550-2600	INORG	Cadmium	7440-43-9	B1	1.71E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay D	2550-2600	INORG	Chromium III	16065-83-1	D	9.97E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay D	2550-2600	INORG	Chromium VI	18540-29-9	A	3.27E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay D	2550-2600	INORG	Cobalt	7440-48-4	LC	3.12E+01	8.60E+01	3.6E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay D	2550-2600	INORG	Copper	7440-50-8	D	2.81E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	2550-2600	INORG	Iron	7439-89-6	D	6.54E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay D	2550-2600	INORG	Lead	7439-92-1	B2	2.57E+01						3.5E+02	EqP	7.3E-02
Landbay D	2550-2600	INORG	Manganese	7439-96-5	D	1.62E+03	4.27E+03	3.8E-01	3.1E+05	EqP	5.2E-03	1.6E+02	EqP	**1.0E+01**
Landbay D	2550-2600	INORG	Mercury	7439-97-6	D	4.23E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.1E-01
Landbay D	2550-2600	INORG	Nickel	7440-02-0	A	1.68E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.0E-01
Landbay D	2550-2600	INORG	Selenium	7782-49-2	D	1.75E+00	2.50E+00	7.0E-01	2.5E+04	LT	7.1E-05	2.0E+00	LT	8.8E-01
Landbay D	2550-2600	INORG	Silver	7440-22-4	D	1.64E+00	2.30E+00	7.1E-01	3.8E+03	LT	4.4E-04	2.7E+00	LT	6.2E-01
Landbay D	2550-2600	INORG	Strontium	7440-24-6		1.55E+01	3.80E+01	4.1E-01	1.6E+07	EqP	9.5E-07	1.1E+03	EqP	1.5E-02
Landbay D	2550-2600	INORG	Vanadium	7440-62-2	ID	2.83E+02	2.83E+02	1.0E+00	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	7.1E-01
Landbay D	2550-2600	INORG	Zinc	7440-66-6	ID	6.24E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay D	2550-2750	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	2550-2750	INORG	Antimony	7440-36-0	ID	1.19E+00	1.70E+00	7.0E-01	1.4E+03	EqP	8.7E-04	2.7E+01	EqP	4.4E-02
Landbay D	2550-2750	INORG	Arsenic	7440-38-2	A	5.52E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.4E-02
Landbay D	2550-2750	INORG	Barium	7440-39-3	NC	1.94E+02	2.24E+02	8.7E-01	3.2E+05	EqP	6.0E-04	3.3E+00	EqP	**5.9E+01**
Landbay D	2550-2750	INORG	Beryllium	7440-41-7	B1	6.59E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay D	2550-2750	INORG	Cadmium	7440-43-9	B1	1.61E+00	2.70E+00	6.0E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.5E-01
Landbay D	2550-2750	INORG	Chromium III	16065-83-1	D	9.10E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.3E-09	3.4E+06	EqP	2.7E-05
Landbay D	2550-2750	INORG	Chromium VI	18540-29-9	A	3.21E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay D	2550-2750	INORG	Cobalt	7440-48-4	LC	5.44E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay D	2550-2750	INORG	Copper	7440-50-8	D	2.75E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	2550-2750	INORG	Iron	7439-89-6	D	6.54E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay D	2550-2750	INORG	Lead	7439-92-1	B2	2.30E+01						3.5E+02	EqP	6.6E-02
Landbay D	2550-2750	INORG	Manganese	7439-96-5	D	2.56E+03	4.27E+03	6.0E-01	3.1E+05	EqP	8.2E-03	1.6E+02	EqP	**1.6E+01**
Landbay D	2550-2750	INORG	Mercury	7439-97-6	D	4.15E-02	7.10E-02	5.8E-01		NA		3.7E-01	EqP	1.1E-01
Landbay D	2550-2750	INORG	Nickel	7440-02-0	A	1.92E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.7E-01
Landbay D	2550-2750	INORG	Silver	7440-22-4	D	2.10E+00	2.30E+00	9.1E-01	3.8E+03	LT	5.6E-04	2.7E+00	LT	7.9E-01
Landbay D	2550-2750	INORG	Strontium	7440-24-6		1.21E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay D	2550-2750	INORG	Vanadium	7440-62-2	ID	2.45E+02	2.83E+02	8.7E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay D	2550-2750	INORG	Zinc	7440-66-6	ID	5.34E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay D	2700-2150	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	2700-2150	INORG	Antimony	7440-36-0	ID	1.55E+00	1.70E+00	9.1E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.7E-02
Landbay D	2700-2150	INORG	Arsenic	7440-38-2	A	5.26E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	2700-2150	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	2700-2150	INORG	Beryllium	7440-41-7	B1	6.44E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.2E-02
Landbay D	2700-2150	INORG	Cadmium	7440-43-9	B1	1.17E+00	2.70E+00	4.3E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.5E-01
Landbay D	2700-2150	INORG	Chromium III	16065-83-1	D	4.86E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay D	2700-2150	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay D	2700-2150	INORG	Cobalt	7440-48-4	LC	4.42E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay D	2700-2150	INORG	Copper	7440-50-8	D	4.28E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.1E+00**
Landbay D	2700-2150	INORG	Iron	7439-89-6	D	6.16E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay D	2700-2150	INORG	Lead	7439-92-1	B2	2.82E+01						3.5E+02	EqP	8.0E-02
Landbay D	2700-2150	INORG	Manganese	7439-96-5	D	2.03E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	2700-2150	INORG	Mercury	7439-97-6	D	3.22E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay D	2700-2150	INORG	Nickel	7440-02-0	A	1.56E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay D	2700-2150	INORG	Silver	7440-22-4	D	1.36E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay D	2700-2150	INORG	Strontium	7440-24-6		1.61E+01	3.80E+01	4.2E-01	1.6E+07	EqP	9.9E-07	1.1E+03	EqP	1.5E-02
Landbay D	2700-2150	INORG	Vanadium	7440-62-2	ID	1.64E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay D	2700-2150	INORG	Zinc	7440-66-6	ID	7.24E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	2700-2300	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	2700-2300	INORG	Antimony	7440-36-0	ID	1.55E+00	1.70E+00	9.1E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.7E-02
Landbay D	2700-2300	INORG	Arsenic	7440-38-2	A	5.26E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	2700-2300	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	2700-2300	INORG	Beryllium	7440-41-7	B1	6.44E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.2E-02
Landbay D	2700-2300	INORG	Cadmium	7440-43-9	B1	1.17E+00	2.70E+00	4.3E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.5E-01
Landbay D	2700-2300	INORG	Chromium III	16065-83-1	D	4.86E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay D	2700-2300	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay D	2700-2300	INORG	Cobalt	7440-48-4	LC	4.42E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay D	2700-2300	INORG	Copper	7440-50-8	D	4.28E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.1E+00**
Landbay D	2700-2300	INORG	Iron	7439-89-6	D	6.16E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay D	2700-2300	INORG	Lead	7439-92-1	B2	2.82E+01						3.5E+02	EqP	8.0E-02
Landbay D	2700-2300	INORG	Manganese	7439-96-5	D	2.03E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	2700-2300	INORG	Mercury	7439-97-6	D	3.22E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay D	2700-2300	INORG	Nickel	7440-02-0	A	1.56E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay D	2700-2300	INORG	Silver	7440-22-4	D	1.36E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay D	2700-2300	INORG	Strontium	7440-24-6		1.61E+01	3.80E+01	4.2E-01	1.6E+07	EqP	9.9E-07	1.1E+03	EqP	1.5E-02
Landbay D	2700-2300	INORG	Vanadium	7440-62-2	ID	1.64E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay D	2700-2300	INORG	Zinc	7440-66-6	ID	7.24E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	2700-2750	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	2700-2750	INORG	Antimony	7440-36-0	ID	1.19E+00	1.70E+00	7.0E-01	1.4E+03	EqP	8.7E-04	2.7E+01	EqP	4.4E-02
Landbay D	2700-2750	INORG	Arsenic	7440-38-2	A	5.52E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.4E-02
Landbay D	2700-2750	INORG	Barium	7440-39-3	NC	1.94E+02	2.24E+02	8.7E-01	3.2E+05	EqP	6.0E-04	3.3E+00	EqP	**5.9E+01**
Landbay D	2700-2750	INORG	Beryllium	7440-41-7	B1	6.59E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay D	2700-2750	INORG	Cadmium	7440-43-9	B1	1.61E+00	2.70E+00	6.0E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.5E-01
Landbay D	2700-2750	INORG	Chromium III	16065-83-1	D	9.10E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.3E-09	3.4E+06	EqP	2.7E-05
Landbay D	2700-2750	INORG	Chromium VI	18540-29-9	A	3.21E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay D	2700-2750	INORG	Cobalt	7440-48-4	LC	5.44E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay D	2700-2750	INORG	Copper	7440-50-8	D	2.75E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	2700-2750	INORG	Iron	7439-89-6	D	6.54E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay D	2700-2750	INORG	Lead	7439-92-1	B2	2.30E+01						3.5E+02	EqP	6.6E-02
Landbay D	2700-2750	INORG	Manganese	7439-96-5	D	2.56E+03	4.27E+03	6.0E-01	3.1E+05	EqP	8.2E-03	1.6E+02	EqP	**1.6E+01**
Landbay D	2700-2750	INORG	Mercury	7439-97-6	D	4.15E-02	7.10E-02	5.8E-01		NA		3.7E-01	EqP	1.1E-01
Landbay D	2700-2750	INORG	Nickel	7440-02-0	A	1.92E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.7E-01
Landbay D	2700-2750	INORG	Silver	7440-22-4	D	2.10E+00	2.30E+00	9.1E-01	3.8E+03	LT	5.6E-04	2.7E+00	LT	7.9E-01
Landbay D	2700-2750	INORG	Strontium	7440-24-6		1.21E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay D	2700-2750	INORG	Vanadium	7440-62-2	ID	2.45E+02	2.83E+02	8.7E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay D	2700-2750	INORG	Zinc	7440-66-6	ID	5.34E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay D	2700-2900	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	2700-2900	INORG	Antimony	7440-36-0	ID	1.19E+00	1.70E+00	7.0E-01	1.4E+03	EqP	8.7E-04	2.7E+01	EqP	4.4E-02
Landbay D	2700-2900	INORG	Arsenic	7440-38-2	A	5.52E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.4E-02
Landbay D	2700-2900	INORG	Barium	7440-39-3	NC	1.94E+02	2.24E+02	8.7E-01	3.2E+05	EqP	6.0E-04	3.3E+00	EqP	**5.9E+01**
Landbay D	2700-2900	INORG	Beryllium	7440-41-7	B1	6.59E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay D	2700-2900	INORG	Cadmium	7440-43-9	B1	1.61E+00	2.70E+00	6.0E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.5E-01
Landbay D	2700-2900	INORG	Chromium III	16065-83-1	D	9.10E+01	2.61E+02	3.5E-01	2.1E+10	EqP	4.3E-09	3.4E+06	EqP	2.7E-05
Landbay D	2700-2900	INORG	Chromium VI	18540-29-9	A	3.21E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay D	2700-2900	INORG	Cobalt	7440-48-4	LC	5.44E+01	8.60E+01	6.3E-01	1.4E+04	EqP	4.0E-03	2.1E+01	EqP	**2.6E+00**
Landbay D	2700-2900	INORG	Copper	7440-50-8	D	2.75E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	2700-2900	INORG	Iron	7439-89-6	D	6.54E+04	9.52E+04	6.9E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay D	2700-2900	INORG	Lead	7439-92-1	B2	2.30E+01						3.5E+02	EqP	6.6E-02
Landbay D	2700-2900	INORG	Manganese	7439-96-5	D	2.56E+03	4.27E+03	6.0E-01	3.1E+05	EqP	8.2E-03	1.6E+02	EqP	**1.6E+01**
Landbay D	2700-2900	INORG	Mercury	7439-97-6	D	4.15E-02	7.10E-02	5.8E-01		NA		3.7E-01	EqP	1.1E-01
Landbay D	2700-2900	INORG	Nickel	7440-02-0	A	1.92E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.7E-01
Landbay D	2700-2900	INORG	Silver	7440-22-4	D	2.10E+00	2.30E+00	9.1E-01	3.8E+03	LT	5.6E-04	2.7E+00	LT	7.9E-01
Landbay D	2700-2900	INORG	Strontium	7440-24-6		1.21E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay D	2700-2900	INORG	Vanadium	7440-62-2	ID	2.45E+02	2.83E+02	8.7E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay D	2700-2900	INORG	Zinc	7440-66-6	ID	5.34E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay D	2700-3050	INORG	Aluminum	7429-90-5	ID	3.30E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	2700-3050	INORG	Arsenic	7440-38-2	A	1.05E+01	9.90E+00	**1.1E+00**	1.1E+03	EqP	1.0E-02	8.6E+01	EqP	1.2E-01
Landbay D	2700-3050	INORG	Barium	7440-39-3	NC	1.37E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.2E+01**
Landbay D	2700-3050	INORG	Beryllium	7440-41-7	B1	6.81E-01	1.20E+00	5.7E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay D	2700-3050	INORG	Chromium III	16065-83-1	D	7.42E+01	2.61E+02	2.8E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay D	2700-3050	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.0E-01
Landbay D	2700-3050	INORG	Cobalt	7440-48-4	LC	4.85E+01	8.60E+01	5.6E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay D	2700-3050	INORG	Copper	7440-50-8	D	3.23E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.3E-05	8.4E+00	EqP	**3.8E+00**
Landbay D	2700-3050	INORG	Iron	7439-89-6	D	7.73E+04	9.52E+04	8.1E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay D	2700-3050	INORG	Lead	7439-92-1	B2	2.53E+01						3.5E+02	EqP	7.2E-02
Landbay D	2700-3050	INORG	Manganese	7439-96-5	D	2.35E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.6E-03	1.6E+02	EqP	**1.5E+01**
Landbay D	2700-3050	INORG	Nickel	7440-02-0	A	1.65E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay D	2700-3050	INORG	Selenium	7782-49-2	D	2.02E+00	2.50E+00	8.1E-01	2.5E+04	LT	8.2E-05	2.0E+00	LT	1.0E+00
Landbay D	2700-3050	INORG	Silver	7440-22-4	D	6.96E-01	2.30E+00	3.0E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.6E-01
Landbay D	2700-3050	INORG	Strontium	7440-24-6		1.71E+01	3.80E+01	4.5E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.6E-02
Landbay D	2700-3050	INORG	Thallium	7440-28-0	ID	2.63E+00	4.50E+00	5.8E-01				1.1E+00	EqP	**2.3E+00**
Landbay D	2700-3050	INORG	Vanadium	7440-62-2	ID	2.68E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay D	2700-3050	INORG	Zinc	7440-66-6	ID	3.97E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay D	28 SED-01	VOC	Acetone	67-64-1	ID	8.00E-02			2.0E+06	LT	3.9E-08	6.0E+02	LT	1.3E-04
Landbay D	28 SED-01	INORG	Aluminum	7429-90-5	ID	1.88E+04	5.34E+04	3.5E-01	3.7E+08	EqP	5.1E-05	2.6E+03	EqP	**7.2E+00**
Landbay D	28 SED-01	INORG	Arsenic	7440-38-2	A	7.34E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.6E-02
Landbay D	28 SED-01	INORG	Barium	7440-39-3	NC	1.64E+02	2.24E+02	7.3E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay D	28 SED-01	INORG	Beryllium	7440-41-7	B1	5.63E-01	1.20E+00	4.7E-01	6.8E+03	EqP	8.3E-05	1.0E+01	EqP	5.4E-02
Landbay D	28 SED-01	INORG	Boron	7440-42-8	ID	5.11E+00	1.34E+01	3.8E-01	9.9E+05	LT	5.2E-06	6.4E-01	LT	**8.0E+00**
Landbay D	28 SED-01	INORG	Chromium III	16065-83-1	D	7.51E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay D	28 SED-01	INORG	Cobalt	7440-48-4	LC	6.02E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay D	28 SED-01	INORG	Copper	7440-50-8	D	3.39E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.8E-05	8.4E+00	EqP	**4.0E+00**
Landbay D	28 SED-01	INORG	Iron	7439-89-6	D	6.07E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay D	28 SED-01	INORG	Lead	7439-92-1	B2	8.67E+00						3.5E+02	EqP	2.5E-02
Landbay D	28 SED-01	INORG	Manganese	7439-96-5	D	2.78E+03	4.27E+03	6.5E-01	3.1E+05	EqP	8.9E-03	1.6E+02	EqP	**1.8E+01**
Landbay D	28 SED-01	INORG	Nickel	7440-02-0	A	2.41E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.1E-01
Landbay D	28 SED-01	INORG	Silver	7440-22-4	D	4.22E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay D	28 SED-01	INORG	Strontium	7440-24-6		2.39E+01	3.80E+01	6.3E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay D	28 SED-01	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay D	28 SED-01	INORG	Zinc	7440-66-6	ID	7.12E+01	1.02E+02	7.0E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01
Landbay D	2800-23	INORG	Aluminum	7429-90-5	ID	2.59E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.0E-05	2.6E+03	EqP	**9.9E+00**
Landbay D	2800-23	INORG	Antimony	7440-36-0	ID	1.28E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay D	2800-23	INORG	Arsenic	7440-38-2	A	7.54E+00	9.90E+00	7.6E-01	1.1E+03	EqP	7.2E-03	8.6E+01	EqP	8.8E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	2800-23	INORG	Barium	7440-39-3	NC	8.79E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay D	2800-23	INORG	Beryllium	7440-41-7	B1	5.09E-01	1.20E+00	4.2E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay D	2800-23	INORG	Boron	7440-42-8	ID	3.35E+00	1.34E+01	2.5E-01	9.9E+05	LT	3.4E-06	6.4E-01	LT	**5.2E+00**
Landbay D	2800-23	INORG	Chromium III	16065-83-1	D	4.00E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay D	2800-23	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay D	2800-23	INORG	Cobalt	7440-48-4	LC	4.41E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay D	2800-23	INORG	Copper	7440-50-8	D	4.12E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.9E+00**
Landbay D	2800-23	INORG	Iron	7439-89-6	D	4.22E+04	9.52E+04	4.4E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay D	2800-23	INORG	Lead	7439-92-1	B2	1.97E+01						3.5E+02	EqP	5.6E-02
Landbay D	2800-23	INORG	Manganese	7439-96-5	D	2.16E+03	4.27E+03	5.1E-01	3.1E+05	EqP	6.9E-03	1.6E+02	EqP	**1.4E+01**
Landbay D	2800-23	INORG	Mercury	7439-97-6	D	2.58E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	7.0E-02
Landbay D	2800-23	INORG	Nickel	7440-02-0	A	1.90E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.6E-01
Landbay D	2800-23	INORG	Silver	7440-22-4	D	4.63E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay D	2800-23	INORG	Strontium	7440-24-6		1.82E+01	3.80E+01	4.8E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay D	2800-23	INORG	Thallium	7440-28-0	ID	1.51E+00	4.50E+00	3.4E-01				1.1E+00	EqP	**1.3E+00**
Landbay D	2800-23	INORG	Vanadium	7440-62-2	ID	1.45E+02	2.83E+02	5.1E-01	1.5E+05	EqP	9.4E-04	4.0E+02	EqP	3.6E-01
Landbay D	2800-23	INORG	Zinc	7440-66-6	ID	6.75E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay D	2850-2000	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	2850-2000	INORG	Antimony	7440-36-0	ID	1.55E+00	1.70E+00	9.1E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.7E-02
Landbay D	2850-2000	INORG	Arsenic	7440-38-2	A	5.26E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	2850-2000	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	2850-2000	INORG	Beryllium	7440-41-7	B1	6.44E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.2E-02
Landbay D	2850-2000	INORG	Cadmium	7440-43-9	B1	1.17E+00	2.70E+00	4.3E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.5E-01
Landbay D	2850-2000	INORG	Chromium III	16065-83-1	D	4.86E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay D	2850-2000	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay D	2850-2000	INORG	Cobalt	7440-48-4	LC	4.42E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay D	2850-2000	INORG	Copper	7440-50-8	D	4.28E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.1E+00**
Landbay D	2850-2000	INORG	Iron	7439-89-6	D	6.16E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay D	2850-2000	INORG	Lead	7439-92-1	B2	2.82E+01						3.5E+02	EqP	8.0E-02
Landbay D	2850-2000	INORG	Manganese	7439-96-5	D	2.03E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	2850-2000	INORG	Mercury	7439-97-6	D	3.22E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay D	2850-2000	INORG	Nickel	7440-02-0	A	1.56E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay D	2850-2000	INORG	Silver	7440-22-4	D	1.36E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay D	2850-2000	INORG	Strontium	7440-24-6		1.61E+01	3.80E+01	4.2E-01	1.6E+07	EqP	9.9E-07	1.1E+03	EqP	1.5E-02
Landbay D	2850-2000	INORG	Vanadium	7440-62-2	ID	1.64E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay D	2850-2000	INORG	Zinc	7440-66-6	ID	7.24E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	2850-2150	INORG	Aluminum	7429-90-5	ID	2.61E+04	5.34E+04	4.9E-01	3.7E+08	EqP	7.1E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	2850-2150	INORG	Antimony	7440-36-0	ID	1.55E+00	1.70E+00	9.1E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.7E-02
Landbay D	2850-2150	INORG	Arsenic	7440-38-2	A	5.26E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	2850-2150	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	2850-2150	INORG	Beryllium	7440-41-7	B1	6.44E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.5E-05	1.0E+01	EqP	6.2E-02
Landbay D	2850-2150	INORG	Cadmium	7440-43-9	B1	1.17E+00	2.70E+00	4.3E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.5E-01
Landbay D	2850-2150	INORG	Chromium III	16065-83-1	D	4.86E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay D	2850-2150	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay D	2850-2150	INORG	Cobalt	7440-48-4	LC	4.42E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay D	2850-2150	INORG	Copper	7440-50-8	D	4.28E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.1E+00**
Landbay D	2850-2150	INORG	Iron	7439-89-6	D	6.16E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay D	2850-2150	INORG	Lead	7439-92-1	B2	2.82E+01						3.5E+02	EqP	8.0E-02
Landbay D	2850-2150	INORG	Manganese	7439-96-5	D	2.03E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	2850-2150	INORG	Mercury	7439-97-6	D	3.22E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay D	2850-2150	INORG	Nickel	7440-02-0	A	1.56E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay D	2850-2150	INORG	Silver	7440-22-4	D	1.36E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay D	2850-2150	INORG	Strontium	7440-24-6		1.61E+01	3.80E+01	4.2E-01	1.6E+07	EqP	9.9E-07	1.1E+03	EqP	1.5E-02
Landbay D	2850-2150	INORG	Vanadium	7440-62-2	ID	1.64E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay D	2850-2150	INORG	Zinc	7440-66-6	ID	7.24E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	28B1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.30E-01				NA		9.6E+03	EqP	3.4E-05
Landbay D	28B1	INORG	Aluminum	7429-90-5	ID	3.60E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay D	28B1	INORG	Barium	7440-39-3	NC	6.87E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay D	28B1	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay D	28B1	INORG	Chromium III	16065-83-1	D	1.44E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.8E-09	3.4E+06	EqP	4.3E-05
Landbay D	28B1	INORG	Chromium VI	18540-29-9	A	3.58E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay D	28B1	INORG	Copper	7440-50-8	D	8.79E+01	1.31E+02	6.7E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay D	28B1	INORG	Lead	7439-92-1	B2	4.92E+01						3.5E+02	EqP	1.4E-01
Landbay D	28B1	INORG	Mercury	7439-97-6	D	7.56E-02	7.10E-02	**1.1E+00**		NA		3.7E-01	EqP	2.0E-01
Landbay D	28B1	INORG	Perchlorate	14797-73-0	NC	3.50E-04			3.4E+03	LT	1.0E-07	7.7E+02	LT	4.5E-07
Landbay D	28B1	INORG	Silver	7440-22-4	D	1.74E+00	2.30E+00	7.6E-01	3.8E+03	LT	4.6E-04	2.7E+00	LT	6.5E-01
Landbay D	28B1	INORG	Strontium	7440-24-6		4.26E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay D	28B2	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.30E-01				NA		9.6E+03	EqP	3.4E-05
Landbay D	28B2	INORG	Aluminum	7429-90-5	ID	3.60E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay D	28B2	INORG	Barium	7440-39-3	NC	6.87E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay D	28B2	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay D	28B2	INORG	Chromium III	16065-83-1	D	1.44E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.8E-09	3.4E+06	EqP	4.3E-05
Landbay D	28B2	INORG	Chromium VI	18540-29-9	A	3.58E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay D	28B2	INORG	Copper	7440-50-8	D	8.79E+01	1.31E+02	6.7E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay D	28B2	INORG	Lead	7439-92-1	B2	4.92E+01						3.5E+02	EqP	1.4E-01
Landbay D	28B2	INORG	Mercury	7439-97-6	D	7.56E-02	7.10E-02	**1.1E+00**		NA		3.7E-01	EqP	2.0E-01
Landbay D	28B2	INORG	Perchlorate	14797-73-0	NC	6.80E-04			3.4E+03	LT	2.0E-07	7.7E+02	LT	8.8E-07
Landbay D	28B2	INORG	Silver	7440-22-4	D	1.74E+00	2.30E+00	7.6E-01	3.8E+03	LT	4.6E-04	2.7E+00	LT	6.5E-01
Landbay D	28B2	INORG	Strontium	7440-24-6		4.26E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay D	29B1	INORG	Aluminum	7429-90-5	ID	4.47E+04	5.34E+04	8.4E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay D	29B1	INORG	Barium	7440-39-3	NC	4.13E+01	2.24E+02	1.8E-01	3.2E+05	EqP	1.3E-04	3.3E+00	EqP	**1.3E+01**
Landbay D	29B1	INORG	Chromium III	16065-83-1	D	4.13E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay D	29B1	INORG	Copper	7440-50-8	D	5.86E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay D	29B1	INORG	Lead	7439-92-1	B2	9.12E-01						3.5E+02	EqP	2.6E-03
Landbay D	29B1	INORG	Silver	7440-22-4	D	9.14E-01	2.30E+00	4.0E-01	3.8E+03	LT	2.4E-04	2.7E+00	LT	3.4E-01
Landbay D	29B1	INORG	Strontium	7440-24-6		6.40E+01	3.80E+01	**1.7E+00**	1.6E+07	EqP	3.9E-06	1.1E+03	EqP	6.1E-02
Landbay D	29B2	INORG	Aluminum	7429-90-5	ID	3.93E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	29B2	INORG	Barium	7440-39-3	NC	2.81E+01	2.24E+02	1.3E-01	3.2E+05	EqP	8.7E-05	3.3E+00	EqP	**8.5E+00**
Landbay D	29B2	INORG	Chromium III	16065-83-1	D	2.59E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.7E-06
Landbay D	29B2	INORG	Copper	7440-50-8	D	4.60E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.5E+00**
Landbay D	29B2	INORG	Lead	7439-92-1	B2	2.03E+00						3.5E+02	EqP	5.8E-03
Landbay D	29B2	INORG	Silver	7440-22-4	D	7.48E-01	2.30E+00	3.3E-01	3.8E+03	LT	2.0E-04	2.7E+00	LT	2.8E-01
Landbay D	29B2	INORG	Strontium	7440-24-6		6.19E+01	3.80E+01	**1.6E+00**	1.6E+07	EqP	3.8E-06	1.1E+03	EqP	5.9E-02
Landbay D	29B3	INORG	Aluminum	7429-90-5	ID	3.76E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay D	29B3	INORG	Arsenic	7440-38-2	A	1.50E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay D	29B3	INORG	Barium	7440-39-3	NC	4.15E+01	2.24E+02	1.9E-01	3.2E+05	EqP	1.3E-04	3.3E+00	EqP	**1.3E+01**
Landbay D	29B3	INORG	Cadmium	7440-43-9	B1	1.26E-01	2.70E+00	4.6E-02	1.1E+03	EqP	1.2E-04	2.1E+00	EqP	5.9E-02
Landbay D	29B3	INORG	Chromium III	16065-83-1	D	5.26E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay D	29B3	INORG	Copper	7440-50-8	D	5.79E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay D	29B3	INORG	Lead	7439-92-1	B2	1.13E+00						3.5E+02	EqP	3.2E-03
Landbay D	29B3	INORG	Silver	7440-22-4	D	1.30E+00	2.30E+00	5.7E-01	3.8E+03	LT	3.5E-04	2.7E+00	LT	4.9E-01
Landbay D	29B3	INORG	Strontium	7440-24-6		5.45E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.3E-06	1.1E+03	EqP	5.2E-02
Landbay D	2B1	INORG	Aluminum	7429-90-5	ID	4.02E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	2B1	INORG	Barium	7440-39-3	NC	5.78E+01	2.24E+02	2.6E-01	3.2E+05	EqP	1.8E-04	3.3E+00	EqP	**1.8E+01**
Landbay D	2B1	INORG	Chromium III	16065-83-1	D	2.92E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.7E-06
Landbay D	2B1	INORG	Chromium VI	18540-29-9	A	6.80E-01	4.97E+00	1.4E-01	6.6E+01	LT	1.0E-02	4.4E+00	LT	1.5E-01
Landbay D	2B1	INORG	Copper	7440-50-8	D	3.97E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay D	2B1	INORG	Lead	7439-92-1	B2	1.61E+00						3.5E+02	EqP	4.6E-03
Landbay D	2B1	INORG	Perchlorate	14797-73-0	NC	6.20E-04			3.4E+03	LT	1.8E-07	7.7E+02	LT	8.0E-07
Landbay D	2B1	INORG	Silver	7440-22-4	D	7.76E-01	2.30E+00	3.4E-01	3.8E+03	LT	2.1E-04	2.7E+00	LT	2.9E-01
Landbay D	2B1	INORG	Strontium	7440-24-6		5.59E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.4E-06	1.1E+03	EqP	5.3E-02
Landbay D	3000-2000	INORG	Aluminum	7429-90-5	ID	1.78E+04	5.34E+04	3.3E-01	3.7E+08	EqP	4.8E-05	2.6E+03	EqP	**6.8E+00**
Landbay D	3000-2000	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay D	3000-2000	INORG	Arsenic	7440-38-2	A	8.99E+00	9.90E+00	9.1E-01	1.1E+03	EqP	8.6E-03	8.6E+01	EqP	1.0E-01
Landbay D	3000-2000	INORG	Barium	7440-39-3	NC	2.01E+02	2.24E+02	9.0E-01	3.2E+05	EqP	6.2E-04	3.3E+00	EqP	**6.1E+01**
Landbay D	3000-2000	INORG	Beryllium	7440-41-7	B1	9.25E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay D	3000-2000	INORG	Cadmium	7440-43-9	B1	3.81E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.5E-03	2.1E+00	EqP	**1.8E+00**
Landbay D	3000-2000	INORG	Chromium III	16065-83-1	D	2.58E+01	2.61E+02	9.9E-02	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.7E-06
Landbay D	3000-2000	INORG	Chromium VI	18540-29-9	A	2.77E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay D	3000-2000	INORG	Cobalt	7440-48-4	LC	5.96E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.9E+00**
Landbay D	3000-2000	INORG	Copper	7440-50-8	D	3.80E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay D	3000-2000	INORG	Iron	7439-89-6	D	9.52E+04	9.52E+04	1.0E+00	4.4E+06	EqP	2.2E-02	1.5E+02	EqP	**6.3E+02**
Landbay D	3000-2000	INORG	Lead	7439-92-1	B2	2.55E+01						3.5E+02	EqP	7.3E-02
Landbay D	3000-2000	INORG	Manganese	7439-96-5	D	3.71E+03	4.27E+03	8.7E-01	3.1E+05	EqP	1.2E-02	1.6E+02	EqP	**2.4E+01**
Landbay D	3000-2000	INORG	Mercury	7439-97-6	D	2.62E-02	7.10E-02	3.7E-01		NA		3.7E-01	EqP	7.1E-02
Landbay D	3000-2000	INORG	Nickel	7440-02-0	A	4.93E+00	7.30E+01	6.8E-02	1.2E+05	EqP	4.0E-05	3.4E+01	EqP	1.5E-01
Landbay D	3000-2000	INORG	Perchlorate	14797-73-0	NC	2.50E-03			3.4E+03	LT	7.3E-07	7.7E+02	LT	3.2E-06
Landbay D	3000-2000	INORG	Silver	7440-22-4	D	7.37E-01	2.30E+00	3.2E-01	3.8E+03	LT	2.0E-04	2.7E+00	LT	2.8E-01
Landbay D	3000-2000	INORG	Thallium	7440-28-0	ID	4.55E+00	4.50E+00	1.0E+00				1.1E+00	EqP	**4.0E+00**
Landbay D	3000-2000	INORG	Vanadium	7440-62-2	ID	2.70E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay D	3000-2000	INORG	Zinc	7440-66-6	ID	5.85E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay D	3000-2150	INORG	Aluminum	7429-90-5	ID	2.67E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	3000-2150	INORG	Antimony	7440-36-0	ID	1.05E+00	1.70E+00	6.2E-01	1.4E+03	EqP	7.7E-04	2.7E+01	EqP	3.9E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	3000-2150	INORG	Arsenic	7440-38-2	A	3.48E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.1E-02
Landbay D	3000-2150	INORG	Barium	7440-39-3	NC	9.08E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	3000-2150	INORG	Beryllium	7440-41-7	B1	7.00E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay D	3000-2150	INORG	Cadmium	7440-43-9	B1	2.27E+00	2.70E+00	8.4E-01	1.1E+03	EqP	2.1E-03	2.1E+00	EqP	**1.1E+00**
Landbay D	3000-2150	INORG	Chromium III	16065-83-1	D	2.24E+01	2.61E+02	8.6E-02	2.1E+10	EqP	1.0E-09	3.4E+06	EqP	6.6E-06
Landbay D	3000-2150	INORG	Chromium VI	18540-29-9	A	2.75E+00	4.97E+00	5.5E-01	6.6E+01	LT	4.1E-02	4.4E+00	LT	6.2E-01
Landbay D	3000-2150	INORG	Cobalt	7440-48-4	LC	5.01E+01	8.60E+01	5.8E-01	1.4E+04	EqP	3.7E-03	2.1E+01	EqP	**2.4E+00**
Landbay D	3000-2150	INORG	Copper	7440-50-8	D	4.44E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.3E+00**
Landbay D	3000-2150	INORG	Iron	7439-89-6	D	6.80E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	3000-2150	INORG	Lead	7439-92-1	B2	2.21E+01						3.5E+02	EqP	6.3E-02
Landbay D	3000-2150	INORG	Manganese	7439-96-5	D	1.57E+03	4.27E+03	3.7E-01	3.1E+05	EqP	5.0E-03	1.6E+02	EqP	**1.0E+01**
Landbay D	3000-2150	INORG	Mercury	7439-97-6	D	2.71E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.3E-02
Landbay D	3000-2150	INORG	Nickel	7440-02-0	A	9.76E+00	7.30E+01	1.3E-01	1.2E+05	EqP	7.9E-05	3.4E+01	EqP	2.9E-01
Landbay D	3000-2150	INORG	Perchlorate	14797-73-0	NC	5.30E-04			3.4E+03	LT	1.5E-07	7.7E+02	LT	6.9E-07
Landbay D	3000-2150	INORG	Silver	7440-22-4	D	4.86E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.8E-01
Landbay D	3000-2150	INORG	Thallium	7440-28-0	ID	4.14E+00	4.50E+00	9.2E-01				1.1E+00	EqP	**3.6E+00**
Landbay D	3000-2150	INORG	Vanadium	7440-62-2	ID	2.74E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.8E-01
Landbay D	3000-2150	INORG	Zinc	7440-66-6	ID	9.24E+01	1.02E+02	9.1E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.9E-01
Landbay D	3000-2300	INORG	Aluminum	7429-90-5	ID	4.00E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	3000-2300	INORG	Arsenic	7440-38-2	A	2.45E+00	9.90E+00	2.5E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.9E-02
Landbay D	3000-2300	INORG	Barium	7440-39-3	NC	1.01E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.1E+01**
Landbay D	3000-2300	INORG	Beryllium	7440-41-7	B1	8.64E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay D	3000-2300	INORG	Cadmium	7440-43-9	B1	2.52E+00	2.70E+00	9.3E-01	1.1E+03	EqP	2.3E-03	2.1E+00	EqP	**1.2E+00**
Landbay D	3000-2300	INORG	Cobalt	7440-48-4	LC	3.69E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	3000-2300	INORG	Copper	7440-50-8	D	1.51E+02	1.31E+02	**1.2E+00**	3.5E+05	EqP	4.3E-04	8.4E+00	EqP	**1.8E+01**
Landbay D	3000-2300	INORG	Iron	7439-89-6	D	1.20E+05	9.52E+04	**1.3E+00**	4.4E+06	EqP	2.8E-02	1.5E+02	EqP	**7.9E+02**
Landbay D	3000-2300	INORG	Lead	7439-92-1	B2	7.50E+00						3.5E+02	EqP	2.1E-02
Landbay D	3000-2300	INORG	Manganese	7439-96-5	D	1.43E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.6E-03	1.6E+02	EqP	**9.1E+00**
Landbay D	3000-2300	INORG	Mercury	7439-97-6	D	1.37E-02	7.10E-02	1.9E-01		NA		3.7E-01	EqP	3.7E-02
Landbay D	3000-2300	INORG	Nickel	7440-02-0	A	1.84E+01	7.30E+01	2.5E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.4E-01
Landbay D	3000-2300	INORG	Selenium	7782-49-2	D	4.79E+00	2.50E+00	**1.9E+00**	2.5E+04	LT	1.9E-04	2.0E+00	LT	**2.4E+00**
Landbay D	3000-2300	INORG	Silver	7440-22-4	D	1.82E-01	2.30E+00	7.9E-02	3.8E+03	LT	4.9E-05	2.7E+00	LT	6.8E-02
Landbay D	3000-2300	INORG	Strontium	7440-24-6		2.77E+01	3.80E+01	7.3E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay D	3000-2300	INORG	Thallium	7440-28-0	ID	3.53E+00	4.50E+00	7.8E-01				1.1E+00	EqP	**3.1E+00**
Landbay D	3000-2300	INORG	Vanadium	7440-62-2	ID	3.86E+02	2.83E+02	**1.4E+00**	1.5E+05	EqP	2.5E-03	4.0E+02	EqP	9.6E-01
Landbay D	3000-2300	INORG	Zinc	7440-66-6	ID	1.32E+02	1.02E+02	**1.3E+00**	5.5E+06	EqP	2.4E-05	1.9E+02	EqP	6.9E-01
Landbay D	3000-2300N	INORG	Aluminum	7429-90-5	ID	5.10E+04	5.34E+04	9.6E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay D	3000-2300N	INORG	Arsenic	7440-38-2	A	1.98E+00	9.90E+00	2.0E-01	1.1E+03	EqP	1.9E-03	8.6E+01	EqP	2.3E-02
Landbay D	3000-2300N	INORG	Barium	7440-39-3	NC	1.51E+02	2.24E+02	6.7E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay D	3000-2300N	INORG	Beryllium	7440-41-7	B1	1.04E+00	1.20E+00	8.7E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	1.0E-01
Landbay D	3000-2300N	INORG	Cadmium	7440-43-9	B1	2.05E+00	2.70E+00	7.6E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.6E-01
Landbay D	3000-2300N	INORG	Chromium VI	18540-29-9	A	2.10E+00	4.97E+00	4.2E-01	6.6E+01	LT	3.2E-02	4.4E+00	LT	4.8E-01
Landbay D	3000-2300N	INORG	Copper	7440-50-8	D	1.77E+02	1.31E+02	**1.4E+00**	3.5E+05	EqP	5.1E-04	8.4E+00	EqP	**2.1E+01**
Landbay D	3000-2300N	INORG	Lead	7439-92-1	B2	1.26E+01						3.5E+02	EqP	3.6E-02
Landbay D	3000-2300N	INORG	Mercury	7439-97-6	D	2.80E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.6E-02
Landbay D	3000-2300N	INORG	Strontium	7440-24-6		2.05E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay D	3000-2300SE	INORG	Aluminum	7429-90-5	ID	3.91E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	3000-2300SE	INORG	Arsenic	7440-38-2	A	3.35E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay D	3000-2300SE	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay D	3000-2300SE	INORG	Beryllium	7440-41-7	B1	9.28E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay D	3000-2300SE	INORG	Cadmium	7440-43-9	B1	3.13E-01	2.70E+00	1.2E-01	1.1E+03	EqP	2.9E-04	2.1E+00	EqP	1.5E-01
Landbay D	3000-2300SE	INORG	Chromium III	16065-83-1	D	6.37E+00	2.61E+02	2.4E-02	2.1E+10	EqP	3.0E-10	3.4E+06	EqP	1.9E-06
Landbay D	3000-2300SE	INORG	Chromium VI	18540-29-9	A	1.10E+00	4.97E+00	2.2E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.5E-01
Landbay D	3000-2300SE	INORG	Copper	7440-50-8	D	8.66E+01	1.31E+02	6.6E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay D	3000-2300SE	INORG	Lead	7439-92-1	B2	1.61E+01						3.5E+02	EqP	4.6E-02
Landbay D	3000-2300SE	INORG	Mercury	7439-97-6	D	4.81E-02	7.10E-02	6.8E-01		NA		3.7E-01	EqP	1.3E-01
Landbay D	3000-2300SE	INORG	Strontium	7440-24-6		1.47E+01	3.80E+01	3.9E-01	1.6E+07	EqP	9.0E-07	1.1E+03	EqP	1.4E-02
Landbay D	3000-2300SW	INORG	Aluminum	7429-90-5	ID	3.91E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	3000-2300SW	INORG	Arsenic	7440-38-2	A	2.61E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.0E-02
Landbay D	3000-2300SW	INORG	Barium	7440-39-3	NC	1.17E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	3000-2300SW	INORG	Beryllium	7440-41-7	B1	9.19E-01	1.20E+00	7.7E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.8E-02
Landbay D	3000-2300SW	INORG	Cadmium	7440-43-9	B1	1.52E+00	2.70E+00	5.6E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.1E-01
Landbay D	3000-2300SW	INORG	Copper	7440-50-8	D	1.95E+02	1.31E+02	**1.5E+00**	3.5E+05	EqP	5.6E-04	8.4E+00	EqP	**2.3E+01**
Landbay D	3000-2300SW	INORG	Lead	7439-92-1	B2	1.44E+01						3.5E+02	EqP	4.1E-02
Landbay D	3000-2300SW	INORG	Mercury	7439-97-6	D	3.33E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.0E-02
Landbay D	3000-2300SW	INORG	Strontium	7440-24-6		8.40E+00	3.80E+01	2.2E-01	1.6E+07	EqP	5.2E-07	1.1E+03	EqP	7.9E-03
Landbay D	3000-2450	INORG	Aluminum	7429-90-5	ID	4.42E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay D	3000-2450	INORG	Arsenic	7440-38-2	A	3.00E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.5E-02
Landbay D	3000-2450	INORG	Barium	7440-39-3	NC	9.74E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay D	3000-2450	INORG	Beryllium	7440-41-7	B1	3.61E-01	1.20E+00	3.0E-01	6.8E+03	EqP	5.3E-05	1.0E+01	EqP	3.5E-02
Landbay D	3000-2450	INORG	Chromium III	16065-83-1	D	8.50E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay D	3000-2450	INORG	Chromium VI	18540-29-9	A	3.17E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay D	3000-2450	INORG	Cobalt	7440-48-4	LC	2.28E+01	8.60E+01	2.7E-01	1.4E+04	EqP	1.7E-03	2.1E+01	EqP	**1.1E+00**
Landbay D	3000-2450	INORG	Copper	7440-50-8	D	5.90E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay D	3000-2450	INORG	Iron	7439-89-6	D	4.91E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay D	3000-2450	INORG	Lead	7439-92-1	B2	5.76E+00						3.5E+02	EqP	1.6E-02
Landbay D	3000-2450	INORG	Manganese	7439-96-5	D	6.29E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.0E-03	1.6E+02	EqP	**4.0E+00**
Landbay D	3000-2450	INORG	Nickel	7440-02-0	A	3.70E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	3000-2450	INORG	Silver	7440-22-4	D	1.94E-01	2.30E+00	8.4E-02	3.8E+03	LT	5.2E-05	2.7E+00	LT	7.3E-02
Landbay D	3000-2450	INORG	Strontium	7440-24-6		2.58E+01	3.80E+01	6.8E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay D	3000-2450	INORG	Vanadium	7440-62-2	ID	1.19E+02	2.83E+02	4.2E-01	1.5E+05	EqP	7.7E-04	4.0E+02	EqP	3.0E-01
Landbay D	3000-2450	INORG	Zinc	7440-66-6	ID	4.00E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.3E-06	1.9E+02	EqP	2.1E-01
Landbay D	3000-26	INORG	Aluminum	7429-90-5	ID	4.03E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	3000-26	INORG	Arsenic	7440-38-2	A	8.37E+00	9.90E+00	8.5E-01	1.1E+03	EqP	8.0E-03	8.6E+01	EqP	9.8E-02
Landbay D	3000-26	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	3000-26	INORG	Beryllium	7440-41-7	B1	6.77E-01	1.20E+00	5.6E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay D	3000-26	INORG	Boron	7440-42-8	ID	1.58E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.6E-05	6.4E-01	LT	**2.5E+01**
Landbay D	3000-26	INORG	Chromium III	16065-83-1	D	5.03E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay D	3000-26	INORG	Chromium VI	18540-29-9	A	2.93E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay D	3000-26	INORG	Cobalt	7440-48-4	LC	2.94E+01	8.60E+01	3.4E-01	1.4E+04	EqP	2.1E-03	2.1E+01	EqP	**1.4E+00**
Landbay D	3000-26	INORG	Copper	7440-50-8	D	7.04E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay D	3000-26	INORG	Iron	7439-89-6	D	5.73E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay D	3000-26	INORG	Lead	7439-92-1	B2	1.05E+01						3.5E+02	EqP	3.0E-02
Landbay D	3000-26	INORG	Manganese	7439-96-5	D	9.12E+02	4.27E+03	2.1E-01	3.1E+05	EqP	2.9E-03	1.6E+02	EqP	**5.8E+00**
Landbay D	3000-26	INORG	Mercury	7439-97-6	D	1.53E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.1E-02
Landbay D	3000-26	INORG	Nickel	7440-02-0	A	2.54E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.5E-01
Landbay D	3000-26	INORG	Strontium	7440-24-6		3.36E+01	3.80E+01	8.8E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.2E-02
Landbay D	3000-26	INORG	Thallium	7440-28-0	ID	2.85E+00	4.50E+00	6.3E-01				1.1E+00	EqP	**2.5E+00**
Landbay D	3000-26	INORG	Vanadium	7440-62-2	ID	1.76E+02	2.83E+02	6.2E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.4E-01
Landbay D	3000-26	INORG	Zinc	7440-66-6	ID	6.76E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay D	3000-2900	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	3000-2900	INORG	Antimony	7440-36-0	ID	1.43E+00	1.70E+00	8.4E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.3E-02
Landbay D	3000-2900	INORG	Arsenic	7440-38-2	A	9.15E+00	9.90E+00	9.2E-01	1.1E+03	EqP	8.7E-03	8.6E+01	EqP	1.1E-01
Landbay D	3000-2900	INORG	Barium	7440-39-3	NC	2.00E+02	2.24E+02	8.9E-01	3.2E+05	EqP	6.2E-04	3.3E+00	EqP	**6.1E+01**
Landbay D	3000-2900	INORG	Beryllium	7440-41-7	B1	8.56E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay D	3000-2900	INORG	Cadmium	7440-43-9	B1	1.88E+00	2.70E+00	7.0E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.8E-01
Landbay D	3000-2900	INORG	Chromium III	16065-83-1	D	5.19E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay D	3000-2900	INORG	Chromium VI	18540-29-9	A	2.94E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay D	3000-2900	INORG	Cobalt	7440-48-4	LC	4.49E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay D	3000-2900	INORG	Copper	7440-50-8	D	3.95E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay D	3000-2900	INORG	Iron	7439-89-6	D	7.25E+04	9.52E+04	7.6E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay D	3000-2900	INORG	Lead	7439-92-1	B2	2.55E+01						3.5E+02	EqP	7.3E-02
Landbay D	3000-2900	INORG	Manganese	7439-96-5	D	2.67E+03	4.27E+03	6.3E-01	3.1E+05	EqP	8.6E-03	1.6E+02	EqP	**1.7E+01**
Landbay D	3000-2900	INORG	Mercury	7439-97-6	D	2.77E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay D	3000-2900	INORG	Nickel	7440-02-0	A	1.87E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.5E-01
Landbay D	3000-2900	INORG	Silver	7440-22-4	D	1.55E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay D	3000-2900	INORG	Strontium	7440-24-6		2.21E+01	3.80E+01	5.8E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay D	3000-2900	INORG	Vanadium	7440-62-2	ID	2.37E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay D	3000-2900	INORG	Zinc	7440-66-6	ID	6.45E+01	1.02E+02	6.3E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay D	3150-1850	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	3150-1850	INORG	Arsenic	7440-38-2	A	6.64E+00	9.90E+00	6.7E-01	1.1E+03	EqP	6.3E-03	8.6E+01	EqP	7.7E-02
Landbay D	3150-1850	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay D	3150-1850	INORG	Beryllium	7440-41-7	B1	4.99E-01	1.20E+00	4.2E-01	6.8E+03	EqP	7.4E-05	1.0E+01	EqP	4.8E-02
Landbay D	3150-1850	INORG	Chromium III	16065-83-1	D	2.97E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.8E-06
Landbay D	3150-1850	INORG	Chromium VI	18540-29-9	A	2.68E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay D	3150-1850	INORG	Cobalt	7440-48-4	LC	2.73E+01	8.60E+01	3.2E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay D	3150-1850	INORG	Copper	7440-50-8	D	7.85E+01	1.31E+02	6.0E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.3E+00**
Landbay D	3150-1850	INORG	Iron	7439-89-6	D	7.63E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.0E+02**
Landbay D	3150-1850	INORG	Lead	7439-92-1	B2	1.57E+01						3.5E+02	EqP	4.5E-02
Landbay D	3150-1850	INORG	Manganese	7439-96-5	D	8.47E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.4E+00**
Landbay D	3150-1850	INORG	Nickel	7440-02-0	A	1.57E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.6E-01
Landbay D	3150-1850	INORG	Selenium	7782-49-2	D	1.48E+00	2.50E+00	5.9E-01	2.5E+04	LT	6.0E-05	2.0E+00	LT	7.4E-01
Landbay D	3150-1850	INORG	Silver	7440-22-4	D	2.94E-01	2.30E+00	1.3E-01	3.8E+03	LT	7.8E-05	2.7E+00	LT	1.1E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	3150-1850	INORG	Strontium	7440-24-6		1.51E+01	3.80E+01	4.0E-01	1.6E+07	EqP	9.3E-07	1.1E+03	EqP	1.4E-02
Landbay D	3150-1850	INORG	Thallium	7440-28-0	ID	1.51E+00	4.50E+00	3.4E-01				1.1E+00	EqP	**1.3E+00**
Landbay D	3150-1850	INORG	Vanadium	7440-62-2	ID	2.35E+02	2.83E+02	8.3E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay D	3150-1850	INORG	Zinc	7440-66-6	ID	8.14E+01	1.02E+02	8.0E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.3E-01
Landbay D	3150-2000	INORG	Aluminum	7429-90-5	ID	2.16E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.3E+00**
Landbay D	3150-2000	INORG	Antimony	7440-36-0	ID	1.39E+00	1.70E+00	8.2E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.1E-02
Landbay D	3150-2000	INORG	Arsenic	7440-38-2	A	4.02E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay D	3150-2000	INORG	Barium	7440-39-3	NC	8.74E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.6E+01**
Landbay D	3150-2000	INORG	Beryllium	7440-41-7	B1	2.93E-01	1.20E+00	2.4E-01	6.8E+03	EqP	4.3E-05	1.0E+01	EqP	2.8E-02
Landbay D	3150-2000	INORG	Cadmium	7440-43-9	B1	1.99E+00	2.70E+00	7.4E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.3E-01
Landbay D	3150-2000	INORG	Chromium III	16065-83-1	D	4.94E+00	2.61E+02	1.9E-02	2.1E+10	EqP	2.3E-10	3.4E+06	EqP	1.5E-06
Landbay D	3150-2000	INORG	Chromium VI	18540-29-9	A	2.63E+00	4.97E+00	5.3E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.0E-01
Landbay D	3150-2000	INORG	Cobalt	7440-48-4	LC	3.38E+01	8.60E+01	3.9E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay D	3150-2000	INORG	Copper	7440-50-8	D	6.90E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay D	3150-2000	INORG	Iron	7439-89-6	D	6.22E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay D	3150-2000	INORG	Lead	7439-92-1	B2	1.89E+01						3.5E+02	EqP	5.4E-02
Landbay D	3150-2000	INORG	Manganese	7439-96-5	D	1.46E+03	4.27E+03	3.4E-01	3.1E+05	EqP	4.7E-03	1.6E+02	EqP	**9.3E+00**
Landbay D	3150-2000	INORG	Mercury	7439-97-6	D	3.13E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay D	3150-2000	INORG	Nickel	7440-02-0	A	8.76E+00	7.30E+01	1.2E-01	1.2E+05	EqP	7.1E-05	3.4E+01	EqP	2.6E-01
Landbay D	3150-2000	INORG	Perchlorate	14797-73-0	NC	3.40E-04			3.4E+03	LT	9.9E-08	7.7E+02	LT	4.4E-07
Landbay D	3150-2000	INORG	Silver	7440-22-4	D	6.49E-01	2.30E+00	2.8E-01	3.8E+03	LT	1.7E-04	2.7E+00	LT	2.4E-01
Landbay D	3150-2000	INORG	Thallium	7440-28-0	ID	3.53E+00	4.50E+00	7.8E-01				1.1E+00	EqP	**3.1E+00**
Landbay D	3150-2000	INORG	Vanadium	7440-62-2	ID	2.83E+02	2.83E+02	1.0E+00	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	7.1E-01
Landbay D	3150-2000	INORG	Zinc	7440-66-6	ID	8.92E+01	1.02E+02	8.7E-01	5.5E+06	EqP	1.6E-05	1.9E+02	EqP	4.7E-01
Landbay D	3150-2150	INORG	Aluminum	7429-90-5	ID	3.12E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	3150-2150	INORG	Antimony	7440-36-0	ID	1.45E+00	1.70E+00	8.5E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.3E-02
Landbay D	3150-2150	INORG	Arsenic	7440-38-2	A	6.20E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.2E-02
Landbay D	3150-2150	INORG	Barium	7440-39-3	NC	1.51E+02	2.24E+02	6.7E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay D	3150-2150	INORG	Beryllium	7440-41-7	B1	6.61E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.7E-05	1.0E+01	EqP	6.3E-02
Landbay D	3150-2150	INORG	Cadmium	7440-43-9	B1	2.72E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.5E-03	2.1E+00	EqP	**1.3E+00**
Landbay D	3150-2150	INORG	Chromium III	16065-83-1	D	1.02E+01	2.61E+02	3.9E-02	2.1E+10	EqP	4.8E-10	3.4E+06	EqP	3.0E-06
Landbay D	3150-2150	INORG	Chromium VI	18540-29-9	A	2.66E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay D	3150-2150	INORG	Cobalt	7440-48-4	LC	4.13E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay D	3150-2150	INORG	Copper	7440-50-8	D	7.13E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.1E-04	8.4E+00	EqP	**8.5E+00**
Landbay D	3150-2150	INORG	Iron	7439-89-6	D	6.52E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay D	3150-2150	INORG	Lead	7439-92-1	B2	2.01E+01						3.5E+02	EqP	5.7E-02
Landbay D	3150-2150	INORG	Manganese	7439-96-5	D	2.04E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	3150-2150	INORG	Mercury	7439-97-6	D	3.60E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.7E-02
Landbay D	3150-2150	INORG	Nickel	7440-02-0	A	1.08E+01	7.30E+01	1.5E-01	1.2E+05	EqP	8.7E-05	3.4E+01	EqP	3.2E-01
Landbay D	3150-2150	INORG	Perchlorate	14797-73-0	NC	5.10E-04			3.4E+03	LT	1.5E-07	7.7E+02	LT	6.6E-07
Landbay D	3150-2150	INORG	Selenium	7782-49-2	D	1.16E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.7E-05	2.0E+00	LT	5.8E-01
Landbay D	3150-2150	INORG	Silver	7440-22-4	D	5.80E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.2E-01
Landbay D	3150-2150	INORG	Thallium	7440-28-0	ID	3.85E+00	4.50E+00	8.6E-01				1.1E+00	EqP	**3.4E+00**
Landbay D	3150-2150	INORG	Vanadium	7440-62-2	ID	2.52E+02	2.83E+02	8.9E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay D	3150-2150	INORG	Zinc	7440-66-6	ID	9.48E+01	1.02E+02	9.3E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	5.0E-01
Landbay D	3300-17	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9.10E-02				NA		9.6E+03	EqP	9.5E-06
Landbay D	3300-17	INORG	Aluminum	7429-90-5	ID	1.67E+04	5.34E+04	3.1E-01	3.7E+08	EqP	4.5E-05	2.6E+03	EqP	**6.4E+00**
Landbay D	3300-17	INORG	Arsenic	7440-38-2	A	2.21E+00	9.90E+00	2.2E-01	1.1E+03	EqP	2.1E-03	8.6E+01	EqP	2.6E-02
Landbay D	3300-17	INORG	Barium	7440-39-3	NC	6.22E+01	2.24E+02	2.8E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.9E+01**
Landbay D	3300-17	INORG	Beryllium	7440-41-7	B1	3.10E-01	1.20E+00	2.6E-01	6.8E+03	EqP	4.6E-05	1.0E+01	EqP	3.0E-02
Landbay D	3300-17	INORG	Cadmium	7440-43-9	B1	1.13E+00	2.70E+00	4.2E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.3E-01
Landbay D	3300-17	INORG	Chromium III	16065-83-1	D	1.04E+01	2.61E+02	4.0E-02	2.1E+10	EqP	4.9E-10	3.4E+06	EqP	3.1E-06
Landbay D	3300-17	INORG	Chromium VI	18540-29-9	A	2.67E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay D	3300-17	INORG	Cobalt	7440-48-4	LC	1.75E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.4E-01
Landbay D	3300-17	INORG	Copper	7440-50-8	D	7.50E+01	1.31E+02	5.7E-01	3.5E+05	EqP	2.2E-04	8.4E+00	EqP	**8.9E+00**
Landbay D	3300-17	INORG	Iron	7439-89-6	D	3.66E+04	9.52E+04	3.8E-01	4.4E+06	EqP	8.4E-03	1.5E+02	EqP	**2.4E+02**
Landbay D	3300-17	INORG	Lead	7439-92-1	B2	2.08E+01						3.5E+02	EqP	5.9E-02
Landbay D	3300-17	INORG	Manganese	7439-96-5	D	5.21E+02	4.27E+03	1.2E-01	3.1E+05	EqP	1.7E-03	1.6E+02	EqP	**3.3E+00**
Landbay D	3300-17	INORG	Mercury	7439-97-6	D	2.82E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.6E-02
Landbay D	3300-17	INORG	Nickel	7440-02-0	A	1.41E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.2E-01
Landbay D	3300-17	INORG	Selenium	7782-49-2	D	1.43E+00	2.50E+00	5.7E-01	2.5E+04	LT	5.8E-05	2.0E+00	LT	7.2E-01
Landbay D	3300-17	INORG	Silver	7440-22-4	D	1.68E+00	2.30E+00	7.3E-01	3.8E+03	LT	4.5E-04	2.7E+00	LT	6.3E-01
Landbay D	3300-17	INORG	Strontium	7440-24-6		2.45E+01	3.80E+01	6.4E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay D	3300-17	INORG	Thallium	7440-28-0	ID	1.37E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay D	3300-17	INORG	Vanadium	7440-62-2	ID	1.27E+02	2.83E+02	4.5E-01	1.5E+05	EqP	8.2E-04	4.0E+02	EqP	3.2E-01
Landbay D	3300-17	INORG	Zinc	7440-66-6	ID	1.16E+02	1.02E+02	**1.1E+00**	5.5E+06	EqP	2.1E-05	1.9E+02	EqP	6.1E-01
Landbay D	3300-1700	INORG	Aluminum	7429-90-5	ID	2.09E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.7E-05	2.6E+03	EqP	**8.0E+00**
Landbay D	3300-1700	INORG	Arsenic	7440-38-2	A	1.74E+01	9.90E+00	**1.8E+00**	1.1E+03	EqP	1.7E-02	8.6E+01	EqP	2.0E-01
Landbay D	3300-1700	INORG	Barium	7440-39-3	NC	2.34E+02	2.24E+02	1.0E+00	3.2E+05	EqP	7.2E-04	3.3E+00	EqP	**7.1E+01**
Landbay D	3300-1700	INORG	Beryllium	7440-41-7	B1	5.55E-01	1.20E+00	4.6E-01	6.8E+03	EqP	8.2E-05	1.0E+01	EqP	5.3E-02
Landbay D	3300-1700	INORG	Chromium III	16065-83-1	D	2.97E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.8E-06
Landbay D	3300-1700	INORG	Chromium VI	18540-29-9	A	2.77E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay D	3300-1700	INORG	Cobalt	7440-48-4	LC	5.74E+01	8.60E+01	6.7E-01	1.4E+04	EqP	4.2E-03	2.1E+01	EqP	**2.8E+00**
Landbay D	3300-1700	INORG	Copper	7440-50-8	D	2.37E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.8E-05	8.4E+00	EqP	**2.8E+00**
Landbay D	3300-1700	INORG	Iron	7439-89-6	D	9.12E+04	9.52E+04	9.6E-01	4.4E+06	EqP	2.1E-02	1.5E+02	EqP	**6.0E+02**
Landbay D	3300-1700	INORG	Lead	7439-92-1	B2	3.18E+01						3.5E+02	EqP	9.1E-02
Landbay D	3300-1700	INORG	Manganese	7439-96-5	D	5.69E+03	4.27E+03	**1.3E+00**	3.1E+05	EqP	1.8E-02	1.6E+02	EqP	**3.6E+01**
Landbay D	3300-1700	INORG	Nickel	7440-02-0	A	7.50E+00	7.30E+01	1.0E-01	1.2E+05	EqP	6.0E-05	3.4E+01	EqP	2.2E-01
Landbay D	3300-1700	INORG	Selenium	7782-49-2	D	3.04E+00	2.50E+00	**1.2E+00**	2.5E+04	LT	1.2E-04	2.0E+00	LT	**1.5E+00**
Landbay D	3300-1700	INORG	Silver	7440-22-4	D	1.29E+00	2.30E+00	5.6E-01	3.8E+03	LT	3.4E-04	2.7E+00	LT	4.9E-01
Landbay D	3300-1700	INORG	Strontium	7440-24-6		8.04E+00	3.80E+01	2.1E-01	1.6E+07	EqP	4.9E-07	1.1E+03	EqP	7.6E-03
Landbay D	3300-1700	INORG	Thallium	7440-28-0	ID	4.16E+00	4.50E+00	9.2E-01				1.1E+00	EqP	**3.6E+00**
Landbay D	3300-1700	INORG	Vanadium	7440-62-2	ID	3.51E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.3E-03	4.0E+02	EqP	8.8E-01
Landbay D	3300-1700	INORG	Zinc	7440-66-6	ID	3.86E+01	1.02E+02	3.8E-01	5.5E+06	EqP	7.1E-06	1.9E+02	EqP	2.0E-01
Landbay D	3300-1850	INORG	Aluminum	7429-90-5	ID	2.50E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay D	3300-1850	INORG	Arsenic	7440-38-2	A	1.07E+01	9.90E+00	**1.1E+00**	1.1E+03	EqP	1.0E-02	8.6E+01	EqP	1.2E-01
Landbay D	3300-1850	INORG	Barium	7440-39-3	NC	1.21E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.7E+01**
Landbay D	3300-1850	INORG	Beryllium	7440-41-7	B1	5.76E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay D	3300-1850	INORG	Chromium III	16065-83-1	D	2.97E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.8E-06
Landbay D	3300-1850	INORG	Chromium VI	18540-29-9	A	2.66E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.0E-01
Landbay D	3300-1850	INORG	Cobalt	7440-48-4	LC	3.45E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.7E+00**
Landbay D	3300-1850	INORG	Copper	7440-50-8	D	6.31E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.5E+00**
Landbay D	3300-1850	INORG	Iron	7439-89-6	D	8.30E+04	9.52E+04	8.7E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.5E+02**
Landbay D	3300-1850	INORG	Lead	7439-92-1	B2	1.63E+01						3.5E+02	EqP	4.7E-02
Landbay D	3300-1850	INORG	Manganese	7439-96-5	D	7.12E+02	4.27E+03	1.7E-01	3.1E+05	EqP	2.3E-03	1.6E+02	EqP	**4.5E+00**
Landbay D	3300-1850	INORG	Nickel	7440-02-0	A	1.18E+01	7.30E+01	1.6E-01	1.2E+05	EqP	9.5E-05	3.4E+01	EqP	3.5E-01
Landbay D	3300-1850	INORG	Selenium	7782-49-2	D	1.89E+00	2.50E+00	7.6E-01	2.5E+04	LT	7.7E-05	2.0E+00	LT	9.5E-01
Landbay D	3300-1850	INORG	Silver	7440-22-4	D	2.94E-01	2.30E+00	1.3E-01	3.8E+03	LT	7.8E-05	2.7E+00	LT	1.1E-01
Landbay D	3300-1850	INORG	Strontium	7440-24-6		1.20E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay D	3300-1850	INORG	Thallium	7440-28-0	ID	2.23E+00	4.50E+00	5.0E-01				1.1E+00	EqP	**2.0E+00**
Landbay D	3300-1850	INORG	Vanadium	7440-62-2	ID	2.64E+02	2.83E+02	9.3E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.6E-01
Landbay D	3300-1850	INORG	Zinc	7440-66-6	ID	6.66E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay D	3300-2000	INORG	Aluminum	7429-90-5	ID	2.18E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay D	3300-2000	INORG	Antimony	7440-36-0	ID	1.15E+00	1.70E+00	6.8E-01	1.4E+03	EqP	8.4E-04	2.7E+01	EqP	4.2E-02
Landbay D	3300-2000	INORG	Arsenic	7440-38-2	A	7.36E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.6E-02
Landbay D	3300-2000	INORG	Barium	7440-39-3	NC	9.73E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay D	3300-2000	INORG	Beryllium	7440-41-7	B1	6.53E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.3E-02
Landbay D	3300-2000	INORG	Cadmium	7440-43-9	B1	3.58E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.3E-04	2.1E+00	EqP	1.7E-01
Landbay D	3300-2000	INORG	Chromium III	16065-83-1	D	2.31E+01	2.61E+02	8.8E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	6.8E-06
Landbay D	3300-2000	INORG	Cobalt	7440-48-4	LC	3.64E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.7E+00**
Landbay D	3300-2000	INORG	Copper	7440-50-8	D	4.02E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay D	3300-2000	INORG	Iron	7439-89-6	D	5.49E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay D	3300-2000	INORG	Lead	7439-92-1	B2	2.32E+01						3.5E+02	EqP	6.6E-02
Landbay D	3300-2000	INORG	Manganese	7439-96-5	D	1.63E+03	4.27E+03	3.8E-01	3.1E+05	EqP	5.2E-03	1.6E+02	EqP	**1.0E+01**
Landbay D	3300-2000	INORG	Mercury	7439-97-6	D	5.35E-02	7.10E-02	7.5E-01		NA		3.7E-01	EqP	1.4E-01
Landbay D	3300-2000	INORG	Nickel	7440-02-0	A	1.02E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.2E-05	3.4E+01	EqP	3.0E-01
Landbay D	3300-2000	INORG	Selenium	7782-49-2	D	1.40E+00	2.50E+00	5.6E-01	2.5E+04	LT	5.7E-05	2.0E+00	LT	7.0E-01
Landbay D	3300-2000	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay D	3300-2000	INORG	Thallium	7440-28-0	ID	1.36E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay D	3300-2000	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay D	3300-2000	INORG	Zinc	7440-66-6	ID	6.69E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay D	3300-2150	INORG	Aluminum	7429-90-5	ID	2.18E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay D	3300-2150	INORG	Antimony	7440-36-0	ID	1.15E+00	1.70E+00	6.8E-01	1.4E+03	EqP	8.4E-04	2.7E+01	EqP	4.2E-02
Landbay D	3300-2150	INORG	Arsenic	7440-38-2	A	7.36E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.6E-02
Landbay D	3300-2150	INORG	Barium	7440-39-3	NC	9.73E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay D	3300-2150	INORG	Beryllium	7440-41-7	B1	6.53E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.3E-02
Landbay D	3300-2150	INORG	Cadmium	7440-43-9	B1	3.58E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.3E-04	2.1E+00	EqP	1.7E-01
Landbay D	3300-2150	INORG	Chromium III	16065-83-1	D	2.31E+01	2.61E+02	8.8E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	6.8E-06
Landbay D	3300-2150	INORG	Cobalt	7440-48-4	LC	3.64E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.7E+00**
Landbay D	3300-2150	INORG	Copper	7440-50-8	D	4.02E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay D	3300-2150	INORG	Iron	7439-89-6	D	5.49E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay D	3300-2150	INORG	Lead	7439-92-1	B2	2.32E+01						3.5E+02	EqP	6.6E-02
Landbay D	3300-2150	INORG	Manganese	7439-96-5	D	1.63E+03	4.27E+03	3.8E-01	3.1E+05	EqP	5.2E-03	1.6E+02	EqP	**1.0E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	3300-2150	INORG	Mercury	7439-97-6	D	5.35E-02	7.10E-02	7.5E-01		NA		3.7E-01	EqP	1.4E-01
Landbay D	3300-2150	INORG	Nickel	7440-02-0	A	1.02E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.2E-05	3.4E+01	EqP	3.0E-01
Landbay D	3300-2150	INORG	Selenium	7782-49-2	D	1.40E+00	2.50E+00	5.6E-01	2.5E+04	LT	5.7E-05	2.0E+00	LT	7.0E-01
Landbay D	3300-2150	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay D	3300-2150	INORG	Thallium	7440-28-0	ID	1.36E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay D	3300-2150	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay D	3300-2150	INORG	Zinc	7440-66-6	ID	6.69E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay D	3300-2750	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	3300-2750	INORG	Antimony	7440-36-0	ID	1.43E+00	1.70E+00	8.4E-01	1.4E+03	EqP	1.0E-03	2.7E+01	EqP	5.3E-02
Landbay D	3300-2750	INORG	Arsenic	7440-38-2	A	9.15E+00	9.90E+00	9.2E-01	1.1E+03	EqP	8.7E-03	8.6E+01	EqP	1.1E-01
Landbay D	3300-2750	INORG	Barium	7440-39-3	NC	2.00E+02	2.24E+02	8.9E-01	3.2E+05	EqP	6.2E-04	3.3E+00	EqP	**6.1E+01**
Landbay D	3300-2750	INORG	Beryllium	7440-41-7	B1	8.56E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay D	3300-2750	INORG	Cadmium	7440-43-9	B1	1.88E+00	2.70E+00	7.0E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.8E-01
Landbay D	3300-2750	INORG	Chromium III	16065-83-1	D	5.19E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay D	3300-2750	INORG	Chromium VI	18540-29-9	A	2.94E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay D	3300-2750	INORG	Cobalt	7440-48-4	LC	4.49E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay D	3300-2750	INORG	Copper	7440-50-8	D	3.95E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay D	3300-2750	INORG	Iron	7439-89-6	D	7.25E+04	9.52E+04	7.6E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay D	3300-2750	INORG	Lead	7439-92-1	B2	2.55E+01						3.5E+02	EqP	7.3E-02
Landbay D	3300-2750	INORG	Manganese	7439-96-5	D	2.67E+03	4.27E+03	6.3E-01	3.1E+05	EqP	8.6E-03	1.6E+02	EqP	**1.7E+01**
Landbay D	3300-2750	INORG	Mercury	7439-97-6	D	2.77E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay D	3300-2750	INORG	Nickel	7440-02-0	A	1.87E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.5E-01
Landbay D	3300-2750	INORG	Silver	7440-22-4	D	1.55E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay D	3300-2750	INORG	Strontium	7440-24-6		2.21E+01	3.80E+01	5.8E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay D	3300-2750	INORG	Vanadium	7440-62-2	ID	2.37E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay D	3300-2750	INORG	Zinc	7440-66-6	ID	6.45E+01	1.02E+02	6.3E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay D	3450-1850	VOC	Acetone	67-64-1	ID	1.11E-02			2.0E+06	LT	5.4E-09	6.0E+02	LT	1.8E-05
Landbay D	3450-1850	VOC	p-Cymene	99-87-6		2.60E-03						3.4E+01	LT	7.6E-05
Landbay D	3450-1850	INORG	Aluminum	7429-90-5	ID	2.07E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.6E-05	2.6E+03	EqP	**7.9E+00**
Landbay D	3450-1850	INORG	Antimony	7440-36-0	ID	1.04E+00	1.70E+00	6.1E-01	1.4E+03	EqP	7.6E-04	2.7E+01	EqP	3.8E-02
Landbay D	3450-1850	INORG	Arsenic	7440-38-2	A	8.41E+00	9.90E+00	8.5E-01	1.1E+03	EqP	8.0E-03	8.6E+01	EqP	9.8E-02
Landbay D	3450-1850	INORG	Barium	7440-39-3	NC	6.12E+01	2.24E+02	2.7E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.9E+01**
Landbay D	3450-1850	INORG	Beryllium	7440-41-7	B1	4.59E-01	1.20E+00	3.8E-01	6.8E+03	EqP	6.8E-05	1.0E+01	EqP	4.4E-02
Landbay D	3450-1850	INORG	Chromium III	16065-83-1	D	3.88E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.2E-05
Landbay D	3450-1850	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay D	3450-1850	INORG	Cobalt	7440-48-4	LC	3.21E+01	8.60E+01	3.7E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay D	3450-1850	INORG	Copper	7440-50-8	D	1.93E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.6E-05	8.4E+00	EqP	**2.3E+00**
Landbay D	3450-1850	INORG	Iron	7439-89-6	D	6.81E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	3450-1850	INORG	Lead	7439-92-1	B2	2.46E+01						3.5E+02	EqP	7.0E-02
Landbay D	3450-1850	INORG	Manganese	7439-96-5	D	1.82E+03	4.27E+03	4.3E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.2E+01**
Landbay D	3450-1850	INORG	Nickel	7440-02-0	A	8.62E+00	7.30E+01	1.2E-01	1.2E+05	EqP	6.9E-05	3.4E+01	EqP	2.5E-01
Landbay D	3450-1850	INORG	Selenium	7782-49-2	D	1.61E+00	2.50E+00	6.4E-01	2.5E+04	LT	6.5E-05	2.0E+00	LT	8.1E-01
Landbay D	3450-1850	INORG	Silver	7440-22-4	D	4.46E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay D	3450-1850	INORG	Strontium	7440-24-6		4.76E+00	3.80E+01	1.3E-01	1.6E+07	EqP	2.9E-07	1.1E+03	EqP	4.5E-03
Landbay D	3450-1850	INORG	Vanadium	7440-62-2	ID	2.51E+02	2.83E+02	8.9E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay D	3450-1850	INORG	Zinc	7440-66-6	ID	3.37E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01
Landbay D	3450-2000	INORG	Aluminum	7429-90-5	ID	2.18E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay D	3450-2000	INORG	Antimony	7440-36-0	ID	1.15E+00	1.70E+00	6.8E-01	1.4E+03	EqP	8.4E-04	2.7E+01	EqP	4.2E-02
Landbay D	3450-2000	INORG	Arsenic	7440-38-2	A	7.36E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.6E-02
Landbay D	3450-2000	INORG	Barium	7440-39-3	NC	9.73E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay D	3450-2000	INORG	Beryllium	7440-41-7	B1	6.53E-01	1.20E+00	5.4E-01	6.8E+03	EqP	9.6E-05	1.0E+01	EqP	6.3E-02
Landbay D	3450-2000	INORG	Cadmium	7440-43-9	B1	3.58E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.3E-04	2.1E+00	EqP	1.7E-01
Landbay D	3450-2000	INORG	Chromium III	16065-83-1	D	2.31E+01	2.61E+02	8.8E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	6.8E-06
Landbay D	3450-2000	INORG	Cobalt	7440-48-4	LC	3.64E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.7E+00**
Landbay D	3450-2000	INORG	Copper	7440-50-8	D	4.02E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay D	3450-2000	INORG	Iron	7439-89-6	D	5.49E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay D	3450-2000	INORG	Lead	7439-92-1	B2	2.32E+01						3.5E+02	EqP	6.6E-02
Landbay D	3450-2000	INORG	Manganese	7439-96-5	D	1.63E+03	4.27E+03	3.8E-01	3.1E+05	EqP	5.2E-03	1.6E+02	EqP	**1.0E+01**
Landbay D	3450-2000	INORG	Mercury	7439-97-6	D	5.35E-02	7.10E-02	7.5E-01		NA		3.7E-01	EqP	1.4E-01
Landbay D	3450-2000	INORG	Nickel	7440-02-0	A	1.02E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.2E-05	3.4E+01	EqP	3.0E-01
Landbay D	3450-2000	INORG	Selenium	7782-49-2	D	1.40E+00	2.50E+00	5.6E-01	2.5E+04	LT	5.7E-05	2.0E+00	LT	7.0E-01
Landbay D	3450-2000	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay D	3450-2000	INORG	Thallium	7440-28-0	ID	1.36E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay D	3450-2000	INORG	Vanadium	7440-62-2	ID	2.09E+02	2.83E+02	7.4E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.2E-01
Landbay D	3450-2000	INORG	Zinc	7440-66-6	ID	6.69E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay D	3450-2750	INORG	Aluminum	7429-90-5	ID	3.74E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay D	3450-2750	INORG	Antimony	7440-36-0	ID	2.40E+00	1.70E+00	**1.4E+00**	1.4E+03	EqP	1.8E-03	2.7E+01	EqP	8.8E-02
Landbay D	3450-2750	INORG	Arsenic	7440-38-2	A	7.80E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay D	3450-2750	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	3450-2750	INORG	Beryllium	7440-41-7	B1	5.30E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay D	3450-2750	INORG	Cadmium	7440-43-9	B1	2.38E+00	2.70E+00	8.8E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**
Landbay D	3450-2750	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay D	3450-2750	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay D	3450-2750	INORG	Cobalt	7440-48-4	LC	5.63E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay D	3450-2750	INORG	Copper	7440-50-8	D	5.59E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay D	3450-2750	INORG	Iron	7439-89-6	D	7.55E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay D	3450-2750	INORG	Lead	7439-92-1	B2	1.87E+01						3.5E+02	EqP	5.3E-02
Landbay D	3450-2750	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay D	3450-2750	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay D	3450-2750	INORG	Nickel	7440-02-0	A	3.42E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay D	3450-2750	INORG	Silver	7440-22-4	D	1.53E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay D	3450-2750	INORG	Strontium	7440-24-6		2.15E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay D	3450-2750	INORG	Vanadium	7440-62-2	ID	2.56E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay D	3450-2750	INORG	Zinc	7440-66-6	ID	6.91E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.6E-01
Landbay D	35B1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.60E-01				NA		9.6E+03	EqP	2.7E-05
Landbay D	35B1	PCB	PCBs (total)	1336-36-3	B2	1.82E-01				NA		1.4E+00	EqP	1.3E-01
Landbay D	35B1	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	35B1	INORG	Arsenic	7440-38-2	A	5.24E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	35B1	INORG	Barium	7440-39-3	NC	7.41E+01	2.24E+02	3.3E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.2E+01**
Landbay D	35B1	INORG	Beryllium	7440-41-7	B1	2.29E-01	1.20E+00	1.9E-01	6.8E+03	EqP	3.4E-05	1.0E+01	EqP	2.2E-02
Landbay D	35B1	INORG	Cadmium	7440-43-9	B1	2.20E+00	2.70E+00	8.1E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay D	35B1	INORG	Chromium III	16065-83-1	D	6.67E+01	2.61E+02	2.6E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay D	35B1	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay D	35B1	INORG	Copper	7440-50-8	D	6.50E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.7E+00**
Landbay D	35B1	INORG	Lead	7439-92-1	B2	3.44E+01						3.5E+02	EqP	9.8E-02
Landbay D	35B1	INORG	Mercury	7439-97-6	D	1.39E-01	7.10E-02	**2.0E+00**		NA		3.7E-01	EqP	3.8E-01
Landbay D	35B1	INORG	Perchlorate	14797-73-0	NC	8.40E-03			3.4E+03	LT	2.4E-06	7.7E+02	LT	1.1E-05
Landbay D	35B1	INORG	Silver	7440-22-4	D	2.28E+00	2.30E+00	9.9E-01	3.8E+03	LT	6.1E-04	2.7E+00	LT	8.6E-01
Landbay D	35B1	INORG	Strontium	7440-24-6		5.11E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay D	35B2	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	35B2	INORG	Arsenic	7440-38-2	A	5.24E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	35B2	INORG	Barium	7440-39-3	NC	7.41E+01	2.24E+02	3.3E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.2E+01**
Landbay D	35B2	INORG	Beryllium	7440-41-7	B1	2.29E-01	1.20E+00	1.9E-01	6.8E+03	EqP	3.4E-05	1.0E+01	EqP	2.2E-02
Landbay D	35B2	INORG	Cadmium	7440-43-9	B1	2.20E+00	2.70E+00	8.1E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay D	35B2	INORG	Chromium III	16065-83-1	D	6.67E+01	2.61E+02	2.6E-01	2.1E+10	EqP	3.1E-09	3.4E+06	EqP	2.0E-05
Landbay D	35B2	INORG	Chromium VI	18540-29-9	A	3.04E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.6E-02	4.4E+00	LT	6.9E-01
Landbay D	35B2	INORG	Copper	7440-50-8	D	6.50E+01	1.31E+02	5.0E-01	3.5E+05	EqP	1.9E-04	8.4E+00	EqP	**7.7E+00**
Landbay D	35B2	INORG	Lead	7439-92-1	B2	3.44E+01						3.5E+02	EqP	9.8E-02
Landbay D	35B2	INORG	Mercury	7439-97-6	D	1.39E-01	7.10E-02	**2.0E+00**		NA		3.7E-01	EqP	3.8E-01
Landbay D	35B2	INORG	Perchlorate	14797-73-0	NC	1.10E-02			3.4E+03	LT	3.2E-06	7.7E+02	LT	1.4E-05
Landbay D	35B2	INORG	Silver	7440-22-4	D	2.28E+00	2.30E+00	9.9E-01	3.8E+03	LT	6.1E-04	2.7E+00	LT	8.6E-01
Landbay D	35B2	INORG	Strontium	7440-24-6		5.11E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay D	35G3	INORG	Perchlorate	14797-73-0	NC	4.65E-02			3.4E+03	LT	1.3E-05	7.7E+02	LT	6.0E-05
Landbay D	3600-18	PCB	PCBs (total)	1336-36-3	B2	4.19E-02				NA		1.4E+00	EqP	3.0E-02
Landbay D	3600-18	INORG	Aluminum	7429-90-5	ID	3.31E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	3600-18	INORG	Arsenic	7440-38-2	A	8.60E+00	9.90E+00	8.7E-01	1.1E+03	EqP	8.2E-03	8.6E+01	EqP	1.0E-01
Landbay D	3600-18	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay D	3600-18	INORG	Beryllium	7440-41-7	B1	3.55E-01	1.20E+00	3.0E-01	6.8E+03	EqP	5.2E-05	1.0E+01	EqP	3.4E-02
Landbay D	3600-18	INORG	Cadmium	7440-43-9	B1	8.14E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.5E-04	2.1E+00	EqP	3.8E-01
Landbay D	3600-18	INORG	Chromium III	16065-83-1	D	4.03E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay D	3600-18	INORG	Chromium VI	18540-29-9	A	2.87E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay D	3600-18	INORG	Copper	7440-50-8	D	8.79E+01	1.31E+02	6.7E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay D	3600-18	INORG	Lead	7439-92-1	B2	2.27E+01						3.5E+02	EqP	6.5E-02
Landbay D	3600-18	INORG	Mercury	7439-97-6	D	6.87E-02	7.10E-02	9.7E-01		NA		3.7E-01	EqP	1.9E-01
Landbay D	3600-18	INORG	Perchlorate	14797-73-0	NC	4.10E-03			3.4E+03	LT	1.2E-06	7.7E+02	LT	5.3E-06
Landbay D	3600-18	INORG	Silver	7440-22-4	D	1.38E+00	2.30E+00	6.0E-01	3.8E+03	LT	3.7E-04	2.7E+00	LT	5.2E-01
Landbay D	3600-18	INORG	Strontium	7440-24-6		2.76E+01	3.80E+01	7.3E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay D	3600-2750	INORG	Aluminum	7429-90-5	ID	3.74E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay D	3600-2750	INORG	Antimony	7440-36-0	ID	2.40E+00	1.70E+00	**1.4E+00**	1.4E+03	EqP	1.8E-03	2.7E+01	EqP	8.8E-02
Landbay D	3600-2750	INORG	Arsenic	7440-38-2	A	7.80E+00	9.90E+00	7.9E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.1E-02
Landbay D	3600-2750	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	3600-2750	INORG	Beryllium	7440-41-7	B1	5.30E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay D	3600-2750	INORG	Cadmium	7440-43-9	B1	2.38E+00	2.70E+00	8.8E-01	1.1E+03	EqP	2.2E-03	2.1E+00	EqP	**1.1E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	3600-2750	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay D	3600-2750	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay D	3600-2750	INORG	Cobalt	7440-48-4	LC	5.63E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay D	3600-2750	INORG	Copper	7440-50-8	D	5.59E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay D	3600-2750	INORG	Iron	7439-89-6	D	7.55E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay D	3600-2750	INORG	Lead	7439-92-1	B2	1.87E+01						3.5E+02	EqP	5.3E-02
Landbay D	3600-2750	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay D	3600-2750	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay D	3600-2750	INORG	Nickel	7440-02-0	A	3.42E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay D	3600-2750	INORG	Silver	7440-22-4	D	1.53E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay D	3600-2750	INORG	Strontium	7440-24-6		2.15E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay D	3600-2750	INORG	Vanadium	7440-62-2	ID	2.56E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay D	3600-2750	INORG	Zinc	7440-66-6	ID	6.91E+01	1.02E+02	6.8E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.6E-01
Landbay D	3750-2150	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.80E-01				NA		9.6E+03	EqP	1.9E-05
Landbay D	3750-2150	SVOC	Butylbenzylphthalate	85-68-7	C	1.00E-01				NA		4.4E+01	EqP	2.3E-03
Landbay D	3750-2150	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	3750-2150	INORG	Antimony	7440-36-0	ID	2.16E+00	1.70E+00	**1.3E+00**	1.4E+03	EqP	1.6E-03	2.7E+01	EqP	8.0E-02
Landbay D	3750-2150	INORG	Arsenic	7440-38-2	A	6.28E+00	9.90E+00	6.3E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.3E-02
Landbay D	3750-2150	INORG	Barium	7440-39-3	NC	1.43E+02	2.24E+02	6.4E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay D	3750-2150	INORG	Beryllium	7440-41-7	B1	7.58E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay D	3750-2150	INORG	Cadmium	7440-43-9	B1	3.75E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.5E-04	2.1E+00	EqP	1.8E-01
Landbay D	3750-2150	INORG	Chromium III	16065-83-1	D	1.25E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay D	3750-2150	INORG	Cobalt	7440-48-4	LC	4.54E+01	8.60E+01	5.3E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay D	3750-2150	INORG	Copper	7440-50-8	D	3.40E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.8E-05	8.4E+00	EqP	**4.0E+00**
Landbay D	3750-2150	INORG	Iron	7439-89-6	D	5.73E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay D	3750-2150	INORG	Lead	7439-92-1	B2	2.42E+01						3.5E+02	EqP	6.9E-02
Landbay D	3750-2150	INORG	Manganese	7439-96-5	D	2.75E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.8E+01**
Landbay D	3750-2150	INORG	Mercury	7439-97-6	D	9.59E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.6E-01
Landbay D	3750-2150	INORG	Nickel	7440-02-0	A	2.82E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay D	3750-2150	INORG	Strontium	7440-24-6		1.87E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay D	3750-2150	INORG	Vanadium	7440-62-2	ID	2.17E+02	2.83E+02	7.7E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.4E-01
Landbay D	3750-2150	INORG	Zinc	7440-66-6	ID	7.64E+01	1.02E+02	7.5E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.0E-01
Landbay D	3750-2300	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.80E-01				NA		9.6E+03	EqP	1.9E-05
Landbay D	3750-2300	SVOC	Butylbenzylphthalate	85-68-7	C	1.00E-01				NA		4.4E+01	EqP	2.3E-03
Landbay D	3750-2300	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	3750-2300	INORG	Antimony	7440-36-0	ID	2.16E+00	1.70E+00	**1.3E+00**	1.4E+03	EqP	1.6E-03	2.7E+01	EqP	8.0E-02
Landbay D	3750-2300	INORG	Arsenic	7440-38-2	A	6.28E+00	9.90E+00	6.3E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.3E-02
Landbay D	3750-2300	INORG	Barium	7440-39-3	NC	1.43E+02	2.24E+02	6.4E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay D	3750-2300	INORG	Beryllium	7440-41-7	B1	7.58E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay D	3750-2300	INORG	Cadmium	7440-43-9	B1	3.75E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.5E-04	2.1E+00	EqP	1.8E-01
Landbay D	3750-2300	INORG	Chromium III	16065-83-1	D	1.25E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay D	3750-2300	INORG	Cobalt	7440-48-4	LC	4.54E+01	8.60E+01	5.3E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay D	3750-2300	INORG	Copper	7440-50-8	D	3.40E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.8E-05	8.4E+00	EqP	**4.0E+00**
Landbay D	3750-2300	INORG	Iron	7439-89-6	D	5.73E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay D	3750-2300	INORG	Lead	7439-92-1	B2	2.42E+01						3.5E+02	EqP	6.9E-02
Landbay D	3750-2300	INORG	Manganese	7439-96-5	D	2.75E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.8E+01**
Landbay D	3750-2300	INORG	Mercury	7439-97-6	D	9.59E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.6E-01
Landbay D	3750-2300	INORG	Nickel	7440-02-0	A	2.82E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay D	3750-2300	INORG	Strontium	7440-24-6		1.87E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay D	3750-2300	INORG	Vanadium	7440-62-2	ID	2.17E+02	2.83E+02	7.7E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.4E-01
Landbay D	3750-2300	INORG	Zinc	7440-66-6	ID	7.64E+01	1.02E+02	7.5E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.0E-01
Landbay D	3750-2450	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.80E-01				NA		9.6E+03	EqP	1.9E-05
Landbay D	3750-2450	SVOC	Butylbenzylphthalate	85-68-7	C	1.00E-01				NA		4.4E+01	EqP	2.3E-03
Landbay D	3750-2450	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	3750-2450	INORG	Antimony	7440-36-0	ID	2.16E+00	1.70E+00	**1.3E+00**	1.4E+03	EqP	1.6E-03	2.7E+01	EqP	8.0E-02
Landbay D	3750-2450	INORG	Arsenic	7440-38-2	A	6.28E+00	9.90E+00	6.3E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.3E-02
Landbay D	3750-2450	INORG	Barium	7440-39-3	NC	1.43E+02	2.24E+02	6.4E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay D	3750-2450	INORG	Beryllium	7440-41-7	B1	7.58E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay D	3750-2450	INORG	Cadmium	7440-43-9	B1	3.75E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.5E-04	2.1E+00	EqP	1.8E-01
Landbay D	3750-2450	INORG	Chromium III	16065-83-1	D	1.25E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay D	3750-2450	INORG	Cobalt	7440-48-4	LC	4.54E+01	8.60E+01	5.3E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay D	3750-2450	INORG	Copper	7440-50-8	D	3.40E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.8E-05	8.4E+00	EqP	**4.0E+00**
Landbay D	3750-2450	INORG	Iron	7439-89-6	D	5.73E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay D	3750-2450	INORG	Lead	7439-92-1	B2	2.42E+01						3.5E+02	EqP	6.9E-02
Landbay D	3750-2450	INORG	Manganese	7439-96-5	D	2.75E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.8E+01**
Landbay D	3750-2450	INORG	Mercury	7439-97-6	D	9.59E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.6E-01
Landbay D	3750-2450	INORG	Nickel	7440-02-0	A	2.82E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay D	3750-2450	INORG	Strontium	7440-24-6		1.87E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay D	3750-2450	INORG	Vanadium	7440-62-2	ID	2.17E+02	2.83E+02	7.7E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.4E-01
Landbay D	3750-2450	INORG	Zinc	7440-66-6	ID	7.64E+01	1.02E+02	7.5E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.0E-01
Landbay D	3750-2750	PCB	PCBs (total)	1336-36-3	B2	2.36E-02				NA		1.4E+00	EqP	1.7E-02
Landbay D	3750-2750	INORG	Aluminum	7429-90-5	ID	3.03E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.2E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	3750-2750	INORG	Antimony	7440-36-0	ID	1.01E+00	1.70E+00	5.9E-01	1.4E+03	EqP	7.4E-04	2.7E+01	EqP	3.7E-02
Landbay D	3750-2750	INORG	Arsenic	7440-38-2	A	4.01E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay D	3750-2750	INORG	Barium	7440-39-3	NC	1.42E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay D	3750-2750	INORG	Beryllium	7440-41-7	B1	4.45E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.6E-05	1.0E+01	EqP	4.3E-02
Landbay D	3750-2750	INORG	Cadmium	7440-43-9	B1	1.31E+00	2.70E+00	4.9E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.1E-01
Landbay D	3750-2750	INORG	Chromium III	16065-83-1	D	7.93E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay D	3750-2750	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay D	3750-2750	INORG	Cobalt	7440-48-4	LC	3.98E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay D	3750-2750	INORG	Copper	7440-50-8	D	3.56E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay D	3750-2750	INORG	Iron	7439-89-6	D	4.45E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay D	3750-2750	INORG	Lead	7439-92-1	B2	2.23E+01						3.5E+02	EqP	6.4E-02
Landbay D	3750-2750	INORG	Manganese	7439-96-5	D	2.33E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.5E-03	1.6E+02	EqP	**1.5E+01**
Landbay D	3750-2750	INORG	Mercury	7439-97-6	D	5.30E-02	7.10E-02	7.5E-01		NA		3.7E-01	EqP	1.4E-01
Landbay D	3750-2750	INORG	Nickel	7440-02-0	A	2.35E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay D	3750-2750	INORG	Silver	7440-22-4	D	1.36E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay D	3750-2750	INORG	Strontium	7440-24-6		2.26E+01	3.80E+01	5.9E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay D	3750-2750	INORG	Vanadium	7440-62-2	ID	1.56E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay D	3750-2750	INORG	Zinc	7440-66-6	ID	7.25E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	3750-2900	PCB	PCBs (total)	1336-36-3	B2	2.36E-02				NA		1.4E+00	EqP	1.7E-02
Landbay D	3750-2900	INORG	Aluminum	7429-90-5	ID	3.03E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.2E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	3750-2900	INORG	Antimony	7440-36-0	ID	1.01E+00	1.70E+00	5.9E-01	1.4E+03	EqP	7.4E-04	2.7E+01	EqP	3.7E-02
Landbay D	3750-2900	INORG	Arsenic	7440-38-2	A	4.01E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay D	3750-2900	INORG	Barium	7440-39-3	NC	1.42E+02	2.24E+02	6.3E-01	3.2E+05	EqP	4.4E-04	3.3E+00	EqP	**4.3E+01**
Landbay D	3750-2900	INORG	Beryllium	7440-41-7	B1	4.45E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.6E-05	1.0E+01	EqP	4.3E-02
Landbay D	3750-2900	INORG	Cadmium	7440-43-9	B1	1.31E+00	2.70E+00	4.9E-01	1.1E+03	EqP	1.2E-03	2.1E+00	EqP	6.1E-01
Landbay D	3750-2900	INORG	Chromium III	16065-83-1	D	7.93E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay D	3750-2900	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay D	3750-2900	INORG	Cobalt	7440-48-4	LC	3.98E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay D	3750-2900	INORG	Copper	7440-50-8	D	3.56E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay D	3750-2900	INORG	Iron	7439-89-6	D	4.45E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay D	3750-2900	INORG	Lead	7439-92-1	B2	2.23E+01						3.5E+02	EqP	6.4E-02
Landbay D	3750-2900	INORG	Manganese	7439-96-5	D	2.33E+03	4.27E+03	5.5E-01	3.1E+05	EqP	7.5E-03	1.6E+02	EqP	**1.5E+01**
Landbay D	3750-2900	INORG	Mercury	7439-97-6	D	5.30E-02	7.10E-02	7.5E-01		NA		3.7E-01	EqP	1.4E-01
Landbay D	3750-2900	INORG	Nickel	7440-02-0	A	2.35E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay D	3750-2900	INORG	Silver	7440-22-4	D	1.36E+00	2.30E+00	5.9E-01	3.8E+03	LT	3.6E-04	2.7E+00	LT	5.1E-01
Landbay D	3750-2900	INORG	Strontium	7440-24-6		2.26E+01	3.80E+01	5.9E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay D	3750-2900	INORG	Vanadium	7440-62-2	ID	1.56E+02	2.83E+02	5.5E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	3.9E-01
Landbay D	3750-2900	INORG	Zinc	7440-66-6	ID	7.25E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	3900-2750	INORG	Aluminum	7429-90-5	ID	2.87E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	3900-2750	INORG	Arsenic	7440-38-2	A	6.99E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.1E-02
Landbay D	3900-2750	INORG	Barium	7440-39-3	NC	1.28E+02	2.24E+02	5.7E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay D	3900-2750	INORG	Beryllium	7440-41-7	B1	7.30E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay D	3900-2750	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay D	3900-2750	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay D	3900-2750	INORG	Cobalt	7440-48-4	LC	7.92E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay D	3900-2750	INORG	Copper	7440-50-8	D	2.13E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.1E-05	8.4E+00	EqP	**2.5E+00**
Landbay D	3900-2750	INORG	Iron	7439-89-6	D	6.78E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	3900-2750	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02
Landbay D	3900-2750	INORG	Manganese	7439-96-5	D	3.34E+03	4.27E+03	7.8E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay D	3900-2750	INORG	Mercury	7439-97-6	D	2.89E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.8E-02
Landbay D	3900-2750	INORG	Nickel	7440-02-0	A	2.80E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay D	3900-2750	INORG	Selenium	7782-49-2	D	3.55E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.8E+00**
Landbay D	3900-2750	INORG	Strontium	7440-24-6		1.26E+01	3.80E+01	3.3E-01	1.6E+07	EqP	7.7E-07	1.1E+03	EqP	1.2E-02
Landbay D	3900-2750	INORG	Thallium	7440-28-0	ID	5.70E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.0E+00**
Landbay D	3900-2750	INORG	Vanadium	7440-62-2	ID	2.55E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.4E-01
Landbay D	3900-2750	INORG	Zinc	7440-66-6	ID	5.26E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay D	3900-2900	INORG	Aluminum	7429-90-5	ID	2.87E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	3900-2900	INORG	Arsenic	7440-38-2	A	6.99E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.1E-02
Landbay D	3900-2900	INORG	Barium	7440-39-3	NC	1.28E+02	2.24E+02	5.7E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay D	3900-2900	INORG	Beryllium	7440-41-7	B1	7.30E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay D	3900-2900	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay D	3900-2900	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay D	3900-2900	INORG	Cobalt	7440-48-4	LC	7.92E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay D	3900-2900	INORG	Copper	7440-50-8	D	2.13E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.1E-05	8.4E+00	EqP	**2.5E+00**
Landbay D	3900-2900	INORG	Iron	7439-89-6	D	6.78E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	3900-2900	INORG	Lead	7439-92-1	B2	2.15E+01						3.5E+02	EqP	6.1E-02
Landbay D	3900-2900	INORG	Manganese	7439-96-5	D	3.34E+03	4.27E+03	7.8E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay D	3900-2900	INORG	Mercury	7439-97-6	D	2.89E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.8E-02
Landbay D	3900-2900	INORG	Nickel	7440-02-0	A	2.80E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay D	3900-2900	INORG	Selenium	7782-49-2	D	3.55E+00	2.50E+00	**1.4E+00**	2.5E+04	LT	1.4E-04	2.0E+00	LT	**1.8E+00**
Landbay D	3900-2900	INORG	Strontium	7440-24-6		1.26E+01	3.80E+01	3.3E-01	1.6E+07	EqP	7.7E-07	1.1E+03	EqP	1.2E-02
Landbay D	3900-2900	INORG	Thallium	7440-28-0	ID	5.70E+00	4.50E+00	**1.3E+00**				1.1E+00	EqP	**5.0E+00**
Landbay D	3900-2900	INORG	Vanadium	7440-62-2	ID	2.55E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.4E-01
Landbay D	3900-2900	INORG	Zinc	7440-66-6	ID	5.26E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay D	3TP1-7	VOC	Acetone	67-64-1	ID	1.80E-02			2.0E+06	LT	8.8E-09	6.0E+02	LT	3.0E-05
Landbay D	3TP1-7	INORG	Aluminum	7429-90-5	ID	1.35E+04	5.34E+04	2.5E-01	3.7E+08	EqP	3.7E-05	2.6E+03	EqP	**5.2E+00**
Landbay D	3TP1-7	INORG	Barium	7440-39-3	NC	1.48E+02	2.24E+02	6.6E-01	3.2E+05	EqP	4.6E-04	3.3E+00	EqP	**4.5E+01**
Landbay D	3TP1-7	INORG	Beryllium	7440-41-7	B1	7.13E-02	1.20E+00	5.9E-02	6.8E+03	EqP	1.1E-05	1.0E+01	EqP	6.8E-03
Landbay D	3TP1-7	INORG	Cadmium	7440-43-9	B1	3.68E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay D	3TP1-7	INORG	Chromium III	16065-83-1	D	1.18E+00	2.61E+02	4.5E-03	2.1E+10	EqP	5.5E-11	3.4E+06	EqP	3.5E-07
Landbay D	3TP1-7	INORG	Copper	7440-50-8	D	2.67E+02	1.31E+02	**2.0E+00**	3.5E+05	EqP	7.7E-04	8.4E+00	EqP	**3.2E+01**
Landbay D	3TP1-7	INORG	Lead	7439-92-1	B2	2.04E+00						3.5E+02	EqP	5.8E-03
Landbay D	3TP1-7	INORG	Perchlorate	14797-73-0	NC	1.80E-03			3.4E+03	LT	5.2E-07	7.7E+02	LT	2.3E-06
Landbay D	3TP1-7	INORG	Silver	7440-22-4	D	2.10E-01	2.30E+00	9.1E-02	3.8E+03	LT	5.6E-05	2.7E+00	LT	7.9E-02
Landbay D	3TP1-7	INORG	Strontium	7440-24-6		1.84E+01	3.80E+01	4.8E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay D	3TP2-7	VOC	Acetone	67-64-1	ID	3.00E-02			2.0E+06	LT	1.5E-08	6.0E+02	LT	5.0E-05
Landbay D	3TP2-7	INORG	Aluminum	7429-90-5	ID	1.19E+04	5.34E+04	2.2E-01	3.7E+08	EqP	3.2E-05	2.6E+03	EqP	**4.6E+00**
Landbay D	3TP2-7	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	3TP2-7	INORG	Cadmium	7440-43-9	B1	3.75E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.5E-03	2.1E+00	EqP	**1.8E+00**
Landbay D	3TP2-7	INORG	Chromium III	16065-83-1	D	1.73E+00	2.61E+02	6.6E-03	2.1E+10	EqP	8.1E-11	3.4E+06	EqP	5.1E-07
Landbay D	3TP2-7	INORG	Copper	7440-50-8	D	1.88E+02	1.31E+02	**1.4E+00**	3.5E+05	EqP	5.4E-04	8.4E+00	EqP	**2.2E+01**
Landbay D	3TP2-7	INORG	Lead	7439-92-1	B2	6.42E+00						3.5E+02	EqP	1.8E-02
Landbay D	3TP2-7	INORG	Perchlorate	14797-73-0	NC	2.90E-04			3.4E+03	LT	8.4E-08	7.7E+02	LT	3.7E-07
Landbay D	3TP2-7	INORG	Silver	7440-22-4	D	1.84E-01	2.30E+00	8.0E-02	3.8E+03	LT	4.9E-05	2.7E+00	LT	6.9E-02
Landbay D	3TP2-7	INORG	Strontium	7440-24-6		1.75E+01	3.80E+01	4.6E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay D	3TP3-7	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay D	3TP3-7	INORG	Aluminum	7429-90-5	ID	2.21E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay D	3TP3-7	INORG	Barium	7440-39-3	NC	1.23E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay D	3TP3-7	INORG	Cadmium	7440-43-9	B1	2.03E-01	2.70E+00	7.5E-02	1.1E+03	EqP	1.9E-04	2.1E+00	EqP	9.5E-02
Landbay D	3TP3-7	INORG	Chromium III	16065-83-1	D	4.41E+00	2.61E+02	1.7E-02	2.1E+10	EqP	2.1E-10	3.4E+06	EqP	1.3E-06
Landbay D	3TP3-7	INORG	Copper	7440-50-8	D	1.07E+02	1.31E+02	8.2E-01	3.5E+05	EqP	3.1E-04	8.4E+00	EqP	**1.3E+01**
Landbay D	3TP3-7	INORG	Lead	7439-92-1	B2	4.21E+00						3.5E+02	EqP	1.2E-02
Landbay D	3TP3-7	INORG	Mercury	7439-97-6	D	1.20E-02	7.10E-02	1.7E-01		NA		3.7E-01	EqP	3.2E-02
Landbay D	3TP3-7	INORG	Perchlorate	14797-73-0	NC	2.80E-04			3.4E+03	LT	8.1E-08	7.7E+02	LT	3.6E-07
Landbay D	3TP3-7	INORG	Strontium	7440-24-6		2.05E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay D	3TP4-7	VOC	Acetone	67-64-1	ID	2.90E-02			2.0E+06	LT	1.4E-08	6.0E+02	LT	4.8E-05
Landbay D	3TP4-7	INORG	Aluminum	7429-90-5	ID	2.25E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.1E-05	2.6E+03	EqP	**8.6E+00**
Landbay D	3TP4-7	INORG	Barium	7440-39-3	NC	1.17E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	3TP4-7	INORG	Chromium III	16065-83-1	D	4.45E+00	2.61E+02	1.7E-02	2.1E+10	EqP	2.1E-10	3.4E+06	EqP	1.3E-06
Landbay D	3TP4-7	INORG	Copper	7440-50-8	D	1.09E+02	1.31E+02	8.3E-01	3.5E+05	EqP	3.1E-04	8.4E+00	EqP	**1.3E+01**
Landbay D	3TP4-7	INORG	Lead	7439-92-1	B2	4.66E+00						3.5E+02	EqP	1.3E-02
Landbay D	3TP4-7	INORG	Strontium	7440-24-6		2.04E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay D	4000-20	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.40E-01				NA		9.6E+03	EqP	1.5E-05
Landbay D	4000-20	PCB	PCBs (total)	1336-36-3	B2	3.59E-02				NA		1.4E+00	EqP	2.6E-02
Landbay D	4000-20	INORG	Aluminum	7429-90-5	ID	2.84E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	4000-20	INORG	Arsenic	7440-38-2	A	9.93E+00	9.90E+00	1.0E+00	1.1E+03	EqP	9.5E-03	8.6E+01	EqP	1.2E-01
Landbay D	4000-20	INORG	Barium	7440-39-3	NC	1.09E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay D	4000-20	INORG	Beryllium	7440-41-7	B1	4.33E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.4E-05	1.0E+01	EqP	4.2E-02
Landbay D	4000-20	INORG	Boron	7440-42-8	ID	8.19E+00	1.34E+01	6.1E-01	9.9E+05	LT	8.3E-06	6.4E-01	LT	**1.3E+01**
Landbay D	4000-20	INORG	Chromium III	16065-83-1	D	1.38E+02	2.61E+02	5.3E-01	2.1E+10	EqP	6.5E-09	3.4E+06	EqP	4.1E-05
Landbay D	4000-20	INORG	Chromium VI	18540-29-9	A	3.53E+00	4.97E+00	7.1E-01	6.6E+01	LT	5.3E-02	4.4E+00	LT	8.0E-01
Landbay D	4000-20	INORG	Cobalt	7440-48-4	LC	3.67E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	4000-20	INORG	Copper	7440-50-8	D	4.58E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.5E+00**
Landbay D	4000-20	INORG	Iron	7439-89-6	D	7.43E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay D	4000-20	INORG	Lead	7439-92-1	B2	2.77E+01						3.5E+02	EqP	7.9E-02
Landbay D	4000-20	INORG	Manganese	7439-96-5	D	1.97E+03	4.27E+03	4.6E-01	3.1E+05	EqP	6.3E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	4000-20	INORG	Mercury	7439-97-6	D	7.88E-02	7.10E-02	**1.1E+00**		NA		3.7E-01	EqP	2.1E-01
Landbay D	4000-20	INORG	Nickel	7440-02-0	A	3.61E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	4000-20	INORG	Strontium	7440-24-6		2.31E+01	3.80E+01	6.1E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.2E-02
Landbay D	4000-20	INORG	Thallium	7440-28-0	ID	1.49E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay D	4000-20	INORG	Vanadium	7440-62-2	ID	1.34E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay D	4000-20	INORG	Zinc	7440-66-6	ID	1.65E+02	1.02E+02	**1.6E+00**	5.5E+06	EqP	3.0E-05	1.9E+02	EqP	8.7E-01
Landbay D	4050-2450	INORG	Aluminum	7429-90-5	ID	3.38E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	4050-2450	INORG	Arsenic	7440-38-2	A	5.19E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay D	4050-2450	INORG	Barium	7440-39-3	NC	1.38E+02	2.24E+02	6.2E-01	3.2E+05	EqP	4.3E-04	3.3E+00	EqP	**4.2E+01**
Landbay D	4050-2450	INORG	Beryllium	7440-41-7	B1	6.66E-01	1.20E+00	5.6E-01	6.8E+03	EqP	9.8E-05	1.0E+01	EqP	6.4E-02
Landbay D	4050-2450	INORG	Chromium III	16065-83-1	D	1.07E+02	2.61E+02	4.1E-01	2.1E+10	EqP	5.0E-09	3.4E+06	EqP	3.2E-05
Landbay D	4050-2450	INORG	Chromium VI	18540-29-9	A	3.32E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay D	4050-2450	INORG	Cobalt	7440-48-4	LC	4.13E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay D	4050-2450	INORG	Copper	7440-50-8	D	4.34E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.2E+00**
Landbay D	4050-2450	INORG	Iron	7439-89-6	D	5.70E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay D	4050-2450	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay D	4050-2450	INORG	Manganese	7439-96-5	D	2.05E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	4050-2450	INORG	Mercury	7439-97-6	D	3.03E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay D	4050-2450	INORG	Nickel	7440-02-0	A	3.14E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.3E-01
Landbay D	4050-2450	INORG	Selenium	7782-49-2	D	2.37E+00	2.50E+00	9.5E-01	2.5E+04	LT	9.6E-05	2.0E+00	LT	**1.2E+00**
Landbay D	4050-2450	INORG	Strontium	7440-24-6		2.90E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay D	4050-2450	INORG	Thallium	7440-28-0	ID	4.02E+00	4.50E+00	8.9E-01				1.1E+00	EqP	**3.5E+00**
Landbay D	4050-2450	INORG	Vanadium	7440-62-2	ID	2.04E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay D	4050-2450	INORG	Zinc	7440-66-6	ID	4.94E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay D	4050-2600	INORG	Aluminum	7429-90-5	ID	3.38E+04	5.34E+04	6.3E-01	3.7E+08	EqP	9.1E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	4050-2600	INORG	Arsenic	7440-38-2	A	5.19E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay D	4050-2600	INORG	Barium	7440-39-3	NC	1.38E+02	2.24E+02	6.2E-01	3.2E+05	EqP	4.3E-04	3.3E+00	EqP	**4.2E+01**
Landbay D	4050-2600	INORG	Beryllium	7440-41-7	B1	6.66E-01	1.20E+00	5.6E-01	6.8E+03	EqP	9.8E-05	1.0E+01	EqP	6.4E-02
Landbay D	4050-2600	INORG	Chromium III	16065-83-1	D	1.07E+02	2.61E+02	4.1E-01	2.1E+10	EqP	5.0E-09	3.4E+06	EqP	3.2E-05
Landbay D	4050-2600	INORG	Chromium VI	18540-29-9	A	3.32E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.5E-01
Landbay D	4050-2600	INORG	Cobalt	7440-48-4	LC	4.13E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay D	4050-2600	INORG	Copper	7440-50-8	D	4.34E+01	1.31E+02	3.3E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.2E+00**
Landbay D	4050-2600	INORG	Iron	7439-89-6	D	5.70E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay D	4050-2600	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay D	4050-2600	INORG	Manganese	7439-96-5	D	2.05E+03	4.27E+03	4.8E-01	3.1E+05	EqP	6.6E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	4050-2600	INORG	Mercury	7439-97-6	D	3.03E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay D	4050-2600	INORG	Nickel	7440-02-0	A	3.14E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.3E-01
Landbay D	4050-2600	INORG	Selenium	7782-49-2	D	2.37E+00	2.50E+00	9.5E-01	2.5E+04	LT	9.6E-05	2.0E+00	LT	**1.2E+00**
Landbay D	4050-2600	INORG	Strontium	7440-24-6		2.90E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay D	4050-2600	INORG	Thallium	7440-28-0	ID	4.02E+00	4.50E+00	8.9E-01				1.1E+00	EqP	**3.5E+00**
Landbay D	4050-2600	INORG	Vanadium	7440-62-2	ID	2.04E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay D	4050-2600	INORG	Zinc	7440-66-6	ID	4.94E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay D	41B1	VOC	Acetone	67-64-1	ID	1.90E-02			2.0E+06	LT	9.3E-09	6.0E+02	LT	3.2E-05
Landbay D	41B1	PCB	PCBs (total)	1336-36-3	B2	1.73E-02				NA		1.4E+00	EqP	1.3E-02
Landbay D	41B1	INORG	Aluminum	7429-90-5	ID	4.13E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	41B1	INORG	Arsenic	7440-38-2	A	1.75E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.0E-02
Landbay D	41B1	INORG	Barium	7440-39-3	NC	5.58E+01	2.24E+02	2.5E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.7E+01**
Landbay D	41B1	INORG	Beryllium	7440-41-7	B1	7.92E-02	1.20E+00	6.6E-02	6.8E+03	EqP	1.2E-05	1.0E+01	EqP	7.6E-03
Landbay D	41B1	INORG	Cadmium	7440-43-9	B1	1.11E+00	2.70E+00	4.1E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.2E-01
Landbay D	41B1	INORG	Chromium III	16065-83-1	D	7.63E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.3E-05
Landbay D	41B1	INORG	Chromium VI	18540-29-9	A	3.11E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay D	41B1	INORG	Copper	7440-50-8	D	5.73E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay D	41B1	INORG	Lead	7439-92-1	B2	1.25E+01						3.5E+02	EqP	3.6E-02
Landbay D	41B1	INORG	Mercury	7439-97-6	D	6.39E-02	7.10E-02	9.0E-01		NA		3.7E-01	EqP	1.7E-01
Landbay D	41B1	INORG	Perchlorate	14797-73-0	NC	3.70E-04			3.4E+03	LT	1.1E-07	7.7E+02	LT	4.8E-07
Landbay D	41B1	INORG	Silver	7440-22-4	D	1.92E+00	2.30E+00	8.3E-01	3.8E+03	LT	5.1E-04	2.7E+00	LT	7.2E-01
Landbay D	41B1	INORG	Strontium	7440-24-6		5.76E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.4E-02
Landbay D	41B2	PCB	PCBs (total)	1336-36-3	B2	1.73E-02				NA		1.4E+00	EqP	1.3E-02
Landbay D	41B2	INORG	Aluminum	7429-90-5	ID	4.13E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	41B2	INORG	Arsenic	7440-38-2	A	1.75E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.0E-02
Landbay D	41B2	INORG	Barium	7440-39-3	NC	5.58E+01	2.24E+02	2.5E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.7E+01**
Landbay D	41B2	INORG	Beryllium	7440-41-7	B1	7.92E-02	1.20E+00	6.6E-02	6.8E+03	EqP	1.2E-05	1.0E+01	EqP	7.6E-03
Landbay D	41B2	INORG	Cadmium	7440-43-9	B1	1.11E+00	2.70E+00	4.1E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.2E-01
Landbay D	41B2	INORG	Chromium III	16065-83-1	D	7.63E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.3E-05
Landbay D	41B2	INORG	Chromium VI	18540-29-9	A	3.11E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay D	41B2	INORG	Copper	7440-50-8	D	5.73E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay D	41B2	INORG	Lead	7439-92-1	B2	1.25E+01						3.5E+02	EqP	3.6E-02
Landbay D	41B2	INORG	Mercury	7439-97-6	D	6.39E-02	7.10E-02	9.0E-01		NA		3.7E-01	EqP	1.7E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	41B2	INORG	Perchlorate	14797-73-0	NC	3.80E-04			3.4E+03	LT	1.1E-07	7.7E+02	LT	4.9E-07
Landbay D	41B2	INORG	Silver	7440-22-4	D	1.92E+00	2.30E+00	8.3E-01	3.8E+03	LT	5.1E-04	2.7E+00	LT	7.2E-01
Landbay D	41B2	INORG	Strontium	7440-24-6		5.76E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.4E-02
Landbay D	41B3	VOC	Acetone	67-64-1	ID	1.10E-02			2.0E+06	LT	5.4E-09	6.0E+02	LT	1.8E-05
Landbay D	41B3	VOC	Methylene Chloride	75-09-2	LC	4.00E-03			2.2E+04	LT	1.8E-07	3.9E+01	LT	1.0E-04
Landbay D	41B3	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9.00E-02				NA		9.6E+03	EqP	9.4E-06
Landbay D	41B3	PCB	PCBs (total)	1336-36-3	B2	1.73E-02				NA		1.4E+00	EqP	1.3E-02
Landbay D	41B3	INORG	Aluminum	7429-90-5	ID	4.13E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	41B3	INORG	Arsenic	7440-38-2	A	1.75E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.0E-02
Landbay D	41B3	INORG	Barium	7440-39-3	NC	5.58E+01	2.24E+02	2.5E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.7E+01**
Landbay D	41B3	INORG	Beryllium	7440-41-7	B1	7.92E-02	1.20E+00	6.6E-02	6.8E+03	EqP	1.2E-05	1.0E+01	EqP	7.6E-03
Landbay D	41B3	INORG	Cadmium	7440-43-9	B1	1.11E+00	2.70E+00	4.1E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.2E-01
Landbay D	41B3	INORG	Chromium III	16065-83-1	D	7.63E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.3E-05
Landbay D	41B3	INORG	Chromium VI	18540-29-9	A	3.11E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay D	41B3	INORG	Copper	7440-50-8	D	5.73E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay D	41B3	INORG	Lead	7439-92-1	B2	1.25E+01						3.5E+02	EqP	3.6E-02
Landbay D	41B3	INORG	Mercury	7439-97-6	D	6.39E-02	7.10E-02	9.0E-01		NA		3.7E-01	EqP	1.7E-01
Landbay D	41B3	INORG	Perchlorate	14797-73-0	NC	5.50E-03			3.4E+03	LT	1.6E-06	7.7E+02	LT	7.1E-06
Landbay D	41B3	INORG	Silver	7440-22-4	D	1.92E+00	2.30E+00	8.3E-01	3.8E+03	LT	5.1E-04	2.7E+00	LT	7.2E-01
Landbay D	41B3	INORG	Strontium	7440-24-6		5.76E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.4E-02
Landbay D	41B6	VOC	Acetone	67-64-1	ID	9.00E-03			2.0E+06	LT	4.4E-09	6.0E+02	LT	1.5E-05
Landbay D	41B6	INORG	Perchlorate	14797-73-0	NC	1.90E-03			3.4E+03	LT	5.5E-07	7.7E+02	LT	2.5E-06
Landbay D	41G5	INORG	Perchlorate	14797-73-0	NC	5.60E-02			3.4E+03	LT	1.6E-05	7.7E+02	LT	7.2E-05
Landbay D	42 GP-02	PCB	PCBs (total)	1336-36-3	B2	1.60E-02				NA		1.4E+00	EqP	1.2E-02
Landbay D	42 GP-03	PCB	PCBs (total)	1336-36-3	B2	2.20E-01				NA		1.4E+00	EqP	1.6E-01
Landbay D	42 GP-07	PCB	PCBs (total)	1336-36-3	B2	4.87E-02				NA		1.4E+00	EqP	3.5E-02
Landbay D	42 GP-08	PCB	PCBs (total)	1336-36-3	B2	3.53E-02				NA		1.4E+00	EqP	2.6E-02
Landbay D	42 GP-16	PCB	PCBs (total)	1336-36-3	B2	1.73E-02				NA		1.4E+00	EqP	1.3E-02
Landbay D	42 GP-17	PCB	PCBs (total)	1336-36-3	B2	2.10E-01				NA		1.4E+00	EqP	1.5E-01
Landbay D	42 GP-25	PCB	PCBs (total)	1336-36-3	B2	1.82E-02				NA		1.4E+00	EqP	1.3E-02
Landbay D	42 GP-28	PCB	PCBs (total)	1336-36-3	B2	2.18E-02				NA		1.4E+00	EqP	1.6E-02
Landbay D	42 GP-32	PCB	PCBs (total)	1336-36-3	B2	1.08E+00				NA		1.4E+00	EqP	7.9E-01
Landbay D	42 GP-33	PCB	PCBs (total)	1336-36-3	B2	2.61E+00				NA		1.4E+00	EqP	**1.9E+00**
Landbay D	42 GP-34	PCB	PCBs (total)	1336-36-3	B2	2.24E-02				NA		1.4E+00	EqP	1.6E-02
Landbay D	42 GP-35	PCB	PCBs (total)	1336-36-3	B2	7.09E+00				NA		1.4E+00	EqP	**5.2E+00**
Landbay D	42 GP-38	PCB	PCBs (total)	1336-36-3	B2	2.61E-01				NA		1.4E+00	EqP	1.9E-01
Landbay D	4200-1100	INORG	Aluminum	7429-90-5	ID	3.13E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	4200-1100	INORG	Antimony	7440-36-0	ID	2.03E+00	1.70E+00	**1.2E+00**	1.4E+03	EqP	1.5E-03	2.7E+01	EqP	7.5E-02
Landbay D	4200-1100	INORG	Arsenic	7440-38-2	A	7.37E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.6E-02
Landbay D	4200-1100	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	4200-1100	INORG	Beryllium	7440-41-7	B1	6.06E-01	1.20E+00	5.1E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay D	4200-1100	INORG	Cadmium	7440-43-9	B1	5.14E-01	2.70E+00	1.9E-01	1.1E+03	EqP	4.7E-04	2.1E+00	EqP	2.4E-01
Landbay D	4200-1100	INORG	Chromium III	16065-83-1	D	2.28E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.8E-05
Landbay D	4200-1100	INORG	Cobalt	7440-48-4	LC	8.16E+01	8.60E+01	9.5E-01	1.4E+04	EqP	5.9E-03	2.1E+01	EqP	**3.9E+00**
Landbay D	4200-1100	INORG	Copper	7440-50-8	D	2.76E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	4200-1100	INORG	Iron	7439-89-6	D	6.00E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay D	4200-1100	INORG	Lead	7439-92-1	B2	2.72E+01						3.5E+02	EqP	7.8E-02
Landbay D	4200-1100	INORG	Manganese	7439-96-5	D	2.84E+03	4.27E+03	6.7E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay D	4200-1100	INORG	Mercury	7439-97-6	D	5.66E-02	7.10E-02	8.0E-01		NA		3.7E-01	EqP	1.5E-01
Landbay D	4200-1100	INORG	Nickel	7440-02-0	A	3.75E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	4200-1100	INORG	Selenium	7782-49-2	D	1.61E+00	2.50E+00	6.4E-01	2.5E+04	LT	6.5E-05	2.0E+00	LT	8.1E-01
Landbay D	4200-1100	INORG	Strontium	7440-24-6		1.35E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.3E-07	1.1E+03	EqP	1.3E-02
Landbay D	4200-1100	INORG	Vanadium	7440-62-2	ID	2.21E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay D	4200-1100	INORG	Zinc	7440-66-6	ID	7.85E+01	1.02E+02	7.7E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay D	4200-1250	PCB	PCBs (total)	1336-36-3	B2	2.01E-02				NA		1.4E+00	EqP	1.5E-02
Landbay D	4200-1250	INORG	Aluminum	7429-90-5	ID	2.49E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.5E+00**
Landbay D	4200-1250	INORG	Antimony	7440-36-0	ID	1.80E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.6E-02
Landbay D	4200-1250	INORG	Arsenic	7440-38-2	A	5.21E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	4200-1250	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay D	4200-1250	INORG	Beryllium	7440-41-7	B1	5.92E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.7E-05	1.0E+01	EqP	5.7E-02
Landbay D	4200-1250	INORG	Cadmium	7440-43-9	B1	4.65E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.3E-04	2.1E+00	EqP	2.2E-01
Landbay D	4200-1250	INORG	Chromium III	16065-83-1	D	7.45E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay D	4200-1250	INORG	Cobalt	7440-48-4	LC	3.42E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay D	4200-1250	INORG	Copper	7440-50-8	D	3.04E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.8E-05	8.4E+00	EqP	**3.6E+00**
Landbay D	4200-1250	INORG	Iron	7439-89-6	D	4.44E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay D	4200-1250	INORG	Lead	7439-92-1	B2	3.16E+01						3.5E+02	EqP	9.0E-02
Landbay D	4200-1250	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay D	4200-1250	INORG	Mercury	7439-97-6	D	6.84E-02	7.10E-02	9.6E-01		NA		3.7E-01	EqP	1.9E-01
Landbay D	4200-1250	INORG	Nickel	7440-02-0	A	1.89E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.6E-01
Landbay D	4200-1250	INORG	Strontium	7440-24-6		2.02E+01	3.80E+01	5.3E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay D	4200-1250	INORG	Vanadium	7440-62-2	ID	1.49E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.6E-04	4.0E+02	EqP	3.7E-01
Landbay D	4200-1250	INORG	Zinc	7440-66-6	ID	7.93E+01	1.02E+02	7.8E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.2E-01
Landbay D	4200-1550	INORG	Aluminum	7429-90-5	ID	2.95E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	4200-1550	INORG	Antimony	7440-36-0	ID	1.63E+00	1.70E+00	9.6E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.0E-02
Landbay D	4200-1550	INORG	Arsenic	7440-38-2	A	5.15E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay D	4200-1550	INORG	Barium	7440-39-3	NC	9.35E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	4200-1550	INORG	Beryllium	7440-41-7	B1	4.37E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.4E-05	1.0E+01	EqP	4.2E-02
Landbay D	4200-1550	INORG	Chromium III	16065-83-1	D	1.96E+02	2.61E+02	7.5E-01	2.1E+10	EqP	9.2E-09	3.4E+06	EqP	5.8E-05
Landbay D	4200-1550	INORG	Chromium VI	18540-29-9	A	2.10E+00	4.97E+00	4.2E-01	6.6E+01	LT	3.2E-02	4.4E+00	LT	4.8E-01
Landbay D	4200-1550	INORG	Cobalt	7440-48-4	LC	4.86E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay D	4200-1550	INORG	Copper	7440-50-8	D	2.84E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.2E-05	8.4E+00	EqP	**3.4E+00**
Landbay D	4200-1550	INORG	Iron	7439-89-6	D	4.63E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay D	4200-1550	INORG	Lead	7439-92-1	B2	1.62E+01						3.5E+02	EqP	4.6E-02
Landbay D	4200-1550	INORG	Manganese	7439-96-5	D	1.42E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.6E-03	1.6E+02	EqP	**9.1E+00**
Landbay D	4200-1550	INORG	Mercury	7439-97-6	D	6.02E-02	7.10E-02	8.5E-01		NA		3.7E-01	EqP	1.6E-01
Landbay D	4200-1550	INORG	Nickel	7440-02-0	A	3.59E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	4200-1550	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay D	4200-1550	INORG	Strontium	7440-24-6		1.74E+01	3.80E+01	4.6E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.6E-02
Landbay D	4200-1550	INORG	Vanadium	7440-62-2	ID	1.66E+02	2.83E+02	5.9E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay D	4200-1550	INORG	Zinc	7440-66-6	ID	4.84E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.5E-01
Landbay D	4200-47	INORG	Aluminum	7429-90-5	ID	3.61E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.8E-05	2.6E+03	EqP	**1.4E+01**
Landbay D	4200-47	INORG	Antimony	7440-36-0	ID	1.54E+00	1.70E+00	9.1E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.7E-02
Landbay D	4200-47	INORG	Arsenic	7440-38-2	A	1.09E+01	9.90E+00	**1.1E+00**	1.1E+03	EqP	1.0E-02	8.6E+01	EqP	1.3E-01
Landbay D	4200-47	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	4200-47	INORG	Beryllium	7440-41-7	B1	6.94E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.7E-02
Landbay D	4200-47	INORG	Boron	7440-42-8	ID	7.61E+00	1.34E+01	5.7E-01	9.9E+05	LT	7.7E-06	6.4E-01	LT	**1.2E+01**
Landbay D	4200-47	INORG	Chromium III	16065-83-1	D	1.54E+02	2.61E+02	5.9E-01	2.1E+10	EqP	7.2E-09	3.4E+06	EqP	4.6E-05
Landbay D	4200-47	INORG	Chromium VI	18540-29-9	A	3.64E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay D	4200-47	INORG	Cobalt	7440-48-4	LC	3.92E+01	8.60E+01	4.6E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay D	4200-47	INORG	Copper	7440-50-8	D	4.06E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay D	4200-47	INORG	Iron	7439-89-6	D	7.78E+04	9.52E+04	8.2E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay D	4200-47	INORG	Lead	7439-92-1	B2	1.60E+01						3.5E+02	EqP	4.6E-02
Landbay D	4200-47	INORG	Manganese	7439-96-5	D	2.30E+03	4.27E+03	5.4E-01	3.1E+05	EqP	7.4E-03	1.6E+02	EqP	**1.5E+01**
Landbay D	4200-47	INORG	Mercury	7439-97-6	D	4.60E-02	7.10E-02	6.5E-01		NA		3.7E-01	EqP	1.2E-01
Landbay D	4200-47	INORG	Nickel	7440-02-0	A	2.83E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay D	4200-47	INORG	Strontium	7440-24-6		2.75E+01	3.80E+01	7.2E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay D	4200-47	INORG	Thallium	7440-28-0	ID	2.71E+00	4.50E+00	6.0E-01				1.1E+00	EqP	**2.4E+00**
Landbay D	4200-47	INORG	Vanadium	7440-62-2	ID	2.68E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay D	4200-47	INORG	Zinc	7440-66-6	ID	7.09E+01	1.02E+02	7.0E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.7E-01
Landbay D	4200-48	SVOC	Benzo(b)fluoranthene	205-99-2	B2	6.40E-02				NA			NA	
Landbay D	4200-48	SVOC	Chrysene	218-01-9	B2	5.80E-02				NA			NA	
Landbay D	4200-48	SVOC	Fluoranthene	206-44-0	D	6.60E-02				NA		1.7E-01	EqP	3.8E-01
Landbay D	4200-48	SVOC	Pyrene	129-00-0	NC	6.30E-02				NA		1.1E-01	EqP	6.0E-01
Landbay D	4200-48	PCB	PCBs (total)	1336-36-3	B2	3.29E-02				NA		1.4E+00	EqP	2.4E-02
Landbay D	4200-48	INORG	Aluminum	7429-90-5	ID	2.43E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay D	4200-48	INORG	Arsenic	7440-38-2	A	5.15E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay D	4200-48	INORG	Barium	7440-39-3	NC	8.11E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay D	4200-48	INORG	Beryllium	7440-41-7	B1	3.20E-01	1.20E+00	2.7E-01	6.8E+03	EqP	4.7E-05	1.0E+01	EqP	3.1E-02
Landbay D	4200-48	INORG	Cadmium	7440-43-9	B1	6.76E-01	2.70E+00	2.5E-01	1.1E+03	EqP	6.2E-04	2.1E+00	EqP	3.2E-01
Landbay D	4200-48	INORG	Chromium III	16065-83-1	D	3.36E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay D	4200-48	INORG	Chromium VI	18540-29-9	A	2.82E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay D	4200-48	INORG	Copper	7440-50-8	D	4.69E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.6E+00**
Landbay D	4200-48	INORG	Lead	7439-92-1	B2	2.63E+01						3.5E+02	EqP	7.5E-02
Landbay D	4200-48	INORG	Mercury	7439-97-6	D	7.74E-02	7.10E-02	**1.1E+00**		NA		3.7E-01	EqP	2.1E-01
Landbay D	4200-48	INORG	Silver	7440-22-4	D	6.61E-01	2.30E+00	2.9E-01	3.8E+03	LT	1.8E-04	2.7E+00	LT	2.5E-01
Landbay D	4200-48	INORG	Strontium	7440-24-6		3.71E+01	3.80E+01	9.8E-01	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.5E-02
Landbay D	42B133	PCB	PCBs (total)	1336-36-3	B2	2.78E-02				NA		1.4E+00	EqP	2.0E-02
Landbay D	42B133	INORG	Perchlorate	14797-73-0	NC	3.20E-02			3.4E+03	LT	9.3E-06	7.7E+02	LT	4.1E-05
Landbay D	42B134	PCB	PCBs (total)	1336-36-3	B2	1.88E-02				NA		1.4E+00	EqP	1.4E-02
Landbay D	42B135	PCB	PCBs (total)	1336-36-3	B2	1.41E+00				NA		1.4E+00	EqP	1.0E+00
Landbay D	42B135	INORG	Perchlorate	14797-73-0	NC	2.20E-02			3.4E+03	LT	6.4E-06	7.7E+02	LT	2.8E-05
Landbay D	42G109	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.30E-01				NA		9.6E+03	EqP	1.4E-05
Landbay D	42G109	INORG	Perchlorate	14797-73-0	NC	1.30E-01			3.4E+03	LT	3.8E-05	7.7E+02	LT	1.7E-04

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay D	42G111	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	1.80E-01				NA		1.4E+00	EqP	1.3E-01
Landbay D	42G111	INORG	Aluminum	7429-90-5	ID	4.01E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	42G111	INORG	Arsenic	7440-38-2	A	2.38E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay D	42G111	INORG	Barium	7440-39-3	NC	9.38E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	42G111	INORG	Beryllium	7440-41-7	B1	5.17E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay D	42G111	INORG	Chromium III	16065-83-1	D	1.14E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.3E-09	3.4E+06	EqP	3.4E-05
Landbay D	42G111	INORG	Chromium VI	18540-29-9	A	3.36E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.6E-01
Landbay D	42G111	INORG	Cobalt	7440-48-4	LC	3.68E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	42G111	INORG	Copper	7440-50-8	D	5.75E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay D	42G111	INORG	Iron	7439-89-6	D	4.98E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay D	42G111	INORG	Lead	7439-92-1	B2	1.76E+01						3.5E+02	EqP	5.0E-02
Landbay D	42G111	INORG	Manganese	7439-96-5	D	9.70E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay D	42G111	INORG	Mercury	7439-97-6	D	1.56E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay D	42G111	INORG	Nickel	7440-02-0	A	4.83E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay D	42G111	INORG	Silver	7440-22-4	D	8.41E-01	2.30E+00	3.7E-01	3.8E+03	LT	2.2E-04	2.7E+00	LT	3.2E-01
Landbay D	42G111	INORG	Vanadium	7440-62-2	ID	1.33E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay D	42G111	INORG	Zinc	7440-66-6	ID	5.95E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay D	42G114	SVOC	Acenaphthylene	208-96-8	D	1.90E-01				NA			NA	
Landbay D	42G114	SVOC	Anthracene	120-12-7	ID	1.50E-01				NA		1.4E-02	EqP	**1.0E+01**
Landbay D	42G114	SVOC	Benzo(a)anthracene	56-55-3	B2	9.80E-01				NA		2.9E-01	EqP	**3.4E+00**
Landbay D	42G114	SVOC	Benzo(a)pyrene	50-32-8	B2	9.20E-01				NA		4.8E-01	EqP	**1.9E+00**
Landbay D	42G114	SVOC	Benzo(b)fluoranthene	205-99-2	B2	1.00E+00				NA			NA	
Landbay D	42G114	SVOC	Benzo(g,h,i)perylene	191-24-2	D	4.80E-01				NA			NA	
Landbay D	42G114	SVOC	Benzo(k)fluoranthene	207-08-9	B2	5.10E-01				NA			NA	
Landbay D	42G114	SVOC	Chrysene	218-01-9	B2	9.30E-01				NA			NA	
Landbay D	42G114	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	1.80E-01				NA		1.4E+00	EqP	1.3E-01
Landbay D	42G114	SVOC	Fluoranthene	206-44-0	D	1.20E+00				NA		1.7E-01	EqP	**6.9E+00**
Landbay D	42G114	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	5.10E-01				NA			NA	
Landbay D	42G114	SVOC	Phenanthrene	85-01-8	D	1.00E-01				NA		3.9E-01	EqP	2.6E-01
Landbay D	42G114	SVOC	Pyrene	129-00-0	NC	1.40E+00				NA		1.1E-01	EqP	**1.3E+01**
Landbay D	42G114	PCB	PCBs (total)	1336-36-3	B2	3.93E+00				NA		1.4E+00	EqP	**2.9E+00**
Landbay D	42G114	INORG	Aluminum	7429-90-5	ID	4.01E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	42G114	INORG	Arsenic	7440-38-2	A	2.38E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay D	42G114	INORG	Barium	7440-39-3	NC	9.38E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	42G114	INORG	Beryllium	7440-41-7	B1	5.17E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay D	42G114	INORG	Chromium III	16065-83-1	D	1.14E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.3E-09	3.4E+06	EqP	3.4E-05
Landbay D	42G114	INORG	Chromium VI	18540-29-9	A	3.36E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.6E-01
Landbay D	42G114	INORG	Cobalt	7440-48-4	LC	3.68E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	42G114	INORG	Copper	7440-50-8	D	5.75E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay D	42G114	INORG	Iron	7439-89-6	D	4.98E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay D	42G114	INORG	Lead	7439-92-1	B2	1.76E+01						3.5E+02	EqP	5.0E-02
Landbay D	42G114	INORG	Manganese	7439-96-5	D	9.70E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay D	42G114	INORG	Mercury	7439-97-6	D	1.56E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay D	42G114	INORG	Nickel	7440-02-0	A	4.83E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay D	42G114	INORG	Silver	7440-22-4	D	8.41E-01	2.30E+00	3.7E-01	3.8E+03	LT	2.2E-04	2.7E+00	LT	3.2E-01
Landbay D	42G114	INORG	Vanadium	7440-62-2	ID	1.33E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay D	42G114	INORG	Zinc	7440-66-6	ID	5.95E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay D	42G118	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	1.80E-01				NA		1.4E+00	EqP	1.3E-01
Landbay D	42G118	PCB	PCBs (total)	1336-36-3	B2	1.31E-01				NA		1.4E+00	EqP	9.5E-02
Landbay D	42G118	INORG	Aluminum	7429-90-5	ID	4.01E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	42G118	INORG	Arsenic	7440-38-2	A	2.38E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay D	42G118	INORG	Barium	7440-39-3	NC	9.38E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	42G118	INORG	Beryllium	7440-41-7	B1	5.17E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay D	42G118	INORG	Chromium III	16065-83-1	D	1.14E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.3E-09	3.4E+06	EqP	3.4E-05
Landbay D	42G118	INORG	Chromium VI	18540-29-9	A	3.36E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.6E-01
Landbay D	42G118	INORG	Cobalt	7440-48-4	LC	3.68E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	42G118	INORG	Copper	7440-50-8	D	5.75E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.8E+00**
Landbay D	42G118	INORG	Iron	7439-89-6	D	4.98E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay D	42G118	INORG	Lead	7439-92-1	B2	1.76E+01						3.5E+02	EqP	5.0E-02
Landbay D	42G118	INORG	Manganese	7439-96-5	D	9.70E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay D	42G118	INORG	Mercury	7439-97-6	D	1.56E-02	7.10E-02	2.2E-01		NA		3.7E-01	EqP	4.2E-02
Landbay D	42G118	INORG	Nickel	7440-02-0	A	4.83E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay D	42G118	INORG	Silver	7440-22-4	D	8.41E-01	2.30E+00	3.7E-01	3.8E+03	LT	2.2E-04	2.7E+00	LT	3.2E-01
Landbay D	42G118	INORG	Vanadium	7440-62-2	ID	1.33E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay D	42G118	INORG	Zinc	7440-66-6	ID	5.95E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay D	42G119	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.30E-01				NA		9.6E+03	EqP	2.4E-05
Landbay D	42G119	PCB	PCBs (total)	1336-36-3	B2	3.70E+00				NA		1.4E+00	EqP	**2.7E+00**
Landbay D	42G119	INORG	Perchlorate	14797-73-0	NC	3.30E-03			3.4E+03	LT	9.6E-07	7.7E+02	LT	4.3E-06
Landbay D	42G120	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.30E+00				NA		9.6E+03	EqP	1.4E-04
Landbay D	42G120	PCB	PCBs (total)	1336-36-3	B2	4.69E-02				NA		1.4E+00	EqP	3.4E-02
Landbay D	42G120	INORG	Perchlorate	14797-73-0	NC	3.10E-01			3.4E+03	LT	9.0E-05	7.7E+02	LT	4.0E-04
Landbay D	42TP3-125	INORG	Aluminum	7429-90-5	ID	4.25E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	42TP3-125	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay D	42TP3-125	INORG	Beryllium	7440-41-7	B1	3.03E-01	1.20E+00	2.5E-01	6.8E+03	EqP	4.5E-05	1.0E+01	EqP	2.9E-02
Landbay D	42TP3-125	INORG	Cadmium	7440-43-9	B1	8.96E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.3E-04	2.1E+00	EqP	4.2E-01
Landbay D	42TP3-125	INORG	Chromium III	16065-83-1	D	6.31E+01	2.61E+02	2.4E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay D	42TP3-125	INORG	Cobalt	7440-48-4	LC	2.03E+01	8.60E+01	2.4E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.8E-01
Landbay D	42TP3-125	INORG	Copper	7440-50-8	D	5.36E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.4E+00**
Landbay D	42TP3-125	INORG	Iron	7439-89-6	D	2.82E+04	9.52E+04	3.0E-01	4.4E+06	EqP	6.5E-03	1.5E+02	EqP	**1.9E+02**
Landbay D	42TP3-125	INORG	Lead	7439-92-1	B2	2.33E+00						3.5E+02	EqP	6.6E-03
Landbay D	42TP3-125	INORG	Manganese	7439-96-5	D	4.27E+02	4.27E+03	1.0E-01	3.1E+05	EqP	1.4E-03	1.6E+02	EqP	**2.7E+00**
Landbay D	42TP3-125	INORG	Nickel	7440-02-0	A	3.82E+01	7.30E+01	5.2E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	42TP3-125	INORG	Perchlorate	14797-73-0	NC	2.60E-03			3.4E+03	LT	7.5E-07	7.7E+02	LT	3.4E-06
Landbay D	42TP3-125	INORG	Strontium	7440-24-6		3.71E+01	3.80E+01	9.8E-01	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.5E-02
Landbay D	42TP3-125	INORG	Vanadium	7440-62-2	ID	8.40E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.4E-04	4.0E+02	EqP	2.1E-01
Landbay D	42TP3-125	INORG	Zinc	7440-66-6	ID	3.07E+01	1.02E+02	3.0E-01	5.5E+06	EqP	5.6E-06	1.9E+02	EqP	1.6E-01
Landbay D	42TP3-175	VOC	Toluene	108-88-3	ID	1.00E-03				NA		8.0E-01	LT	1.3E-03
Landbay D	42TP3-175	INORG	Aluminum	7429-90-5	ID	2.51E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.6E+00**
Landbay D	42TP3-175	INORG	Arsenic	7440-38-2	A	2.09E+00	9.90E+00	2.1E-01	1.1E+03	EqP	2.0E-03	8.6E+01	EqP	2.4E-02
Landbay D	42TP3-175	INORG	Barium	7440-39-3	NC	4.64E+01	2.24E+02	2.1E-01	3.2E+05	EqP	1.4E-04	3.3E+00	EqP	**1.4E+01**
Landbay D	42TP3-175	INORG	Beryllium	7440-41-7	B1	3.32E-01	1.20E+00	2.8E-01	6.8E+03	EqP	4.9E-05	1.0E+01	EqP	3.2E-02
Landbay D	42TP3-175	INORG	Cadmium	7440-43-9	B1	1.93E+00	2.70E+00	7.1E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.0E-01
Landbay D	42TP3-175	INORG	Chromium III	16065-83-1	D	1.17E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.5E-09	3.4E+06	EqP	3.5E-05
Landbay D	42TP3-175	INORG	Chromium VI	18540-29-9	A	9.30E-01	4.97E+00	1.9E-01	6.6E+01	LT	1.4E-02	4.4E+00	LT	2.1E-01
Landbay D	42TP3-175	INORG	Cobalt	7440-48-4	LC	3.37E+01	8.60E+01	3.9E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay D	42TP3-175	INORG	Copper	7440-50-8	D	5.39E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.4E+00**
Landbay D	42TP3-175	INORG	Iron	7439-89-6	D	5.10E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay D	42TP3-175	INORG	Lead	7439-92-1	B2	1.41E+00						3.5E+02	EqP	4.0E-03
Landbay D	42TP3-175	INORG	Manganese	7439-96-5	D	9.56E+02	4.27E+03	2.2E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.1E+00**
Landbay D	42TP3-175	INORG	Nickel	7440-02-0	A	5.20E+01	7.30E+01	7.1E-01	1.2E+05	EqP	4.2E-04	3.4E+01	EqP	**1.5E+00**
Landbay D	42TP3-175	INORG	Perchlorate	14797-73-0	NC	6.20E-04			3.4E+03	LT	1.8E-07	7.7E+02	LT	8.0E-07
Landbay D	42TP3-175	INORG	Strontium	7440-24-6		2.11E+01	3.80E+01	5.6E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay D	42TP3-175	INORG	Thallium	7440-28-0	ID	1.86E+00	4.50E+00	4.1E-01				1.1E+00	EqP	**1.6E+00**
Landbay D	42TP3-175	INORG	Vanadium	7440-62-2	ID	9.21E+01	2.83E+02	3.3E-01	1.5E+05	EqP	5.9E-04	4.0E+02	EqP	2.3E-01
Landbay D	42TP3-175	INORG	Zinc	7440-66-6	ID	4.33E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.9E-06	1.9E+02	EqP	2.3E-01
Landbay D	42TP3-227	INORG	Aluminum	7429-90-5	ID	4.31E+04	5.34E+04	8.1E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay D	42TP3-227	INORG	Barium	7440-39-3	NC	1.28E+02	2.24E+02	5.7E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay D	42TP3-227	INORG	Beryllium	7440-41-7	B1	2.66E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.6E-02
Landbay D	42TP3-227	INORG	Cadmium	7440-43-9	B1	8.77E-01	2.70E+00	3.2E-01	1.1E+03	EqP	8.1E-04	2.1E+00	EqP	4.1E-01
Landbay D	42TP3-227	INORG	Chromium III	16065-83-1	D	5.28E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay D	42TP3-227	INORG	Cobalt	7440-48-4	LC	2.00E+01	8.60E+01	2.3E-01	1.4E+04	EqP	1.5E-03	2.1E+01	EqP	9.6E-01
Landbay D	42TP3-227	INORG	Copper	7440-50-8	D	5.52E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay D	42TP3-227	INORG	Iron	7439-89-6	D	2.56E+04	9.52E+04	2.7E-01	4.4E+06	EqP	5.9E-03	1.5E+02	EqP	**1.7E+02**
Landbay D	42TP3-227	INORG	Lead	7439-92-1	B2	1.69E+00						3.5E+02	EqP	4.8E-03
Landbay D	42TP3-227	INORG	Manganese	7439-96-5	D	3.89E+02	4.27E+03	9.1E-02	3.1E+05	EqP	1.3E-03	1.6E+02	EqP	**2.5E+00**
Landbay D	42TP3-227	INORG	Nickel	7440-02-0	A	3.63E+01	7.30E+01	5.0E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	42TP3-227	INORG	Perchlorate	14797-73-0	NC	1.50E-01			3.4E+03	LT	4.4E-05	7.7E+02	LT	1.9E-04
Landbay D	42TP3-227	INORG	Strontium	7440-24-6		4.65E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.4E-02
Landbay D	42TP3-227	INORG	Vanadium	7440-62-2	ID	9.34E+01	2.83E+02	3.3E-01	1.5E+05	EqP	6.0E-04	4.0E+02	EqP	2.3E-01
Landbay D	42TP3-227	INORG	Zinc	7440-66-6	ID	2.62E+01	1.02E+02	2.6E-01	5.5E+06	EqP	4.8E-06	1.9E+02	EqP	1.4E-01
Landbay D	42TP3-75	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9.69E-01				NA		9.6E+03	EqP	1.0E-04
Landbay D	42TP3-75	INORG	Aluminum	7429-90-5	ID	3.20E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.7E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	42TP3-75	INORG	Arsenic	7440-38-2	A	1.64E+00	9.90E+00	1.7E-01	1.1E+03	EqP	1.6E-03	8.6E+01	EqP	1.9E-02
Landbay D	42TP3-75	INORG	Barium	7440-39-3	NC	9.06E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay D	42TP3-75	INORG	Beryllium	7440-41-7	B1	3.09E-01	1.20E+00	2.6E-01	6.8E+03	EqP	4.5E-05	1.0E+01	EqP	3.0E-02
Landbay D	42TP3-75	INORG	Cadmium	7440-43-9	B1	1.66E+00	2.70E+00	6.1E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.8E-01
Landbay D	42TP3-75	INORG	Chromium III	16065-83-1	D	9.55E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay D	42TP3-75	INORG	Chromium VI	18540-29-9	A	7.38E-01	4.97E+00	1.5E-01	6.6E+01	LT	1.1E-02	4.4E+00	LT	1.7E-01
Landbay D	42TP3-75	INORG	Cobalt	7440-48-4	LC	2.77E+01	8.60E+01	3.2E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay D	42TP3-75	INORG	Copper	7440-50-8	D	5.89E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay D	42TP3-75	INORG	Iron	7439-89-6	D	4.36E+04	9.52E+04	4.6E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay D	42TP3-75	INORG	Lead	7439-92-1	B2	1.33E+00						3.5E+02	EqP	3.8E-03
Landbay D	42TP3-75	INORG	Manganese	7439-96-5	D	6.07E+02	4.27E+03	1.4E-01	3.1E+05	EqP	2.0E-03	1.6E+02	EqP	**3.9E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	42TP3-75	INORG	Nickel	7440-02-0	A	4.86E+01	7.30E+01	6.7E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay D	42TP3-75	INORG	Perchlorate	14797-73-0	NC	2.70E+00			3.4E+03	LT	7.8E-04	7.7E+02	LT	3.5E-03
Landbay D	42TP3-75	INORG	Strontium	7440-24-6		3.38E+01	3.80E+01	8.9E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.2E-02
Landbay D	42TP3-75	INORG	Vanadium	7440-62-2	ID	9.24E+01	2.83E+02	3.3E-01	1.5E+05	EqP	6.0E-04	4.0E+02	EqP	2.3E-01
Landbay D	42TP3-75	INORG	Zinc	7440-66-6	ID	3.80E+01	1.02E+02	3.7E-01	5.5E+06	EqP	6.9E-06	1.9E+02	EqP	2.0E-01
Landbay D	42TP4-(-5)	INORG	Aluminum	7429-90-5	ID	4.18E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	42TP4-(-5)	INORG	Barium	7440-39-3	NC	3.68E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay D	42TP4-(-5)	INORG	Beryllium	7440-41-7	B1	1.67E-01	1.20E+00	1.4E-01	6.8E+03	EqP	2.5E-05	1.0E+01	EqP	1.6E-02
Landbay D	42TP4-(-5)	INORG	Cadmium	7440-43-9	B1	5.91E-01	2.70E+00	2.2E-01	1.1E+03	EqP	5.5E-04	2.1E+00	EqP	2.8E-01
Landbay D	42TP4-(-5)	INORG	Chromium III	16065-83-1	D	3.62E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.1E-05
Landbay D	42TP4-(-5)	INORG	Cobalt	7440-48-4	LC	1.60E+01	8.60E+01	1.9E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	7.7E-01
Landbay D	42TP4-(-5)	INORG	Copper	7440-50-8	D	7.01E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.3E+00**
Landbay D	42TP4-(-5)	INORG	Iron	7439-89-6	D	2.06E+04	9.52E+04	2.2E-01	4.4E+06	EqP	4.7E-03	1.5E+02	EqP	**1.4E+02**
Landbay D	42TP4-(-5)	INORG	Lead	7439-92-1	B2	1.34E+00						3.5E+02	EqP	3.8E-03
Landbay D	42TP4-(-5)	INORG	Manganese	7439-96-5	D	2.45E+02	4.27E+03	5.7E-02	3.1E+05	EqP	7.9E-04	1.6E+02	EqP	**1.6E+00**
Landbay D	42TP4-(-5)	INORG	Nickel	7440-02-0	A	3.18E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.4E-01
Landbay D	42TP4-(-5)	INORG	Perchlorate	14797-73-0	NC	1.20E-02			3.4E+03	LT	3.5E-06	7.7E+02	LT	1.6E-05
Landbay D	42TP4-(-5)	INORG	Strontium	7440-24-6		6.01E+01	3.80E+01	**1.6E+00**	1.6E+07	EqP	3.7E-06	1.1E+03	EqP	5.7E-02
Landbay D	42TP4-(-5)	INORG	Vanadium	7440-62-2	ID	7.86E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.1E-04	4.0E+02	EqP	2.0E-01
Landbay D	42TP4-(-5)	INORG	Zinc	7440-66-6	ID	2.20E+01	1.02E+02	2.2E-01	5.5E+06	EqP	4.0E-06	1.9E+02	EqP	1.2E-01
Landbay D	42TP5-138	VOC	Acetone	67-64-1	ID	2.00E-01			2.0E+06	LT	9.8E-08	6.0E+02	LT	3.3E-04
Landbay D	42TP5-138	VOC	2-Butanone	78-93-3	ID	1.50E-02			3.0E+05	LT	5.0E-08	5.6E+03	LT	2.7E-06
Landbay D	42TP5-138	VOC	Methyl Acetate	79-20-9		1.70E-02				NA		5.7E+05	LT	3.0E-08
Landbay D	42TP5-138	SVOC	Benzo(a)anthracene	56-55-3	B2	1.40E-01				NA		2.9E-01	EqP	4.8E-01
Landbay D	42TP5-138	SVOC	Benzo(a)pyrene	50-32-8	B2	9.10E-02				NA		4.8E-01	EqP	1.9E-01
Landbay D	42TP5-138	SVOC	Benzo(b)fluoranthene	205-99-2	B2	1.50E-01				NA			NA	
Landbay D	42TP5-138	SVOC	Benzo(g,h,i)perylene	191-24-2	D	6.50E-02				NA			NA	
Landbay D	42TP5-138	SVOC	Benzo(k)fluoranthene	207-08-9	B2	5.50E-02				NA			NA	
Landbay D	42TP5-138	SVOC	Chrysene	218-01-9	B2	1.50E-01				NA			NA	
Landbay D	42TP5-138	SVOC	Fluoranthene	206-44-0	D	2.50E-01				NA		1.7E-01	EqP	**1.4E+00**
Landbay D	42TP5-138	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	4.70E-02				NA			NA	
Landbay D	42TP5-138	SVOC	Phenanthrene	85-01-8	D	9.80E-02				NA		3.9E-01	EqP	2.5E-01
Landbay D	42TP5-138	SVOC	Pyrene	129-00-0	NC	3.20E-01				NA		1.1E-01	EqP	**3.0E+00**
Landbay D	42TP5-138	INORG	Aluminum	7429-90-5	ID	2.95E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	42TP5-138	INORG	Antimony	7440-36-0	ID	1.53E+00	1.70E+00	9.0E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.6E-02
Landbay D	42TP5-138	INORG	Arsenic	7440-38-2	A	6.91E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay D	42TP5-138	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay D	42TP5-138	INORG	Beryllium	7440-41-7	B1	7.44E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay D	42TP5-138	INORG	Cadmium	7440-43-9	B1	6.12E+00	2.70E+00	**2.3E+00**	1.1E+03	EqP	5.7E-03	2.1E+00	EqP	**2.9E+00**
Landbay D	42TP5-138	INORG	Chromium III	16065-83-1	D	1.10E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.1E-09	3.4E+06	EqP	3.2E-05
Landbay D	42TP5-138	INORG	Chromium VI	18540-29-9	A	2.50E+00	4.97E+00	5.0E-01	6.6E+01	LT	3.8E-02	4.4E+00	LT	5.7E-01
Landbay D	42TP5-138	INORG	Cobalt	7440-48-4	LC	4.94E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay D	42TP5-138	INORG	Copper	7440-50-8	D	5.90E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay D	42TP5-138	INORG	Iron	7439-89-6	D	7.85E+04	9.52E+04	8.2E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.2E+02**
Landbay D	42TP5-138	INORG	Lead	7439-92-1	B2	6.93E+01						3.5E+02	EqP	2.0E-01
Landbay D	42TP5-138	INORG	Manganese	7439-96-5	D	2.17E+03	4.27E+03	5.1E-01	3.1E+05	EqP	7.0E-03	1.6E+02	EqP	**1.4E+01**
Landbay D	42TP5-138	INORG	Mercury	7439-97-6	D	1.52E-02	7.10E-02	2.1E-01		NA		3.7E-01	EqP	4.1E-02
Landbay D	42TP5-138	INORG	Nickel	7440-02-0	A	3.09E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay D	42TP5-138	INORG	Perchlorate	14797-73-0	NC	2.20E-03			3.4E+03	LT	6.4E-07	7.7E+02	LT	2.8E-06
Landbay D	42TP5-138	INORG	Selenium	7782-49-2	D	2.59E+00	2.50E+00	1.0E+00	2.5E+04	LT	1.1E-04	2.0E+00	LT	**1.3E+00**
Landbay D	42TP5-138	INORG	Silver	7440-22-4	D	2.37E-01	2.30E+00	1.0E-01	3.8E+03	LT	6.3E-05	2.7E+00	LT	8.9E-02
Landbay D	42TP5-138	INORG	Strontium	7440-24-6		1.77E+01	3.80E+01	4.7E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay D	42TP5-138	INORG	Vanadium	7440-62-2	ID	2.17E+02	2.83E+02	7.7E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.4E-01
Landbay D	42TP5-138	INORG	Zinc	7440-66-6	ID	3.95E+02	1.02E+02	**3.9E+00**	5.5E+06	EqP	7.2E-05	1.9E+02	EqP	**2.1E+00**
Landbay D	42TP5-150	VOC	Acetone	67-64-1	ID	2.80E-02			2.0E+06	LT	1.4E-08	6.0E+02	LT	4.7E-05
Landbay D	42TP5-150	INORG	Aluminum	7429-90-5	ID	3.17E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	42TP5-150	INORG	Arsenic	7440-38-2	A	6.37E+00	9.90E+00	6.4E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.4E-02
Landbay D	42TP5-150	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay D	42TP5-150	INORG	Beryllium	7440-41-7	B1	6.66E-01	1.20E+00	5.6E-01	6.8E+03	EqP	9.8E-05	1.0E+01	EqP	6.4E-02
Landbay D	42TP5-150	INORG	Boron	7440-42-8	ID	3.33E+00	1.34E+01	2.5E-01	9.9E+05	LT	3.4E-06	6.4E-01	LT	**5.2E+00**
Landbay D	42TP5-150	INORG	Chromium III	16065-83-1	D	9.94E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	2.9E-05
Landbay D	42TP5-150	INORG	Chromium VI	18540-29-9	A	1.60E+00	4.97E+00	3.2E-01	6.6E+01	LT	2.4E-02	4.4E+00	LT	3.6E-01
Landbay D	42TP5-150	INORG	Cobalt	7440-48-4	LC	3.45E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.7E+00**
Landbay D	42TP5-150	INORG	Copper	7440-50-8	D	2.90E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.4E-05	8.4E+00	EqP	**3.5E+00**
Landbay D	42TP5-150	INORG	Iron	7439-89-6	D	5.96E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay D	42TP5-150	INORG	Lead	7439-92-1	B2	1.93E+01						3.5E+02	EqP	5.5E-02
Landbay D	42TP5-150	INORG	Manganese	7439-96-5	D	1.65E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.3E-03	1.6E+02	EqP	**1.1E+01**
Landbay D	42TP5-150	INORG	Mercury	7439-97-6	D	2.91E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.9E-02
Landbay D	42TP5-150	INORG	Nickel	7440-02-0	A	2.05E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.1E-01
Landbay D	42TP5-150	INORG	Perchlorate	14797-73-0	NC	2.60E-03			3.4E+03	LT	7.5E-07	7.7E+02	LT	3.4E-06
Landbay D	42TP5-150	INORG	Strontium	7440-24-6		1.65E+01	3.80E+01	4.3E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay D	42TP5-150	INORG	Thallium	7440-28-0	ID	2.32E+00	4.50E+00	5.2E-01				1.1E+00	EqP	**2.0E+00**
Landbay D	42TP5-150	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay D	42TP5-150	INORG	Zinc	7440-66-6	ID	5.03E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.2E-06	1.9E+02	EqP	2.6E-01
Landbay D	42TP5-200	VOC	Acetone	67-64-1	ID	4.40E-01			2.0E+06	LT	2.2E-07	6.0E+02	LT	7.3E-04
Landbay D	42TP5-200	VOC	Bromomethane	74-83-9	ID	1.00E-02			2.1E+02	LT	4.7E-05	6.4E+00	LT	1.6E-03
Landbay D	42TP5-200	VOC	2-Butanone	78-93-3	ID	1.80E-02			3.0E+05	LT	6.0E-08	5.6E+03	LT	3.2E-06
Landbay D	42TP5-200	VOC	Chloromethane	74-87-3	D	1.70E-02			5.9E+03	LT	2.9E-06	2.5E+04	LT	6.9E-07
Landbay D	42TP5-200	VOC	Methyl Acetate	79-20-9		2.80E-02				NA		5.7E+05	LT	4.9E-08
Landbay D	42TP5-200	VOC	Toluene	108-88-3	ID	2.00E-03				NA		8.0E-01	LT	2.5E-03
Landbay D	42TP5-200	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.40E+00				NA		9.6E+03	EqP	1.5E-04
Landbay D	42TP5-200	SVOC	Di-n-butylphthalate	84-74-2	D	2.60E-01				NA		2.6E+01	EqP	1.0E-02
Landbay D	42TP5-200	INORG	Aluminum	7429-90-5	ID	2.83E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	42TP5-200	INORG	Arsenic	7440-38-2	A	6.00E+00	9.90E+00	6.1E-01	1.1E+03	EqP	5.7E-03	8.6E+01	EqP	7.0E-02
Landbay D	42TP5-200	INORG	Barium	7440-39-3	NC	1.23E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay D	42TP5-200	INORG	Beryllium	7440-41-7	B1	7.51E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay D	42TP5-200	INORG	Boron	7440-42-8	ID	3.34E+00	1.34E+01	2.5E-01	9.9E+05	LT	3.4E-06	6.4E-01	LT	**5.2E+00**
Landbay D	42TP5-200	INORG	Cadmium	7440-43-9	B1	6.84E-01	2.70E+00	2.5E-01	1.1E+03	EqP	6.3E-04	2.1E+00	EqP	3.2E-01
Landbay D	42TP5-200	INORG	Chromium III	16065-83-1	D	7.44E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay D	42TP5-200	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.0E-01
Landbay D	42TP5-200	INORG	Cobalt	7440-48-4	LC	5.60E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay D	42TP5-200	INORG	Copper	7440-50-8	D	4.49E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.3E+00**
Landbay D	42TP5-200	INORG	Iron	7439-89-6	D	6.51E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay D	42TP5-200	INORG	Lead	7439-92-1	B2	2.93E+01						3.5E+02	EqP	8.4E-02
Landbay D	42TP5-200	INORG	Manganese	7439-96-5	D	2.10E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	42TP5-200	INORG	Mercury	7439-97-6	D	3.80E-02	7.10E-02	5.4E-01		NA		3.7E-01	EqP	1.0E-01
Landbay D	42TP5-200	INORG	Nickel	7440-02-0	A	2.15E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.4E-01
Landbay D	42TP5-200	INORG	Perchlorate	14797-73-0	NC	2.60E-03			3.4E+03	LT	7.5E-07	7.7E+02	LT	3.4E-06
Landbay D	42TP5-200	INORG	Silver	7440-22-4	D	3.48E-01	2.30E+00	1.5E-01	3.8E+03	LT	9.3E-05	2.7E+00	LT	1.3E-01
Landbay D	42TP5-200	INORG	Strontium	7440-24-6		1.76E+01	3.80E+01	4.6E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay D	42TP5-200	INORG	Thallium	7440-28-0	ID	2.87E+00	4.50E+00	6.4E-01				1.1E+00	EqP	**2.5E+00**
Landbay D	42TP5-200	INORG	Vanadium	7440-62-2	ID	2.44E+02	2.83E+02	8.6E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay D	42TP5-200	INORG	Zinc	7440-66-6	ID	7.31E+01	1.02E+02	7.2E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	42TP5-25	VOC	Acetone	67-64-1	ID	2.50E-02			2.0E+06	LT	1.2E-08	6.0E+02	LT	4.2E-05
Landbay D	42TP5-25	VOC	Methyl Acetate	79-20-9		4.00E-03				NA		5.7E+05	LT	7.0E-09
Landbay D	42TP5-25	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	8.50E-02				NA		9.6E+03	EqP	8.9E-06
Landbay D	42TP5-25	PCB	PCBs (total)	1336-36-3	B2	2.28E-01				NA		1.4E+00	EqP	1.7E-01
Landbay D	42TP5-25	INORG	Aluminum	7429-90-5	ID	3.51E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	42TP5-25	INORG	Arsenic	7440-38-2	A	1.90E+00	9.90E+00	1.9E-01	1.1E+03	EqP	1.8E-03	8.6E+01	EqP	2.2E-02
Landbay D	42TP5-25	INORG	Barium	7440-39-3	NC	7.37E+01	2.24E+02	3.3E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.2E+01**
Landbay D	42TP5-25	INORG	Beryllium	7440-41-7	B1	2.04E-01	1.20E+00	1.7E-01	6.8E+03	EqP	3.0E-05	1.0E+01	EqP	2.0E-02
Landbay D	42TP5-25	INORG	Cadmium	7440-43-9	B1	5.41E-01	2.70E+00	2.0E-01	1.1E+03	EqP	5.0E-04	2.1E+00	EqP	2.5E-01
Landbay D	42TP5-25	INORG	Chromium III	16065-83-1	D	4.80E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay D	42TP5-25	INORG	Cobalt	7440-48-4	LC	1.48E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.1E-03	2.1E+01	EqP	7.1E-01
Landbay D	42TP5-25	INORG	Copper	7440-50-8	D	6.14E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.3E+00**
Landbay D	42TP5-25	INORG	Iron	7439-89-6	D	2.11E+04	9.52E+04	2.2E-01	4.4E+06	EqP	4.8E-03	1.5E+02	EqP	**1.4E+02**
Landbay D	42TP5-25	INORG	Lead	7439-92-1	B2	1.86E+00						3.5E+02	EqP	5.3E-03
Landbay D	42TP5-25	INORG	Manganese	7439-96-5	D	2.31E+02	4.27E+03	5.4E-02	3.1E+05	EqP	7.4E-04	1.6E+02	EqP	**1.5E+00**
Landbay D	42TP5-25	INORG	Nickel	7440-02-0	A	2.80E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay D	42TP5-25	INORG	Perchlorate	14797-73-0	NC	3.70E-04			3.4E+03	LT	1.1E-07	7.7E+02	LT	4.8E-07
Landbay D	42TP5-25	INORG	Strontium	7440-24-6		5.50E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.4E-06	1.1E+03	EqP	5.2E-02
Landbay D	42TP5-25	INORG	Vanadium	7440-62-2	ID	9.50E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay D	42TP5-25	INORG	Zinc	7440-66-6	ID	2.13E+01	1.02E+02	2.1E-01	5.5E+06	EqP	3.9E-06	1.9E+02	EqP	1.1E-01
Landbay D	42TP5-75	VOC	Acetone	67-64-1	ID	4.40E-02			2.0E+06	LT	2.2E-08	6.0E+02	LT	7.3E-05
Landbay D	42TP5-75	VOC	Methyl Acetate	79-20-9		3.00E-03				NA		5.7E+05	LT	5.3E-09
Landbay D	42TP5-75	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.00E-01				NA		9.6E+03	EqP	2.1E-05
Landbay D	42TP5-75	INORG	Aluminum	7429-90-5	ID	4.43E+04	5.34E+04	8.3E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay D	42TP5-75	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay D	42TP5-75	INORG	Barium	7440-39-3	NC	1.96E+02	2.24E+02	8.8E-01	3.2E+05	EqP	6.1E-04	3.3E+00	EqP	**5.9E+01**
Landbay D	42TP5-75	INORG	Beryllium	7440-41-7	B1	7.20E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay D	42TP5-75	INORG	Cadmium	7440-43-9	B1	1.72E+00	2.70E+00	6.4E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay D	42TP5-75	INORG	Chromium III	16065-83-1	D	1.49E+02	2.61E+02	5.7E-01	2.1E+10	EqP	7.0E-09	3.4E+06	EqP	4.4E-05
Landbay D	42TP5-75	INORG	Chromium VI	18540-29-9	A	2.60E+00	4.97E+00	5.2E-01	6.6E+01	LT	3.9E-02	4.4E+00	LT	5.9E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	42TP5-75	INORG	Cobalt	7440-48-4	LC	7.93E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay D	42TP5-75	INORG	Copper	7440-50-8	D	6.19E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.4E+00**
Landbay D	42TP5-75	INORG	Iron	7439-89-6	D	5.66E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay D	42TP5-75	INORG	Lead	7439-92-1	B2	4.16E+01						3.5E+02	EqP	1.2E-01
Landbay D	42TP5-75	INORG	Manganese	7439-96-5	D	2.39E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay D	42TP5-75	INORG	Nickel	7440-02-0	A	9.64E+01	7.30E+01	**1.3E+00**	1.2E+05	EqP	7.8E-04	3.4E+01	EqP	**2.9E+00**
Landbay D	42TP5-75	INORG	Perchlorate	14797-73-0	NC	2.70E-02			3.4E+03	LT	7.8E-06	7.7E+02	LT	3.5E-05
Landbay D	42TP5-75	INORG	Selenium	7782-49-2	D	1.70E+00	2.50E+00	6.8E-01	2.5E+04	LT	6.9E-05	2.0E+00	LT	8.5E-01
Landbay D	42TP5-75	INORG	Strontium	7440-24-6		3.25E+01	3.80E+01	8.6E-01	1.6E+07	EqP	2.0E-06	1.1E+03	EqP	3.1E-02
Landbay D	42TP5-75	INORG	Vanadium	7440-62-2	ID	1.77E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.4E-01
Landbay D	42TP5-75	INORG	Zinc	7440-66-6	ID	9.13E+01	1.02E+02	9.0E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.8E-01
Landbay D	42TP6-125	VOC	Acetone	67-64-1	ID	2.30E-01			2.0E+06	LT	1.1E-07	6.0E+02	LT	3.8E-04
Landbay D	42TP6-125	VOC	2-Butanone	78-93-3	ID	1.05E-02			3.0E+05	LT	3.5E-08	5.6E+03	LT	1.9E-06
Landbay D	42TP6-125	VOC	Methyl Acetate	79-20-9		1.70E-02				NA		5.7E+05	LT	3.0E-08
Landbay D	42TP6-125	PCB	PCBs (total)	1336-36-3	B2	1.62E+00				NA		1.4E+00	EqP	**1.2E+00**
Landbay D	42TP6-125	INORG	Aluminum	7429-90-5	ID	2.23E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay D	42TP6-125	INORG	Arsenic	7440-38-2	A	5.27E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	42TP6-125	INORG	Barium	7440-39-3	NC	1.09E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay D	42TP6-125	INORG	Beryllium	7440-41-7	B1	5.99E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.8E-05	1.0E+01	EqP	5.7E-02
Landbay D	42TP6-125	INORG	Boron	7440-42-8	ID	1.87E+00	1.34E+01	1.4E-01	9.9E+05	LT	1.9E-06	6.4E-01	LT	**2.9E+00**
Landbay D	42TP6-125	INORG	Chromium III	16065-83-1	D	7.56E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay D	42TP6-125	INORG	Chromium VI	18540-29-9	A	2.95E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay D	42TP6-125	INORG	Cobalt	7440-48-4	LC	3.67E+01	8.60E+01	4.3E-01	1.4E+04	EqP	2.7E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	42TP6-125	INORG	Copper	7440-50-8	D	1.88E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay D	42TP6-125	INORG	Iron	7439-89-6	D	4.56E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay D	42TP6-125	INORG	Lead	7439-92-1	B2	1.92E+01						3.5E+02	EqP	5.5E-02
Landbay D	42TP6-125	INORG	Manganese	7439-96-5	D	2.40E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay D	42TP6-125	INORG	Mercury	7439-97-6	D	2.68E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.2E-02
Landbay D	42TP6-125	INORG	Nickel	7440-02-0	A	1.48E+01	7.30E+01	2.0E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.4E-01
Landbay D	42TP6-125	INORG	Perchlorate	14797-73-0	NC	1.25E-03			3.4E+03	LT	3.6E-07	7.7E+02	LT	1.6E-06
Landbay D	42TP6-125	INORG	Strontium	7440-24-6		1.13E+01	3.80E+01	3.0E-01	1.6E+07	EqP	6.9E-07	1.1E+03	EqP	1.1E-02
Landbay D	42TP6-125	INORG	Thallium	7440-28-0	ID	2.07E+00	4.50E+00	4.6E-01				1.1E+00	EqP	**1.8E+00**
Landbay D	42TP6-125	INORG	Vanadium	7440-62-2	ID	1.35E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.7E-04	4.0E+02	EqP	3.4E-01
Landbay D	42TP6-125	INORG	Zinc	7440-66-6	ID	4.67E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.5E-06	1.9E+02	EqP	2.5E-01
Landbay D	42TP6-175	VOC	Acetone	67-64-1	ID	3.70E-02			2.0E+06	LT	1.8E-08	6.0E+02	LT	6.2E-05
Landbay D	42TP6-175	INORG	Aluminum	7429-90-5	ID	5.13E+04	5.34E+04	9.6E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay D	42TP6-175	INORG	Arsenic	7440-38-2	A	2.53E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.4E-03	8.6E+01	EqP	2.9E-02
Landbay D	42TP6-175	INORG	Barium	7440-39-3	NC	1.66E+02	2.24E+02	7.4E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay D	42TP6-175	INORG	Beryllium	7440-41-7	B1	5.99E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.8E-05	1.0E+01	EqP	5.7E-02
Landbay D	42TP6-175	INORG	Boron	7440-42-8	ID	2.02E+00	1.34E+01	1.5E-01	9.9E+05	LT	2.1E-06	6.4E-01	LT	**3.2E+00**
Landbay D	42TP6-175	INORG	Chromium III	16065-83-1	D	1.34E+02	2.61E+02	5.1E-01	2.1E+10	EqP	6.3E-09	3.4E+06	EqP	4.0E-05
Landbay D	42TP6-175	INORG	Cobalt	7440-48-4	LC	4.46E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.1E+00**
Landbay D	42TP6-175	INORG	Copper	7440-50-8	D	4.71E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.6E+00**
Landbay D	42TP6-175	INORG	Iron	7439-89-6	D	5.52E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay D	42TP6-175	INORG	Lead	7439-92-1	B2	8.70E+00						3.5E+02	EqP	2.5E-02
Landbay D	42TP6-175	INORG	Manganese	7439-96-5	D	1.14E+03	4.27E+03	2.7E-01	3.1E+05	EqP	3.7E-03	1.6E+02	EqP	**7.3E+00**
Landbay D	42TP6-175	INORG	Mercury	7439-97-6	D	2.02E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.5E-02
Landbay D	42TP6-175	INORG	Nickel	7440-02-0	A	4.76E+01	7.30E+01	6.5E-01	1.2E+05	EqP	3.8E-04	3.4E+01	EqP	**1.4E+00**
Landbay D	42TP6-175	INORG	Perchlorate	14797-73-0	NC	4.50E-04			3.4E+03	LT	1.3E-07	7.7E+02	LT	5.8E-07
Landbay D	42TP6-175	INORG	Strontium	7440-24-6		2.79E+01	3.80E+01	7.3E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay D	42TP6-175	INORG	Vanadium	7440-62-2	ID	1.76E+02	2.83E+02	6.2E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.4E-01
Landbay D	42TP6-175	INORG	Zinc	7440-66-6	ID	3.31E+01	1.02E+02	3.2E-01	5.5E+06	EqP	6.1E-06	1.9E+02	EqP	1.7E-01
Landbay D	42TP6-185	INORG	Aluminum	7429-90-5	ID	3.45E+04	5.34E+04	6.5E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	42TP6-185	INORG	Arsenic	7440-38-2	A	7.29E+00	9.90E+00	7.4E-01	1.1E+03	EqP	6.9E-03	8.6E+01	EqP	8.5E-02
Landbay D	42TP6-185	INORG	Barium	7440-39-3	NC	2.10E+02	2.24E+02	9.4E-01	3.2E+05	EqP	6.5E-04	3.3E+00	EqP	**6.4E+01**
Landbay D	42TP6-185	INORG	Beryllium	7440-41-7	B1	8.19E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay D	42TP6-185	INORG	Boron	7440-42-8	ID	2.76E+00	1.34E+01	2.1E-01	9.9E+05	LT	2.8E-06	6.4E-01	LT	**4.3E+00**
Landbay D	42TP6-185	INORG	Cadmium	7440-43-9	B1	8.59E-01	2.70E+00	3.2E-01	1.1E+03	EqP	7.9E-04	2.1E+00	EqP	4.0E-01
Landbay D	42TP6-185	INORG	Chromium III	16065-83-1	D	2.27E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.7E-05
Landbay D	42TP6-185	INORG	Chromium VI	18540-29-9	A	2.40E+00	4.97E+00	4.8E-01	6.6E+01	LT	3.6E-02	4.4E+00	LT	5.5E-01
Landbay D	42TP6-185	INORG	Cobalt	7440-48-4	LC	1.52E+02	8.60E+01	**1.8E+00**	1.4E+04	EqP	1.1E-02	2.1E+01	EqP	**7.3E+00**
Landbay D	42TP6-185	INORG	Copper	7440-50-8	D	2.63E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.6E-05	8.4E+00	EqP	**3.1E+00**
Landbay D	42TP6-185	INORG	Iron	7439-89-6	D	9.30E+04	9.52E+04	9.8E-01	4.4E+06	EqP	2.1E-02	1.5E+02	EqP	**6.1E+02**
Landbay D	42TP6-185	INORG	Lead	7439-92-1	B2	3.15E+01						3.5E+02	EqP	9.0E-02
Landbay D	42TP6-185	INORG	Manganese	7439-96-5	D	5.93E+03	4.27E+03	**1.4E+00**	3.1E+05	EqP	1.9E-02	1.6E+02	EqP	**3.8E+01**
Landbay D	42TP6-185	INORG	Mercury	7439-97-6	D	4.00E-02	7.10E-02	5.6E-01		NA		3.7E-01	EqP	1.1E-01
Landbay D	42TP6-185	INORG	Nickel	7440-02-0	A	3.00E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.9E-01
Landbay D	42TP6-185	INORG	Perchlorate	14797-73-0	NC	4.50E-03			3.4E+03	LT	1.3E-06	7.7E+02	LT	5.8E-06
Landbay D	42TP6-185	INORG	Silver	7440-22-4	D	2.91E-01	2.30E+00	1.3E-01	3.8E+03	LT	7.8E-05	2.7E+00	LT	1.1E-01
Landbay D	42TP6-185	INORG	Strontium	7440-24-6		1.23E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.6E-07	1.1E+03	EqP	1.2E-02
Landbay D	42TP6-185	INORG	Thallium	7440-28-0	ID	4.14E+00	4.50E+00	9.2E-01				1.1E+00	EqP	**3.6E+00**
Landbay D	42TP6-185	INORG	Vanadium	7440-62-2	ID	3.37E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.2E-03	4.0E+02	EqP	8.4E-01
Landbay D	42TP6-185	INORG	Zinc	7440-66-6	ID	4.90E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay D	42TP6-200	INORG	Aluminum	7429-90-5	ID	4.21E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	42TP6-200	INORG	Barium	7440-39-3	NC	9.37E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	42TP6-200	INORG	Beryllium	7440-41-7	B1	2.23E-01	1.20E+00	1.9E-01	6.8E+03	EqP	3.3E-05	1.0E+01	EqP	2.1E-02
Landbay D	42TP6-200	INORG	Boron	7440-42-8	ID	5.39E-01	1.34E+01	4.0E-02	9.9E+05	LT	5.5E-07	6.4E-01	LT	8.4E-01
Landbay D	42TP6-200	INORG	Chromium III	16065-83-1	D	5.16E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay D	42TP6-200	INORG	Cobalt	7440-48-4	LC	1.87E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.0E-01
Landbay D	42TP6-200	INORG	Copper	7440-50-8	D	5.91E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay D	42TP6-200	INORG	Iron	7439-89-6	D	2.65E+04	9.52E+04	2.8E-01	4.4E+06	EqP	6.1E-03	1.5E+02	EqP	**1.7E+02**
Landbay D	42TP6-200	INORG	Lead	7439-92-1	B2	2.05E+00						3.5E+02	EqP	5.8E-03
Landbay D	42TP6-200	INORG	Manganese	7439-96-5	D	3.75E+02	4.27E+03	8.8E-02	3.1E+05	EqP	1.2E-03	1.6E+02	EqP	**2.4E+00**
Landbay D	42TP6-200	INORG	Nickel	7440-02-0	A	3.42E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay D	42TP6-200	INORG	Strontium	7440-24-6		5.30E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.3E-06	1.1E+03	EqP	5.0E-02
Landbay D	42TP6-200	INORG	Vanadium	7440-62-2	ID	8.97E+01	2.83E+02	3.2E-01	1.5E+05	EqP	5.8E-04	4.0E+02	EqP	2.2E-01
Landbay D	42TP6-200	INORG	Zinc	7440-66-6	ID	2.55E+01	1.02E+02	2.5E-01	5.5E+06	EqP	4.7E-06	1.9E+02	EqP	1.3E-01
Landbay D	42TP6-215	INORG	Aluminum	7429-90-5	ID	3.16E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	42TP6-215	INORG	Barium	7440-39-3	NC	6.51E+01	2.24E+02	2.9E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**2.0E+01**
Landbay D	42TP6-215	INORG	Beryllium	7440-41-7	B1	1.79E-01	1.20E+00	1.5E-01	6.8E+03	EqP	2.6E-05	1.0E+01	EqP	1.7E-02
Landbay D	42TP6-215	INORG	Boron	7440-42-8	ID	8.34E-01	1.34E+01	6.2E-02	9.9E+05	LT	8.5E-07	6.4E-01	LT	**1.3E+00**
Landbay D	42TP6-215	INORG	Chromium III	16065-83-1	D	4.15E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay D	42TP6-215	INORG	Cobalt	7440-48-4	LC	1.39E+01	8.60E+01	1.6E-01	1.4E+04	EqP	1.0E-03	2.1E+01	EqP	6.7E-01
Landbay D	42TP6-215	INORG	Copper	7440-50-8	D	4.43E+01	1.31E+02	3.4E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.3E+00**
Landbay D	42TP6-215	INORG	Iron	7439-89-6	D	2.13E+04	9.52E+04	2.2E-01	4.4E+06	EqP	4.9E-03	1.5E+02	EqP	**1.4E+02**
Landbay D	42TP6-215	INORG	Lead	7439-92-1	B2	2.14E+00						3.5E+02	EqP	6.1E-03
Landbay D	42TP6-215	INORG	Manganese	7439-96-5	D	1.71E+02	4.27E+03	4.0E-02	3.1E+05	EqP	5.5E-04	1.6E+02	EqP	**1.1E+00**
Landbay D	42TP6-215	INORG	Nickel	7440-02-0	A	2.48E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.3E-01
Landbay D	42TP6-215	INORG	Strontium	7440-24-6		4.67E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.4E-02
Landbay D	42TP6-215	INORG	Vanadium	7440-62-2	ID	6.57E+01	2.83E+02	2.3E-01	1.5E+05	EqP	4.2E-04	4.0E+02	EqP	1.6E-01
Landbay D	42TP6-215	INORG	Zinc	7440-66-6	ID	2.17E+01	1.02E+02	2.1E-01	5.5E+06	EqP	4.0E-06	1.9E+02	EqP	1.1E-01
Landbay D	42TP6-75	VOC	Acetone	67-64-1	ID	8.80E-02			2.0E+06	LT	4.3E-08	6.0E+02	LT	1.5E-04
Landbay D	42TP6-75	VOC	Methyl Acetate	79-20-9		3.00E-03				NA		5.7E+05	LT	5.3E-09
Landbay D	42TP6-75	INORG	Aluminum	7429-90-5	ID	6.97E+04	5.34E+04	**1.3E+00**	3.7E+08	EqP	1.9E-04	2.6E+03	EqP	**2.7E+01**
Landbay D	42TP6-75	INORG	Arsenic	7440-38-2	A	3.97E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.6E-02
Landbay D	42TP6-75	INORG	Barium	7440-39-3	NC	1.99E+02	2.24E+02	8.9E-01	3.2E+05	EqP	6.2E-04	3.3E+00	EqP	**6.0E+01**
Landbay D	42TP6-75	INORG	Beryllium	7440-41-7	B1	8.74E-01	1.20E+00	7.3E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.4E-02
Landbay D	42TP6-75	INORG	Boron	7440-42-8	ID	3.99E+00	1.34E+01	3.0E-01	9.9E+05	LT	4.1E-06	6.4E-01	LT	**6.2E+00**
Landbay D	42TP6-75	INORG	Chromium III	16065-83-1	D	1.80E+02	2.61E+02	6.9E-01	2.1E+10	EqP	8.4E-09	3.4E+06	EqP	5.3E-05
Landbay D	42TP6-75	INORG	Chromium VI	18540-29-9	A	1.50E+00	4.97E+00	3.0E-01	6.6E+01	LT	2.3E-02	4.4E+00	LT	3.4E-01
Landbay D	42TP6-75	INORG	Cobalt	7440-48-4	LC	4.99E+01	8.60E+01	5.8E-01	1.4E+04	EqP	3.6E-03	2.1E+01	EqP	**2.4E+00**
Landbay D	42TP6-75	INORG	Copper	7440-50-8	D	5.63E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay D	42TP6-75	INORG	Iron	7439-89-6	D	6.63E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay D	42TP6-75	INORG	Lead	7439-92-1	B2	1.06E+01						3.5E+02	EqP	3.0E-02
Landbay D	42TP6-75	INORG	Manganese	7439-96-5	D	1.26E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**8.0E+00**
Landbay D	42TP6-75	INORG	Mercury	7439-97-6	D	2.62E-02	7.10E-02	3.7E-01		NA		3.7E-01	EqP	7.1E-02
Landbay D	42TP6-75	INORG	Nickel	7440-02-0	A	6.35E+01	7.30E+01	8.7E-01	1.2E+05	EqP	5.1E-04	3.4E+01	EqP	**1.9E+00**
Landbay D	42TP6-75	INORG	Perchlorate	14797-73-0	NC	2.00E-03			3.4E+03	LT	5.8E-07	7.7E+02	LT	2.6E-06
Landbay D	42TP6-75	INORG	Strontium	7440-24-6		2.15E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.0E-02
Landbay D	42TP6-75	INORG	Thallium	7440-28-0	ID	3.06E+00	4.50E+00	6.8E-01				1.1E+00	EqP	**2.7E+00**
Landbay D	42TP6-75	INORG	Vanadium	7440-62-2	ID	1.90E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.7E-01
Landbay D	42TP6-75	INORG	Zinc	7440-66-6	ID	5.10E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.3E-06	1.9E+02	EqP	2.7E-01
Landbay D	4350-0950	INORG	Aluminum	7429-90-5	ID	3.13E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	4350-0950	INORG	Antimony	7440-36-0	ID	2.03E+00	1.70E+00	**1.2E+00**	1.4E+03	EqP	1.5E-03	2.7E+01	EqP	7.5E-02
Landbay D	4350-0950	INORG	Arsenic	7440-38-2	A	7.37E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.6E-02
Landbay D	4350-0950	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	4350-0950	INORG	Beryllium	7440-41-7	B1	6.06E-01	1.20E+00	5.1E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay D	4350-0950	INORG	Cadmium	7440-43-9	B1	5.14E-01	2.70E+00	1.9E-01	1.1E+03	EqP	4.7E-04	2.1E+00	EqP	2.4E-01
Landbay D	4350-0950	INORG	Chromium III	16065-83-1	D	2.28E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.8E-05
Landbay D	4350-0950	INORG	Cobalt	7440-48-4	LC	8.16E+01	8.60E+01	9.5E-01	1.4E+04	EqP	5.9E-03	2.1E+01	EqP	**3.9E+00**
Landbay D	4350-0950	INORG	Copper	7440-50-8	D	2.76E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	4350-0950	INORG	Iron	7439-89-6	D	6.00E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay D	4350-0950	INORG	Lead	7439-92-1	B2	2.72E+01						3.5E+02	EqP	7.8E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	4350-0950	INORG	Manganese	7439-96-5	D	2.84E+03	4.27E+03	6.7E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay D	4350-0950	INORG	Mercury	7439-97-6	D	5.66E-02	7.10E-02	8.0E-01		NA		3.7E-01	EqP	1.5E-01
Landbay D	4350-0950	INORG	Nickel	7440-02-0	A	3.75E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	4350-0950	INORG	Selenium	7782-49-2	D	1.61E+00	2.50E+00	6.4E-01	2.5E+04	LT	6.5E-05	2.0E+00	LT	8.1E-01
Landbay D	4350-0950	INORG	Strontium	7440-24-6		1.35E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.3E-07	1.1E+03	EqP	1.3E-02
Landbay D	4350-0950	INORG	Vanadium	7440-62-2	ID	2.21E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay D	4350-0950	INORG	Zinc	7440-66-6	ID	7.85E+01	1.02E+02	7.7E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay D	4350-1100	PCB	PCBs (total)	1336-36-3	B2	2.01E-02				NA		1.4E+00	EqP	1.5E-02
Landbay D	4350-1100	INORG	Aluminum	7429-90-5	ID	2.49E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.5E+00**
Landbay D	4350-1100	INORG	Antimony	7440-36-0	ID	1.80E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.6E-02
Landbay D	4350-1100	INORG	Arsenic	7440-38-2	A	5.21E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	4350-1100	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay D	4350-1100	INORG	Beryllium	7440-41-7	B1	5.92E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.7E-05	1.0E+01	EqP	5.7E-02
Landbay D	4350-1100	INORG	Cadmium	7440-43-9	B1	4.65E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.3E-04	2.1E+00	EqP	2.2E-01
Landbay D	4350-1100	INORG	Chromium III	16065-83-1	D	7.45E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay D	4350-1100	INORG	Cobalt	7440-48-4	LC	3.42E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay D	4350-1100	INORG	Copper	7440-50-8	D	3.04E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.8E-05	8.4E+00	EqP	**3.6E+00**
Landbay D	4350-1100	INORG	Iron	7439-89-6	D	4.44E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay D	4350-1100	INORG	Lead	7439-92-1	B2	3.16E+01						3.5E+02	EqP	9.0E-02
Landbay D	4350-1100	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay D	4350-1100	INORG	Mercury	7439-97-6	D	6.84E-02	7.10E-02	9.6E-01		NA		3.7E-01	EqP	1.9E-01
Landbay D	4350-1100	INORG	Nickel	7440-02-0	A	1.89E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.6E-01
Landbay D	4350-1100	INORG	Strontium	7440-24-6		2.02E+01	3.80E+01	5.3E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay D	4350-1100	INORG	Vanadium	7440-62-2	ID	1.49E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.6E-04	4.0E+02	EqP	3.7E-01
Landbay D	4350-1100	INORG	Zinc	7440-66-6	ID	7.93E+01	1.02E+02	7.8E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.2E-01
Landbay D	4350-1250	PCB	PCBs (total)	1336-36-3	B2	2.01E-02				NA		1.4E+00	EqP	1.5E-02
Landbay D	4350-1250	INORG	Aluminum	7429-90-5	ID	2.49E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.5E+00**
Landbay D	4350-1250	INORG	Antimony	7440-36-0	ID	1.80E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.6E-02
Landbay D	4350-1250	INORG	Arsenic	7440-38-2	A	5.21E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	4350-1250	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay D	4350-1250	INORG	Beryllium	7440-41-7	B1	5.92E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.7E-05	1.0E+01	EqP	5.7E-02
Landbay D	4350-1250	INORG	Cadmium	7440-43-9	B1	4.65E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.3E-04	2.1E+00	EqP	2.2E-01
Landbay D	4350-1250	INORG	Chromium III	16065-83-1	D	7.45E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay D	4350-1250	INORG	Cobalt	7440-48-4	LC	3.42E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay D	4350-1250	INORG	Copper	7440-50-8	D	3.04E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.8E-05	8.4E+00	EqP	**3.6E+00**
Landbay D	4350-1250	INORG	Iron	7439-89-6	D	4.44E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay D	4350-1250	INORG	Lead	7439-92-1	B2	3.16E+01						3.5E+02	EqP	9.0E-02
Landbay D	4350-1250	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay D	4350-1250	INORG	Mercury	7439-97-6	D	6.84E-02	7.10E-02	9.6E-01		NA		3.7E-01	EqP	1.9E-01
Landbay D	4350-1250	INORG	Nickel	7440-02-0	A	1.89E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.6E-01
Landbay D	4350-1250	INORG	Strontium	7440-24-6		2.02E+01	3.80E+01	5.3E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay D	4350-1250	INORG	Vanadium	7440-62-2	ID	1.49E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.6E-04	4.0E+02	EqP	3.7E-01
Landbay D	4350-1250	INORG	Zinc	7440-66-6	ID	7.93E+01	1.02E+02	7.8E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.2E-01
Landbay D	4350-1400	INORG	Aluminum	7429-90-5	ID	2.95E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	4350-1400	INORG	Antimony	7440-36-0	ID	1.63E+00	1.70E+00	9.6E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.0E-02
Landbay D	4350-1400	INORG	Arsenic	7440-38-2	A	5.15E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay D	4350-1400	INORG	Barium	7440-39-3	NC	9.35E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	4350-1400	INORG	Beryllium	7440-41-7	B1	4.37E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.4E-05	1.0E+01	EqP	4.2E-02
Landbay D	4350-1400	INORG	Chromium III	16065-83-1	D	1.96E+02	2.61E+02	7.5E-01	2.1E+10	EqP	9.2E-09	3.4E+06	EqP	5.8E-05
Landbay D	4350-1400	INORG	Chromium VI	18540-29-9	A	2.10E+00	4.97E+00	4.2E-01	6.6E+01	LT	3.2E-02	4.4E+00	LT	4.8E-01
Landbay D	4350-1400	INORG	Cobalt	7440-48-4	LC	4.86E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay D	4350-1400	INORG	Copper	7440-50-8	D	2.84E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.2E-05	8.4E+00	EqP	**3.4E+00**
Landbay D	4350-1400	INORG	Iron	7439-89-6	D	4.63E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay D	4350-1400	INORG	Lead	7439-92-1	B2	1.62E+01						3.5E+02	EqP	4.6E-02
Landbay D	4350-1400	INORG	Manganese	7439-96-5	D	1.42E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.6E-03	1.6E+02	EqP	**9.1E+00**
Landbay D	4350-1400	INORG	Mercury	7439-97-6	D	6.02E-02	7.10E-02	8.5E-01		NA		3.7E-01	EqP	1.6E-01
Landbay D	4350-1400	INORG	Nickel	7440-02-0	A	3.59E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	4350-1400	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay D	4350-1400	INORG	Strontium	7440-24-6		1.74E+01	3.80E+01	4.6E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.6E-02
Landbay D	4350-1400	INORG	Vanadium	7440-62-2	ID	1.66E+02	2.83E+02	5.9E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay D	4350-1400	INORG	Zinc	7440-66-6	ID	4.84E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.5E-01
Landbay D	43B132	PCB	PCBs (total)	1336-36-3	B2	5.20E-02				NA		1.4E+00	EqP	3.8E-02
Landbay D	43B132	INORG	Perchlorate	14797-73-0	NC	7.50E-03			3.4E+03	LT	2.2E-06	7.7E+02	LT	9.7E-06
Landbay D	43G113	PCB	PCBs (total)	1336-36-3	B2	2.52E-02				NA		1.4E+00	EqP	1.8E-02
Landbay D	43G113	INORG	Perchlorate	14797-73-0	NC	2.10E-03			3.4E+03	LT	6.1E-07	7.7E+02	LT	2.7E-06
Landbay D	43G121	PCB	PCBs (total)	1336-36-3	B2	4.00E-02				NA		1.4E+00	EqP	2.9E-02
Landbay D	43G121	INORG	Perchlorate	14797-73-0	NC	2.10E-02			3.4E+03	LT	6.1E-06	7.7E+02	LT	2.7E-05
Landbay D	43G122	PCB	PCBs (total)	1336-36-3	B2	4.58E-01				NA		1.4E+00	EqP	3.3E-01
Landbay D	43G122	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	43G122	INORG	Arsenic	7440-38-2	A	1.81E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay D	43G122	INORG	Barium	7440-39-3	NC	8.53E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay D	43G122	INORG	Beryllium	7440-41-7	B1	3.81E-01	1.20E+00	3.2E-01	6.8E+03	EqP	5.6E-05	1.0E+01	EqP	3.7E-02
Landbay D	43G122	INORG	Chromium III	16065-83-1	D	8.40E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay D	43G122	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay D	43G122	INORG	Cobalt	7440-48-4	LC	2.41E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay D	43G122	INORG	Copper	7440-50-8	D	5.61E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay D	43G122	INORG	Iron	7439-89-6	D	3.03E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.0E-03	1.5E+02	EqP	**2.0E+02**
Landbay D	43G122	INORG	Lead	7439-92-1	B2	8.32E+00						3.5E+02	EqP	2.4E-02
Landbay D	43G122	INORG	Manganese	7439-96-5	D	5.42E+02	4.27E+03	1.3E-01	3.1E+05	EqP	1.7E-03	1.6E+02	EqP	**3.5E+00**
Landbay D	43G122	INORG	Nickel	7440-02-0	A	4.30E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay D	43G122	INORG	Perchlorate	14797-73-0	NC	1.50E-02			3.4E+03	LT	4.4E-06	7.7E+02	LT	1.9E-05
Landbay D	43G122	INORG	Silver	7440-22-4	D	5.98E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.2E-01
Landbay D	43G122	INORG	Thallium	7440-28-0	ID	1.48E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay D	43G122	INORG	Vanadium	7440-62-2	ID	8.63E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.6E-04	4.0E+02	EqP	2.2E-01
Landbay D	43G122	INORG	Zinc	7440-66-6	ID	6.50E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay D	43G123	PCB	PCBs (total)	1336-36-3	B2	1.68E-02				NA		1.4E+00	EqP	1.2E-02
Landbay D	43G123	INORG	Perchlorate	14797-73-0	NC	1.90E-03			3.4E+03	LT	5.5E-07	7.7E+02	LT	2.5E-06
Landbay D	43G124	PCB	PCBs (total)	1336-36-3	B2	4.10E-01				NA		1.4E+00	EqP	3.0E-01
Landbay D	43G124	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	43G124	INORG	Arsenic	7440-38-2	A	1.81E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay D	43G124	INORG	Barium	7440-39-3	NC	8.53E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay D	43G124	INORG	Beryllium	7440-41-7	B1	3.81E-01	1.20E+00	3.2E-01	6.8E+03	EqP	5.6E-05	1.0E+01	EqP	3.7E-02
Landbay D	43G124	INORG	Chromium III	16065-83-1	D	8.40E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay D	43G124	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay D	43G124	INORG	Cobalt	7440-48-4	LC	2.41E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay D	43G124	INORG	Copper	7440-50-8	D	5.61E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay D	43G124	INORG	Iron	7439-89-6	D	3.03E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.0E-03	1.5E+02	EqP	**2.0E+02**
Landbay D	43G124	INORG	Lead	7439-92-1	B2	8.32E+00						3.5E+02	EqP	2.4E-02
Landbay D	43G124	INORG	Manganese	7439-96-5	D	5.42E+02	4.27E+03	1.3E-01	3.1E+05	EqP	1.7E-03	1.6E+02	EqP	**3.5E+00**
Landbay D	43G124	INORG	Nickel	7440-02-0	A	4.30E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay D	43G124	INORG	Perchlorate	14797-73-0	NC	1.00E-03			3.4E+03	LT	2.9E-07	7.7E+02	LT	1.3E-06
Landbay D	43G124	INORG	Silver	7440-22-4	D	5.98E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.2E-01
Landbay D	43G124	INORG	Thallium	7440-28-0	ID	1.48E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay D	43G124	INORG	Vanadium	7440-62-2	ID	8.63E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.6E-04	4.0E+02	EqP	2.2E-01
Landbay D	43G124	INORG	Zinc	7440-66-6	ID	6.50E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay D	43G125	PCB	PCBs (total)	1336-36-3	B2	3.53E+00				NA		1.4E+00	EqP	**2.6E+00**
Landbay D	43G125	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	43G125	INORG	Arsenic	7440-38-2	A	1.81E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay D	43G125	INORG	Barium	7440-39-3	NC	8.53E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay D	43G125	INORG	Beryllium	7440-41-7	B1	3.81E-01	1.20E+00	3.2E-01	6.8E+03	EqP	5.6E-05	1.0E+01	EqP	3.7E-02
Landbay D	43G125	INORG	Chromium III	16065-83-1	D	8.40E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay D	43G125	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay D	43G125	INORG	Cobalt	7440-48-4	LC	2.41E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay D	43G125	INORG	Copper	7440-50-8	D	5.61E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay D	43G125	INORG	Iron	7439-89-6	D	3.03E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.0E-03	1.5E+02	EqP	**2.0E+02**
Landbay D	43G125	INORG	Lead	7439-92-1	B2	8.32E+00						3.5E+02	EqP	2.4E-02
Landbay D	43G125	INORG	Manganese	7439-96-5	D	5.42E+02	4.27E+03	1.3E-01	3.1E+05	EqP	1.7E-03	1.6E+02	EqP	**3.5E+00**
Landbay D	43G125	INORG	Nickel	7440-02-0	A	4.30E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay D	43G125	INORG	Perchlorate	14797-73-0	NC	1.20E-01			3.4E+03	LT	3.5E-05	7.7E+02	LT	1.6E-04
Landbay D	43G125	INORG	Silver	7440-22-4	D	5.98E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.2E-01
Landbay D	43G125	INORG	Thallium	7440-28-0	ID	1.48E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay D	43G125	INORG	Vanadium	7440-62-2	ID	8.63E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.6E-04	4.0E+02	EqP	2.2E-01
Landbay D	43G125	INORG	Zinc	7440-66-6	ID	6.50E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay D	43G126	INORG	Perchlorate	14797-73-0	NC	2.50E-02			3.4E+03	LT	7.3E-06	7.7E+02	LT	3.2E-05
Landbay D	43G127	PCB	PCBs (total)	1336-36-3	B2	3.88E-02				NA		1.4E+00	EqP	2.8E-02
Landbay D	43G127	INORG	Perchlorate	14797-73-0	NC	3.30E-02			3.4E+03	LT	9.6E-06	7.7E+02	LT	4.3E-05
Landbay D	43G128	PCB	PCBs (total)	1336-36-3	B2	3.20E-01				NA		1.4E+00	EqP	2.3E-01
Landbay D	43G128	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	43G128	INORG	Arsenic	7440-38-2	A	1.81E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay D	43G128	INORG	Barium	7440-39-3	NC	8.53E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay D	43G128	INORG	Beryllium	7440-41-7	B1	3.81E-01	1.20E+00	3.2E-01	6.8E+03	EqP	5.6E-05	1.0E+01	EqP	3.7E-02
Landbay D	43G128	INORG	Chromium III	16065-83-1	D	8.40E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay D	43G128	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	43G128	INORG	Cobalt	7440-48-4	LC	2.41E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay D	43G128	INORG	Copper	7440-50-8	D	5.61E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay D	43G128	INORG	Iron	7439-89-6	D	3.03E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.0E-03	1.5E+02	EqP	**2.0E+02**
Landbay D	43G128	INORG	Lead	7439-92-1	B2	8.32E+00						3.5E+02	EqP	2.4E-02
Landbay D	43G128	INORG	Manganese	7439-96-5	D	5.42E+02	4.27E+03	1.3E-01	3.1E+05	EqP	1.7E-03	1.6E+02	EqP	**3.5E+00**
Landbay D	43G128	INORG	Nickel	7440-02-0	A	4.30E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay D	43G128	INORG	Perchlorate	14797-73-0	NC	3.80E-03			3.4E+03	LT	1.1E-06	7.7E+02	LT	4.9E-06
Landbay D	43G128	INORG	Silver	7440-22-4	D	5.98E-01	2.30E+00	2.6E-01	3.8E+03	LT	1.6E-04	2.7E+00	LT	2.2E-01
Landbay D	43G128	INORG	Thallium	7440-28-0	ID	1.48E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay D	43G128	INORG	Vanadium	7440-62-2	ID	8.63E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.6E-04	4.0E+02	EqP	2.2E-01
Landbay D	43G128	INORG	Zinc	7440-66-6	ID	6.50E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay D	43G129	PCB	PCBs (total)	1336-36-3	B2	2.49E-02				NA		1.4E+00	EqP	1.8E-02
Landbay D	43G129	INORG	Perchlorate	14797-73-0	NC	7.40E-02			3.4E+03	LT	2.1E-05	7.7E+02	LT	9.6E-05
Landbay D	43G130	PCB	PCBs (total)	1336-36-3	B2	5.66E-02				NA		1.4E+00	EqP	4.1E-02
Landbay D	4500-0800	INORG	Aluminum	7429-90-5	ID	3.13E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	4500-0800	INORG	Antimony	7440-36-0	ID	2.03E+00	1.70E+00	**1.2E+00**	1.4E+03	EqP	1.5E-03	2.7E+01	EqP	7.5E-02
Landbay D	4500-0800	INORG	Arsenic	7440-38-2	A	7.37E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.6E-02
Landbay D	4500-0800	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	4500-0800	INORG	Beryllium	7440-41-7	B1	6.06E-01	1.20E+00	5.1E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay D	4500-0800	INORG	Cadmium	7440-43-9	B1	5.14E-01	2.70E+00	1.9E-01	1.1E+03	EqP	4.7E-04	2.1E+00	EqP	2.4E-01
Landbay D	4500-0800	INORG	Chromium III	16065-83-1	D	2.28E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.8E-05
Landbay D	4500-0800	INORG	Cobalt	7440-48-4	LC	8.16E+01	8.60E+01	9.5E-01	1.4E+04	EqP	5.9E-03	2.1E+01	EqP	**3.9E+00**
Landbay D	4500-0800	INORG	Copper	7440-50-8	D	2.76E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	4500-0800	INORG	Iron	7439-89-6	D	6.00E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay D	4500-0800	INORG	Lead	7439-92-1	B2	2.72E+01						3.5E+02	EqP	7.8E-02
Landbay D	4500-0800	INORG	Manganese	7439-96-5	D	2.84E+03	4.27E+03	6.7E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay D	4500-0800	INORG	Mercury	7439-97-6	D	5.66E-02	7.10E-02	8.0E-01		NA		3.7E-01	EqP	1.5E-01
Landbay D	4500-0800	INORG	Nickel	7440-02-0	A	3.75E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	4500-0800	INORG	Selenium	7782-49-2	D	1.61E+00	2.50E+00	6.4E-01	2.5E+04	LT	6.5E-05	2.0E+00	LT	8.1E-01
Landbay D	4500-0800	INORG	Strontium	7440-24-6		1.35E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.3E-07	1.1E+03	EqP	1.3E-02
Landbay D	4500-0800	INORG	Vanadium	7440-62-2	ID	2.21E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay D	4500-0800	INORG	Zinc	7440-66-6	ID	7.85E+01	1.02E+02	7.7E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay D	4500-0950	INORG	Aluminum	7429-90-5	ID	3.13E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	4500-0950	INORG	Antimony	7440-36-0	ID	2.03E+00	1.70E+00	**1.2E+00**	1.4E+03	EqP	1.5E-03	2.7E+01	EqP	7.5E-02
Landbay D	4500-0950	INORG	Arsenic	7440-38-2	A	7.37E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.6E-02
Landbay D	4500-0950	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay D	4500-0950	INORG	Beryllium	7440-41-7	B1	6.06E-01	1.20E+00	5.1E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay D	4500-0950	INORG	Cadmium	7440-43-9	B1	5.14E-01	2.70E+00	1.9E-01	1.1E+03	EqP	4.7E-04	2.1E+00	EqP	2.4E-01
Landbay D	4500-0950	INORG	Chromium III	16065-83-1	D	2.28E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.8E-05
Landbay D	4500-0950	INORG	Cobalt	7440-48-4	LC	8.16E+01	8.60E+01	9.5E-01	1.4E+04	EqP	5.9E-03	2.1E+01	EqP	**3.9E+00**
Landbay D	4500-0950	INORG	Copper	7440-50-8	D	2.76E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	4500-0950	INORG	Iron	7439-89-6	D	6.00E+04	9.52E+04	6.3E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay D	4500-0950	INORG	Lead	7439-92-1	B2	2.72E+01						3.5E+02	EqP	7.8E-02
Landbay D	4500-0950	INORG	Manganese	7439-96-5	D	2.84E+03	4.27E+03	6.7E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay D	4500-0950	INORG	Mercury	7439-97-6	D	5.66E-02	7.10E-02	8.0E-01		NA		3.7E-01	EqP	1.5E-01
Landbay D	4500-0950	INORG	Nickel	7440-02-0	A	3.75E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	4500-0950	INORG	Selenium	7782-49-2	D	1.61E+00	2.50E+00	6.4E-01	2.5E+04	LT	6.5E-05	2.0E+00	LT	8.1E-01
Landbay D	4500-0950	INORG	Strontium	7440-24-6		1.35E+01	3.80E+01	3.6E-01	1.6E+07	EqP	8.3E-07	1.1E+03	EqP	1.3E-02
Landbay D	4500-0950	INORG	Vanadium	7440-62-2	ID	2.21E+02	2.83E+02	7.8E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.5E-01
Landbay D	4500-0950	INORG	Zinc	7440-66-6	ID	7.85E+01	1.02E+02	7.7E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay D	4500-1100	PCB	PCBs (total)	1336-36-3	B2	2.01E-02				NA		1.4E+00	EqP	1.5E-02
Landbay D	4500-1100	INORG	Aluminum	7429-90-5	ID	2.49E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.5E+00**
Landbay D	4500-1100	INORG	Antimony	7440-36-0	ID	1.80E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.6E-02
Landbay D	4500-1100	INORG	Arsenic	7440-38-2	A	5.21E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay D	4500-1100	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay D	4500-1100	INORG	Beryllium	7440-41-7	B1	5.92E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.7E-05	1.0E+01	EqP	5.7E-02
Landbay D	4500-1100	INORG	Cadmium	7440-43-9	B1	4.65E-01	2.70E+00	1.7E-01	1.1E+03	EqP	4.3E-04	2.1E+00	EqP	2.2E-01
Landbay D	4500-1100	INORG	Chromium III	16065-83-1	D	7.45E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.5E-09	3.4E+06	EqP	2.2E-05
Landbay D	4500-1100	INORG	Cobalt	7440-48-4	LC	3.42E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay D	4500-1100	INORG	Copper	7440-50-8	D	3.04E+01	1.31E+02	2.3E-01	3.5E+05	EqP	8.8E-05	8.4E+00	EqP	**3.6E+00**
Landbay D	4500-1100	INORG	Iron	7439-89-6	D	4.44E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay D	4500-1100	INORG	Lead	7439-92-1	B2	3.16E+01						3.5E+02	EqP	9.0E-02
Landbay D	4500-1100	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay D	4500-1100	INORG	Mercury	7439-97-6	D	6.84E-02	7.10E-02	9.6E-01		NA		3.7E-01	EqP	1.9E-01
Landbay D	4500-1100	INORG	Nickel	7440-02-0	A	1.89E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.6E-01
Landbay D	4500-1100	INORG	Strontium	7440-24-6		2.02E+01	3.80E+01	5.3E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay D	4500-1100	INORG	Vanadium	7440-62-2	ID	1.49E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.6E-04	4.0E+02	EqP	3.7E-01
Landbay D	4500-1100	INORG	Zinc	7440-66-6	ID	7.93E+01	1.02E+02	7.8E-01	5.5E+06	EqP	1.5E-05	1.9E+02	EqP	4.2E-01
Landbay D	4500-1250	INORG	Aluminum	7429-90-5	ID	2.95E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	4500-1250	INORG	Antimony	7440-36-0	ID	1.63E+00	1.70E+00	9.6E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.0E-02
Landbay D	4500-1250	INORG	Arsenic	7440-38-2	A	5.15E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay D	4500-1250	INORG	Barium	7440-39-3	NC	9.35E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	4500-1250	INORG	Beryllium	7440-41-7	B1	4.37E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.4E-05	1.0E+01	EqP	4.2E-02
Landbay D	4500-1250	INORG	Chromium III	16065-83-1	D	1.96E+02	2.61E+02	7.5E-01	2.1E+10	EqP	9.2E-09	3.4E+06	EqP	5.8E-05
Landbay D	4500-1250	INORG	Chromium VI	18540-29-9	A	2.10E+00	4.97E+00	4.2E-01	6.6E+01	LT	3.2E-02	4.4E+00	LT	4.8E-01
Landbay D	4500-1250	INORG	Cobalt	7440-48-4	LC	4.86E+01	8.60E+01	5.7E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay D	4500-1250	INORG	Copper	7440-50-8	D	2.84E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.2E-05	8.4E+00	EqP	**3.4E+00**
Landbay D	4500-1250	INORG	Iron	7439-89-6	D	4.63E+04	9.52E+04	4.9E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay D	4500-1250	INORG	Lead	7439-92-1	B2	1.62E+01						3.5E+02	EqP	4.6E-02
Landbay D	4500-1250	INORG	Manganese	7439-96-5	D	1.42E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.6E-03	1.6E+02	EqP	**9.1E+00**
Landbay D	4500-1250	INORG	Mercury	7439-97-6	D	6.02E-02	7.10E-02	8.5E-01		NA		3.7E-01	EqP	1.6E-01
Landbay D	4500-1250	INORG	Nickel	7440-02-0	A	3.59E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	4500-1250	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay D	4500-1250	INORG	Strontium	7440-24-6		1.74E+01	3.80E+01	4.6E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.6E-02
Landbay D	4500-1250	INORG	Vanadium	7440-62-2	ID	1.66E+02	2.83E+02	5.9E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay D	4500-1250	INORG	Zinc	7440-66-6	ID	4.84E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.5E-01
Landbay D	4500-1400	PCB	PCBs (total)	1336-36-3	B2	2.49E-02				NA		1.4E+00	EqP	1.8E-02
Landbay D	4500-1400	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay D	4500-1400	INORG	Antimony	7440-36-0	ID	2.25E+00	1.70E+00	**1.3E+00**	1.4E+03	EqP	1.6E-03	2.7E+01	EqP	8.3E-02
Landbay D	4500-1400	INORG	Arsenic	7440-38-2	A	5.38E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.3E-02
Landbay D	4500-1400	INORG	Barium	7440-39-3	NC	1.06E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay D	4500-1400	INORG	Beryllium	7440-41-7	B1	5.17E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay D	4500-1400	INORG	Cadmium	7440-43-9	B1	2.00E-01	2.70E+00	7.4E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.4E-02
Landbay D	4500-1400	INORG	Chromium III	16065-83-1	D	2.13E+02	2.61E+02	8.2E-01	2.1E+10	EqP	1.0E-08	3.4E+06	EqP	6.3E-05
Landbay D	4500-1400	INORG	Cobalt	7440-48-4	LC	6.17E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay D	4500-1400	INORG	Copper	7440-50-8	D	2.24E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.5E-05	8.4E+00	EqP	**2.7E+00**
Landbay D	4500-1400	INORG	Iron	7439-89-6	D	4.91E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay D	4500-1400	INORG	Lead	7439-92-1	B2	2.88E+01						3.5E+02	EqP	8.2E-02
Landbay D	4500-1400	INORG	Manganese	7439-96-5	D	2.02E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	4500-1400	INORG	Mercury	7439-97-6	D	9.79E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.7E-01
Landbay D	4500-1400	INORG	Nickel	7440-02-0	A	3.46E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay D	4500-1400	INORG	Strontium	7440-24-6		1.46E+01	3.80E+01	3.8E-01	1.6E+07	EqP	9.0E-07	1.1E+03	EqP	1.4E-02
Landbay D	4500-1400	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay D	4500-1400	INORG	Zinc	7440-66-6	ID	7.28E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	4500-2750	PCB	PCBs (total)	1336-36-3	B2	2.22E-02				NA		1.4E+00	EqP	1.6E-02
Landbay D	4500-2750	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	4500-2750	INORG	Antimony	7440-36-0	ID	1.07E+00	1.70E+00	6.3E-01	1.4E+03	EqP	7.8E-04	2.7E+01	EqP	3.9E-02
Landbay D	4500-2750	INORG	Arsenic	7440-38-2	A	4.02E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay D	4500-2750	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay D	4500-2750	INORG	Beryllium	7440-41-7	B1	2.61E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.8E-05	1.0E+01	EqP	2.5E-02
Landbay D	4500-2750	INORG	Boron	7440-42-8	ID	1.39E+01	1.34E+01	1.0E+00	9.9E+05	LT	1.4E-05	6.4E-01	LT	**2.2E+01**
Landbay D	4500-2750	INORG	Cadmium	7440-43-9	B1	2.09E+00	2.70E+00	7.7E-01	1.1E+03	EqP	1.9E-03	2.1E+00	EqP	9.8E-01
Landbay D	4500-2750	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.6E-05
Landbay D	4500-2750	INORG	Chromium VI	18540-29-9	A	2.20E+00	4.97E+00	4.4E-01	6.6E+01	LT	3.3E-02	4.4E+00	LT	5.0E-01
Landbay D	4500-2750	INORG	Cobalt	7440-48-4	LC	3.58E+01	8.60E+01	4.2E-01	1.4E+04	EqP	2.6E-03	2.1E+01	EqP	**1.7E+00**
Landbay D	4500-2750	INORG	Copper	7440-50-8	D	5.88E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay D	4500-2750	INORG	Iron	7439-89-6	D	5.39E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay D	4500-2750	INORG	Lead	7439-92-1	B2	1.12E+01						3.5E+02	EqP	3.2E-02
Landbay D	4500-2750	INORG	Manganese	7439-96-5	D	9.72E+02	4.27E+03	2.3E-01	3.1E+05	EqP	3.1E-03	1.6E+02	EqP	**6.2E+00**
Landbay D	4500-2750	INORG	Mercury	7439-97-6	D	2.26E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.1E-02
Landbay D	4500-2750	INORG	Nickel	7440-02-0	A	5.49E+01	7.30E+01	7.5E-01	1.2E+05	EqP	4.4E-04	3.4E+01	EqP	**1.6E+00**
Landbay D	4500-2750	INORG	Silver	7440-22-4	D	2.15E+00	2.30E+00	9.3E-01	3.8E+03	LT	5.7E-04	2.7E+00	LT	8.1E-01
Landbay D	4500-2750	INORG	Strontium	7440-24-6		4.03E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay D	4500-2750	INORG	Vanadium	7440-62-2	ID	1.41E+02	2.83E+02	5.0E-01	1.5E+05	EqP	9.1E-04	4.0E+02	EqP	3.5E-01
Landbay D	4500-2750	INORG	Zinc	7440-66-6	ID	5.94E+01	1.02E+02	5.8E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay D	4500-57	INORG	Perchlorate	14797-73-0	NC	3.40E-04			3.4E+03	LT	9.9E-08	7.7E+02	LT	4.4E-07
Landbay D	4650-1100	INORG	Aluminum	7429-90-5	ID	2.65E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	4650-1100	INORG	Antimony	7440-36-0	ID	1.64E+00	1.70E+00	9.6E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.0E-02
Landbay D	4650-1100	INORG	Arsenic	7440-38-2	A	6.81E+00	9.90E+00	6.9E-01	1.1E+03	EqP	6.5E-03	8.6E+01	EqP	7.9E-02
Landbay D	4650-1100	INORG	Barium	7440-39-3	NC	2.09E+02	2.24E+02	9.3E-01	3.2E+05	EqP	6.5E-04	3.3E+00	EqP	**6.3E+01**
Landbay D	4650-1100	INORG	Beryllium	7440-41-7	B1	6.31E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay D	4650-1100	INORG	Cadmium	7440-43-9	B1	3.48E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay D	4650-1100	INORG	Chromium III	16065-83-1	D	1.11E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.2E-09	3.4E+06	EqP	3.3E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	4650-1100	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay D	4650-1100	INORG	Cobalt	7440-48-4	LC	6.04E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay D	4650-1100	INORG	Copper	7440-50-8	D	2.74E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay D	4650-1100	INORG	Iron	7439-89-6	D	5.68E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay D	4650-1100	INORG	Lead	7439-92-1	B2	2.16E+01						3.5E+02	EqP	6.2E-02
Landbay D	4650-1100	INORG	Manganese	7439-96-5	D	3.01E+03	4.27E+03	7.0E-01	3.1E+05	EqP	9.7E-03	1.6E+02	EqP	**1.9E+01**
Landbay D	4650-1100	INORG	Mercury	7439-97-6	D	6.43E-02	7.10E-02	9.1E-01		NA		3.7E-01	EqP	1.7E-01
Landbay D	4650-1100	INORG	Nickel	7440-02-0	A	2.57E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.6E-01
Landbay D	4650-1100	INORG	Strontium	7440-24-6		2.17E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.1E-02
Landbay D	4650-1100	INORG	Thallium	7440-28-0	ID	1.39E+00	4.50E+00	3.1E-01				1.1E+00	EqP	**1.2E+00**
Landbay D	4650-1100	INORG	Vanadium	7440-62-2	ID	2.05E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay D	4650-1100	INORG	Zinc	7440-66-6	ID	5.61E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay D	4650-1250	PCB	PCBs (total)	1336-36-3	B2	2.49E-02				NA		1.4E+00	EqP	1.8E-02
Landbay D	4650-1250	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay D	4650-1250	INORG	Antimony	7440-36-0	ID	2.25E+00	1.70E+00	**1.3E+00**	1.4E+03	EqP	1.6E-03	2.7E+01	EqP	8.3E-02
Landbay D	4650-1250	INORG	Arsenic	7440-38-2	A	5.38E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.3E-02
Landbay D	4650-1250	INORG	Barium	7440-39-3	NC	1.06E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay D	4650-1250	INORG	Beryllium	7440-41-7	B1	5.17E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay D	4650-1250	INORG	Cadmium	7440-43-9	B1	2.00E-01	2.70E+00	7.4E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.4E-02
Landbay D	4650-1250	INORG	Chromium III	16065-83-1	D	2.13E+02	2.61E+02	8.2E-01	2.1E+10	EqP	1.0E-08	3.4E+06	EqP	6.3E-05
Landbay D	4650-1250	INORG	Cobalt	7440-48-4	LC	6.17E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay D	4650-1250	INORG	Copper	7440-50-8	D	2.24E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.5E-05	8.4E+00	EqP	**2.7E+00**
Landbay D	4650-1250	INORG	Iron	7439-89-6	D	4.91E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay D	4650-1250	INORG	Lead	7439-92-1	B2	2.88E+01						3.5E+02	EqP	8.2E-02
Landbay D	4650-1250	INORG	Manganese	7439-96-5	D	2.02E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	4650-1250	INORG	Mercury	7439-97-6	D	9.79E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.7E-01
Landbay D	4650-1250	INORG	Nickel	7440-02-0	A	3.46E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay D	4650-1250	INORG	Strontium	7440-24-6		1.46E+01	3.80E+01	3.8E-01	1.6E+07	EqP	9.0E-07	1.1E+03	EqP	1.4E-02
Landbay D	4650-1250	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay D	4650-1250	INORG	Zinc	7440-66-6	ID	7.28E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	4650-1400	PCB	PCBs (total)	1336-36-3	B2	2.49E-02				NA		1.4E+00	EqP	1.8E-02
Landbay D	4650-1400	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay D	4650-1400	INORG	Antimony	7440-36-0	ID	2.25E+00	1.70E+00	**1.3E+00**	1.4E+03	EqP	1.6E-03	2.7E+01	EqP	8.3E-02
Landbay D	4650-1400	INORG	Arsenic	7440-38-2	A	5.38E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.3E-02
Landbay D	4650-1400	INORG	Barium	7440-39-3	NC	1.06E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay D	4650-1400	INORG	Beryllium	7440-41-7	B1	5.17E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay D	4650-1400	INORG	Cadmium	7440-43-9	B1	2.00E-01	2.70E+00	7.4E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.4E-02
Landbay D	4650-1400	INORG	Chromium III	16065-83-1	D	2.13E+02	2.61E+02	8.2E-01	2.1E+10	EqP	1.0E-08	3.4E+06	EqP	6.3E-05
Landbay D	4650-1400	INORG	Cobalt	7440-48-4	LC	6.17E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay D	4650-1400	INORG	Copper	7440-50-8	D	2.24E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.5E-05	8.4E+00	EqP	**2.7E+00**
Landbay D	4650-1400	INORG	Iron	7439-89-6	D	4.91E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay D	4650-1400	INORG	Lead	7439-92-1	B2	2.88E+01						3.5E+02	EqP	8.2E-02
Landbay D	4650-1400	INORG	Manganese	7439-96-5	D	2.02E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	4650-1400	INORG	Mercury	7439-97-6	D	9.79E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.7E-01
Landbay D	4650-1400	INORG	Nickel	7440-02-0	A	3.46E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay D	4650-1400	INORG	Strontium	7440-24-6		1.46E+01	3.80E+01	3.8E-01	1.6E+07	EqP	9.0E-07	1.1E+03	EqP	1.4E-02
Landbay D	4650-1400	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay D	4650-1400	INORG	Zinc	7440-66-6	ID	7.28E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	4650-1550	PCB	PCBs (total)	1336-36-3	B2	2.49E-02				NA		1.4E+00	EqP	1.8E-02
Landbay D	4650-1550	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay D	4650-1550	INORG	Antimony	7440-36-0	ID	2.25E+00	1.70E+00	**1.3E+00**	1.4E+03	EqP	1.6E-03	2.7E+01	EqP	8.3E-02
Landbay D	4650-1550	INORG	Arsenic	7440-38-2	A	5.38E+00	9.90E+00	5.4E-01	1.1E+03	EqP	5.1E-03	8.6E+01	EqP	6.3E-02
Landbay D	4650-1550	INORG	Barium	7440-39-3	NC	1.06E+02	2.24E+02	4.7E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay D	4650-1550	INORG	Beryllium	7440-41-7	B1	5.17E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay D	4650-1550	INORG	Cadmium	7440-43-9	B1	2.00E-01	2.70E+00	7.4E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.4E-02
Landbay D	4650-1550	INORG	Chromium III	16065-83-1	D	2.13E+02	2.61E+02	8.2E-01	2.1E+10	EqP	1.0E-08	3.4E+06	EqP	6.3E-05
Landbay D	4650-1550	INORG	Cobalt	7440-48-4	LC	6.17E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay D	4650-1550	INORG	Copper	7440-50-8	D	2.24E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.5E-05	8.4E+00	EqP	**2.7E+00**
Landbay D	4650-1550	INORG	Iron	7439-89-6	D	4.91E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay D	4650-1550	INORG	Lead	7439-92-1	B2	2.88E+01						3.5E+02	EqP	8.2E-02
Landbay D	4650-1550	INORG	Manganese	7439-96-5	D	2.02E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.5E-03	1.6E+02	EqP	**1.3E+01**
Landbay D	4650-1550	INORG	Mercury	7439-97-6	D	9.79E-02	7.10E-02	**1.4E+00**		NA		3.7E-01	EqP	2.7E-01
Landbay D	4650-1550	INORG	Nickel	7440-02-0	A	3.46E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay D	4650-1550	INORG	Strontium	7440-24-6		1.46E+01	3.80E+01	3.8E-01	1.6E+07	EqP	9.0E-07	1.1E+03	EqP	1.4E-02
Landbay D	4650-1550	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay D	4650-1550	INORG	Zinc	7440-66-6	ID	7.28E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	4800-1250	PCB	PCBs (total)	1336-36-3	B2	2.36E-02				NA		1.4E+00	EqP	1.7E-02
Landbay D	4800-1250	INORG	Aluminum	7429-90-5	ID	3.66E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay D	4800-1250	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay D	4800-1250	INORG	Arsenic	7440-38-2	A	7.31E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.5E-02
Landbay D	4800-1250	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	4800-1250	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay D	4800-1250	INORG	Chromium III	16065-83-1	D	2.10E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay D	4800-1250	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.0E-01
Landbay D	4800-1250	INORG	Cobalt	7440-48-4	LC	5.14E+01	8.60E+01	6.0E-01	1.4E+04	EqP	3.7E-03	2.1E+01	EqP	**2.5E+00**
Landbay D	4800-1250	INORG	Copper	7440-50-8	D	3.89E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay D	4800-1250	INORG	Iron	7439-89-6	D	5.30E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay D	4800-1250	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay D	4800-1250	INORG	Manganese	7439-96-5	D	1.74E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay D	4800-1250	INORG	Mercury	7439-97-6	D	5.50E-02	7.10E-02	7.7E-01		NA		3.7E-01	EqP	1.5E-01
Landbay D	4800-1250	INORG	Nickel	7440-02-0	A	4.86E+01	7.30E+01	6.7E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay D	4800-1250	INORG	Strontium	7440-24-6		2.88E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay D	4800-1250	INORG	Vanadium	7440-62-2	ID	1.84E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay D	4800-1250	INORG	Zinc	7440-66-6	ID	5.69E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay D	49-01	INORG	Arsenic	7440-38-2	A	3.31E+00	9.90E+00	3.3E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay D	49-01	INORG	Barium	7440-39-3	NC	1.32E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay D	49-01	INORG	Cadmium	7440-43-9	B1	6.04E-01	2.70E+00	2.2E-01	1.1E+03	EqP	5.6E-04	2.1E+00	EqP	2.8E-01
Landbay D	49-01	INORG	Chromium III	16065-83-1	D	3.98E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay D	49-01	INORG	Chromium VI	18540-29-9	A	2.86E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay D	49-01	INORG	Lead	7439-92-1	B2	1.65E+01						3.5E+02	EqP	4.7E-02
Landbay D	49-01	INORG	Mercury	7439-97-6	D	1.29E-02	7.10E-02	1.8E-01		NA		3.7E-01	EqP	3.5E-02
Landbay D	49-01	INORG	Silver	7440-22-4	D	5.76E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.2E-01
Landbay D	49-02	INORG	Arsenic	7440-38-2	A	2.58E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.0E-02
Landbay D	49-02	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay D	49-02	INORG	Chromium III	16065-83-1	D	5.17E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay D	49-02	INORG	Chromium VI	18540-29-9	A	2.94E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay D	49-02	INORG	Lead	7439-92-1	B2	1.09E+01						3.5E+02	EqP	3.1E-02
Landbay D	49-02	INORG	Silver	7440-22-4	D	6.73E-01	2.30E+00	2.9E-01	3.8E+03	LT	1.8E-04	2.7E+00	LT	2.5E-01
Landbay D	4950-1550	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	4950-1550	INORG	Antimony	7440-36-0	ID	1.65E+00	1.70E+00	9.7E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.1E-02
Landbay D	4950-1550	INORG	Arsenic	7440-38-2	A	7.69E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay D	4950-1550	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay D	4950-1550	INORG	Beryllium	7440-41-7	B1	5.32E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay D	4950-1550	INORG	Boron	7440-42-8	ID	1.65E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.6E+01**
Landbay D	4950-1550	INORG	Cadmium	7440-43-9	B1	2.46E+00	2.70E+00	9.1E-01	1.1E+03	EqP	2.3E-03	2.1E+00	EqP	**1.2E+00**
Landbay D	4950-1550	INORG	Chromium III	16065-83-1	D	2.08E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay D	4950-1550	INORG	Chromium VI	18540-29-9	A	3.70E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.4E-01
Landbay D	4950-1550	INORG	Cobalt	7440-48-4	LC	8.55E+01	8.60E+01	9.9E-01	1.4E+04	EqP	6.2E-03	2.1E+01	EqP	**4.1E+00**
Landbay D	4950-1550	INORG	Copper	7440-50-8	D	2.37E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.8E-05	8.4E+00	EqP	**2.8E+00**
Landbay D	4950-1550	INORG	Iron	7439-89-6	D	6.76E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	4950-1550	INORG	Lead	7439-92-1	B2	2.45E+01						3.5E+02	EqP	7.0E-02
Landbay D	4950-1550	INORG	Manganese	7439-96-5	D	3.14E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay D	4950-1550	INORG	Mercury	7439-97-6	D	4.28E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.2E-01
Landbay D	4950-1550	INORG	Nickel	7440-02-0	A	2.91E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.6E-01
Landbay D	4950-1550	INORG	Silver	7440-22-4	D	2.03E+00	2.30E+00	8.8E-01	3.8E+03	LT	5.4E-04	2.7E+00	LT	7.6E-01
Landbay D	4950-1550	INORG	Strontium	7440-24-6		9.91E+00	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.4E-03
Landbay D	4950-1550	INORG	Vanadium	7440-62-2	ID	2.45E+02	2.83E+02	8.7E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay D	4950-1550	INORG	Zinc	7440-66-6	ID	4.78E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay D	4950-1700	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	4950-1700	INORG	Antimony	7440-36-0	ID	1.65E+00	1.70E+00	9.7E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.1E-02
Landbay D	4950-1700	INORG	Arsenic	7440-38-2	A	7.69E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay D	4950-1700	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay D	4950-1700	INORG	Beryllium	7440-41-7	B1	5.32E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay D	4950-1700	INORG	Boron	7440-42-8	ID	1.65E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.6E+01**
Landbay D	4950-1700	INORG	Cadmium	7440-43-9	B1	2.46E+00	2.70E+00	9.1E-01	1.1E+03	EqP	2.3E-03	2.1E+00	EqP	**1.2E+00**
Landbay D	4950-1700	INORG	Chromium III	16065-83-1	D	2.08E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay D	4950-1700	INORG	Chromium VI	18540-29-9	A	3.70E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.4E-01
Landbay D	4950-1700	INORG	Cobalt	7440-48-4	LC	8.55E+01	8.60E+01	9.9E-01	1.4E+04	EqP	6.2E-03	2.1E+01	EqP	**4.1E+00**
Landbay D	4950-1700	INORG	Copper	7440-50-8	D	2.37E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.8E-05	8.4E+00	EqP	**2.8E+00**
Landbay D	4950-1700	INORG	Iron	7439-89-6	D	6.76E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	4950-1700	INORG	Lead	7439-92-1	B2	2.45E+01						3.5E+02	EqP	7.0E-02
Landbay D	4950-1700	INORG	Manganese	7439-96-5	D	3.14E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay D	4950-1700	INORG	Mercury	7439-97-6	D	4.28E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.2E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	4950-1700	INORG	Nickel	7440-02-0	A	2.91E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.6E-01
Landbay D	4950-1700	INORG	Silver	7440-22-4	D	2.03E+00	2.30E+00	8.8E-01	3.8E+03	LT	5.4E-04	2.7E+00	LT	7.6E-01
Landbay D	4950-1700	INORG	Strontium	7440-24-6		9.91E+00	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.4E-03
Landbay D	4950-1700	INORG	Vanadium	7440-62-2	ID	2.45E+02	2.83E+02	8.7E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay D	4950-1700	INORG	Zinc	7440-66-6	ID	4.78E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay D	4B1	INORG	Perchlorate	14797-73-0	NC	1.70E-03			3.4E+03	LT	4.9E-07	7.7E+02	LT	2.2E-06
Landbay D	50B1	INORG	Aluminum	7429-90-5	ID	3.18E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	50B1	INORG	Arsenic	7440-38-2	A	1.58E+00	9.90E+00	1.6E-01	1.1E+03	EqP	1.5E-03	8.6E+01	EqP	1.8E-02
Landbay D	50B1	INORG	Barium	7440-39-3	NC	5.18E+01	2.24E+02	2.3E-01	3.2E+05	EqP	1.6E-04	3.3E+00	EqP	**1.6E+01**
Landbay D	50B1	INORG	Cadmium	7440-43-9	B1	2.35E-01	2.70E+00	8.7E-02	1.1E+03	EqP	2.2E-04	2.1E+00	EqP	1.1E-01
Landbay D	50B1	INORG	Chromium III	16065-83-1	D	1.36E+01	2.61E+02	5.2E-02	2.1E+10	EqP	6.4E-10	3.4E+06	EqP	4.0E-06
Landbay D	50B1	INORG	Copper	7440-50-8	D	8.30E+01	1.31E+02	6.3E-01	3.5E+05	EqP	2.4E-04	8.4E+00	EqP	**9.9E+00**
Landbay D	50B1	INORG	Silver	7440-22-4	D	1.58E+00	2.30E+00	6.9E-01	3.8E+03	LT	4.2E-04	2.7E+00	LT	5.9E-01
Landbay D	50B1	INORG	Strontium	7440-24-6		4.85E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.0E-06	1.1E+03	EqP	4.6E-02
Landbay D	5100-1700	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	5100-1700	INORG	Antimony	7440-36-0	ID	1.65E+00	1.70E+00	9.7E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.1E-02
Landbay D	5100-1700	INORG	Arsenic	7440-38-2	A	7.69E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay D	5100-1700	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay D	5100-1700	INORG	Beryllium	7440-41-7	B1	5.32E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay D	5100-1700	INORG	Boron	7440-42-8	ID	1.65E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.6E+01**
Landbay D	5100-1700	INORG	Cadmium	7440-43-9	B1	2.46E+00	2.70E+00	9.1E-01	1.1E+03	EqP	2.3E-03	2.1E+00	EqP	**1.2E+00**
Landbay D	5100-1700	INORG	Chromium III	16065-83-1	D	2.08E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay D	5100-1700	INORG	Chromium VI	18540-29-9	A	3.70E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.4E-01
Landbay D	5100-1700	INORG	Cobalt	7440-48-4	LC	8.55E+01	8.60E+01	9.9E-01	1.4E+04	EqP	6.2E-03	2.1E+01	EqP	**4.1E+00**
Landbay D	5100-1700	INORG	Copper	7440-50-8	D	2.37E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.8E-05	8.4E+00	EqP	**2.8E+00**
Landbay D	5100-1700	INORG	Iron	7439-89-6	D	6.76E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	5100-1700	INORG	Lead	7439-92-1	B2	2.45E+01						3.5E+02	EqP	7.0E-02
Landbay D	5100-1700	INORG	Manganese	7439-96-5	D	3.14E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay D	5100-1700	INORG	Mercury	7439-97-6	D	4.28E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.2E-01
Landbay D	5100-1700	INORG	Nickel	7440-02-0	A	2.91E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.6E-01
Landbay D	5100-1700	INORG	Silver	7440-22-4	D	2.03E+00	2.30E+00	8.8E-01	3.8E+03	LT	5.4E-04	2.7E+00	LT	7.6E-01
Landbay D	5100-1700	INORG	Strontium	7440-24-6		9.91E+00	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.4E-03
Landbay D	5100-1700	INORG	Vanadium	7440-62-2	ID	2.45E+02	2.83E+02	8.7E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay D	5100-1700	INORG	Zinc	7440-66-6	ID	4.78E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay D	5100-1850	PCB	PCBs (total)	1336-36-3	B2	1.64E-02				NA		1.4E+00	EqP	1.2E-02
Landbay D	5100-1850	INORG	Aluminum	7429-90-5	ID	2.92E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	5100-1850	INORG	Arsenic	7440-38-2	A	3.38E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay D	5100-1850	INORG	Barium	7440-39-3	NC	9.12E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	5100-1850	INORG	Beryllium	7440-41-7	B1	2.63E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.5E-02
Landbay D	5100-1850	INORG	Boron	7440-42-8	ID	8.26E+00	1.34E+01	6.2E-01	9.9E+05	LT	8.4E-06	6.4E-01	LT	**1.3E+01**
Landbay D	5100-1850	INORG	Cadmium	7440-43-9	B1	9.82E-01	2.70E+00	3.6E-01	1.1E+03	EqP	9.1E-04	2.1E+00	EqP	4.6E-01
Landbay D	5100-1850	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.6E-05
Landbay D	5100-1850	INORG	Chromium VI	18540-29-9	A	2.70E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.1E-02	4.4E+00	LT	6.1E-01
Landbay D	5100-1850	INORG	Cobalt	7440-48-4	LC	3.78E+01	8.60E+01	4.4E-01	1.4E+04	EqP	2.8E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	5100-1850	INORG	Copper	7440-50-8	D	3.38E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.7E-05	8.4E+00	EqP	**4.0E+00**
Landbay D	5100-1850	INORG	Iron	7439-89-6	D	3.57E+04	9.52E+04	3.8E-01	4.4E+06	EqP	8.2E-03	1.5E+02	EqP	**2.4E+02**
Landbay D	5100-1850	INORG	Lead	7439-92-1	B2	9.54E+00						3.5E+02	EqP	2.7E-02
Landbay D	5100-1850	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay D	5100-1850	INORG	Mercury	7439-97-6	D	2.93E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.9E-02
Landbay D	5100-1850	INORG	Nickel	7440-02-0	A	3.79E+01	7.30E+01	5.2E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	5100-1850	INORG	Silver	7440-22-4	D	1.55E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay D	5100-1850	INORG	Strontium	7440-24-6		2.04E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay D	5100-1850	INORG	Vanadium	7440-62-2	ID	1.12E+02	2.83E+02	4.0E-01	1.5E+05	EqP	7.2E-04	4.0E+02	EqP	2.8E-01
Landbay D	5100-1850	INORG	Zinc	7440-66-6	ID	4.26E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay D	5100-2000	PCB	PCBs (total)	1336-36-3	B2	1.64E-02				NA		1.4E+00	EqP	1.2E-02
Landbay D	5100-2000	INORG	Aluminum	7429-90-5	ID	2.92E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	5100-2000	INORG	Arsenic	7440-38-2	A	3.38E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay D	5100-2000	INORG	Barium	7440-39-3	NC	9.12E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	5100-2000	INORG	Beryllium	7440-41-7	B1	2.63E-01	1.20E+00	2.2E-01	6.8E+03	EqP	3.9E-05	1.0E+01	EqP	2.5E-02
Landbay D	5100-2000	INORG	Boron	7440-42-8	ID	8.26E+00	1.34E+01	6.2E-01	9.9E+05	LT	8.4E-06	6.4E-01	LT	**1.3E+01**
Landbay D	5100-2000	INORG	Cadmium	7440-43-9	B1	9.82E-01	2.70E+00	3.6E-01	1.1E+03	EqP	9.1E-04	2.1E+00	EqP	4.6E-01
Landbay D	5100-2000	INORG	Chromium III	16065-83-1	D	1.20E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.6E-05
Landbay D	5100-2000	INORG	Chromium VI	18540-29-9	A	2.70E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.1E-02	4.4E+00	LT	6.1E-01
Landbay D	5100-2000	INORG	Cobalt	7440-48-4	LC	3.78E+01	8.60E+01	4.4E-01	1.4E+04	EqP	2.8E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	5100-2000	INORG	Copper	7440-50-8	D	3.38E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.7E-05	8.4E+00	EqP	**4.0E+00**
Landbay D	5100-2000	INORG	Iron	7439-89-6	D	3.57E+04	9.52E+04	3.8E-01	4.4E+06	EqP	8.2E-03	1.5E+02	EqP	**2.4E+02**
Landbay D	5100-2000	INORG	Lead	7439-92-1	B2	9.54E+00						3.5E+02	EqP	2.7E-02
Landbay D	5100-2000	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay D	5100-2000	INORG	Mercury	7439-97-6	D	2.93E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.9E-02
Landbay D	5100-2000	INORG	Nickel	7440-02-0	A	3.79E+01	7.30E+01	5.2E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	5100-2000	INORG	Silver	7440-22-4	D	1.55E+00	2.30E+00	6.7E-01	3.8E+03	LT	4.1E-04	2.7E+00	LT	5.8E-01
Landbay D	5100-2000	INORG	Strontium	7440-24-6		2.04E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay D	5100-2000	INORG	Vanadium	7440-62-2	ID	1.12E+02	2.83E+02	4.0E-01	1.5E+05	EqP	7.2E-04	4.0E+02	EqP	2.8E-01
Landbay D	5100-2000	INORG	Zinc	7440-66-6	ID	4.26E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay D	51B1	INORG	Perchlorate	14797-73-0	NC	2.90E-04			3.4E+03	LT	8.4E-08	7.7E+02	LT	3.7E-07
Landbay D	54-02	INORG	Arsenic	7440-38-2	A	5.75E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay D	54-02	INORG	Barium	7440-39-3	NC	1.69E+02	2.24E+02	7.5E-01	3.2E+05	EqP	5.2E-04	3.3E+00	EqP	**5.1E+01**
Landbay D	54-02	INORG	Cadmium	7440-43-9	B1	5.76E-01	2.70E+00	2.1E-01	1.1E+03	EqP	5.3E-04	2.1E+00	EqP	2.7E-01
Landbay D	54-02	INORG	Chromium III	16065-83-1	D	2.27E+01	2.61E+02	8.7E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	6.7E-06
Landbay D	54-02	INORG	Chromium VI	18540-29-9	A	2.75E+00	4.97E+00	5.5E-01	6.6E+01	LT	4.1E-02	4.4E+00	LT	6.2E-01
Landbay D	54-02	INORG	Lead	7439-92-1	B2	3.91E+00						3.5E+02	EqP	1.1E-02
Landbay D	54-02	INORG	Silver	7440-22-4	D	8.00E-01	2.30E+00	3.5E-01	3.8E+03	LT	2.1E-04	2.7E+00	LT	3.0E-01
Landbay D	5B1	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.10E-02				NA		4.4E+00	LT	2.5E-03
Landbay D	5B1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	5.30E+01				NA		9.6E+03	EqP	5.5E-03
Landbay D	5B1	PCB	PCBs (total)	1336-36-3	B2	3.69E+00				NA		1.4E+00	EqP	**2.7E+00**
Landbay D	5B1	INORG	Aluminum	7429-90-5	ID	4.77E+04	5.34E+04	8.9E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay D	5B1	INORG	Barium	7440-39-3	NC	9.21E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	5B1	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay D	5B1	INORG	Cadmium	7440-43-9	B1	2.00E+00	2.70E+00	7.4E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.4E-01
Landbay D	5B1	INORG	Chromium III	16065-83-1	D	1.24E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.8E-09	3.4E+06	EqP	3.7E-05
Landbay D	5B1	INORG	Chromium VI	18540-29-9	A	3.43E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay D	5B1	INORG	Copper	7440-50-8	D	9.28E+01	1.31E+02	7.1E-01	3.5E+05	EqP	2.7E-04	8.4E+00	EqP	**1.1E+01**
Landbay D	5B1	INORG	Lead	7439-92-1	B2	2.16E+00						3.5E+02	EqP	6.2E-03
Landbay D	5B1	INORG	Mercury	7439-97-6	D	2.33E-01	7.10E-02	**3.3E+00**		NA		3.7E-01	EqP	6.3E-01
Landbay D	5B1	INORG	Strontium	7440-24-6		4.08E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.9E-02
Landbay D	5B2	VOC	Methylene Chloride	75-09-2	LC	1.50E-03			2.2E+04	LT	6.8E-08	3.9E+01	LT	3.8E-05
Landbay D	5B2	INORG	Aluminum	7429-90-5	ID	4.77E+04	5.34E+04	8.9E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay D	5B2	INORG	Barium	7440-39-3	NC	9.21E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	5B2	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay D	5B2	INORG	Cadmium	7440-43-9	B1	2.00E+00	2.70E+00	7.4E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.4E-01
Landbay D	5B2	INORG	Chromium III	16065-83-1	D	1.24E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.8E-09	3.4E+06	EqP	3.7E-05
Landbay D	5B2	INORG	Chromium VI	18540-29-9	A	3.43E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay D	5B2	INORG	Copper	7440-50-8	D	9.28E+01	1.31E+02	7.1E-01	3.5E+05	EqP	2.7E-04	8.4E+00	EqP	**1.1E+01**
Landbay D	5B2	INORG	Lead	7439-92-1	B2	1.55E+00						3.5E+02	EqP	4.4E-03
Landbay D	5B2	INORG	Mercury	7439-97-6	D	2.33E-01	7.10E-02	**3.3E+00**		NA		3.7E-01	EqP	6.3E-01
Landbay D	5B2	INORG	Perchlorate	14797-73-0	NC	2.10E-03			3.4E+03	LT	6.1E-07	7.7E+02	LT	2.7E-06
Landbay D	5B2	INORG	Strontium	7440-24-6		4.08E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.9E-02
Landbay D	5B3	VOC	Acetone	67-64-1	ID	4.80E-02			2.0E+06	LT	2.3E-08	6.0E+02	LT	8.0E-05
Landbay D	5B3	INORG	Aluminum	7429-90-5	ID	4.77E+04	5.34E+04	8.9E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay D	5B3	INORG	Barium	7440-39-3	NC	9.21E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	5B3	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay D	5B3	INORG	Cadmium	7440-43-9	B1	2.00E+00	2.70E+00	7.4E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.4E-01
Landbay D	5B3	INORG	Chromium III	16065-83-1	D	1.24E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.8E-09	3.4E+06	EqP	3.7E-05
Landbay D	5B3	INORG	Chromium VI	18540-29-9	A	3.43E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay D	5B3	INORG	Copper	7440-50-8	D	9.28E+01	1.31E+02	7.1E-01	3.5E+05	EqP	2.7E-04	8.4E+00	EqP	**1.1E+01**
Landbay D	5B3	INORG	Lead	7439-92-1	B2	1.53E+02						3.5E+02	EqP	4.4E-01
Landbay D	5B3	INORG	Mercury	7439-97-6	D	2.33E-01	7.10E-02	**3.3E+00**		NA		3.7E-01	EqP	6.3E-01
Landbay D	5B3	INORG	Strontium	7440-24-6		4.08E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.9E-02
Landbay D	5B4	VOC	Acetone	67-64-1	ID	2.10E-02			2.0E+06	LT	1.0E-08	6.0E+02	LT	3.5E-05
Landbay D	5B4	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03				NA		4.4E+00	LT	6.8E-04
Landbay D	5B4	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.80E+00				NA		9.6E+03	EqP	2.9E-04
Landbay D	5B4	INORG	Aluminum	7429-90-5	ID	4.77E+04	5.34E+04	8.9E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay D	5B4	INORG	Barium	7440-39-3	NC	9.21E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	5B4	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay D	5B4	INORG	Cadmium	7440-43-9	B1	2.00E+00	2.70E+00	7.4E-01	1.1E+03	EqP	1.8E-03	2.1E+00	EqP	9.4E-01
Landbay D	5B4	INORG	Chromium III	16065-83-1	D	1.24E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.8E-09	3.4E+06	EqP	3.7E-05
Landbay D	5B4	INORG	Chromium VI	18540-29-9	A	3.43E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay D	5B4	INORG	Copper	7440-50-8	D	9.28E+01	1.31E+02	7.1E-01	3.5E+05	EqP	2.7E-04	8.4E+00	EqP	**1.1E+01**
Landbay D	5B4	INORG	Lead	7439-92-1	B2	2.18E+00						3.5E+02	EqP	6.2E-03
Landbay D	5B4	INORG	Mercury	7439-97-6	D	2.33E-01	7.10E-02	**3.3E+00**		NA		3.7E-01	EqP	6.3E-01
Landbay D	5B4	INORG	Perchlorate	14797-73-0	NC	2.90E-02			3.4E+03	LT	8.4E-06	7.7E+02	LT	3.7E-05
Landbay D	5B4	INORG	Strontium	7440-24-6		4.08E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.9E-02
Landbay D	5B6	VOC	Acetone	67-64-1	ID	1.30E-02			2.0E+06	LT	6.4E-09	6.0E+02	LT	2.2E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	5B6	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	5.10E-01				NA		9.6E+03	EqP	5.3E-05
Landbay D	5B6	INORG	Aluminum	7429-90-5	ID	3.66E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay D	5B6	INORG	Arsenic	7440-38-2	A	1.36E+00	9.90E+00	1.4E-01	1.1E+03	EqP	1.3E-03	8.6E+01	EqP	1.6E-02
Landbay D	5B6	INORG	Barium	7440-39-3	NC	9.22E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay D	5B6	INORG	Cadmium	7440-43-9	B1	3.41E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.1E-04	2.1E+00	EqP	1.6E-01
Landbay D	5B6	INORG	Chromium III	16065-83-1	D	7.00E+01	2.61E+02	2.7E-01	2.1E+10	EqP	3.3E-09	3.4E+06	EqP	2.1E-05
Landbay D	5B6	INORG	Chromium VI	18540-29-9	A	2.50E+00	4.97E+00	5.0E-01	6.6E+01	LT	3.8E-02	4.4E+00	LT	5.7E-01
Landbay D	5B6	INORG	Cobalt	7440-48-4	LC	1.67E+01	8.60E+01	1.9E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.0E-01
Landbay D	5B6	INORG	Copper	7440-50-8	D	4.76E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.7E+00**
Landbay D	5B6	INORG	Iron	7439-89-6	D	2.53E+04	9.52E+04	2.7E-01	4.4E+06	EqP	5.8E-03	1.5E+02	EqP	**1.7E+02**
Landbay D	5B6	INORG	Lead	7439-92-1	B2	3.41E+00						3.5E+02	EqP	9.7E-03
Landbay D	5B6	INORG	Manganese	7439-96-5	D	3.47E+02	4.27E+03	8.1E-02	3.1E+05	EqP	1.1E-03	1.6E+02	EqP	**2.2E+00**
Landbay D	5B6	INORG	Mercury	7439-97-6	D	3.30E-03	7.10E-02	4.6E-02		NA		3.7E-01	EqP	8.9E-03
Landbay D	5B6	INORG	Nickel	7440-02-0	A	4.05E+01	7.30E+01	5.5E-01	1.2E+05	EqP	3.3E-04	3.4E+01	EqP	**1.2E+00**
Landbay D	5B6	INORG	Strontium	7440-24-6		4.25E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay D	5B6	INORG	Vanadium	7440-62-2	ID	9.10E+01	2.83E+02	3.2E-01	1.5E+05	EqP	5.9E-04	4.0E+02	EqP	2.3E-01
Landbay D	5B6	INORG	Zinc	7440-66-6	ID	2.53E+01	1.02E+02	2.5E-01	5.5E+06	EqP	4.6E-06	1.9E+02	EqP	1.3E-01
Landbay D	5G5	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.10E-01				NA		9.6E+03	EqP	1.1E-05
Landbay D	5G5	INORG	Lead	7439-92-1	B2	1.91E+00						3.5E+02	EqP	5.5E-03
Landbay D	5G5	INORG	Perchlorate	14797-73-0	NC	3.00E-04			3.4E+03	LT	8.7E-08	7.7E+02	LT	3.9E-07
Landbay D	62B1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.90E+00				NA		9.6E+03	EqP	2.0E-04
Landbay D	62B1	INORG	Aluminum	7429-90-5	ID	4.03E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	62B1	INORG	Arsenic	7440-38-2	A	6.06E+00	9.90E+00	6.1E-01	1.1E+03	EqP	5.8E-03	8.6E+01	EqP	7.1E-02
Landbay D	62B1	INORG	Barium	7440-39-3	NC	1.50E+02	2.24E+02	6.7E-01	3.2E+05	EqP	4.6E-04	3.3E+00	EqP	**4.5E+01**
Landbay D	62B1	INORG	Chromium III	16065-83-1	D	2.84E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.3E-09	3.4E+06	EqP	8.4E-06
Landbay D	62B1	INORG	Copper	7440-50-8	D	1.58E+02	1.31E+02	**1.2E+00**	3.5E+05	EqP	4.6E-04	8.4E+00	EqP	**1.9E+01**
Landbay D	62B1	INORG	Lead	7439-92-1	B2	1.79E+01						3.5E+02	EqP	5.1E-02
Landbay D	62B1	INORG	Mercury	7439-97-6	D	2.48E-02	7.10E-02	3.5E-01		NA		3.7E-01	EqP	6.7E-02
Landbay D	62B1	INORG	Silver	7440-22-4	D	3.06E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	8.2E-04	2.7E+00	LT	**1.2E+00**
Landbay D	62B1	INORG	Strontium	7440-24-6		2.90E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay D	64B1	INORG	Perchlorate	14797-73-0	NC	2.60E-04			3.4E+03	LT	7.5E-08	7.7E+02	LT	3.4E-07
Landbay D	67B1	INORG	Perchlorate	14797-73-0	NC	3.20E-04			3.4E+03	LT	9.3E-08	7.7E+02	LT	4.1E-07
Landbay D	68G66	INORG	Perchlorate	14797-73-0	NC	4.10E-03			3.4E+03	LT	1.2E-06	7.7E+02	LT	5.3E-06
Landbay D	68G68	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9.80E-02				NA		9.6E+03	EqP	1.0E-05
Landbay D	68G68	PCB	PCBs (total)	1336-36-3	B2	5.89E-02				NA		1.4E+00	EqP	4.3E-02
Landbay D	68G68	INORG	Aluminum	7429-90-5	ID	3.30E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	68G68	INORG	Arsenic	7440-38-2	A	4.79E+00	9.90E+00	4.8E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay D	68G68	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay D	68G68	INORG	Beryllium	7440-41-7	B1	7.95E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay D	68G68	INORG	Cadmium	7440-43-9	B1	4.06E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay D	68G68	INORG	Chromium III	16065-83-1	D	2.66E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.9E-06
Landbay D	68G68	INORG	Chromium VI	18540-29-9	A	2.77E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay D	68G68	INORG	Cobalt	7440-48-4	LC	4.03E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay D	68G68	INORG	Copper	7440-50-8	D	1.04E+02	1.31E+02	7.9E-01	3.5E+05	EqP	3.0E-04	8.4E+00	EqP	**1.2E+01**
Landbay D	68G68	INORG	Iron	7439-89-6	D	6.82E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	68G68	INORG	Lead	7439-92-1	B2	1.80E+01						3.5E+02	EqP	5.1E-02
Landbay D	68G68	INORG	Manganese	7439-96-5	D	8.58E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.8E-03	1.6E+02	EqP	**5.5E+00**
Landbay D	68G68	INORG	Mercury	7439-97-6	D	1.81E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.9E-02
Landbay D	68G68	INORG	Nickel	7440-02-0	A	2.65E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.8E-01
Landbay D	68G68	INORG	Vanadium	7440-62-2	ID	2.12E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay D	68G68	INORG	Zinc	7440-66-6	ID	9.32E+01	1.02E+02	9.1E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.9E-01
Landbay D	68G69	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9.80E-02				NA		9.6E+03	EqP	1.0E-05
Landbay D	68G69	PCB	PCBs (total)	1336-36-3	B2	5.89E-02				NA		1.4E+00	EqP	4.3E-02
Landbay D	68G69	INORG	Aluminum	7429-90-5	ID	3.30E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	68G69	INORG	Arsenic	7440-38-2	A	4.79E+00	9.90E+00	4.8E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay D	68G69	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay D	68G69	INORG	Beryllium	7440-41-7	B1	7.95E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay D	68G69	INORG	Cadmium	7440-43-9	B1	4.06E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay D	68G69	INORG	Chromium III	16065-83-1	D	2.66E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.9E-06
Landbay D	68G69	INORG	Chromium VI	18540-29-9	A	2.77E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay D	68G69	INORG	Cobalt	7440-48-4	LC	4.03E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay D	68G69	INORG	Copper	7440-50-8	D	1.04E+02	1.31E+02	7.9E-01	3.5E+05	EqP	3.0E-04	8.4E+00	EqP	**1.2E+01**
Landbay D	68G69	INORG	Iron	7439-89-6	D	6.82E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	68G69	INORG	Lead	7439-92-1	B2	1.80E+01						3.5E+02	EqP	5.1E-02
Landbay D	68G69	INORG	Manganese	7439-96-5	D	8.58E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.8E-03	1.6E+02	EqP	**5.5E+00**
Landbay D	68G69	INORG	Mercury	7439-97-6	D	1.81E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.9E-02
Landbay D	68G69	INORG	Nickel	7440-02-0	A	2.65E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.8E-01
Landbay D	68G69	INORG	Vanadium	7440-62-2	ID	2.12E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay D	68G69	INORG	Zinc	7440-66-6	ID	9.32E+01	1.02E+02	9.1E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.9E-01
Landbay D	68G72	VOC	Acetone	67-64-1	ID	2.10E-01			2.0E+06	LT	1.0E-07	6.0E+02	LT	3.5E-04
Landbay D	68G72	VOC	2-Butanone	78-93-3	ID	6.00E-03			3.0E+05	LT	2.0E-08	5.6E+03	LT	1.1E-06
Landbay D	68G72	VOC	p-Cymene	99-87-6		2.00E-03						3.4E+01	LT	5.9E-05
Landbay D	68G72	VOC	Toluene	108-88-3	ID	4.00E-03				NA		8.0E-01	LT	5.0E-03
Landbay D	68G72	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9.80E-02				NA		9.6E+03	EqP	1.0E-05
Landbay D	68G72	PCB	PCBs (total)	1336-36-3	B2	5.89E-02				NA		1.4E+00	EqP	4.3E-02
Landbay D	68G72	INORG	Aluminum	7429-90-5	ID	3.30E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	68G72	INORG	Arsenic	7440-38-2	A	4.79E+00	9.90E+00	4.8E-01	1.1E+03	EqP	4.6E-03	8.6E+01	EqP	5.6E-02
Landbay D	68G72	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay D	68G72	INORG	Beryllium	7440-41-7	B1	7.95E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay D	68G72	INORG	Cadmium	7440-43-9	B1	4.06E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.7E-04	2.1E+00	EqP	1.9E-01
Landbay D	68G72	INORG	Chromium III	16065-83-1	D	2.66E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.9E-06
Landbay D	68G72	INORG	Chromium VI	18540-29-9	A	2.77E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay D	68G72	INORG	Cobalt	7440-48-4	LC	4.03E+01	8.60E+01	4.7E-01	1.4E+04	EqP	2.9E-03	2.1E+01	EqP	**1.9E+00**
Landbay D	68G72	INORG	Copper	7440-50-8	D	1.04E+02	1.31E+02	7.9E-01	3.5E+05	EqP	3.0E-04	8.4E+00	EqP	**1.2E+01**
Landbay D	68G72	INORG	Iron	7439-89-6	D	6.82E+04	9.52E+04	7.2E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay D	68G72	INORG	Lead	7439-92-1	B2	1.80E+01						3.5E+02	EqP	5.1E-02
Landbay D	68G72	INORG	Manganese	7439-96-5	D	8.58E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.8E-03	1.6E+02	EqP	**5.5E+00**
Landbay D	68G72	INORG	Mercury	7439-97-6	D	1.81E-02	7.10E-02	2.5E-01		NA		3.7E-01	EqP	4.9E-02
Landbay D	68G72	INORG	Nickel	7440-02-0	A	2.65E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.8E-01
Landbay D	68G72	INORG	Vanadium	7440-62-2	ID	2.12E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay D	68G72	INORG	Zinc	7440-66-6	ID	9.32E+01	1.02E+02	9.1E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.9E-01
Landbay D	6B1	INORG	Perchlorate	14797-73-0	NC	2.20E-04			3.4E+03	LT	6.4E-08	7.7E+02	LT	2.8E-07
Landbay D	A6G197	INORG	Aluminum	7429-90-5	ID	3.72E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay D	A6G197	INORG	Arsenic	7440-38-2	A	2.02E+00	9.90E+00	2.0E-01	1.1E+03	EqP	1.9E-03	8.6E+01	EqP	2.4E-02
Landbay D	A6G197	INORG	Barium	7440-39-3	NC	3.90E+01	2.24E+02	1.7E-01	3.2E+05	EqP	1.2E-04	3.3E+00	EqP	**1.2E+01**
Landbay D	A6G197	INORG	Beryllium	7440-41-7	B1	1.39E-01	1.20E+00	1.2E-01	6.8E+03	EqP	2.0E-05	1.0E+01	EqP	1.3E-02
Landbay D	A6G197	INORG	Chromium III	16065-83-1	D	2.63E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.8E-06
Landbay D	A6G197	INORG	Copper	7440-50-8	D	6.08E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.2E+00**
Landbay D	A6G197	INORG	Lead	7439-92-1	B2	6.67E-01						3.5E+02	EqP	1.9E-03
Landbay D	A6G197	INORG	Perchlorate	14797-73-0	NC	7.80E-03			3.4E+03	LT	2.3E-06	7.7E+02	LT	1.0E-05
Landbay D	A6G197	INORG	Strontium	7440-24-6		6.00E+01	3.80E+01	**1.6E+00**	1.6E+07	EqP	3.7E-06	1.1E+03	EqP	5.7E-02
Landbay D	A6S152	INORG	Aluminum	7429-90-5	ID	3.53E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay D	A6S152	INORG	Arsenic	7440-38-2	A	1.66E+00	9.90E+00	1.7E-01	1.1E+03	EqP	1.6E-03	8.6E+01	EqP	1.9E-02
Landbay D	A6S152	INORG	Barium	7440-39-3	NC	3.61E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay D	A6S152	INORG	Cadmium	7440-43-9	B1	9.52E-01	2.70E+00	3.5E-01	1.1E+03	EqP	8.8E-04	2.1E+00	EqP	4.5E-01
Landbay D	A6S152	INORG	Chromium III	16065-83-1	D	6.43E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay D	A6S152	INORG	Cobalt	7440-48-4	LC	3.21E+01	8.60E+01	3.7E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay D	A6S152	INORG	Copper	7440-50-8	D	6.92E+01	1.31E+02	5.3E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.2E+00**
Landbay D	A6S152	INORG	Iron	7439-89-6	D	4.48E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay D	A6S152	INORG	Manganese	7439-96-5	D	1.07E+03	4.27E+03	2.5E-01	3.1E+05	EqP	3.4E-03	1.6E+02	EqP	**6.8E+00**
Landbay D	A6S152	INORG	Nickel	7440-02-0	A	3.23E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.6E-01
Landbay D	A6S152	INORG	Perchlorate	14797-73-0	NC	5.90E-02			3.4E+03	LT	1.7E-05	7.7E+02	LT	7.6E-05
Landbay D	A6S152	INORG	Silver	7440-22-4	D	1.49E+00	2.30E+00	6.5E-01	3.8E+03	LT	4.0E-04	2.7E+00	LT	5.6E-01
Landbay D	A6S152	INORG	Strontium	7440-24-6		8.49E+01	3.80E+01	**2.2E+00**	1.6E+07	EqP	5.2E-06	1.1E+03	EqP	8.0E-02
Landbay D	A6S152	INORG	Vanadium	7440-62-2	ID	1.61E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay D	A6S152	INORG	Zinc	7440-66-6	ID	4.69E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay D	A6S153	INORG	Aluminum	7429-90-5	ID	4.63E+04	5.34E+04	8.7E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay D	A6S153	INORG	Arsenic	7440-38-2	A	1.42E+00	9.90E+00	1.4E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay D	A6S153	INORG	Barium	7440-39-3	NC	4.70E+01	2.24E+02	2.1E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.4E+01**
Landbay D	A6S153	INORG	Cadmium	7440-43-9	B1	2.47E-01	2.70E+00	9.1E-02	1.1E+03	EqP	2.3E-04	2.1E+00	EqP	1.2E-01
Landbay D	A6S153	INORG	Chromium III	16065-83-1	D	4.54E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay D	A6S153	INORG	Cobalt	7440-48-4	LC	3.21E+01	8.60E+01	3.7E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay D	A6S153	INORG	Copper	7440-50-8	D	6.07E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.2E+00**
Landbay D	A6S153	INORG	Iron	7439-89-6	D	4.48E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay D	A6S153	INORG	Lead	7439-92-1	B2	1.20E+00						3.5E+02	EqP	3.4E-03
Landbay D	A6S153	INORG	Manganese	7439-96-5	D	1.07E+03	4.27E+03	2.5E-01	3.1E+05	EqP	3.4E-03	1.6E+02	EqP	**6.8E+00**
Landbay D	A6S153	INORG	Nickel	7440-02-0	A	3.23E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.6E-01
Landbay D	A6S153	INORG	Silver	7440-22-4	D	8.68E-01	2.30E+00	3.8E-01	3.8E+03	LT	2.3E-04	2.7E+00	LT	3.3E-01
Landbay D	A6S153	INORG	Strontium	7440-24-6		5.40E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.3E-06	1.1E+03	EqP	5.1E-02
Landbay D	A6S153	INORG	Vanadium	7440-62-2	ID	1.61E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay D	A6S153	INORG	Zinc	7440-66-6	ID	4.69E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay D	A6S157	PCB	PCBs (total)	1336-36-3	B2	1.69E-02				NA		1.4E+00	EqP	1.2E-02
Landbay D	A6S157	INORG	Aluminum	7429-90-5	ID	3.94E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	A6S157	INORG	Arsenic	7440-38-2	A	1.38E+00	9.90E+00	1.4E-01	1.1E+03	EqP	1.3E-03	8.6E+01	EqP	1.6E-02
Landbay D	A6S157	INORG	Barium	7440-39-3	NC	3.21E+01	2.24E+02	1.4E-01	3.2E+05	EqP	9.9E-05	3.3E+00	EqP	**9.7E+00**
Landbay D	A6S157	INORG	Chromium III	16065-83-1	D	3.06E+01	2.61E+02	1.2E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	9.1E-06
Landbay D	A6S157	INORG	Cobalt	7440-48-4	LC	3.21E+01	8.60E+01	3.7E-01	1.4E+04	EqP	2.3E-03	2.1E+01	EqP	**1.5E+00**
Landbay D	A6S157	INORG	Copper	7440-50-8	D	6.13E+01	1.31E+02	4.7E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.3E+00**
Landbay D	A6S157	INORG	Iron	7439-89-6	D	4.48E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay D	A6S157	INORG	Lead	7439-92-1	B2	1.98E+00						3.5E+02	EqP	5.7E-03
Landbay D	A6S157	INORG	Manganese	7439-96-5	D	1.07E+03	4.27E+03	2.5E-01	3.1E+05	EqP	3.4E-03	1.6E+02	EqP	**6.8E+00**
Landbay D	A6S157	INORG	Nickel	7440-02-0	A	3.23E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.6E-01
Landbay D	A6S157	INORG	Perchlorate	14797-73-0	NC	2.50E-02			3.4E+03	LT	7.3E-06	7.7E+02	LT	3.2E-05
Landbay D	A6S157	INORG	Silver	7440-22-4	D	6.83E-01	2.30E+00	3.0E-01	3.8E+03	LT	1.8E-04	2.7E+00	LT	2.6E-01
Landbay D	A6S157	INORG	Strontium	7440-24-6		5.63E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.3E-02
Landbay D	A6S157	INORG	Vanadium	7440-62-2	ID	1.61E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay D	A6S157	INORG	Zinc	7440-66-6	ID	4.69E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay D	B11AEC-1S	INORG	Perchlorate	14797-73-0	NC	3.30E+00			3.4E+03	LT	9.6E-04	7.7E+02	LT	4.3E-03
Landbay D	B31AEC-1S	INORG	Perchlorate	14797-73-0	NC	9.90E-02			3.4E+03	LT	2.9E-05	7.7E+02	LT	1.3E-04
Landbay D	B32AEC-1S	INORG	Perchlorate	14797-73-0	NC	2.40E+00			3.4E+03	LT	7.0E-04	7.7E+02	LT	3.1E-03
Landbay D	B41AEC-1S	INORG	Perchlorate	14797-73-0	NC	2.30E+02			3.4E+03	LT	6.7E-02	7.7E+02	LT	3.0E-01
Landbay D	B6AEC-1S	INORG	Perchlorate	14797-73-0	NC	2.20E+02			3.4E+03	LT	6.4E-02	7.7E+02	LT	2.8E-01
Landbay D	B6AEC-1S	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	3.70E-01				NA		6.0E+01	LT	6.2E-03
Landbay D	BW 14-02	INORG	Perchlorate	14797-73-0	NC	1.30E-02			3.4E+03	LT	3.8E-06	7.7E+02	LT	1.7E-05
Landbay D	BW 17-02	INORG	Perchlorate	14797-73-0	NC	4.81E-01			3.4E+03	LT	1.4E-04	7.7E+02	LT	6.2E-04
Landbay D	BW 32-01	INORG	Perchlorate	14797-73-0	NC	2.90E-02			3.4E+03	LT	8.4E-06	7.7E+02	LT	3.7E-05
Landbay D	CDP1	INORG	Aluminum	7429-90-5	ID	4.20E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	CDP1	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay D	CDP1	INORG	Boron	7440-42-8	ID	1.06E+01	1.34E+01	7.9E-01	9.9E+05	LT	1.1E-05	6.4E-01	LT	**1.7E+01**
Landbay D	CDP1	INORG	Chromium III	16065-83-1	D	7.35E+01	2.61E+02	2.8E-01	2.1E+10	EqP	3.4E-09	3.4E+06	EqP	2.2E-05
Landbay D	CDP1	INORG	Chromium VI	18540-29-9	A	6.70E-01	4.97E+00	1.3E-01	6.6E+01	LT	1.0E-02	4.4E+00	LT	1.5E-01
Landbay D	CDP1	INORG	Cobalt	7440-48-4	LC	1.81E+01	8.60E+01	2.1E-01	1.4E+04	EqP	1.3E-03	2.1E+01	EqP	8.7E-01
Landbay D	CDP1	INORG	Copper	7440-50-8	D	5.58E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay D	CDP1	INORG	Iron	7439-89-6	D	3.09E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.1E-03	1.5E+02	EqP	**2.0E+02**
Landbay D	CDP1	INORG	Lead	7439-92-1	B2	2.71E+00						3.5E+02	EqP	7.7E-03
Landbay D	CDP1	INORG	Manganese	7439-96-5	D	3.36E+02	4.27E+03	7.9E-02	3.1E+05	EqP	1.1E-03	1.6E+02	EqP	**2.1E+00**
Landbay D	CDP1	INORG	Nickel	7440-02-0	A	3.84E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	CDP1	INORG	Selenium	7782-49-2	D	1.10E+00	2.50E+00	4.4E-01	2.5E+04	LT	4.5E-05	2.0E+00	LT	5.5E-01
Landbay D	CDP1	INORG	Strontium	7440-24-6		4.89E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.0E-06	1.1E+03	EqP	4.6E-02
Landbay D	CDP1	INORG	Vanadium	7440-62-2	ID	9.70E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.4E-01
Landbay D	CDP1	INORG	Zinc	7440-66-6	ID	3.06E+01	1.02E+02	3.0E-01	5.5E+06	EqP	5.6E-06	1.9E+02	EqP	1.6E-01
Landbay D	CDP2	INORG	Aluminum	7429-90-5	ID	4.01E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	CDP2	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay D	CDP2	INORG	Boron	7440-42-8	ID	7.69E+00	1.34E+01	5.7E-01	9.9E+05	LT	7.8E-06	6.4E-01	LT	**1.2E+01**
Landbay D	CDP2	INORG	Chromium III	16065-83-1	D	1.01E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.8E-09	3.4E+06	EqP	3.0E-05
Landbay D	CDP2	INORG	Chromium VI	18540-29-9	A	5.60E-01	4.97E+00	1.1E-01	6.6E+01	LT	8.4E-03	4.4E+00	LT	1.3E-01
Landbay D	CDP2	INORG	Cobalt	7440-48-4	LC	1.98E+01	8.60E+01	2.3E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.5E-01
Landbay D	CDP2	INORG	Copper	7440-50-8	D	6.25E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.4E+00**
Landbay D	CDP2	INORG	Iron	7439-89-6	D	3.86E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.5E+02**
Landbay D	CDP2	INORG	Lead	7439-92-1	B2	2.96E+00						3.5E+02	EqP	8.4E-03
Landbay D	CDP2	INORG	Manganese	7439-96-5	D	3.88E+02	4.27E+03	9.1E-02	3.1E+05	EqP	1.2E-03	1.6E+02	EqP	**2.5E+00**
Landbay D	CDP2	INORG	Nickel	7440-02-0	A	4.33E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay D	CDP2	INORG	Perchlorate	14797-73-0	NC	1.00E-02			3.4E+03	LT	2.9E-06	7.7E+02	LT	1.3E-05
Landbay D	CDP2	INORG	Strontium	7440-24-6		4.62E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.8E-06	1.1E+03	EqP	4.4E-02
Landbay D	CDP2	INORG	Vanadium	7440-62-2	ID	9.92E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.4E-04	4.0E+02	EqP	2.5E-01
Landbay D	CDP2	INORG	Zinc	7440-66-6	ID	3.75E+01	1.02E+02	3.7E-01	5.5E+06	EqP	6.9E-06	1.9E+02	EqP	2.0E-01
Landbay D	CDP3	INORG	Aluminum	7429-90-5	ID	3.82E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	CDP3	INORG	Barium	7440-39-3	NC	8.00E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay D	CDP3	INORG	Cadmium	7440-43-9	B1	1.74E-01	2.70E+00	6.4E-02	1.1E+03	EqP	1.6E-04	2.1E+00	EqP	8.1E-02
Landbay D	CDP3	INORG	Chromium III	16065-83-1	D	6.42E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay D	CDP3	INORG	Cobalt	7440-48-4	LC	1.65E+01	8.60E+01	1.9E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	7.9E-01
Landbay D	CDP3	INORG	Copper	7440-50-8	D	5.69E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.8E+00**
Landbay D	CDP3	INORG	Iron	7439-89-6	D	2.68E+04	9.52E+04	2.8E-01	4.4E+06	EqP	6.1E-03	1.5E+02	EqP	**1.8E+02**
Landbay D	CDP3	INORG	Lead	7439-92-1	B2	1.93E+00						3.5E+02	EqP	5.5E-03
Landbay D	CDP3	INORG	Manganese	7439-96-5	D	3.00E+02	4.27E+03	7.0E-02	3.1E+05	EqP	9.6E-04	1.6E+02	EqP	**1.9E+00**
Landbay D	CDP3	INORG	Nickel	7440-02-0	A	3.47E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay D	CDP3	INORG	Perchlorate	14797-73-0	NC	1.50E-01			3.4E+03	LT	4.4E-05	7.7E+02	LT	1.9E-04
Landbay D	CDP3	INORG	Strontium	7440-24-6		5.03E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay D	CDP3	INORG	Vanadium	7440-62-2	ID	8.96E+01	2.83E+02	3.2E-01	1.5E+05	EqP	5.8E-04	4.0E+02	EqP	2.2E-01
Landbay D	CDP3	INORG	Zinc	7440-66-6	ID	2.49E+01	1.02E+02	2.4E-01	5.5E+06	EqP	4.6E-06	1.9E+02	EqP	1.3E-01
Landbay D	CDP4	INORG	Aluminum	7429-90-5	ID	3.91E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay D	CDP4	INORG	Barium	7440-39-3	NC	7.06E+01	2.24E+02	3.2E-01	3.2E+05	EqP	2.2E-04	3.3E+00	EqP	**2.1E+01**
Landbay D	CDP4	INORG	Chromium III	16065-83-1	D	5.05E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay D	CDP4	INORG	Cobalt	7440-48-4	LC	1.66E+01	8.60E+01	1.9E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.0E-01
Landbay D	CDP4	INORG	Copper	7440-50-8	D	5.29E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.3E+00**
Landbay D	CDP4	INORG	Iron	7439-89-6	D	2.16E+04	9.52E+04	2.3E-01	4.4E+06	EqP	5.0E-03	1.5E+02	EqP	**1.4E+02**
Landbay D	CDP4	INORG	Lead	7439-92-1	B2	1.96E+00						3.5E+02	EqP	5.6E-03
Landbay D	CDP4	INORG	Manganese	7439-96-5	D	3.23E+02	4.27E+03	7.6E-02	3.1E+05	EqP	1.0E-03	1.6E+02	EqP	**2.1E+00**
Landbay D	CDP4	INORG	Nickel	7440-02-0	A	3.09E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay D	CDP4	INORG	Perchlorate	14797-73-0	NC	2.65E-02			3.4E+03	LT	7.7E-06	7.7E+02	LT	3.4E-05
Landbay D	CDP4	INORG	Strontium	7440-24-6		5.49E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.4E-06	1.1E+03	EqP	5.2E-02
Landbay D	CDP4	INORG	Vanadium	7440-62-2	ID	8.09E+01	2.83E+02	2.9E-01	1.5E+05	EqP	5.2E-04	4.0E+02	EqP	2.0E-01
Landbay D	CDP4	INORG	Zinc	7440-66-6	ID	2.13E+01	1.02E+02	2.1E-01	5.5E+06	EqP	3.9E-06	1.9E+02	EqP	1.1E-01
Landbay D	CDP5	INORG	Aluminum	7429-90-5	ID	3.42E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay D	CDP5	INORG	Barium	7440-39-3	NC	6.62E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**2.0E+01**
Landbay D	CDP5	INORG	Chromium III	16065-83-1	D	4.35E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay D	CDP5	INORG	Cobalt	7440-48-4	LC	1.54E+01	8.60E+01	1.8E-01	1.4E+04	EqP	1.1E-03	2.1E+01	EqP	7.4E-01
Landbay D	CDP5	INORG	Copper	7440-50-8	D	5.21E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.2E+00**
Landbay D	CDP5	INORG	Iron	7439-89-6	D	2.07E+04	9.52E+04	2.2E-01	4.4E+06	EqP	4.8E-03	1.5E+02	EqP	**1.4E+02**
Landbay D	CDP5	INORG	Lead	7439-92-1	B2	1.48E+00						3.5E+02	EqP	4.2E-03
Landbay D	CDP5	INORG	Manganese	7439-96-5	D	2.69E+02	4.27E+03	6.3E-02	3.1E+05	EqP	8.6E-04	1.6E+02	EqP	**1.7E+00**
Landbay D	CDP5	INORG	Nickel	7440-02-0	A	2.84E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.4E-01
Landbay D	CDP5	INORG	Perchlorate	14797-73-0	NC	6.20E-03			3.4E+03	LT	1.8E-06	7.7E+02	LT	8.0E-06
Landbay D	CDP5	INORG	Strontium	7440-24-6		4.74E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.5E-02
Landbay D	CDP5	INORG	Vanadium	7440-62-2	ID	8.12E+01	2.83E+02	2.9E-01	1.5E+05	EqP	5.2E-04	4.0E+02	EqP	2.0E-01
Landbay D	CDP5	INORG	Zinc	7440-66-6	ID	1.89E+01	1.02E+02	1.9E-01	5.5E+06	EqP	3.5E-06	1.9E+02	EqP	9.9E-02
Landbay D	CDP6	VOC	Acetone	67-64-1	ID	5.00E-02			2.0E+06	LT	2.4E-08	6.0E+02	LT	8.3E-05
Landbay D	CDP6	VOC	Ethyl Benzene	100-41-4	D	7.00E-03				NA		3.6E+01	LT	1.9E-04
Landbay D	CDP6	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03			1.5E+03	LT	2.7E-06	4.4E+01	LT	9.0E-05
Landbay D	CDP6	VOC	Toluene	108-88-3	ID	8.70E-02				NA		8.0E-01	LT	1.1E-01
Landbay D	CDP6	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	5.00E-03			4.6E+02	LT	1.1E-05	1.3E+01	LT	3.8E-04
Landbay D	CDP6	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	2.00E-03			3.1E+02	LT	6.4E-06	2.8E+01	LT	7.0E-05
Landbay D	CDP6	VOC	Xylenes (total)	1330-20-7	ID	2.90E-02				NA		5.2E+00	LT	5.6E-03
Landbay D	CDP6	INORG	Aluminum	7429-90-5	ID	3.00E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	CDP6	INORG	Barium	7440-39-3	NC	7.08E+01	2.24E+02	3.2E-01	3.2E+05	EqP	2.2E-04	3.3E+00	EqP	**2.1E+01**
Landbay D	CDP6	INORG	Boron	7440-42-8	ID	2.75E+00	1.34E+01	2.1E-01	9.9E+05	LT	2.8E-06	6.4E-01	LT	**4.3E+00**
Landbay D	CDP6	INORG	Chromium III	16065-83-1	D	4.30E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay D	CDP6	INORG	Cobalt	7440-48-4	LC	1.25E+01	8.60E+01	1.5E-01	1.4E+04	EqP	9.1E-04	2.1E+01	EqP	6.0E-01
Landbay D	CDP6	INORG	Copper	7440-50-8	D	3.78E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay D	CDP6	INORG	Iron	7439-89-6	D	1.91E+04	9.52E+04	2.0E-01	4.4E+06	EqP	4.4E-03	1.5E+02	EqP	**1.3E+02**
Landbay D	CDP6	INORG	Lead	7439-92-1	B2	1.76E+00						3.5E+02	EqP	5.0E-03
Landbay D	CDP6	INORG	Manganese	7439-96-5	D	2.88E+02	4.27E+03	6.7E-02	3.1E+05	EqP	9.3E-04	1.6E+02	EqP	**1.8E+00**
Landbay D	CDP6	INORG	Nickel	7440-02-0	A	3.20E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.5E-01
Landbay D	CDP6	INORG	Perchlorate	14797-73-0	NC	5.50E-03			3.4E+03	LT	1.6E-06	7.7E+02	LT	7.1E-06
Landbay D	CDP6	INORG	Strontium	7440-24-6		4.12E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.9E-02
Landbay D	CDP6	INORG	Vanadium	7440-62-2	ID	5.58E+01	2.83E+02	2.0E-01	1.5E+05	EqP	3.6E-04	4.0E+02	EqP	1.4E-01
Landbay D	CDP6	INORG	Zinc	7440-66-6	ID	2.22E+01	1.02E+02	2.2E-01	5.5E+06	EqP	4.1E-06	1.9E+02	EqP	1.2E-01
Landbay D	CDP7	INORG	Aluminum	7429-90-5	ID	4.18E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	CDP7	INORG	Barium	7440-39-3	NC	7.93E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay D	CDP7	INORG	Boron	7440-42-8	ID	1.97E+00	1.34E+01	1.5E-01	9.9E+05	LT	2.0E-06	6.4E-01	LT	**3.1E+00**
Landbay D	CDP7	INORG	Chromium III	16065-83-1	D	5.52E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.6E-05
Landbay D	CDP7	INORG	Chromium VI	18540-29-9	A	4.88E-01	4.97E+00	9.8E-02	6.6E+01	LT	7.3E-03	4.4E+00	LT	1.1E-01
Landbay D	CDP7	INORG	Cobalt	7440-48-4	LC	1.63E+01	8.60E+01	1.9E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	7.8E-01
Landbay D	CDP7	INORG	Copper	7440-50-8	D	4.59E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.5E+00**
Landbay D	CDP7	INORG	Iron	7439-89-6	D	2.34E+04	9.52E+04	2.5E-01	4.4E+06	EqP	5.4E-03	1.5E+02	EqP	**1.5E+02**
Landbay D	CDP7	INORG	Lead	7439-92-1	B2	2.81E+00						3.5E+02	EqP	8.0E-03
Landbay D	CDP7	INORG	Manganese	7439-96-5	D	3.15E+02	4.27E+03	7.4E-02	3.1E+05	EqP	1.0E-03	1.6E+02	EqP	**2.0E+00**
Landbay D	CDP7	INORG	Nickel	7440-02-0	A	3.22E+01	7.30E+01	4.4E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.5E-01
Landbay D	CDP7	INORG	Perchlorate	14797-73-0	NC	8.90E-03			3.4E+03	LT	2.6E-06	7.7E+02	LT	1.2E-05
Landbay D	CDP7	INORG	Selenium	7782-49-2	D	7.45E-01	2.50E+00	3.0E-01	2.5E+04	LT	3.0E-05	2.0E+00	LT	3.7E-01
Landbay D	CDP7	INORG	Strontium	7440-24-6		4.73E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.5E-02
Landbay D	CDP7	INORG	Vanadium	7440-62-2	ID	8.01E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.2E-04	4.0E+02	EqP	2.0E-01
Landbay D	CDP7	INORG	Zinc	7440-66-6	ID	2.32E+01	1.02E+02	2.3E-01	5.5E+06	EqP	4.2E-06	1.9E+02	EqP	1.2E-01
Landbay D	CDP8	INORG	Aluminum	7429-90-5	ID	4.50E+04	5.34E+04	8.4E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay D	CDP8	INORG	Antimony	7440-36-0	ID	2.69E+00	1.70E+00	**1.6E+00**	1.4E+03	EqP	2.0E-03	2.7E+01	EqP	9.9E-02
Landbay D	CDP8	INORG	Arsenic	7440-38-2	A	1.88E+00	9.90E+00	1.9E-01	1.1E+03	EqP	1.8E-03	8.6E+01	EqP	2.2E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	CDP8	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	CDP8	INORG	Cadmium	7440-43-9	B1	1.82E+00	2.70E+00	6.7E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.5E-01
Landbay D	CDP8	INORG	Chromium III	16065-83-1	D	1.63E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.7E-09	3.4E+06	EqP	4.8E-05
Landbay D	CDP8	INORG	Chromium VI	18540-29-9	A	1.70E+00	4.97E+00	3.4E-01	6.6E+01	LT	2.6E-02	4.4E+00	LT	3.9E-01
Landbay D	CDP8	INORG	Cobalt	7440-48-4	LC	3.79E+01	8.60E+01	4.4E-01	1.4E+04	EqP	2.8E-03	2.1E+01	EqP	**1.8E+00**
Landbay D	CDP8	INORG	Copper	7440-50-8	D	8.05E+01	1.31E+02	6.1E-01	3.5E+05	EqP	2.3E-04	8.4E+00	EqP	**9.6E+00**
Landbay D	CDP8	INORG	Iron	7439-89-6	D	7.74E+04	9.52E+04	8.1E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay D	CDP8	INORG	Lead	7439-92-1	B2	6.18E+01						3.5E+02	EqP	1.8E-01
Landbay D	CDP8	INORG	Manganese	7439-96-5	D	8.44E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.7E-03	1.6E+02	EqP	**5.4E+00**
Landbay D	CDP8	INORG	Nickel	7440-02-0	A	8.01E+01	7.30E+01	**1.1E+00**	1.2E+05	EqP	6.5E-04	3.4E+01	EqP	**2.4E+00**
Landbay D	CDP8	INORG	Perchlorate	14797-73-0	NC	1.10E-03			3.4E+03	LT	3.2E-07	7.7E+02	LT	1.4E-06
Landbay D	CDP8	INORG	Selenium	7782-49-2	D	1.70E+00	2.50E+00	6.8E-01	2.5E+04	LT	6.9E-05	2.0E+00	LT	8.5E-01
Landbay D	CDP8	INORG	Silver	7440-22-4	D	9.52E-01	2.30E+00	4.1E-01	3.8E+03	LT	2.5E-04	2.7E+00	LT	3.6E-01
Landbay D	CDP8	INORG	Strontium	7440-24-6		4.07E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.5E-06	1.1E+03	EqP	3.8E-02
Landbay D	CDP8	INORG	Vanadium	7440-62-2	ID	1.24E+02	2.83E+02	4.4E-01	1.5E+05	EqP	8.0E-04	4.0E+02	EqP	3.1E-01
Landbay D	CDP8	INORG	Zinc	7440-66-6	ID	1.55E+02	1.02E+02	**1.5E+00**	5.5E+06	EqP	2.8E-05	1.9E+02	EqP	8.1E-01
Landbay D	DP-42	INORG	Aluminum	7429-90-5	ID	4.19E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay D	DP-42	INORG	Arsenic	7440-38-2	A	2.73E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.6E-03	8.6E+01	EqP	3.2E-02
Landbay D	DP-42	INORG	Beryllium	7440-41-7	B1	5.46E-01	1.20E+00	4.6E-01	6.8E+03	EqP	8.1E-05	1.0E+01	EqP	5.2E-02
Landbay D	DP-42	INORG	Cadmium	7440-43-9	B1	1.03E+01	2.70E+00	**3.8E+00**	1.1E+03	EqP	9.5E-03	2.1E+00	EqP	**4.8E+00**
Landbay D	DP-42	INORG	Chromium III	16065-83-1	D	1.28E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay D	DP-42	INORG	Chromium VI	18540-29-9	A	3.46E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay D	DP-42	INORG	Copper	7440-50-8	D	1.60E+02	1.31E+02	**1.2E+00**	3.5E+05	EqP	4.6E-04	8.4E+00	EqP	**1.9E+01**
Landbay D	DP-42	INORG	Lead	7439-92-1	B2	8.07E+01						3.5E+02	EqP	2.3E-01
Landbay D	DP-42	INORG	Nickel	7440-02-0	A	4.01E+01	7.30E+01	5.5E-01	1.2E+05	EqP	3.2E-04	3.4E+01	EqP	**1.2E+00**
Landbay D	DP-42	INORG	Perchlorate	14797-73-0	NC	8.00E+01			3.4E+03	LT	2.3E-02	7.7E+02	LT	1.0E-01
Landbay D	DP-42	INORG	Selenium	7782-49-2	D	1.30E+00	2.50E+00	5.2E-01	2.5E+04	LT	5.3E-05	2.0E+00	LT	6.5E-01
Landbay D	DP-42	INORG	Silver	7440-22-4	D	1.50E+01	2.30E+00	**6.5E+00**	3.8E+03	LT	4.0E-03	2.7E+00	LT	**5.6E+00**
Landbay D	DP-42	INORG	Zinc	7440-66-6	ID	2.78E+02	1.02E+02	**2.7E+00**	5.5E+06	EqP	5.1E-05	1.9E+02	EqP	**1.5E+00**
Landbay D	DW-17	INORG	Perchlorate	14797-73-0	NC	1.00E-02			3.4E+03	LT	2.9E-06	7.7E+02	LT	1.3E-05
Landbay D	DW-18	INORG	Perchlorate	14797-73-0	NC	1.00E-02			3.4E+03	LT	2.9E-06	7.7E+02	LT	1.3E-05
Landbay D	GP 17-02	INORG	Perchlorate	14797-73-0	NC	4.10E-02			3.4E+03	LT	1.2E-05	7.7E+02	LT	5.3E-05
Landbay D	GP 17-07	INORG	Arsenic	7440-38-2	A	1.20E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.1E-03	8.6E+01	EqP	1.4E-02
Landbay D	GP 17-07	INORG	Beryllium	7440-41-7	B1	3.28E-01	1.20E+00	2.7E-01	6.8E+03	EqP	4.8E-05	1.0E+01	EqP	3.1E-02
Landbay D	GP 17-07	INORG	Cadmium	7440-43-9	B1	1.31E-01	2.70E+00	4.9E-02	1.1E+03	EqP	1.2E-04	2.1E+00	EqP	6.1E-02
Landbay D	GP 17-07	INORG	Chromium III	16065-83-1	D	9.77E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.6E-09	3.4E+06	EqP	2.9E-05
Landbay D	GP 17-07	INORG	Chromium VI	18540-29-9	A	3.26E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay D	GP 17-07	INORG	Copper	7440-50-8	D	3.98E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay D	GP 17-07	INORG	Lead	7439-92-1	B2	3.02E+00						3.5E+02	EqP	8.6E-03
Landbay D	GP 17-07	INORG	Nickel	7440-02-0	A	3.70E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay D	GP 17-07	INORG	Perchlorate	14797-73-0	NC	2.90E-01			3.4E+03	LT	8.4E-05	7.7E+02	LT	3.7E-04
Landbay D	GP 17-07	INORG	Zinc	7440-66-6	ID	2.92E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.3E-06	1.9E+02	EqP	1.5E-01
Landbay D	GP 17-09	INORG	Beryllium	7440-41-7	B1	1.34E-01	1.20E+00	1.1E-01	6.8E+03	EqP	2.0E-05	1.0E+01	EqP	1.3E-02
Landbay D	GP 17-09	INORG	Chromium III	16065-83-1	D	3.23E+01	2.61E+02	1.2E-01	2.1E+10	EqP	1.5E-09	3.4E+06	EqP	9.6E-06
Landbay D	GP 17-09	INORG	Chromium VI	18540-29-9	A	2.81E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay D	GP 17-09	INORG	Copper	7440-50-8	D	4.00E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay D	GP 17-09	INORG	Lead	7439-92-1	B2	1.45E+00						3.5E+02	EqP	4.1E-03
Landbay D	GP 17-09	INORG	Nickel	7440-02-0	A	2.16E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.4E-01
Landbay D	GP 17-09	INORG	Zinc	7440-66-6	ID	1.53E+01	1.02E+02	1.5E-01	5.5E+06	EqP	2.8E-06	1.9E+02	EqP	8.0E-02
Landbay D	GP 17-10	INORG	Perchlorate	14797-73-0	NC	1.40E-01			3.4E+03	LT	4.1E-05	7.7E+02	LT	1.8E-04
Landbay D	GP 17-11	INORG	Perchlorate	14797-73-0	NC	1.80E-01			3.4E+03	LT	5.2E-05	7.7E+02	LT	2.3E-04
Landbay D	GP 3-02	INORG	Perchlorate	14797-73-0	NC	3.80E-02			3.4E+03	LT	1.1E-05	7.7E+02	LT	4.9E-05
Landbay D	GP 32-03	VOC	Methyl tert-butyl ether	1634-04-4	C	1.10E+00			5.4E+03	LT	2.1E-04	4.4E+03	LT	2.5E-04
Landbay D	GP 35-01	INORG	Perchlorate	14797-73-0	NC	7.10E-02			3.4E+03	LT	2.1E-05	7.7E+02	LT	9.2E-05
Landbay D	GP 4-01	INORG	Perchlorate	14797-73-0	NC	5.30E-02			3.4E+03	LT	1.5E-05	7.7E+02	LT	6.9E-05
Landbay D	GP 41-02	INORG	Perchlorate	14797-73-0	NC	3.00E-02			3.4E+03	LT	8.7E-06	7.7E+02	LT	3.9E-05
Landbay D	GP 41-05	INORG	Perchlorate	14797-73-0	NC	1.03E-01			3.4E+03	LT	3.0E-05	7.7E+02	LT	1.3E-04
Landbay D	GP 42-03	INORG	Perchlorate	14797-73-0	NC	4.00E-02			3.4E+03	LT	1.2E-05	7.7E+02	LT	5.2E-05
Landbay D	GP 43-01	INORG	Perchlorate	14797-73-0	NC	7.39E-01			3.4E+03	LT	2.1E-04	7.7E+02	LT	9.6E-04
Landbay D	GP 50-01	VOC	1,3-Dichlorobenzene	541-73-1	D	1.60E-01				NA		6.0E+01	LT	2.7E-03
Landbay D	GP 50-01	INORG	Arsenic	7440-38-2	A	9.00E-01	9.90E+00	9.1E-02	1.1E+03	EqP	8.6E-04	8.6E+01	EqP	1.0E-02
Landbay D	GP 50-01	INORG	Chromium III	16065-83-1	D	1.33E+01	2.61E+02	5.1E-02	2.1E+10	EqP	6.2E-10	3.4E+06	EqP	3.9E-06
Landbay D	GP 50-01	INORG	Chromium VI	18540-29-9	A	2.68E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay D	GP 50-01	INORG	Copper	7440-50-8	D	1.60E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay D	GP 50-01	INORG	Lead	7439-92-1	B2	1.20E+01						3.5E+02	EqP	3.4E-02
Landbay D	GP 50-01	INORG	Nickel	7440-02-0	A	8.40E+00	7.30E+01	1.2E-01	1.2E+05	EqP	6.8E-05	3.4E+01	EqP	2.5E-01
Landbay D	GP 50-01A	INORG	Arsenic	7440-38-2	A	1.15E+00	9.90E+00	1.2E-01	1.1E+03	EqP	1.1E-03	8.6E+01	EqP	1.3E-02
Landbay D	GP 50-01A	INORG	Beryllium	7440-41-7	B1	1.31E-01	1.20E+00	1.1E-01	6.8E+03	EqP	1.9E-05	1.0E+01	EqP	1.3E-02
Landbay D	GP 50-01A	INORG	Cadmium	7440-43-9	B1	1.19E-01	2.70E+00	4.4E-02	1.1E+03	EqP	1.1E-04	2.1E+00	EqP	5.6E-02
Landbay D	GP 50-01A	INORG	Chromium III	16065-83-1	D	1.64E+01	2.61E+02	6.3E-02	2.1E+10	EqP	7.7E-10	3.4E+06	EqP	4.9E-06
Landbay D	GP 50-01A	INORG	Chromium VI	18540-29-9	A	2.71E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.1E-02	4.4E+00	LT	6.1E-01
Landbay D	GP 50-01A	INORG	Copper	7440-50-8	D	6.29E+01	1.31E+02	4.8E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.5E+00**
Landbay D	GP 50-01A	INORG	Lead	7439-92-1	B2	2.29E+00						3.5E+02	EqP	6.5E-03
Landbay D	GP 50-01A	INORG	Nickel	7440-02-0	A	1.61E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.8E-01
Landbay D	GP 50-01A	INORG	Zinc	7440-66-6	ID	3.62E+01	1.02E+02	3.5E-01	5.5E+06	EqP	6.6E-06	1.9E+02	EqP	1.9E-01
Landbay D	GP 51-01	INORG	Aluminum	7429-90-5	ID	2.37E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.1E+00**
Landbay D	GP 51-01	INORG	Barium	7440-39-3	NC	6.86E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay D	GP 51-01	INORG	Boron	7440-42-8	ID	3.49E+00	1.34E+01	2.6E-01	9.9E+05	LT	3.5E-06	6.4E-01	LT	**5.5E+00**
Landbay D	GP 51-01	INORG	Chromium III	16065-83-1	D	6.31E+00	2.61E+02	2.4E-02	2.1E+10	EqP	3.0E-10	3.4E+06	EqP	1.9E-06
Landbay D	GP 51-01	INORG	Chromium VI	18540-29-9	A	2.64E+00	4.97E+00	5.3E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.0E-01
Landbay D	GP 51-01	INORG	Lead	7439-92-1	B2	4.66E+00						3.5E+02	EqP	1.3E-02
Landbay D	GP 51-01	INORG	Silver	7440-22-4	D	2.08E-01	2.30E+00	9.0E-02	3.8E+03	LT	5.5E-05	2.7E+00	LT	7.8E-02
Landbay D	GP 51-01	INORG	Strontium	7440-24-6		2.91E+01	3.80E+01	7.7E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay D	GP 52-01	INORG	Aluminum	7429-90-5	ID	2.89E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	GP 52-01	INORG	Barium	7440-39-3	NC	8.91E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay D	GP 52-01	INORG	Boron	7440-42-8	ID	3.86E+00	1.34E+01	2.9E-01	9.9E+05	LT	3.9E-06	6.4E-01	LT	**6.0E+00**
Landbay D	GP 52-01	INORG	Chromium III	16065-83-1	D	4.81E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay D	GP 52-01	INORG	Chromium VI	18540-29-9	A	2.92E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay D	GP 52-01	INORG	Lead	7439-92-1	B2	1.64E+01						3.5E+02	EqP	4.7E-02
Landbay D	GP 52-01	INORG	Silver	7440-22-4	D	1.71E-01	2.30E+00	7.4E-02	3.8E+03	LT	4.6E-05	2.7E+00	LT	6.4E-02
Landbay D	GP 52-01	INORG	Strontium	7440-24-6		2.54E+01	3.80E+01	6.7E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay D	GP 52-02	INORG	Aluminum	7429-90-5	ID	2.94E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay D	GP 52-02	INORG	Barium	7440-39-3	NC	3.15E+01	2.24E+02	1.4E-01	3.2E+05	EqP	9.7E-05	3.3E+00	EqP	**9.5E+00**
Landbay D	GP 52-02	INORG	Boron	7440-42-8	ID	1.40E+00	1.34E+01	1.0E-01	9.9E+05	LT	1.4E-06	6.4E-01	LT	**2.2E+00**
Landbay D	GP 52-02	INORG	Cadmium	7440-43-9	B1	1.26E-01	2.70E+00	4.7E-02	1.1E+03	EqP	1.2E-04	2.1E+00	EqP	5.9E-02
Landbay D	GP 52-02	INORG	Chromium III	16065-83-1	D	3.25E+01	2.61E+02	1.2E-01	2.1E+10	EqP	1.5E-09	3.4E+06	EqP	9.6E-06
Landbay D	GP 52-02	INORG	Chromium VI	18540-29-9	A	2.81E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay D	GP 52-02	INORG	Lead	7439-92-1	B2	1.30E+00						3.5E+02	EqP	3.7E-03
Landbay D	GP 52-02	INORG	Strontium	7440-24-6		4.46E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.2E-02
Landbay D	GP 52-04	INORG	Aluminum	7429-90-5	ID	5.02E+04	5.34E+04	9.4E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**1.9E+01**
Landbay D	GP 52-04	INORG	Barium	7440-39-3	NC	5.90E+01	2.24E+02	2.6E-01	3.2E+05	EqP	1.8E-04	3.3E+00	EqP	**1.8E+01**
Landbay D	GP 52-04	INORG	Boron	7440-42-8	ID	1.51E+00	1.34E+01	1.1E-01	9.9E+05	LT	1.5E-06	6.4E-01	LT	**2.4E+00**
Landbay D	GP 52-04	INORG	Chromium III	16065-83-1	D	8.64E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay D	GP 52-04	INORG	Chromium VI	18540-29-9	A	3.18E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay D	GP 52-04	INORG	Lead	7439-92-1	B2	3.10E+00						3.5E+02	EqP	8.8E-03
Landbay D	GP 52-04	INORG	Silver	7440-22-4	D	2.85E-01	2.30E+00	1.2E-01	3.8E+03	LT	7.6E-05	2.7E+00	LT	1.1E-01
Landbay D	GP 52-04	INORG	Strontium	7440-24-6		3.09E+01	3.80E+01	8.1E-01	1.6E+07	EqP	1.9E-06	1.1E+03	EqP	2.9E-02
Landbay D	GP 54-01	INORG	Arsenic	7440-38-2	A	5.97E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.7E-03	8.6E+01	EqP	7.0E-02
Landbay D	GP 54-01	INORG	Barium	7440-39-3	NC	1.88E+02	2.24E+02	8.4E-01	3.2E+05	EqP	5.8E-04	3.3E+00	EqP	**5.7E+01**
Landbay D	GP 54-01	INORG	Cadmium	7440-43-9	B1	6.50E-01	2.70E+00	2.4E-01	1.1E+03	EqP	6.0E-04	2.1E+00	EqP	3.0E-01
Landbay D	GP 54-01	INORG	Chromium III	16065-83-1	D	2.36E+01	2.61E+02	9.1E-02	2.1E+10	EqP	1.1E-09	3.4E+06	EqP	7.0E-06
Landbay D	GP 54-01	INORG	Chromium VI	18540-29-9	A	2.75E+00	4.97E+00	5.5E-01	6.6E+01	LT	4.1E-02	4.4E+00	LT	6.3E-01
Landbay D	GP 54-01	INORG	Lead	7439-92-1	B2	2.61E+00						3.5E+02	EqP	7.4E-03
Landbay D	GP 54-01	INORG	Silver	7440-22-4	D	8.03E-01	2.30E+00	3.5E-01	3.8E+03	LT	2.1E-04	2.7E+00	LT	3.0E-01
Landbay D	GP 56-01	INORG	Aluminum	7429-90-5	ID	1.55E+04	5.34E+04	2.9E-01	3.7E+08	EqP	4.2E-05	2.6E+03	EqP	**5.9E+00**
Landbay D	GP 56-01	INORG	Barium	7440-39-3	NC	6.83E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay D	GP 56-01	INORG	Boron	7440-42-8	ID	2.44E+00	1.34E+01	1.8E-01	9.9E+05	LT	2.5E-06	6.4E-01	LT	**3.8E+00**
Landbay D	GP 56-01	INORG	Chromium III	16065-83-1	D	2.83E-01	2.61E+02	1.1E-03	2.1E+10	EqP	1.3E-11	3.4E+06	EqP	8.4E-08
Landbay D	GP 56-01	INORG	Chromium VI	18540-29-9	A	2.60E+00	4.97E+00	5.2E-01	6.6E+01	LT	3.9E-02	4.4E+00	LT	5.9E-01
Landbay D	GP 56-01	INORG	Lead	7439-92-1	B2	5.71E+00						3.5E+02	EqP	1.6E-02
Landbay D	GP 56-01	INORG	Silver	7440-22-4	D	1.78E-01	2.30E+00	7.7E-02	3.8E+03	LT	4.7E-05	2.7E+00	LT	6.7E-02
Landbay D	GP 56-01	INORG	Strontium	7440-24-6		1.84E+01	3.80E+01	4.8E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.7E-02
Landbay D	GP 58-01	INORG	Aluminum	7429-90-5	ID	3.19E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay D	GP 58-01	INORG	Barium	7440-39-3	NC	1.85E+02	2.24E+02	8.3E-01	3.2E+05	EqP	5.7E-04	3.3E+00	EqP	**5.6E+01**
Landbay D	GP 58-01	INORG	Boron	7440-42-8	ID	2.23E+00	1.34E+01	1.7E-01	9.9E+05	LT	2.3E-06	6.4E-01	LT	**3.5E+00**
Landbay D	GP 58-01	INORG	Chromium III	16065-83-1	D	6.76E+00	2.61E+02	2.6E-02	2.1E+10	EqP	3.2E-10	3.4E+06	EqP	2.0E-06
Landbay D	GP 58-01	INORG	Chromium VI	18540-29-9	A	2.64E+00	4.97E+00	5.3E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.0E-01
Landbay D	GP 58-01	INORG	Lead	7439-92-1	B2	8.19E+00						3.5E+02	EqP	2.3E-02
Landbay D	GP 58-01	INORG	Silver	7440-22-4	D	2.46E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.6E-05	2.7E+00	LT	9.3E-02
Landbay D	GP 58-01	INORG	Strontium	7440-24-6		2.94E+01	3.80E+01	7.7E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay D	GP 59-01	INORG	Aluminum	7429-90-5	ID	4.54E+04	5.34E+04	8.5E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay D	GP 59-01	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay D	GP 59-01	INORG	Boron	7440-42-8	ID	3.55E-01	1.34E+01	2.6E-02	9.9E+05	LT	3.6E-07	6.4E-01	LT	5.5E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay D	GP 59-01	INORG	Chromium III	16065-83-1	D	1.28E+01	2.61E+02	4.9E-02	2.1E+10	EqP	6.0E-10	3.4E+06	EqP	3.8E-06
Landbay D	GP 59-01	INORG	Chromium VI	18540-29-9	A	2.68E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay D	GP 59-01	INORG	Lead	7439-92-1	B2	7.86E+00						3.5E+02	EqP	2.2E-02
Landbay D	GP 59-01	INORG	Strontium	7440-24-6		2.50E+01	3.80E+01	6.6E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.4E-02
Landbay D	GP 6-02	INORG	Perchlorate	14797-73-0	NC	5.00E-02			3.4E+03	LT	1.5E-05	7.7E+02	LT	6.5E-05
Landbay D	GP 62-03	INORG	Aluminum	7429-90-5	ID	2.34E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**9.0E+00**
Landbay D	GP 62-03	INORG	Barium	7440-39-3	NC	1.14E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.5E+01**
Landbay D	GP 62-03	INORG	Boron	7440-42-8	ID	8.61E+00	1.34E+01	6.4E-01	9.9E+05	LT	8.7E-06	6.4E-01	LT	**1.3E+01**
Landbay D	GP 62-03	INORG	Chromium VI	18540-29-9	A	8.24E-01	4.97E+00	1.7E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.9E-01
Landbay D	GP 62-03	INORG	Lead	7439-92-1	B2	1.26E+01						3.5E+02	EqP	3.6E-02
Landbay D	GP 62-03	INORG	Silver	7440-22-4	D	2.09E-01	2.30E+00	9.1E-02	3.8E+03	LT	5.6E-05	2.7E+00	LT	7.9E-02
Landbay D	GP 62-03	INORG	Strontium	7440-24-6		8.53E+00	3.80E+01	2.2E-01	1.6E+07	EqP	5.2E-07	1.1E+03	EqP	8.1E-03
Landbay D	GP 64-01	INORG	Aluminum	7429-90-5	ID	2.53E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay D	GP 64-01	INORG	Barium	7440-39-3	NC	9.89E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay D	GP 64-01	INORG	Boron	7440-42-8	ID	5.88E+01	1.34E+01	**4.4E+00**	9.9E+05	LT	6.0E-05	6.4E-01	LT	**9.2E+01**
Landbay D	GP 64-01	INORG	Chromium III	16065-83-1	D	5.25E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay D	GP 64-01	INORG	Chromium VI	18540-29-9	A	2.95E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay D	GP 64-01	INORG	Lead	7439-92-1	B2	1.76E+01						3.5E+02	EqP	5.0E-02
Landbay D	GP 64-01	INORG	Silver	7440-22-4	D	2.69E-01	2.30E+00	1.2E-01	3.8E+03	LT	7.2E-05	2.7E+00	LT	1.0E-01
Landbay D	GP 64-01	INORG	Strontium	7440-24-6		2.03E+01	3.80E+01	5.3E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay D	GP 67-02	INORG	Perchlorate	14797-73-0	NC	1.90E-01			3.4E+03	LT	5.5E-05	7.7E+02	LT	2.5E-04
Landbay D	GP 68-01	INORG	Aluminum	7429-90-5	ID	1.37E+04	5.34E+04	2.6E-01	3.7E+08	EqP	3.7E-05	2.6E+03	EqP	**5.2E+00**
Landbay D	GP 68-01	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay D	GP 68-01	INORG	Boron	7440-42-8	ID	6.62E+00	1.34E+01	4.9E-01	9.9E+05	LT	6.7E-06	6.4E-01	LT	**1.0E+01**
Landbay D	GP 68-01	INORG	Chromium VI	18540-29-9	A	3.82E-01	4.97E+00	7.7E-02	6.6E+01	LT	5.7E-03	4.4E+00	LT	8.7E-02
Landbay D	GP 68-01	INORG	Lead	7439-92-1	B2	5.41E+00						3.5E+02	EqP	1.5E-02
Landbay D	GP 68-01	INORG	Silver	7440-22-4	D	2.34E-01	2.30E+00	1.0E-01	3.8E+03	LT	6.2E-05	2.7E+00	LT	8.8E-02
Landbay D	GP 68-01	INORG	Strontium	7440-24-6		1.27E+01	3.80E+01	3.3E-01	1.6E+07	EqP	7.8E-07	1.1E+03	EqP	1.2E-02
Landbay D	GP 8-01	INORG	Antimony	7440-36-0	ID	4.05E+00	1.70E+00	**2.4E+00**	1.4E+03	EqP	3.0E-03	2.7E+01	EqP	1.5E-01
Landbay D	GP 8-01	INORG	Arsenic	7440-38-2	A	3.61E+00	9.90E+00	3.6E-01	1.1E+03	EqP	3.4E-03	8.6E+01	EqP	4.2E-02
Landbay D	GP 8-01	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay D	GP 8-01	INORG	Cadmium	7440-43-9	B1	3.28E+00	2.70E+00	**1.2E+00**	1.1E+03	EqP	3.0E-03	2.1E+00	EqP	**1.5E+00**
Landbay D	GP 8-01	INORG	Chromium III	16065-83-1	D	2.10E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay D	GP 8-01	INORG	Chromium VI	18540-29-9	A	4.03E+00	4.97E+00	8.1E-01	6.6E+01	LT	6.1E-02	4.4E+00	LT	9.2E-01
Landbay D	GP 8-01	INORG	Copper	7440-50-8	D	8.76E+01	1.31E+02	6.7E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay D	GP 8-01	INORG	Lead	7439-92-1	B2	4.33E+00						3.5E+02	EqP	1.2E-02
Landbay D	GP 8-01	INORG	Nickel	7440-02-0	A	1.61E+02	7.30E+01	**2.2E+00**	1.2E+05	EqP	1.3E-03	3.4E+01	EqP	**4.8E+00**
Landbay D	GP 8-01	INORG	Zinc	7440-66-6	ID	8.75E+01	1.02E+02	8.6E-01	5.5E+06	EqP	1.6E-05	1.9E+02	EqP	4.6E-01
Landbay D	GP 8-02	INORG	Arsenic	7440-38-2	A	1.46E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay D	GP 8-02	INORG	Beryllium	7440-41-7	B1	3.58E-01	1.20E+00	3.0E-01	6.8E+03	EqP	5.3E-05	1.0E+01	EqP	3.4E-02
Landbay D	GP 8-02	INORG	Cadmium	7440-43-9	B1	2.21E-01	2.70E+00	8.2E-02	1.1E+03	EqP	2.0E-04	2.1E+00	EqP	1.0E-01
Landbay D	GP 8-02	INORG	Chromium III	16065-83-1	D	9.77E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.6E-09	3.4E+06	EqP	2.9E-05
Landbay D	GP 8-02	INORG	Chromium VI	18540-29-9	A	3.26E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay D	GP 8-02	INORG	Copper	7440-50-8	D	3.62E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.3E+00**
Landbay D	GP 8-02	INORG	Lead	7439-92-1	B2	2.95E+00						3.5E+02	EqP	8.4E-03
Landbay D	GP 8-02	INORG	Nickel	7440-02-0	A	5.83E+01	7.30E+01	8.0E-01	1.2E+05	EqP	4.7E-04	3.4E+01	EqP	**1.7E+00**
Landbay D	GP 8-02	INORG	Zinc	7440-66-6	ID	2.62E+01	1.02E+02	2.6E-01	5.5E+06	EqP	4.8E-06	1.9E+02	EqP	1.4E-01
Landbay D	GP 8-03	INORG	Perchlorate	14797-73-0	NC	2.90E-02			3.4E+03	LT	8.4E-06	7.7E+02	LT	3.7E-05
Landbay D	GP BG-07	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay D	GP BG-07	INORG	Arsenic	7440-38-2	A	9.85E+00	9.90E+00	9.9E-01	1.1E+03	EqP	9.4E-03	8.6E+01	EqP	1.1E-01
Landbay D	GP BG-07	INORG	Barium	7440-39-3	NC	1.65E+02	2.24E+02	7.4E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay D	GP BG-07	INORG	Beryllium	7440-41-7	B1	1.21E+00	1.20E+00	1.0E+00	6.8E+03	EqP	1.8E-04	1.0E+01	EqP	1.2E-01
Landbay D	GP BG-07	INORG	Chromium III	16065-83-1	D	3.27E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.5E-09	3.4E+06	EqP	9.7E-06
Landbay D	GP BG-07	INORG	Chromium VI	18540-29-9	A	2.82E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay D	GP BG-07	INORG	Cobalt	7440-48-4	LC	1.20E+02	8.60E+01	**1.4E+00**	1.4E+04	EqP	8.7E-03	2.1E+01	EqP	**5.8E+00**
Landbay D	GP BG-07	INORG	Copper	7440-50-8	D	4.69E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.6E+00**
Landbay D	GP BG-07	INORG	Iron	7439-89-6	D	8.01E+04	9.52E+04	8.4E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.3E+02**
Landbay D	GP BG-07	INORG	Lead	7439-92-1	B2	3.74E+01						3.5E+02	EqP	1.1E-01
Landbay D	GP BG-07	INORG	Manganese	7439-96-5	D	4.62E+03	4.27E+03	**1.1E+00**	3.1E+05	EqP	1.5E-02	1.6E+02	EqP	**3.0E+01**
Landbay D	GP BG-07	INORG	Mercury	7439-97-6	D	3.30E-02	7.10E-02	4.6E-01		NA		3.7E-01	EqP	8.9E-02
Landbay D	GP BG-07	INORG	Nickel	7440-02-0	A	1.45E+01	7.30E+01	2.0E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.3E-01
Landbay D	GP BG-07	INORG	Thallium	7440-28-0	ID	1.11E+01	4.50E+00	**2.5E+00**				1.1E+00	EqP	**9.7E+00**
Landbay D	GP BG-07	INORG	Vanadium	7440-62-2	ID	2.76E+02	2.83E+02	9.8E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.9E-01
Landbay D	GP BG-07	INORG	Zinc	7440-66-6	ID	5.25E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay D	GP GS-01	INORG	Arsenic	7440-38-2	A	3.74E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay D	GP GS-01	INORG	Beryllium	7440-41-7	B1	7.43E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay D	GP GS-01	INORG	Chromium III	16065-83-1	D	4.62E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay D	GP GS-01	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay D	GP GS-01	INORG	Copper	7440-50-8	D	7.10E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.5E+00**
Landbay D	GP GS-01	INORG	Lead	7439-92-1	B2	2.53E+01						3.5E+02	EqP	7.2E-02
Landbay D	GP GS-01	INORG	Mercury	7439-97-6	D	3.83E-02	7.10E-02	5.4E-01		NA		3.7E-01	EqP	1.0E-01
Landbay D	GP GS-01	INORG	Nickel	7440-02-0	A	2.63E+01	7.30E+01	3.6E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.8E-01
Landbay D	GP GS-01	INORG	Silver	7440-22-4	D	2.64E-01	2.30E+00	1.1E-01	3.8E+03	LT	7.0E-05	2.7E+00	LT	9.9E-02
Landbay D	GP GS-01	INORG	Thallium	7440-28-0	ID	2.05E+00	4.50E+00	4.6E-01				1.1E+00	EqP	**1.8E+00**
Landbay D	GP GS-01	INORG	Zinc	7440-66-6	ID	7.31E+01	1.02E+02	7.2E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	GP GS-02	INORG	Aluminum	7429-90-5	ID	3.78E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay D	GP GS-02	INORG	Barium	7440-39-3	NC	6.12E+01	2.24E+02	2.7E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.9E+01**
Landbay D	GP GS-02	INORG	Boron	7440-42-8	ID	2.12E+00	1.34E+01	1.6E-01	9.9E+05	LT	2.2E-06	6.4E-01	LT	**3.3E+00**
Landbay D	GP GS-02	INORG	Chromium III	16065-83-1	D	8.30E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.5E-05
Landbay D	GP GS-02	INORG	Chromium VI	18540-29-9	A	3.16E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay D	GP GS-02	INORG	Lead	7439-92-1	B2	1.25E+01						3.5E+02	EqP	3.6E-02
Landbay D	GP GS-02	INORG	Silver	7440-22-4	D	1.67E-01	2.30E+00	7.3E-02	3.8E+03	LT	4.5E-05	2.7E+00	LT	6.3E-02
Landbay D	GP GS-02	INORG	Strontium	7440-24-6		4.39E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.2E-02
Landbay D	GP GS-03	INORG	Arsenic	7440-38-2	A	5.03E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay D	GP GS-03	INORG	Beryllium	7440-41-7	B1	1.01E+00	1.20E+00	8.4E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.7E-02
Landbay D	GP GS-03	INORG	Chromium III	16065-83-1	D	8.25E+01	2.61E+02	3.2E-01	2.1E+10	EqP	3.9E-09	3.4E+06	EqP	2.4E-05
Landbay D	GP GS-03	INORG	Chromium VI	18540-29-9	A	3.15E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.2E-01
Landbay D	GP GS-03	INORG	Copper	7440-50-8	D	4.69E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.6E+00**
Landbay D	GP GS-03	INORG	Lead	7439-92-1	B2	1.40E+01						3.5E+02	EqP	4.0E-02
Landbay D	GP GS-03	INORG	Mercury	7439-97-6	D	2.30E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.2E-02
Landbay D	GP GS-03	INORG	Nickel	7440-02-0	A	3.04E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.0E-01
Landbay D	GP GS-03	INORG	Silver	7440-22-4	D	2.19E-01	2.30E+00	9.5E-02	3.8E+03	LT	5.8E-05	2.7E+00	LT	8.2E-02
Landbay D	GP GS-03	INORG	Zinc	7440-66-6	ID	9.31E+01	1.02E+02	9.1E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	4.9E-01
Landbay D	GP GS-04	INORG	Aluminum	7429-90-5	ID	3.58E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay D	GP GS-04	INORG	Barium	7440-39-3	NC	1.10E+02	2.24E+02	4.9E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.3E+01**
Landbay D	GP GS-04	INORG	Boron	7440-42-8	ID	5.76E+00	1.34E+01	4.3E-01	9.9E+05	LT	5.8E-06	6.4E-01	LT	**9.0E+00**
Landbay D	GP GS-04	INORG	Chromium III	16065-83-1	D	1.33E+01	2.61E+02	5.1E-02	2.1E+10	EqP	6.2E-10	3.4E+06	EqP	3.9E-06
Landbay D	GP GS-04	INORG	Chromium VI	18540-29-9	A	2.68E+00	4.97E+00	5.4E-01	6.6E+01	LT	4.0E-02	4.4E+00	LT	6.1E-01
Landbay D	GP GS-04	INORG	Lead	7439-92-1	B2	1.11E+01						3.5E+02	EqP	3.2E-02
Landbay D	GP GS-04	INORG	Silver	7440-22-4	D	2.17E-01	2.30E+00	9.4E-02	3.8E+03	LT	5.8E-05	2.7E+00	LT	8.2E-02
Landbay D	GP GS-04	INORG	Strontium	7440-24-6		1.87E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay D	IM8-1	PCB	PCBs (total)	1336-36-3	B2	4.25E+00				NA		1.4E+00	EqP	**3.1E+00**
Landbay D	IM8-1	INORG	Lead	7439-92-1	B2	4.11E+01						3.5E+02	EqP	1.2E-01
Landbay D	IM8-2	INORG	Lead	7439-92-1	B2	1.16E+00						3.5E+02	EqP	3.3E-03
Landbay D	IM8-3	PCB	PCBs (total)	1336-36-3	B2	1.85E-02				NA		1.4E+00	EqP	1.3E-02
Landbay D	IM8-3	INORG	Lead	7439-92-1	B2	1.51E+00						3.5E+02	EqP	4.3E-03
Landbay D	IM8-4	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.20E+01				NA		9.6E+03	EqP	1.2E-03
Landbay D	IM8-4	PCB	PCBs (total)	1336-36-3	B2	3.05E-01				NA		1.4E+00	EqP	2.2E-01
Landbay D	IM8-4	INORG	Lead	7439-92-1	B2	1.30E+01						3.5E+02	EqP	3.7E-02
Landbay D	SRA4-1	PCB	PCBs (total)	1336-36-3	B2	3.59E-01				NA		1.4E+00	EqP	2.6E-01
Landbay D	SRA4-10	PCB	PCBs (total)	1336-36-3	B2	4.17E-01				NA		1.4E+00	EqP	3.0E-01
Landbay D	SRA4-16	PCB	PCBs (total)	1336-36-3	B2	9.53E-01				NA		1.4E+00	EqP	6.9E-01
Landbay D	SRA4-19	PCB	PCBs (total)	1336-36-3	B2	3.92E-02				NA		1.4E+00	EqP	2.9E-02
Landbay D	SRA4-2	PCB	PCBs (total)	1336-36-3	B2	2.93E-02				NA		1.4E+00	EqP	2.1E-02
Landbay D	SRA4-20	PCB	PCBs (total)	1336-36-3	B2	6.28E-02				NA		1.4E+00	EqP	4.6E-02
Landbay D	SRA4-25	PCB	PCBs (total)	1336-36-3	B2	2.14E-01				NA		1.4E+00	EqP	1.6E-01
Landbay D	SRA4-26	PCB	PCBs (total)	1336-36-3	B2	6.98E-01				NA		1.4E+00	EqP	5.1E-01
Landbay D	SRA4-27	PCB	PCBs (total)	1336-36-3	B2	4.63E-02				NA		1.4E+00	EqP	3.4E-02
Landbay D	SRA4-29	PCB	PCBs (total)	1336-36-3	B2	1.46E-01				NA		1.4E+00	EqP	1.1E-01
Landbay D	SRA4-3	PCB	PCBs (total)	1336-36-3	B2	9.53E-02				NA		1.4E+00	EqP	6.9E-02
Landbay D	SRA4-30	PCB	PCBs (total)	1336-36-3	B2	1.04E+00				NA		1.4E+00	EqP	7.5E-01
Landbay D	SRA4-31	PCB	PCBs (total)	1336-36-3	B2	7.06E-01				NA		1.4E+00	EqP	5.1E-01
Landbay D	SRA4-32	PCB	PCBs (total)	1336-36-3	B2	5.59E-01				NA		1.4E+00	EqP	4.1E-01
Landbay D	SRA4-33	PCB	PCBs (total)	1336-36-3	B2	4.12E-02				NA		1.4E+00	EqP	3.0E-02
Landbay D	SRA4-34	PCB	PCBs (total)	1336-36-3	B2	1.04E+00				NA		1.4E+00	EqP	7.6E-01
Landbay D	SRA4-35	PCB	PCBs (total)	1336-36-3	B2	1.99E+00				NA		1.4E+00	EqP	**1.4E+00**
Landbay D	SRA4-36	PCB	PCBs (total)	1336-36-3	B2	9.01E-02				NA		1.4E+00	EqP	6.6E-02
Landbay D	SRA4-38	PCB	PCBs (total)	1336-36-3	B2	7.55E-01				NA		1.4E+00	EqP	5.5E-01
Landbay D	SRA4-4	PCB	PCBs (total)	1336-36-3	B2	1.95E-01				NA		1.4E+00	EqP	1.4E-01
Landbay D	SRA4-5	PCB	PCBs (total)	1336-36-3	B2	2.99E-01				NA		1.4E+00	EqP	2.2E-01
Landbay D	SRA4-6	PCB	PCBs (total)	1336-36-3	B2	3.30E+00				NA		1.4E+00	EqP	**2.4E+00**
Landbay D	SRA4-8	PCB	PCBs (total)	1336-36-3	B2	2.93E-02				NA		1.4E+00	EqP	2.1E-02
Landbay D	SRA4-9	PCB	PCBs (total)	1336-36-3	B2	4.32E-02				NA		1.4E+00	EqP	3.1E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay D	SRA5-1	PCB	PCBs (total)	1336-36-3	B2	3.43E-01				NA		1.4E+00	EqP	2.5E-01
Landbay D	SRA5-11	PCB	PCBs (total)	1336-36-3	B2	4.96E-02				NA		1.4E+00	EqP	3.6E-02
Landbay D	SRA5-13	SVOC	Benzo(b)fluoranthene	205-99-2	B2	4.00E-03				NA			NA	
Landbay D	SRA5-13	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	5.80E-01				NA		9.6E+03	EqP	6.0E-05
Landbay D	SRA5-13	SVOC	Chrysene	218-01-9	B2	5.00E-03				NA			NA	
Landbay D	SRA5-13	SVOC	2-Methylnaphthalene	91-57-6	ID	4.00E-03			3.4E+02	LT	1.2E-05	1.9E+00	LT	2.1E-03
Landbay D	SRA5-13	SVOC	Naphthalene	91-20-3	C	4.00E-03			5.7E+01	LT	7.0E-05	4.4E-01	LT	9.1E-03
Landbay D	SRA5-13	PCB	PCBs (total)	1336-36-3	B2	5.65E+00				NA		1.4E+00	EqP	**4.1E+00**
Landbay D	SRA5-14	PCB	PCBs (total)	1336-36-3	B2	3.16E-02				NA		1.4E+00	EqP	2.3E-02
Landbay D	SRA5-16	PCB	PCBs (total)	1336-36-3	B2	7.25E-02				NA		1.4E+00	EqP	5.3E-02
Landbay D	SRA5-17	PCB	PCBs (total)	1336-36-3	B2	2.02E-02				NA		1.4E+00	EqP	1.5E-02
Landbay D	SRA5-18	PCB	PCBs (total)	1336-36-3	B2	2.14E-02				NA		1.4E+00	EqP	1.6E-02
Landbay D	SRA5-2	PCB	PCBs (total)	1336-36-3	B2	5.68E-02				NA		1.4E+00	EqP	4.1E-02
Landbay D	SRA5-23	PCB	PCBs (total)	1336-36-3	B2	1.55E-01				NA		1.4E+00	EqP	1.1E-01
Landbay D	SRA5-24	PCB	PCBs (total)	1336-36-3	B2	2.23E-01				NA		1.4E+00	EqP	1.6E-01
Landbay D	SRA5-27	PCB	PCBs (total)	1336-36-3	B2	2.82E-02				NA		1.4E+00	EqP	2.1E-02
Landbay D	SRA5-28	PCB	PCBs (total)	1336-36-3	B2	7.78E+00				NA		1.4E+00	EqP	**5.7E+00**
Landbay D	SRA5-3	PCB	PCBs (total)	1336-36-3	B2	1.18E+00				NA		1.4E+00	EqP	8.6E-01
Landbay D	SRA5-30	PCB	PCBs (total)	1336-36-3	B2	1.27E-01				NA		1.4E+00	EqP	9.3E-02
Landbay D	SRA5-31	PCB	PCBs (total)	1336-36-3	B2	4.28E-02				NA		1.4E+00	EqP	3.1E-02
Landbay D	SRA5-32	PCB	PCBs (total)	1336-36-3	B2	8.20E-02				NA		1.4E+00	EqP	6.0E-02
Landbay D	SRA5-34	PCB	PCBs (total)	1336-36-3	B2	8.06E-02				NA		1.4E+00	EqP	5.9E-02
Landbay D	SRA5-35	PCB	PCBs (total)	1336-36-3	B2	1.75E-01				NA		1.4E+00	EqP	1.3E-01
Landbay D	SRA5-36	PCB	PCBs (total)	1336-36-3	B2	2.88E-02				NA		1.4E+00	EqP	2.1E-02
Landbay D	SRA5-8	PCB	PCBs (total)	1336-36-3	B2	2.49E-02				NA		1.4E+00	EqP	1.8E-02
Landbay D	SRA6-10	PCB	PCBs (total)	1336-36-3	B2	1.02E-01				NA		1.4E+00	EqP	7.4E-02
Landbay D	SRA6-11	PCB	PCBs (total)	1336-36-3	B2	6.06E-02				NA		1.4E+00	EqP	4.4E-02
Landbay D	SRA6-12	PCB	PCBs (total)	1336-36-3	B2	1.48E+00				NA		1.4E+00	EqP	**1.1E+00**
Landbay D	SRA6-2	PCB	PCBs (total)	1336-36-3	B2	2.25E-01				NA		1.4E+00	EqP	1.6E-01
Landbay D	SRA6-3	PCB	PCBs (total)	1336-36-3	B2	1.65E-01				NA		1.4E+00	EqP	1.2E-01
Landbay D	SRA6-4	PCB	PCBs (total)	1336-36-3	B2	1.45E+00				NA		1.4E+00	EqP	**1.1E+00**
Landbay D	SRA6-5	PCB	PCBs (total)	1336-36-3	B2	2.06E+00				NA		1.4E+00	EqP	**1.5E+00**
Landbay D	SRA6-7	PCB	PCBs (total)	1336-36-3	B2	4.43E-01				NA		1.4E+00	EqP	3.2E-01
Landbay D	SRA6-9	PCB	PCBs (total)	1336-36-3	B2	2.38E-02				NA		1.4E+00	EqP	1.7E-02
Landbay D	SS-08A	INORG	Arsenic	7440-38-2	A	2.57E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.4E-03	8.6E+01	EqP	3.0E-02
Landbay D	SS-08A	INORG	Beryllium	7440-41-7	B1	5.18E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	5.0E-02
Landbay D	SS-08A	INORG	Chromium III	16065-83-1	D	1.96E+02	2.61E+02	7.5E-01	2.1E+10	EqP	9.2E-09	3.4E+06	EqP	5.8E-05
Landbay D	SS-08A	INORG	Chromium VI	18540-29-9	A	3.93E+00	4.97E+00	7.9E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.9E-01
Landbay D	SS-08A	INORG	Copper	7440-50-8	D	3.70E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay D	SS-08A	INORG	Lead	7439-92-1	B2	7.44E+00						3.5E+02	EqP	2.1E-02
Landbay D	SS-08A	INORG	Mercury	7439-97-6	D	1.40E-02	7.10E-02	2.0E-01		NA		3.7E-01	EqP	3.8E-02
Landbay D	SS-08A	INORG	Nickel	7440-02-0	A	5.51E+01	7.30E+01	7.5E-01	1.2E+05	EqP	4.4E-04	3.4E+01	EqP	**1.6E+00**
Landbay D	SS-08A	INORG	Zinc	7440-66-6	ID	4.30E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.9E-06	1.9E+02	EqP	2.3E-01
Landbay D	SS-15A	INORG	Arsenic	7440-38-2	A	2.60E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.0E-02
Landbay D	SS-15A	INORG	Beryllium	7440-41-7	B1	3.89E-01	1.20E+00	3.2E-01	6.8E+03	EqP	5.7E-05	1.0E+01	EqP	3.7E-02
Landbay D	SS-15A	INORG	Cadmium	7440-43-9	B1	4.41E-01	2.70E+00	1.6E-01	1.1E+03	EqP	4.1E-04	2.1E+00	EqP	2.1E-01
Landbay D	SS-15A	INORG	Chromium III	16065-83-1	D	2.89E+01	2.61E+02	1.1E-01	2.1E+10	EqP	1.4E-09	3.4E+06	EqP	8.6E-06
Landbay D	SS-15A	INORG	Chromium VI	18540-29-9	A	2.79E+00	4.97E+00	5.6E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.3E-01
Landbay D	SS-15A	INORG	Copper	7440-50-8	D	1.12E+02	1.31E+02	8.5E-01	3.5E+05	EqP	3.2E-04	8.4E+00	EqP	**1.3E+01**
Landbay D	SS-15A	INORG	Lead	7439-92-1	B2	2.56E+01						3.5E+02	EqP	7.3E-02
Landbay D	SS-15A	INORG	Mercury	7439-97-6	D	6.22E-02	7.10E-02	8.8E-01		NA		3.7E-01	EqP	1.7E-01
Landbay D	SS-15A	INORG	Nickel	7440-02-0	A	2.82E+01	7.30E+01	3.9E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay D	SS-15A	INORG	Thallium	7440-28-0	ID	1.34E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay D	SS-15A	INORG	Zinc	7440-66-6	ID	7.26E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay D	SS-22A	INORG	Perchlorate	14797-73-0	NC	1.20E-02			3.4E+03	LT	3.5E-06	7.7E+02	LT	1.6E-05
Landbay D	SS-35A	INORG	Arsenic	7440-38-2	A	4.98E+00	9.90E+00	5.0E-01	1.1E+03	EqP	4.7E-03	8.6E+01	EqP	5.8E-02
Landbay D	SS-35A	INORG	Beryllium	7440-41-7	B1	6.76E-01	1.20E+00	5.6E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay D	SS-35A	INORG	Cadmium	7440-43-9	B1	7.20E-01	2.70E+00	2.7E-01	1.1E+03	EqP	6.6E-04	2.1E+00	EqP	3.4E-01
Landbay D	SS-35A	INORG	Chromium III	16065-83-1	D	1.18E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.5E-09	3.4E+06	EqP	3.5E-05
Landbay D	SS-35A	INORG	Chromium VI	18540-29-9	A	3.39E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay D	SS-35A	INORG	Copper	7440-50-8	D	4.53E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.4E+00**
Landbay D	SS-35A	INORG	Lead	7439-92-1	B2	1.77E+01						3.5E+02	EqP	5.1E-02
Landbay D	SS-35A	INORG	Mercury	7439-97-6	D	2.98E-02	7.10E-02	4.2E-01		NA		3.7E-01	EqP	8.1E-02
Landbay D	SS-35A	INORG	Nickel	7440-02-0	A	4.85E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay D	SS-35A	INORG	Zinc	7440-66-6	ID	9.43E+01	1.02E+02	9.2E-01	5.5E+06	EqP	1.7E-05	1.9E+02	EqP	5.0E-01
Landbay D	SS-43A	INORG	Perchlorate	14797-73-0	NC	6.60E-03			3.4E+03	LT	1.9E-06	7.7E+02	LT	8.5E-06
Landbay D	SS-60A	INORG	Perchlorate	14797-73-0	NC	3.00E-02			3.4E+03	LT	8.7E-06	7.7E+02	LT	3.9E-05
Landbay D	SS-68A	INORG	Perchlorate	14797-73-0	NC	4.30E-02			3.4E+03	LT	1.2E-05	7.7E+02	LT	5.6E-05
Landbay D	SW 21-01	INORG	Perchlorate	14797-73-0	NC	2.40E-02			3.4E+03	LT	7.0E-06	7.7E+02	LT	3.1E-05
Landbay E	119B139	INORG	Perchlorate	14797-73-0	NC	1.80E-03			3.4E+03	LT	5.2E-07	7.7E+02	LT	2.3E-06
Landbay E	120AB1	INORG	Perchlorate	14797-73-0	NC	9.00E-04			3.4E+03	LT	2.6E-07	7.7E+02	LT	1.2E-06
Landbay E	121B1	INORG	Perchlorate	14797-73-0	NC	4.90E-04			3.4E+03	LT	1.4E-07	7.7E+02	LT	6.3E-07
Landbay E	200B1	VOC	Acetone	67-64-1	ID	1.80E-02			2.0E+06	LT	8.8E-09	6.0E+02	LT	3.0E-05
Landbay E	200B1	INORG	Aluminum	7429-90-5	ID	3.92E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	200B1	INORG	Barium	7440-39-3	NC	8.21E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay E	200B1	INORG	Beryllium	7440-41-7	B1	9.62E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay E	200B1	INORG	Cadmium	7440-43-9	B1	1.44E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.7E-01
Landbay E	200B1	INORG	Chromium III	16065-83-1	D	9.42E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay E	200B1	INORG	Chromium VI	18540-29-9	A	3.23E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.3E-01
Landbay E	200B1	INORG	Copper	7440-50-8	D	7.02E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay E	200B1	INORG	Lead	7439-92-1	B2	2.96E+01						3.5E+02	EqP	8.4E-02
Landbay E	200B1	INORG	Mercury	7439-97-6	D	1.01E+00	7.10E-02	**1.4E+01**		NA		3.7E-01	EqP	**2.7E+00**
Landbay E	200B1	INORG	Perchlorate	14797-73-0	NC	1.70E-03			3.4E+03	LT	4.9E-07	7.7E+02	LT	2.2E-06
Landbay E	200B1	INORG	Strontium	7440-24-6		3.55E+01	3.80E+01	9.3E-01	1.6E+07	EqP	2.2E-06	1.1E+03	EqP	3.4E-02
Landbay E	200B2	VOC	Acetone	67-64-1	ID	1.30E-02			2.0E+06	LT	6.4E-09	6.0E+02	LT	2.2E-05
Landbay E	200B2	INORG	Aluminum	7429-90-5	ID	3.92E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	200B2	INORG	Barium	7440-39-3	NC	8.21E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay E	200B2	INORG	Beryllium	7440-41-7	B1	9.62E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay E	200B2	INORG	Cadmium	7440-43-9	B1	1.44E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.7E-01
Landbay E	200B2	INORG	Chromium III	16065-83-1	D	9.42E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay E	200B2	INORG	Chromium VI	18540-29-9	A	3.23E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.3E-01
Landbay E	200B2	INORG	Copper	7440-50-8	D	7.02E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay E	200B2	INORG	Lead	7439-92-1	B2	2.96E+01						3.5E+02	EqP	8.4E-02
Landbay E	200B2	INORG	Mercury	7439-97-6	D	1.01E+00	7.10E-02	**1.4E+01**		NA		3.7E-01	EqP	**2.7E+00**
Landbay E	200B2	INORG	Perchlorate	14797-73-0	NC	1.70E-03			3.4E+03	LT	4.9E-07	7.7E+02	LT	2.2E-06
Landbay E	200B2	INORG	Strontium	7440-24-6		3.55E+01	3.80E+01	9.3E-01	1.6E+07	EqP	2.2E-06	1.1E+03	EqP	3.4E-02
Landbay E	200B3	VOC	Acetone	67-64-1	ID	8.50E-03			2.0E+06	LT	4.2E-09	6.0E+02	LT	1.4E-05
Landbay E	200B3	INORG	Aluminum	7429-90-5	ID	3.92E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	200B3	INORG	Barium	7440-39-3	NC	8.21E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay E	200B3	INORG	Beryllium	7440-41-7	B1	9.62E-01	1.20E+00	8.0E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	9.2E-02
Landbay E	200B3	INORG	Cadmium	7440-43-9	B1	1.44E+00	2.70E+00	5.3E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.7E-01
Landbay E	200B3	INORG	Chromium III	16065-83-1	D	9.42E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.4E-09	3.4E+06	EqP	2.8E-05
Landbay E	200B3	INORG	Chromium VI	18540-29-9	A	3.23E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.3E-01
Landbay E	200B3	INORG	Copper	7440-50-8	D	7.02E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay E	200B3	INORG	Lead	7439-92-1	B2	2.96E+01						3.5E+02	EqP	8.4E-02
Landbay E	200B3	INORG	Mercury	7439-97-6	D	1.01E+00	7.10E-02	**1.4E+01**		NA		3.7E-01	EqP	**2.7E+00**
Landbay E	200B3	INORG	Perchlorate	14797-73-0	NC	1.70E-03			3.4E+03	LT	4.9E-07	7.7E+02	LT	2.2E-06
Landbay E	200B3	INORG	Strontium	7440-24-6		3.55E+01	3.80E+01	9.3E-01	1.6E+07	EqP	2.2E-06	1.1E+03	EqP	3.4E-02
Landbay E	207B1	INORG	Perchlorate	14797-73-0	NC	1.20E-03			3.4E+03	LT	3.5E-07	7.7E+02	LT	1.6E-06
Landbay E	208B1	INORG	Aluminum	7429-90-5	ID	2.98E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	208B1	INORG	Antimony	7440-36-0	ID	2.14E+00	1.70E+00	**1.3E+00**	1.4E+03	EqP	1.6E-03	2.7E+01	EqP	7.9E-02
Landbay E	208B1	INORG	Arsenic	7440-38-2	A	8.08E+00	9.90E+00	8.2E-01	1.1E+03	EqP	7.7E-03	8.6E+01	EqP	9.4E-02
Landbay E	208B1	INORG	Barium	7440-39-3	NC	7.34E+01	2.24E+02	3.3E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.2E+01**
Landbay E	208B1	INORG	Boron	7440-42-8	ID	2.40E+01	1.34E+01	**1.8E+00**	9.9E+05	LT	2.4E-05	6.4E-01	LT	**3.8E+01**
Landbay E	208B1	INORG	Cadmium	7440-43-9	B1	1.71E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay E	208B1	INORG	Chromium III	16065-83-1	D	1.47E+02	2.61E+02	5.6E-01	2.1E+10	EqP	6.9E-09	3.4E+06	EqP	4.3E-05
Landbay E	208B1	INORG	Cobalt	7440-48-4	LC	4.84E+01	8.60E+01	5.6E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay E	208B1	INORG	Copper	7440-50-8	D	5.62E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay E	208B1	INORG	Iron	7439-89-6	D	7.00E+04	9.52E+04	7.4E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.6E+02**
Landbay E	208B1	INORG	Lead	7439-92-1	B2	2.73E+01						3.5E+02	EqP	7.8E-02
Landbay E	208B1	INORG	Manganese	7439-96-5	D	2.77E+03	4.27E+03	6.5E-01	3.1E+05	EqP	8.9E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	208B1	INORG	Mercury	7439-97-6	D	7.70E-03	7.10E-02	1.1E-01		NA		3.7E-01	EqP	2.1E-02
Landbay E	208B1	INORG	Nickel	7440-02-0	A	2.02E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay E	208B1	INORG	Selenium	7782-49-2	D	2.33E+00	2.50E+00	9.3E-01	2.5E+04	LT	9.5E-05	2.0E+00	LT	**1.2E+00**
Landbay E	208B1	INORG	Silver	7440-22-4	D	1.00E+00	2.30E+00	4.3E-01	3.8E+03	LT	2.7E-04	2.7E+00	LT	3.8E-01
Landbay E	208B1	INORG	Strontium	7440-24-6		1.47E+01	3.80E+01	3.9E-01	1.6E+07	EqP	9.0E-07	1.1E+03	EqP	1.4E-02
Landbay E	208B1	INORG	Vanadium	7440-62-2	ID	2.49E+02	2.83E+02	8.8E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.2E-01
Landbay E	208B1	INORG	Zinc	7440-66-6	ID	5.20E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay E	209B1	INORG	Aluminum	7429-90-5	ID	3.22E+04	5.34E+04	6.0E-01	3.7E+08	EqP	8.7E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	209B1	INORG	Antimony	7440-36-0	ID	1.18E+00	1.70E+00	6.9E-01	1.4E+03	EqP	8.6E-04	2.7E+01	EqP	4.3E-02
Landbay E	209B1	INORG	Arsenic	7440-38-2	A	4.41E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay E	209B1	INORG	Barium	7440-39-3	NC	8.82E+01	2.24E+02	3.9E-01	3.2E+05	EqP	2.7E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	209B1	INORG	Boron	7440-42-8	ID	1.10E+01	1.34E+01	8.2E-01	9.9E+05	LT	1.1E-05	6.4E-01	LT	**1.7E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	209B1	INORG	Cadmium	7440-43-9	B1	1.38E+00	2.70E+00	5.1E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.5E-01
Landbay E	209B1	INORG	Chromium III	16065-83-1	D	1.30E+02	2.61E+02	5.0E-01	2.1E+10	EqP	6.1E-09	3.4E+06	EqP	3.9E-05
Landbay E	209B1	INORG	Chromium VI	18540-29-9	A	1.00E+00	4.97E+00	2.0E-01	6.6E+01	LT	1.5E-02	4.4E+00	LT	2.3E-01
Landbay E	209B1	INORG	Cobalt	7440-48-4	LC	5.61E+01	8.60E+01	6.5E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay E	209B1	INORG	Copper	7440-50-8	D	4.14E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.9E+00**
Landbay E	209B1	INORG	Iron	7439-89-6	D	5.32E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	209B1	INORG	Lead	7439-92-1	B2	1.53E+01						3.5E+02	EqP	4.4E-02
Landbay E	209B1	INORG	Manganese	7439-96-5	D	1.34E+03	4.27E+03	3.1E-01	3.1E+05	EqP	4.3E-03	1.6E+02	EqP	**8.6E+00**
Landbay E	209B1	INORG	Mercury	7439-97-6	D	1.12E-02	7.10E-02	1.6E-01		NA		3.7E-01	EqP	3.0E-02
Landbay E	209B1	INORG	Nickel	7440-02-0	A	2.80E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay E	209B1	INORG	Selenium	7782-49-2	D	1.98E+00	2.50E+00	7.9E-01	2.5E+04	LT	8.0E-05	2.0E+00	LT	9.9E-01
Landbay E	209B1	INORG	Strontium	7440-24-6		2.76E+01	3.80E+01	7.3E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay E	209B1	INORG	Vanadium	7440-62-2	ID	1.81E+02	2.83E+02	6.4E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	209B1	INORG	Zinc	7440-66-6	ID	4.94E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay E	20TP1-7	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay E	20TP1-7	INORG	Aluminum	7429-90-5	ID	5.32E+04	5.34E+04	1.0E+00	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay E	20TP1-7	INORG	Barium	7440-39-3	NC	4.69E+01	2.24E+02	2.1E-01	3.2E+05	EqP	1.5E-04	3.3E+00	EqP	**1.4E+01**
Landbay E	20TP1-7	INORG	Cadmium	7440-43-9	B1	1.18E+00	2.70E+00	4.4E-01	1.1E+03	EqP	1.1E-03	2.1E+00	EqP	5.5E-01
Landbay E	20TP1-7	INORG	Chromium III	16065-83-1	D	8.07E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay E	20TP1-7	INORG	Copper	7440-50-8	D	5.32E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.3E+00**
Landbay E	20TP1-7	INORG	Lead	7439-92-1	B2	8.88E-01						3.5E+02	EqP	2.5E-03
Landbay E	20TP1-7	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay E	20TP1-7	INORG	Silver	7440-22-4	D	1.94E-01	2.30E+00	8.4E-02	3.8E+03	LT	5.2E-05	2.7E+00	LT	7.3E-02
Landbay E	20TP1-7	INORG	Strontium	7440-24-6		6.58E+01	3.80E+01	**1.7E+00**	1.6E+07	EqP	4.0E-06	1.1E+03	EqP	6.2E-02
Landbay E	212B1	INORG	Aluminum	7429-90-5	ID	3.72E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	212B1	INORG	Arsenic	7440-38-2	A	9.80E-01	9.90E+00	9.9E-02	1.1E+03	EqP	9.3E-04	8.6E+01	EqP	1.1E-02
Landbay E	212B1	INORG	Barium	7440-39-3	NC	3.07E+01	2.24E+02	1.4E-01	3.2E+05	EqP	9.5E-05	3.3E+00	EqP	**9.3E+00**
Landbay E	212B1	INORG	Chromium III	16065-83-1	D	5.61E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay E	212B1	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	212B1	INORG	Copper	7440-50-8	D	5.51E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay E	212B1	INORG	Lead	7439-92-1	B2	1.72E+00						3.5E+02	EqP	4.9E-03
Landbay E	212B1	INORG	Perchlorate	14797-73-0	NC	3.50E-04			3.4E+03	LT	1.0E-07	7.7E+02	LT	4.5E-07
Landbay E	212B1	INORG	Silver	7440-22-4	D	1.16E+00	2.30E+00	5.0E-01	3.8E+03	LT	3.1E-04	2.7E+00	LT	4.4E-01
Landbay E	212B1	INORG	Strontium	7440-24-6		5.02E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.7E-02
Landbay E	214B1	INORG	Aluminum	7429-90-5	ID	2.84E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	214B1	INORG	Barium	7440-39-3	NC	9.59E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	214B1	INORG	Beryllium	7440-41-7	B1	9.03E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay E	214B1	INORG	Cadmium	7440-43-9	B1	1.11E+00	2.70E+00	4.1E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.2E-01
Landbay E	214B1	INORG	Chromium III	16065-83-1	D	4.45E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	214B1	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	214B1	INORG	Copper	7440-50-8	D	4.90E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay E	214B1	INORG	Lead	7439-92-1	B2	1.38E+01						3.5E+02	EqP	3.9E-02
Landbay E	214B1	INORG	Mercury	7439-97-6	D	2.18E-02	7.10E-02	3.1E-01		NA		3.7E-01	EqP	5.9E-02
Landbay E	214B1	INORG	Perchlorate	14797-73-0	NC	1.75E-04			3.4E+03	LT	5.1E-08	7.7E+02	LT	2.3E-07
Landbay E	214B1	INORG	Strontium	7440-24-6		3.00E+01	3.80E+01	7.9E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay E	214B2	INORG	Aluminum	7429-90-5	ID	2.84E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	214B2	INORG	Barium	7440-39-3	NC	9.59E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	214B2	INORG	Beryllium	7440-41-7	B1	9.03E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay E	214B2	INORG	Cadmium	7440-43-9	B1	1.11E+00	2.70E+00	4.1E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.2E-01
Landbay E	214B2	INORG	Chromium III	16065-83-1	D	4.45E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	214B2	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	214B2	INORG	Copper	7440-50-8	D	4.90E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay E	214B2	INORG	Lead	7439-92-1	B2	1.38E+01						3.5E+02	EqP	3.9E-02
Landbay E	214B2	INORG	Mercury	7439-97-6	D	2.18E-02	7.10E-02	3.1E-01		NA		3.7E-01	EqP	5.9E-02
Landbay E	214B2	INORG	Perchlorate	14797-73-0	NC	2.50E-04			3.4E+03	LT	7.3E-08	7.7E+02	LT	3.2E-07
Landbay E	214B2	INORG	Strontium	7440-24-6		3.00E+01	3.80E+01	7.9E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay E	214G3	INORG	Aluminum	7429-90-5	ID	2.84E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	214G3	INORG	Barium	7440-39-3	NC	9.59E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	214G3	INORG	Beryllium	7440-41-7	B1	9.03E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay E	214G3	INORG	Cadmium	7440-43-9	B1	1.11E+00	2.70E+00	4.1E-01	1.1E+03	EqP	1.0E-03	2.1E+00	EqP	5.2E-01
Landbay E	214G3	INORG	Chromium III	16065-83-1	D	4.45E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	214G3	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	214G3	INORG	Copper	7440-50-8	D	4.90E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay E	214G3	INORG	Lead	7439-92-1	B2	1.38E+01						3.5E+02	EqP	3.9E-02
Landbay E	214G3	INORG	Mercury	7439-97-6	D	2.18E-02	7.10E-02	3.1E-01		NA		3.7E-01	EqP	5.9E-02
Landbay E	214G3	INORG	Strontium	7440-24-6		3.00E+01	3.80E+01	7.9E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.8E-02
Landbay E	217B1	INORG	Perchlorate	14797-73-0	NC	4.80E-04			3.4E+03	LT	1.4E-07	7.7E+02	LT	6.2E-07
Landbay E	219B1	INORG	Perchlorate	14797-73-0	NC	2.70E-03			3.4E+03	LT	7.8E-07	7.7E+02	LT	3.5E-06
Landbay E	21TP1-5	VOC	Acetone	67-64-1	ID	4.30E-02			2.0E+06	LT	2.1E-08	6.0E+02	LT	7.2E-05
Landbay E	21TP1-5	INORG	Aluminum	7429-90-5	ID	4.16E+04	5.34E+04	7.8E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay E	21TP1-5	INORG	Barium	7440-39-3	NC	1.45E+02	2.24E+02	6.5E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay E	21TP1-5	INORG	Beryllium	7440-41-7	B1	1.55E-01	1.20E+00	1.3E-01	6.8E+03	EqP	2.3E-05	1.0E+01	EqP	1.5E-02
Landbay E	21TP1-5	INORG	Cadmium	7440-43-9	B1	1.37E+00	2.70E+00	5.1E-01	1.1E+03	EqP	1.3E-03	2.1E+00	EqP	6.4E-01
Landbay E	21TP1-5	INORG	Chromium III	16065-83-1	D	9.73E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.6E-09	3.4E+06	EqP	2.9E-05
Landbay E	21TP1-5	INORG	Chromium VI	18540-29-9	A	1.30E+00	4.97E+00	2.6E-01	6.6E+01	LT	2.0E-02	4.4E+00	LT	3.0E-01
Landbay E	21TP1-5	INORG	Copper	7440-50-8	D	4.08E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.9E+00**
Landbay E	21TP1-5	INORG	Lead	7439-92-1	B2	4.36E+00						3.5E+02	EqP	1.2E-02
Landbay E	21TP1-5	INORG	Mercury	7439-97-6	D	1.20E-02	7.10E-02	1.7E-01		NA		3.7E-01	EqP	3.2E-02
Landbay E	21TP1-5	INORG	Perchlorate	14797-73-0	NC	5.20E-03			3.4E+03	LT	1.5E-06	7.7E+02	LT	6.7E-06
Landbay E	21TP1-5	INORG	Strontium	7440-24-6		3.33E+01	3.80E+01	8.8E-01	1.6E+07	EqP	2.0E-06	1.1E+03	EqP	3.1E-02
Landbay E	21TP2-7	INORG	Aluminum	7429-90-5	ID	3.63E+04	5.34E+04	6.8E-01	3.7E+08	EqP	9.8E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	21TP2-7	INORG	Arsenic	7440-38-2	A	2.41E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay E	21TP2-7	INORG	Barium	7440-39-3	NC	3.36E+01	2.24E+02	1.5E-01	3.2E+05	EqP	1.0E-04	3.3E+00	EqP	**1.0E+01**
Landbay E	21TP2-7	INORG	Cadmium	7440-43-9	B1	2.22E-01	2.70E+00	8.2E-02	1.1E+03	EqP	2.0E-04	2.1E+00	EqP	1.0E-01
Landbay E	21TP2-7	INORG	Chromium III	16065-83-1	D	3.90E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.2E-05
Landbay E	21TP2-7	INORG	Chromium VI	18540-29-9	A	6.90E-01	4.97E+00	1.4E-01	6.6E+01	LT	1.0E-02	4.4E+00	LT	1.6E-01
Landbay E	21TP2-7	INORG	Copper	7440-50-8	D	5.40E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.4E+00**
Landbay E	21TP2-7	INORG	Lead	7439-92-1	B2	5.37E+00						3.5E+02	EqP	1.5E-02
Landbay E	21TP2-7	INORG	Perchlorate	14797-73-0	NC	4.50E-04			3.4E+03	LT	1.3E-07	7.7E+02	LT	5.8E-07
Landbay E	21TP2-7	INORG	Silver	7440-22-4	D	8.07E-01	2.30E+00	3.5E-01	3.8E+03	LT	2.2E-04	2.7E+00	LT	3.0E-01
Landbay E	21TP2-7	INORG	Strontium	7440-24-6		4.36E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.7E-06	1.1E+03	EqP	4.1E-02
Landbay E	230AEC-2	INORG	Perchlorate	14797-73-0	NC	2.80E+01			3.4E+03	LT	8.1E-03	7.7E+02	LT	3.6E-02
Landbay E	230AEC-2	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	7.30E-01				NA		6.0E+01	LT	1.2E-02
Landbay E	230ANEC	INORG	Perchlorate	14797-73-0	NC	3.50E-01			3.4E+03	LT	1.0E-04	7.7E+02	LT	4.5E-04
Landbay E	230B1	SVOC	Acenaphthene	83-32-9	ID	5.20E-02				NA		2.3E+00	LT	2.2E-02
Landbay E	230B1	SVOC	Fluorene	86-73-7	D	5.30E-02				NA		1.7E+00	EqP	3.2E-02
Landbay E	230B1	INORG	Aluminum	7429-90-5	ID	4.81E+04	5.34E+04	9.0E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.8E+01**
Landbay E	230B1	INORG	Arsenic	7440-38-2	A	3.07E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay E	230B1	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay E	230B1	INORG	Beryllium	7440-41-7	B1	4.03E-01	1.20E+00	3.4E-01	6.8E+03	EqP	5.9E-05	1.0E+01	EqP	3.9E-02
Landbay E	230B1	INORG	Cadmium	7440-43-9	B1	8.14E-01	2.70E+00	3.0E-01	1.1E+03	EqP	7.5E-04	2.1E+00	EqP	3.8E-01
Landbay E	230B1	INORG	Chromium III	16065-83-1	D	1.78E+02	2.61E+02	6.8E-01	2.1E+10	EqP	8.3E-09	3.4E+06	EqP	5.3E-05
Landbay E	230B1	INORG	Chromium VI	18540-29-9	A	2.00E+00	4.97E+00	4.0E-01	6.6E+01	LT	3.0E-02	4.4E+00	LT	4.5E-01
Landbay E	230B1	INORG	Copper	7440-50-8	D	5.30E+01	1.31E+02	4.0E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.3E+00**
Landbay E	230B1	INORG	Lead	7439-92-1	B2	8.66E+00						3.5E+02	EqP	2.5E-02
Landbay E	230B1	INORG	Mercury	7439-97-6	D	2.21E-01	7.10E-02	**3.1E+00**		NA		3.7E-01	EqP	6.0E-01
Landbay E	230B1	INORG	Silver	7440-22-4	D	3.14E+00	2.30E+00	**1.4E+00**	3.8E+03	LT	8.4E-04	2.7E+00	LT	**1.2E+00**
Landbay E	230B1	INORG	Strontium	7440-24-6		3.80E+01	3.80E+01	1.0E+00	1.6E+07	EqP	2.3E-06	1.1E+03	EqP	3.6E-02
Landbay E	230-BM	SVOC	Acenaphthene	83-32-9	ID	1.20E+00				NA		2.3E+00	LT	5.2E-01
Landbay E	230-BM	SVOC	Anthracene	120-12-7	ID	9.00E-01				NA		1.4E-02	EqP	**6.3E+01**
Landbay E	230-BM	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.10E+00				NA		9.6E+03	EqP	3.2E-04
Landbay E	230-BM	SVOC	Fluoranthene	206-44-0	D	6.80E-01				NA		1.7E-01	EqP	**3.9E+00**
Landbay E	230-BM	SVOC	Fluorene	86-73-7	D	2.40E+00				NA		1.7E+00	EqP	**1.4E+00**
Landbay E	230-BM	SVOC	Phenanthrene	85-01-8	D	1.60E+00				NA		3.9E-01	EqP	**4.1E+00**
Landbay E	230-BM	SVOC	Pyrene	129-00-0	NC	7.20E-01				NA		1.1E-01	EqP	**6.8E+00**
Landbay E	230-BM	INORG	Arsenic	7440-38-2	A	1.17E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.1E-02	8.6E+01	EqP	1.4E-01
Landbay E	230-BM	INORG	Beryllium	7440-41-7	B1	2.54E+01	1.20E+00	**2.1E+01**	6.8E+03	EqP	3.7E-03	1.0E+01	EqP	**2.4E+00**
Landbay E	230-BM	INORG	Cadmium	7440-43-9	B1	6.86E+00	2.70E+00	**2.5E+00**	1.1E+03	EqP	6.3E-03	2.1E+00	EqP	**3.2E+00**
Landbay E	230-BM	INORG	Chromium III	16065-83-1	D	1.49E+02	2.61E+02	5.7E-01	2.1E+10	EqP	7.0E-09	3.4E+06	EqP	4.4E-05
Landbay E	230-BM	INORG	Chromium VI	18540-29-9	A	3.61E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	230-BM	INORG	Copper	7440-50-8	D	2.11E+02	1.31E+02	**1.6E+00**	3.5E+05	EqP	6.1E-04	8.4E+00	EqP	**2.5E+01**
Landbay E	230-BM	INORG	Lead	7439-92-1	B2	6.69E+01						3.5E+02	EqP	1.9E-01
Landbay E	230-BM	INORG	Mercury	7439-97-6	D	2.60E+00	7.10E-02	**3.7E+01**		NA		3.7E-01	EqP	**7.0E+00**
Landbay E	230-BM	INORG	Nickel	7440-02-0	A	7.79E+01	7.30E+01	**1.1E+00**	1.2E+05	EqP	6.3E-04	3.4E+01	EqP	**2.3E+00**
Landbay E	230-BM	INORG	Silver	7440-22-4	D	8.01E+00	2.30E+00	**3.5E+00**	3.8E+03	LT	2.1E-03	2.7E+00	LT	**3.0E+00**
Landbay E	230-BM	INORG	Thallium	7440-28-0	ID	8.35E+00	4.50E+00	**1.9E+00**				1.1E+00	EqP	**7.3E+00**
Landbay E	230-BM	INORG	Zinc	7440-66-6	ID	6.91E+02	1.02E+02	**6.8E+00**	5.5E+06	EqP	1.3E-04	1.9E+02	EqP	**3.6E+00**
Landbay E	235B1	INORG	Aluminum	7429-90-5	ID	4.28E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay E	235B1	INORG	Barium	7440-39-3	NC	3.52E+01	2.24E+02	1.6E-01	3.2E+05	EqP	1.1E-04	3.3E+00	EqP	**1.1E+01**
Landbay E	235B1	INORG	Cadmium	7440-43-9	B1	2.69E-01	2.70E+00	1.0E-01	1.1E+03	EqP	2.5E-04	2.1E+00	EqP	1.3E-01
Landbay E	235B1	INORG	Chromium III	16065-83-1	D	4.59E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay E	235B1	INORG	Chromium VI	18540-29-9	A	7.85E-01	4.97E+00	1.6E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.8E-01
Landbay E	235B1	INORG	Copper	7440-50-8	D	5.84E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	235B1	INORG	Lead	7439-92-1	B2	1.17E+00						3.5E+02	EqP	3.3E-03
Landbay E	235B1	INORG	Silver	7440-22-4	D	1.18E+00	2.30E+00	5.1E-01	3.8E+03	LT	3.1E-04	2.7E+00	LT	4.4E-01
Landbay E	235B1	INORG	Strontium	7440-24-6		7.09E+01	3.80E+01	**1.9E+00**	1.6E+07	EqP	4.4E-06	1.1E+03	EqP	6.7E-02
Landbay E	235B2	INORG	Aluminum	7429-90-5	ID	4.27E+04	5.34E+04	8.0E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.6E+01**
Landbay E	235B2	INORG	Barium	7440-39-3	NC	3.26E+01	2.24E+02	1.5E-01	3.2E+05	EqP	1.0E-04	3.3E+00	EqP	**9.9E+00**
Landbay E	235B2	INORG	Chromium III	16065-83-1	D	3.83E+01	2.61E+02	1.5E-01	2.1E+10	EqP	1.8E-09	3.4E+06	EqP	1.1E-05
Landbay E	235B2	INORG	Copper	7440-50-8	D	5.40E+01	1.31E+02	4.1E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.4E+00**
Landbay E	235B2	INORG	Lead	7439-92-1	B2	2.17E+00						3.5E+02	EqP	6.2E-03
Landbay E	235B2	INORG	Silver	7440-22-4	D	1.01E+00	2.30E+00	4.4E-01	3.8E+03	LT	2.7E-04	2.7E+00	LT	3.8E-01
Landbay E	235B2	INORG	Strontium	7440-24-6		5.74E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.4E-02
Landbay E	237B1	INORG	Perchlorate	14797-73-0	NC	2.10E+01			3.4E+03	LT	6.1E-03	7.7E+02	LT	2.7E-02
Landbay E	23TP1-7	VOC	Acetone	67-64-1	ID	2.50E-02			2.0E+06	LT	1.2E-08	6.0E+02	LT	4.2E-05
Landbay E	23TP1-7	INORG	Aluminum	7429-90-5	ID	5.47E+04	5.34E+04	1.0E+00	3.7E+08	EqP	1.5E-04	2.6E+03	EqP	**2.1E+01**
Landbay E	23TP1-7	INORG	Arsenic	7440-38-2	A	5.13E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay E	23TP1-7	INORG	Barium	7440-39-3	NC	1.19E+02	2.24E+02	5.3E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.6E+01**
Landbay E	23TP1-7	INORG	Beryllium	7440-41-7	B1	5.16E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.6E-05	1.0E+01	EqP	4.9E-02
Landbay E	23TP1-7	INORG	Cadmium	7440-43-9	B1	1.61E+00	2.70E+00	6.0E-01	1.1E+03	EqP	1.5E-03	2.1E+00	EqP	7.5E-01
Landbay E	23TP1-7	INORG	Chromium III	16065-83-1	D	1.89E+02	2.61E+02	7.2E-01	2.1E+10	EqP	8.8E-09	3.4E+06	EqP	5.6E-05
Landbay E	23TP1-7	INORG	Copper	7440-50-8	D	3.73E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.4E+00**
Landbay E	23TP1-7	INORG	Lead	7439-92-1	B2	1.64E+01						3.5E+02	EqP	4.7E-02
Landbay E	23TP1-7	INORG	Mercury	7439-97-6	D	3.35E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.1E-02
Landbay E	23TP1-7	INORG	Perchlorate	14797-73-0	NC	2.50E-03			3.4E+03	LT	7.3E-07	7.7E+02	LT	3.2E-06
Landbay E	23TP1-7	INORG	Silver	7440-22-4	D	2.03E+00	2.30E+00	8.8E-01	3.8E+03	LT	5.4E-04	2.7E+00	LT	7.6E-01
Landbay E	23TP1-7	INORG	Strontium	7440-24-6		2.32E+01	3.80E+01	6.1E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.2E-02
Landbay E	253B1	INORG	Aluminum	7429-90-5	ID	2.84E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	253B1	INORG	Arsenic	7440-38-2	A	2.10E+00	9.90E+00	2.1E-01	1.1E+03	EqP	2.0E-03	8.6E+01	EqP	2.4E-02
Landbay E	253B1	INORG	Barium	7440-39-3	NC	4.35E+01	2.24E+02	1.9E-01	3.2E+05	EqP	1.3E-04	3.3E+00	EqP	**1.3E+01**
Landbay E	253B1	INORG	Chromium III	16065-83-1	D	5.74E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay E	253B1	INORG	Copper	7440-50-8	D	4.77E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.7E+00**
Landbay E	253B1	INORG	Lead	7439-92-1	B2	1.73E+00						3.5E+02	EqP	4.9E-03
Landbay E	253B1	INORG	Strontium	7440-24-6		3.95E+01	3.80E+01	1.0E+00	1.6E+07	EqP	2.4E-06	1.1E+03	EqP	3.7E-02
Landbay E	253B2	INORG	Aluminum	7429-90-5	ID	3.89E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	253B2	INORG	Arsenic	7440-38-2	A	2.56E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.4E-03	8.6E+01	EqP	3.0E-02
Landbay E	253B2	INORG	Barium	7440-39-3	NC	8.24E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.5E+01**
Landbay E	253B2	INORG	Chromium III	16065-83-1	D	6.43E+01	2.61E+02	2.5E-01	2.1E+10	EqP	3.0E-09	3.4E+06	EqP	1.9E-05
Landbay E	253B2	INORG	Copper	7440-50-8	D	4.97E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.9E+00**
Landbay E	253B2	INORG	Lead	7439-92-1	B2	1.07E+00						3.5E+02	EqP	3.1E-03
Landbay E	253B2	INORG	Strontium	7440-24-6		5.19E+01	3.80E+01	**1.4E+00**	1.6E+07	EqP	3.2E-06	1.1E+03	EqP	4.9E-02
Landbay E	253B3	INORG	Aluminum	7429-90-5	ID	3.25E+04	5.34E+04	6.1E-01	3.7E+08	EqP	8.8E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	253B3	INORG	Arsenic	7440-38-2	A	8.25E+00	9.90E+00	8.3E-01	1.1E+03	EqP	7.9E-03	8.6E+01	EqP	9.6E-02
Landbay E	253B3	INORG	Barium	7440-39-3	NC	2.03E+02	2.24E+02	9.1E-01	3.2E+05	EqP	6.3E-04	3.3E+00	EqP	**6.2E+01**
Landbay E	253B3	INORG	Beryllium	7440-41-7	B1	7.73E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.4E-02
Landbay E	253B3	INORG	Chromium III	16065-83-1	D	2.75E+02	2.61E+02	**1.1E+00**	2.1E+10	EqP	1.3E-08	3.4E+06	EqP	8.1E-05
Landbay E	253B3	INORG	Chromium VI	18540-29-9	A	1.20E+00	4.97E+00	2.4E-01	6.6E+01	LT	1.8E-02	4.4E+00	LT	2.7E-01
Landbay E	253B3	INORG	Copper	7440-50-8	D	5.64E+01	1.31E+02	4.3E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.7E+00**
Landbay E	253B3	INORG	Lead	7439-92-1	B2	4.95E+01						3.5E+02	EqP	1.4E-01
Landbay E	253B3	INORG	Perchlorate	14797-73-0	NC	1.10E-03			3.4E+03	LT	3.2E-07	7.7E+02	LT	1.4E-06
Landbay E	253B3	INORG	Strontium	7440-24-6		2.86E+01	3.80E+01	7.5E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay E	253B5	VOC	Acetone	67-64-1	ID	1.00E-02			2.0E+06	LT	4.9E-09	6.0E+02	LT	1.7E-05
Landbay E	253B5	INORG	Aluminum	7429-90-5	ID	3.52E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	253B5	INORG	Arsenic	7440-38-2	A	5.83E+00	9.90E+00	5.9E-01	1.1E+03	EqP	5.6E-03	8.6E+01	EqP	6.8E-02
Landbay E	253B5	INORG	Barium	7440-39-3	NC	1.37E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.2E+01**
Landbay E	253B5	INORG	Cadmium	7440-43-9	B1	2.20E+00	2.70E+00	8.1E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay E	253B5	INORG	Chromium III	16065-83-1	D	1.76E+02	2.61E+02	6.8E-01	2.1E+10	EqP	8.3E-09	3.4E+06	EqP	5.2E-05
Landbay E	253B5	INORG	Chromium VI	18540-29-9	A	2.00E+00	4.97E+00	4.0E-01	6.6E+01	LT	3.0E-02	4.4E+00	LT	4.5E-01
Landbay E	253B5	INORG	Copper	7440-50-8	D	5.16E+01	1.31E+02	3.9E-01	3.5E+05	EqP	1.5E-04	8.4E+00	EqP	**6.1E+00**
Landbay E	253B5	INORG	Lead	7439-92-1	B2	7.71E+00						3.5E+02	EqP	2.2E-02
Landbay E	253B5	INORG	Perchlorate	14797-73-0	NC	1.60E-03			3.4E+03	LT	4.6E-07	7.7E+02	LT	2.1E-06
Landbay E	253B5	INORG	Silver	7440-22-4	D	7.04E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.6E-01
Landbay E	253B5	INORG	Strontium	7440-24-6		2.17E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.1E-02
Landbay E	253G4	INORG	Perchlorate	14797-73-0	NC	4.70E-02			3.4E+03	LT	1.4E-05	7.7E+02	LT	6.1E-05
Landbay E	253G5	INORG	Perchlorate	14797-73-0	NC	4.90E-04			3.4E+03	LT	1.4E-07	7.7E+02	LT	6.3E-07
Landbay E	255B1	INORG	Perchlorate	14797-73-0	NC	7.00E-04			3.4E+03	LT	2.0E-07	7.7E+02	LT	9.0E-07
Landbay E	28B3	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.30E-01				NA		9.6E+03	EqP	3.4E-05
Landbay E	28B3	INORG	Aluminum	7429-90-5	ID	3.60E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	28B3	INORG	Barium	7440-39-3	NC	6.87E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay E	28B3	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	28B3	INORG	Chromium III	16065-83-1	D	1.44E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.8E-09	3.4E+06	EqP	4.3E-05
Landbay E	28B3	INORG	Chromium VI	18540-29-9	A	3.58E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay E	28B3	INORG	Copper	7440-50-8	D	8.79E+01	1.31E+02	6.7E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay E	28B3	INORG	Lead	7439-92-1	B2	4.92E+01						3.5E+02	EqP	1.4E-01
Landbay E	28B3	INORG	Mercury	7439-97-6	D	7.56E-02	7.10E-02	**1.1E+00**		NA		3.7E-01	EqP	2.0E-01
Landbay E	28B3	INORG	Perchlorate	14797-73-0	NC	4.10E-04			3.4E+03	LT	1.2E-07	7.7E+02	LT	5.3E-07
Landbay E	28B3	INORG	Silver	7440-22-4	D	1.74E+00	2.30E+00	7.6E-01	3.8E+03	LT	4.6E-04	2.7E+00	LT	6.5E-01
Landbay E	28B3	INORG	Strontium	7440-24-6		4.26E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay E	28B6	VOC	Acetone	67-64-1	ID	9.50E-02			2.0E+06	LT	4.6E-08	6.0E+02	LT	1.6E-04
Landbay E	28B6	VOC	2-Butanone	78-93-3	ID	7.00E-03			3.0E+05	LT	2.3E-08	5.6E+03	LT	1.3E-06
Landbay E	28B6	VOC	Carbon Disulfide	75-15-0		3.00E-03			1.4E+04	LT	2.1E-07	3.7E-01	LT	8.2E-03
Landbay E	28B6	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03			1.5E+03	LT	1.4E-06	4.4E+01	LT	4.5E-05
Landbay E	28B6	INORG	Aluminum	7429-90-5	ID	3.88E+04	5.34E+04	7.3E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	28B6	INORG	Arsenic	7440-38-2	A	3.88E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay E	28B6	INORG	Barium	7440-39-3	NC	7.93E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay E	28B6	INORG	Cadmium	7440-43-9	B1	7.61E-01	2.70E+00	2.8E-01	1.1E+03	EqP	7.0E-04	2.1E+00	EqP	3.6E-01
Landbay E	28B6	INORG	Chromium III	16065-83-1	D	1.07E+02	2.61E+02	4.1E-01	2.1E+10	EqP	5.0E-09	3.4E+06	EqP	3.2E-05
Landbay E	28B6	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	28B6	INORG	Copper	7440-50-8	D	4.86E+01	1.31E+02	3.7E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.8E+00**
Landbay E	28B6	INORG	Lead	7439-92-1	B2	9.55E+00						3.5E+02	EqP	2.7E-02
Landbay E	28B6	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay E	28B6	INORG	Silver	7440-22-4	D	6.49E-01	2.30E+00	2.8E-01	3.8E+03	LT	1.7E-04	2.7E+00	LT	2.4E-01
Landbay E	28B6	INORG	Strontium	7440-24-6		5.68E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.5E-06	1.1E+03	EqP	5.4E-02
Landbay E	28G4	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3.30E-01				NA		9.6E+03	EqP	3.4E-05
Landbay E	28G4	INORG	Aluminum	7429-90-5	ID	3.60E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	28G4	INORG	Barium	7440-39-3	NC	6.87E+01	2.24E+02	3.1E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.1E+01**
Landbay E	28G4	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	28G4	INORG	Cadmium	7440-43-9	B1	3.88E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.6E-04	2.1E+00	EqP	1.8E-01
Landbay E	28G4	INORG	Chromium III	16065-83-1	D	1.44E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.8E-09	3.4E+06	EqP	4.3E-05
Landbay E	28G4	INORG	Chromium VI	18540-29-9	A	3.58E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay E	28G4	INORG	Copper	7440-50-8	D	8.79E+01	1.31E+02	6.7E-01	3.5E+05	EqP	2.5E-04	8.4E+00	EqP	**1.0E+01**
Landbay E	28G4	INORG	Lead	7439-92-1	B2	4.92E+01						3.5E+02	EqP	1.4E-01
Landbay E	28G4	INORG	Mercury	7439-97-6	D	7.56E-02	7.10E-02	**1.1E+00**		NA		3.7E-01	EqP	2.0E-01
Landbay E	28G4	INORG	Perchlorate	14797-73-0	NC	7.70E-02			3.4E+03	LT	2.2E-05	7.7E+02	LT	1.0E-04
Landbay E	28G4	INORG	Silver	7440-22-4	D	1.74E+00	2.30E+00	7.6E-01	3.8E+03	LT	4.6E-04	2.7E+00	LT	6.5E-01
Landbay E	28G4	INORG	Strontium	7440-24-6		4.26E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay E	40AEC-2	INORG	Perchlorate	14797-73-0	NC	8.80E-02			3.4E+03	LT	2.6E-05	7.7E+02	LT	1.1E-04
Landbay E	40ANEC	INORG	Perchlorate	14797-73-0	NC	2.60E-02			3.4E+03	LT	7.5E-06	7.7E+02	LT	3.4E-05
Landbay E	42 GP-11	PCB	PCBs (total)	1336-36-3	B2	4.00E-02				NA		1.4E+00	EqP	2.9E-02
Landbay E	42 GP-12	PCB	PCBs (total)	1336-36-3	B2	2.54E-02				NA		1.4E+00	EqP	1.8E-02
Landbay E	45B1	SVOC	Acenaphthylene	208-96-8	D	4.00E-02				NA			NA	
Landbay E	45B1	SVOC	Fluoranthene	206-44-0	D	5.60E-02				NA		1.7E-01	EqP	3.2E-01
Landbay E	45B1	SVOC	Pyrene	129-00-0	NC	4.60E-02				NA		1.1E-01	EqP	4.4E-01
Landbay E	45B1	INORG	Aluminum	7429-90-5	ID	3.70E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	45B1	INORG	Arsenic	7440-38-2	A	6.05E+00	9.90E+00	6.1E-01	1.1E+03	EqP	5.8E-03	8.6E+01	EqP	7.1E-02
Landbay E	45B1	INORG	Barium	7440-39-3	NC	6.50E+01	2.24E+02	2.9E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**2.0E+01**
Landbay E	45B1	INORG	Beryllium	7440-41-7	B1	1.67E-01	1.20E+00	1.4E-01	6.8E+03	EqP	2.5E-05	1.0E+01	EqP	1.6E-02
Landbay E	45B1	INORG	Cadmium	7440-43-9	B1	1.71E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay E	45B1	INORG	Chromium III	16065-83-1	D	7.62E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.3E-05
Landbay E	45B1	INORG	Chromium VI	18540-29-9	A	3.11E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay E	45B1	INORG	Copper	7440-50-8	D	7.02E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay E	45B1	INORG	Lead	7439-92-1	B2	1.07E+01						3.5E+02	EqP	3.1E-02
Landbay E	45B1	INORG	Mercury	7439-97-6	D	2.16E-02	7.10E-02	3.0E-01		NA		3.7E-01	EqP	5.8E-02
Landbay E	45B1	INORG	Perchlorate	14797-73-0	NC	9.10E-02			3.4E+03	LT	2.6E-05	7.7E+02	LT	1.2E-04
Landbay E	45B1	INORG	Silver	7440-22-4	D	2.51E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	6.7E-04	2.7E+00	LT	9.4E-01
Landbay E	45B1	INORG	Strontium	7440-24-6		4.23E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay E	45B2	SVOC	Acenaphthylene	208-96-8	D	4.00E-02				NA			NA	
Landbay E	45B2	SVOC	Fluoranthene	206-44-0	D	5.60E-02				NA		1.7E-01	EqP	3.2E-01
Landbay E	45B2	SVOC	Pyrene	129-00-0	NC	4.60E-02				NA		1.1E-01	EqP	4.4E-01
Landbay E	45B2	INORG	Aluminum	7429-90-5	ID	3.70E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	45B2	INORG	Arsenic	7440-38-2	A	6.05E+00	9.90E+00	6.1E-01	1.1E+03	EqP	5.8E-03	8.6E+01	EqP	7.1E-02
Landbay E	45B2	INORG	Barium	7440-39-3	NC	6.50E+01	2.24E+02	2.9E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**2.0E+01**
Landbay E	45B2	INORG	Beryllium	7440-41-7	B1	1.67E-01	1.20E+00	1.4E-01	6.8E+03	EqP	2.5E-05	1.0E+01	EqP	1.6E-02
Landbay E	45B2	INORG	Cadmium	7440-43-9	B1	1.71E+00	2.70E+00	6.3E-01	1.1E+03	EqP	1.6E-03	2.1E+00	EqP	8.0E-01
Landbay E	45B2	INORG	Chromium III	16065-83-1	D	7.62E+01	2.61E+02	2.9E-01	2.1E+10	EqP	3.6E-09	3.4E+06	EqP	2.3E-05
Landbay E	45B2	INORG	Chromium VI	18540-29-9	A	3.11E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	45B2	INORG	Copper	7440-50-8	D	7.02E+01	1.31E+02	5.4E-01	3.5E+05	EqP	2.0E-04	8.4E+00	EqP	**8.4E+00**
Landbay E	45B2	INORG	Lead	7439-92-1	B2	1.07E+01						3.5E+02	EqP	3.1E-02
Landbay E	45B2	INORG	Mercury	7439-97-6	D	2.16E-02	7.10E-02	3.0E-01		NA		3.7E-01	EqP	5.8E-02
Landbay E	45B2	INORG	Silver	7440-22-4	D	2.51E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	6.7E-04	2.7E+00	LT	9.4E-01
Landbay E	45B2	INORG	Strontium	7440-24-6		4.23E+01	3.80E+01	**1.1E+00**	1.6E+07	EqP	2.6E-06	1.1E+03	EqP	4.0E-02
Landbay E	45B4	INORG	Perchlorate	14797-73-0	NC	1.80E-02			3.4E+03	LT	5.2E-06	7.7E+02	LT	2.3E-05
Landbay E	45B5	INORG	Perchlorate	14797-73-0	NC	1.80E-02			3.4E+03	LT	5.2E-06	7.7E+02	LT	2.3E-05
Landbay E	45B6	INORG	Perchlorate	14797-73-0	NC	1.80E-02			3.4E+03	LT	5.2E-06	7.7E+02	LT	2.3E-05
Landbay E	45G3	INORG	Perchlorate	14797-73-0	NC	7.60E-02			3.4E+03	LT	2.2E-05	7.7E+02	LT	9.8E-05
Landbay E	4650-0800	INORG	Aluminum	7429-90-5	ID	2.85E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	4650-0800	INORG	Antimony	7440-36-0	ID	1.77E+00	1.70E+00	1.0E+00	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.5E-02
Landbay E	4650-0800	INORG	Arsenic	7440-38-2	A	1.01E+01	9.90E+00	1.0E+00	1.1E+03	EqP	9.6E-03	8.6E+01	EqP	1.2E-01
Landbay E	4650-0800	INORG	Barium	7440-39-3	NC	9.34E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	4650-0800	INORG	Beryllium	7440-41-7	B1	5.36E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay E	4650-0800	INORG	Cadmium	7440-43-9	B1	2.98E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.8E-04	2.1E+00	EqP	1.4E-01
Landbay E	4650-0800	INORG	Chromium III	16065-83-1	D	1.83E+02	2.61E+02	7.0E-01	2.1E+10	EqP	8.6E-09	3.4E+06	EqP	5.4E-05
Landbay E	4650-0800	INORG	Chromium VI	18540-29-9	A	2.50E+00	4.97E+00	5.0E-01	6.6E+01	LT	3.8E-02	4.4E+00	LT	5.7E-01
Landbay E	4650-0800	INORG	Cobalt	7440-48-4	LC	4.49E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	4650-0800	INORG	Copper	7440-50-8	D	2.92E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.4E-05	8.4E+00	EqP	**3.5E+00**
Landbay E	4650-0800	INORG	Iron	7439-89-6	D	5.21E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	4650-0800	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay E	4650-0800	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	4650-0800	INORG	Mercury	7439-97-6	D	5.17E-02	7.10E-02	7.3E-01		NA		3.7E-01	EqP	1.4E-01
Landbay E	4650-0800	INORG	Nickel	7440-02-0	A	3.61E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	4650-0800	INORG	Strontium	7440-24-6		1.87E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay E	4650-0800	INORG	Vanadium	7440-62-2	ID	1.86E+02	2.83E+02	6.6E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	4650-0800	INORG	Zinc	7440-66-6	ID	1.03E+02	1.02E+02	1.0E+00	5.5E+06	EqP	1.9E-05	1.9E+02	EqP	5.4E-01
Landbay E	4650-0950	INORG	Aluminum	7429-90-5	ID	2.65E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	4650-0950	INORG	Antimony	7440-36-0	ID	1.64E+00	1.70E+00	9.6E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.0E-02
Landbay E	4650-0950	INORG	Arsenic	7440-38-2	A	6.81E+00	9.90E+00	6.9E-01	1.1E+03	EqP	6.5E-03	8.6E+01	EqP	7.9E-02
Landbay E	4650-0950	INORG	Barium	7440-39-3	NC	2.09E+02	2.24E+02	9.3E-01	3.2E+05	EqP	6.5E-04	3.3E+00	EqP	**6.3E+01**
Landbay E	4650-0950	INORG	Beryllium	7440-41-7	B1	6.31E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay E	4650-0950	INORG	Cadmium	7440-43-9	B1	3.48E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay E	4650-0950	INORG	Chromium III	16065-83-1	D	1.11E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.2E-09	3.4E+06	EqP	3.3E-05
Landbay E	4650-0950	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	4650-0950	INORG	Cobalt	7440-48-4	LC	6.04E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay E	4650-0950	INORG	Copper	7440-50-8	D	2.74E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	4650-0950	INORG	Iron	7439-89-6	D	5.68E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	4650-0950	INORG	Lead	7439-92-1	B2	2.16E+01						3.5E+02	EqP	6.2E-02
Landbay E	4650-0950	INORG	Manganese	7439-96-5	D	3.01E+03	4.27E+03	7.0E-01	3.1E+05	EqP	9.7E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	4650-0950	INORG	Mercury	7439-97-6	D	6.43E-02	7.10E-02	9.1E-01		NA		3.7E-01	EqP	1.7E-01
Landbay E	4650-0950	INORG	Nickel	7440-02-0	A	2.57E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.6E-01
Landbay E	4650-0950	INORG	Strontium	7440-24-6		2.17E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.1E-02
Landbay E	4650-0950	INORG	Thallium	7440-28-0	ID	1.39E+00	4.50E+00	3.1E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	4650-0950	INORG	Vanadium	7440-62-2	ID	2.05E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay E	4650-0950	INORG	Zinc	7440-66-6	ID	5.61E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	47B1	INORG	Aluminum	7429-90-5	ID	3.09E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	47B1	INORG	Barium	7440-39-3	NC	3.92E+01	2.24E+02	1.8E-01	3.2E+05	EqP	1.2E-04	3.3E+00	EqP	**1.2E+01**
Landbay E	47B1	INORG	Cadmium	7440-43-9	B1	2.55E-01	2.70E+00	9.4E-02	1.1E+03	EqP	2.4E-04	2.1E+00	EqP	1.2E-01
Landbay E	47B1	INORG	Chromium III	16065-83-1	D	4.49E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	47B1	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	47B1	INORG	Copper	7440-50-8	D	5.87E+01	1.31E+02	4.5E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.0E+00**
Landbay E	47B1	INORG	Lead	7439-92-1	B2	2.55E+00						3.5E+02	EqP	7.3E-03
Landbay E	47B1	INORG	Silver	7440-22-4	D	1.26E+00	2.30E+00	5.5E-01	3.8E+03	LT	3.4E-04	2.7E+00	LT	4.7E-01
Landbay E	47B1	INORG	Strontium	7440-24-6		5.11E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay E	4800-0650	INORG	Aluminum	7429-90-5	ID	2.85E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	4800-0650	INORG	Antimony	7440-36-0	ID	1.77E+00	1.70E+00	1.0E+00	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.5E-02
Landbay E	4800-0650	INORG	Arsenic	7440-38-2	A	1.01E+01	9.90E+00	1.0E+00	1.1E+03	EqP	9.6E-03	8.6E+01	EqP	1.2E-01
Landbay E	4800-0650	INORG	Barium	7440-39-3	NC	9.34E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	4800-0650	INORG	Beryllium	7440-41-7	B1	5.36E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay E	4800-0650	INORG	Cadmium	7440-43-9	B1	2.98E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.8E-04	2.1E+00	EqP	1.4E-01
Landbay E	4800-0650	INORG	Chromium III	16065-83-1	D	1.83E+02	2.61E+02	7.0E-01	2.1E+10	EqP	8.6E-09	3.4E+06	EqP	5.4E-05
Landbay E	4800-0650	INORG	Chromium VI	18540-29-9	A	2.50E+00	4.97E+00	5.0E-01	6.6E+01	LT	3.8E-02	4.4E+00	LT	5.7E-01
Landbay E	4800-0650	INORG	Cobalt	7440-48-4	LC	4.49E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	4800-0650	INORG	Copper	7440-50-8	D	2.92E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.4E-05	8.4E+00	EqP	**3.5E+00**
Landbay E	4800-0650	INORG	Iron	7439-89-6	D	5.21E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	4800-0650	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay E	4800-0650	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	4800-0650	INORG	Mercury	7439-97-6	D	5.17E-02	7.10E-02	7.3E-01		NA		3.7E-01	EqP	1.4E-01
Landbay E	4800-0650	INORG	Nickel	7440-02-0	A	3.61E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	4800-0650	INORG	Strontium	7440-24-6		1.87E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay E	4800-0650	INORG	Vanadium	7440-62-2	ID	1.86E+02	2.83E+02	6.6E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	4800-0650	INORG	Zinc	7440-66-6	ID	1.03E+02	1.02E+02	1.0E+00	5.5E+06	EqP	1.9E-05	1.9E+02	EqP	5.4E-01
Landbay E	4800-0800	INORG	Aluminum	7429-90-5	ID	2.65E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	4800-0800	INORG	Antimony	7440-36-0	ID	1.64E+00	1.70E+00	9.6E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.0E-02
Landbay E	4800-0800	INORG	Arsenic	7440-38-2	A	6.81E+00	9.90E+00	6.9E-01	1.1E+03	EqP	6.5E-03	8.6E+01	EqP	7.9E-02
Landbay E	4800-0800	INORG	Barium	7440-39-3	NC	2.09E+02	2.24E+02	9.3E-01	3.2E+05	EqP	6.5E-04	3.3E+00	EqP	**6.3E+01**
Landbay E	4800-0800	INORG	Beryllium	7440-41-7	B1	6.31E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay E	4800-0800	INORG	Cadmium	7440-43-9	B1	3.48E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay E	4800-0800	INORG	Chromium III	16065-83-1	D	1.11E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.2E-09	3.4E+06	EqP	3.3E-05
Landbay E	4800-0800	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	4800-0800	INORG	Cobalt	7440-48-4	LC	6.04E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay E	4800-0800	INORG	Copper	7440-50-8	D	2.74E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	4800-0800	INORG	Iron	7439-89-6	D	5.68E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	4800-0800	INORG	Lead	7439-92-1	B2	2.16E+01						3.5E+02	EqP	6.2E-02
Landbay E	4800-0800	INORG	Manganese	7439-96-5	D	3.01E+03	4.27E+03	7.0E-01	3.1E+05	EqP	9.7E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	4800-0800	INORG	Mercury	7439-97-6	D	6.43E-02	7.10E-02	9.1E-01		NA		3.7E-01	EqP	1.7E-01
Landbay E	4800-0800	INORG	Nickel	7440-02-0	A	2.57E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.6E-01
Landbay E	4800-0800	INORG	Strontium	7440-24-6		2.17E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.1E-02
Landbay E	4800-0800	INORG	Thallium	7440-28-0	ID	1.39E+00	4.50E+00	3.1E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	4800-0800	INORG	Vanadium	7440-62-2	ID	2.05E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay E	4800-0800	INORG	Zinc	7440-66-6	ID	5.61E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	4800-0950	INORG	Aluminum	7429-90-5	ID	2.65E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	4800-0950	INORG	Antimony	7440-36-0	ID	1.64E+00	1.70E+00	9.6E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.0E-02
Landbay E	4800-0950	INORG	Arsenic	7440-38-2	A	6.81E+00	9.90E+00	6.9E-01	1.1E+03	EqP	6.5E-03	8.6E+01	EqP	7.9E-02
Landbay E	4800-0950	INORG	Barium	7440-39-3	NC	2.09E+02	2.24E+02	9.3E-01	3.2E+05	EqP	6.5E-04	3.3E+00	EqP	**6.3E+01**
Landbay E	4800-0950	INORG	Beryllium	7440-41-7	B1	6.31E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.3E-05	1.0E+01	EqP	6.0E-02
Landbay E	4800-0950	INORG	Cadmium	7440-43-9	B1	3.48E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay E	4800-0950	INORG	Chromium III	16065-83-1	D	1.11E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.2E-09	3.4E+06	EqP	3.3E-05
Landbay E	4800-0950	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	4800-0950	INORG	Cobalt	7440-48-4	LC	6.04E+01	8.60E+01	7.0E-01	1.4E+04	EqP	4.4E-03	2.1E+01	EqP	**2.9E+00**
Landbay E	4800-0950	INORG	Copper	7440-50-8	D	2.74E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	4800-0950	INORG	Iron	7439-89-6	D	5.68E+04	9.52E+04	6.0E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	4800-0950	INORG	Lead	7439-92-1	B2	2.16E+01						3.5E+02	EqP	6.2E-02
Landbay E	4800-0950	INORG	Manganese	7439-96-5	D	3.01E+03	4.27E+03	7.0E-01	3.1E+05	EqP	9.7E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	4800-0950	INORG	Mercury	7439-97-6	D	6.43E-02	7.10E-02	9.1E-01		NA		3.7E-01	EqP	1.7E-01
Landbay E	4800-0950	INORG	Nickel	7440-02-0	A	2.57E+01	7.30E+01	3.5E-01	1.2E+05	EqP	2.1E-04	3.4E+01	EqP	7.6E-01
Landbay E	4800-0950	INORG	Strontium	7440-24-6		2.17E+01	3.80E+01	5.7E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.1E-02
Landbay E	4800-0950	INORG	Thallium	7440-28-0	ID	1.39E+00	4.50E+00	3.1E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	4800-0950	INORG	Vanadium	7440-62-2	ID	2.05E+02	2.83E+02	7.2E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	5.1E-01
Landbay E	4800-0950	INORG	Zinc	7440-66-6	ID	5.61E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	4800-1100	PCB	PCBs (total)	1336-36-3	B2	2.36E-02				NA		1.4E+00	EqP	1.7E-02
Landbay E	4800-1100	INORG	Aluminum	7429-90-5	ID	3.66E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	4800-1100	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay E	4800-1100	INORG	Arsenic	7440-38-2	A	7.31E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.5E-02
Landbay E	4800-1100	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	4800-1100	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	4800-1100	INORG	Chromium III	16065-83-1	D	2.10E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay E	4800-1100	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.0E-01
Landbay E	4800-1100	INORG	Cobalt	7440-48-4	LC	5.14E+01	8.60E+01	6.0E-01	1.4E+04	EqP	3.7E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	4800-1100	INORG	Copper	7440-50-8	D	3.89E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay E	4800-1100	INORG	Iron	7439-89-6	D	5.30E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	4800-1100	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay E	4800-1100	INORG	Manganese	7439-96-5	D	1.74E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	4800-1100	INORG	Mercury	7439-97-6	D	5.50E-02	7.10E-02	7.7E-01		NA		3.7E-01	EqP	1.5E-01
Landbay E	4800-1100	INORG	Nickel	7440-02-0	A	4.86E+01	7.30E+01	6.7E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay E	4800-1100	INORG	Strontium	7440-24-6		2.88E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay E	4800-1100	INORG	Vanadium	7440-62-2	ID	1.84E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	4800-1100	INORG	Zinc	7440-66-6	ID	5.69E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay E	4800-60	INORG	Aluminum	7429-90-5	ID	3.73E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	4800-60	INORG	Arsenic	7440-38-2	A	4.25E+00	9.90E+00	4.3E-01	1.1E+03	EqP	4.0E-03	8.6E+01	EqP	5.0E-02
Landbay E	4800-60	INORG	Barium	7440-39-3	NC	8.49E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay E	4800-60	INORG	Beryllium	7440-41-7	B1	3.72E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.5E-05	1.0E+01	EqP	3.6E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	4800-60	INORG	Boron	7440-42-8	ID	3.77E+00	1.34E+01	2.8E-01	9.9E+05	LT	3.8E-06	6.4E-01	LT	**5.9E+00**
Landbay E	4800-60	INORG	Chromium III	16065-83-1	D	1.85E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay E	4800-60	INORG	Chromium VI	18540-29-9	A	3.86E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay E	4800-60	INORG	Cobalt	7440-48-4	LC	4.34E+01	8.60E+01	5.0E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay E	4800-60	INORG	Copper	7440-50-8	D	3.58E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.3E+00**
Landbay E	4800-60	INORG	Iron	7439-89-6	D	4.82E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	4800-60	INORG	Lead	7439-92-1	B2	1.10E+01						3.5E+02	EqP	3.1E-02
Landbay E	4800-60	INORG	Manganese	7439-96-5	D	1.21E+03	4.27E+03	2.8E-01	3.1E+05	EqP	3.9E-03	1.6E+02	EqP	**7.7E+00**
Landbay E	4800-60	INORG	Mercury	7439-97-6	D	2.22E-02	7.10E-02	3.1E-01		NA		3.7E-01	EqP	6.0E-02
Landbay E	4800-60	INORG	Nickel	7440-02-0	A	4.36E+01	7.30E+01	6.0E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	4800-60	INORG	Silver	7440-22-4	D	5.38E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay E	4800-60	INORG	Strontium	7440-24-6		3.21E+01	3.80E+01	8.4E-01	1.6E+07	EqP	2.0E-06	1.1E+03	EqP	3.0E-02
Landbay E	4800-60	INORG	Thallium	7440-28-0	ID	1.92E+00	4.50E+00	4.3E-01				1.1E+00	EqP	**1.7E+00**
Landbay E	4800-60	INORG	Vanadium	7440-62-2	ID	1.67E+02	2.83E+02	5.9E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay E	4800-60	INORG	Zinc	7440-66-6	ID	4.43E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.1E-06	1.9E+02	EqP	2.3E-01
Landbay E	4950-0500	INORG	Aluminum	7429-90-5	ID	2.85E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	4950-0500	INORG	Antimony	7440-36-0	ID	1.77E+00	1.70E+00	1.0E+00	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.5E-02
Landbay E	4950-0500	INORG	Arsenic	7440-38-2	A	1.01E+01	9.90E+00	1.0E+00	1.1E+03	EqP	9.6E-03	8.6E+01	EqP	1.2E-01
Landbay E	4950-0500	INORG	Barium	7440-39-3	NC	9.34E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	4950-0500	INORG	Beryllium	7440-41-7	B1	5.36E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay E	4950-0500	INORG	Cadmium	7440-43-9	B1	2.98E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.8E-04	2.1E+00	EqP	1.4E-01
Landbay E	4950-0500	INORG	Chromium III	16065-83-1	D	1.83E+02	2.61E+02	7.0E-01	2.1E+10	EqP	8.6E-09	3.4E+06	EqP	5.4E-05
Landbay E	4950-0500	INORG	Chromium VI	18540-29-9	A	2.50E+00	4.97E+00	5.0E-01	6.6E+01	LT	3.8E-02	4.4E+00	LT	5.7E-01
Landbay E	4950-0500	INORG	Cobalt	7440-48-4	LC	4.49E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	4950-0500	INORG	Copper	7440-50-8	D	2.92E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.4E-05	8.4E+00	EqP	**3.5E+00**
Landbay E	4950-0500	INORG	Iron	7439-89-6	D	5.21E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	4950-0500	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay E	4950-0500	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	4950-0500	INORG	Mercury	7439-97-6	D	5.17E-02	7.10E-02	7.3E-01		NA		3.7E-01	EqP	1.4E-01
Landbay E	4950-0500	INORG	Nickel	7440-02-0	A	3.61E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	4950-0500	INORG	Strontium	7440-24-6		1.87E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay E	4950-0500	INORG	Vanadium	7440-62-2	ID	1.86E+02	2.83E+02	6.6E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	4950-0500	INORG	Zinc	7440-66-6	ID	1.03E+02	1.02E+02	1.0E+00	5.5E+06	EqP	1.9E-05	1.9E+02	EqP	5.4E-01
Landbay E	4950-0650	PCB	PCBs (total)	1336-36-3	B2	1.82E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	4950-0650	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	4950-0650	INORG	Antimony	7440-36-0	ID	1.48E+00	1.70E+00	8.7E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.5E-02
Landbay E	4950-0650	INORG	Arsenic	7440-38-2	A	3.86E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay E	4950-0650	INORG	Barium	7440-39-3	NC	9.71E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	4950-0650	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	4950-0650	INORG	Chromium III	16065-83-1	D	8.68E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay E	4950-0650	INORG	Cobalt	7440-48-4	LC	3.31E+01	8.60E+01	3.8E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay E	4950-0650	INORG	Copper	7440-50-8	D	2.80E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	4950-0650	INORG	Iron	7439-89-6	D	3.88E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	4950-0650	INORG	Lead	7439-92-1	B2	1.81E+01						3.5E+02	EqP	5.2E-02
Landbay E	4950-0650	INORG	Manganese	7439-96-5	D	1.41E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**9.0E+00**
Landbay E	4950-0650	INORG	Mercury	7439-97-6	D	5.61E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay E	4950-0650	INORG	Nickel	7440-02-0	A	2.24E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.6E-01
Landbay E	4950-0650	INORG	Silver	7440-22-4	D	2.11E-01	2.30E+00	9.2E-02	3.8E+03	LT	5.6E-05	2.7E+00	LT	7.9E-02
Landbay E	4950-0650	INORG	Strontium	7440-24-6		2.06E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay E	4950-0650	INORG	Vanadium	7440-62-2	ID	1.33E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay E	4950-0650	INORG	Zinc	7440-66-6	ID	5.48E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	4950-0800	PCB	PCBs (total)	1336-36-3	B2	1.82E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	4950-0800	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	4950-0800	INORG	Antimony	7440-36-0	ID	1.48E+00	1.70E+00	8.7E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.5E-02
Landbay E	4950-0800	INORG	Arsenic	7440-38-2	A	3.86E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay E	4950-0800	INORG	Barium	7440-39-3	NC	9.71E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	4950-0800	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	4950-0800	INORG	Chromium III	16065-83-1	D	8.68E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay E	4950-0800	INORG	Cobalt	7440-48-4	LC	3.31E+01	8.60E+01	3.8E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay E	4950-0800	INORG	Copper	7440-50-8	D	2.80E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	4950-0800	INORG	Iron	7439-89-6	D	3.88E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	4950-0800	INORG	Lead	7439-92-1	B2	1.81E+01						3.5E+02	EqP	5.2E-02
Landbay E	4950-0800	INORG	Manganese	7439-96-5	D	1.41E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**9.0E+00**
Landbay E	4950-0800	INORG	Mercury	7439-97-6	D	5.61E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay E	4950-0800	INORG	Nickel	7440-02-0	A	2.24E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.6E-01
Landbay E	4950-0800	INORG	Silver	7440-22-4	D	2.11E-01	2.30E+00	9.2E-02	3.8E+03	LT	5.6E-05	2.7E+00	LT	7.9E-02
Landbay E	4950-0800	INORG	Strontium	7440-24-6		2.06E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay E	4950-0800	INORG	Vanadium	7440-62-2	ID	1.33E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay E	4950-0800	INORG	Zinc	7440-66-6	ID	5.48E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	4950-0950	PCB	PCBs (total)	1336-36-3	B2	2.36E-02				NA		1.4E+00	EqP	1.7E-02
Landbay E	4950-0950	INORG	Aluminum	7429-90-5	ID	3.66E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	4950-0950	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay E	4950-0950	INORG	Arsenic	7440-38-2	A	7.31E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.5E-02
Landbay E	4950-0950	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	4950-0950	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	4950-0950	INORG	Chromium III	16065-83-1	D	2.10E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay E	4950-0950	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.0E-01
Landbay E	4950-0950	INORG	Cobalt	7440-48-4	LC	5.14E+01	8.60E+01	6.0E-01	1.4E+04	EqP	3.7E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	4950-0950	INORG	Copper	7440-50-8	D	3.89E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay E	4950-0950	INORG	Iron	7439-89-6	D	5.30E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	4950-0950	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay E	4950-0950	INORG	Manganese	7439-96-5	D	1.74E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	4950-0950	INORG	Mercury	7439-97-6	D	5.50E-02	7.10E-02	7.7E-01		NA		3.7E-01	EqP	1.5E-01
Landbay E	4950-0950	INORG	Nickel	7440-02-0	A	4.86E+01	7.30E+01	6.7E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay E	4950-0950	INORG	Strontium	7440-24-6		2.88E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay E	4950-0950	INORG	Vanadium	7440-62-2	ID	1.84E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	4950-0950	INORG	Zinc	7440-66-6	ID	5.69E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay E	4950-1100	PCB	PCBs (total)	1336-36-3	B2	2.36E-02				NA		1.4E+00	EqP	1.7E-02
Landbay E	4950-1100	INORG	Aluminum	7429-90-5	ID	3.66E+04	5.34E+04	6.9E-01	3.7E+08	EqP	9.9E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	4950-1100	INORG	Antimony	7440-36-0	ID	1.93E+00	1.70E+00	**1.1E+00**	1.4E+03	EqP	1.4E-03	2.7E+01	EqP	7.1E-02
Landbay E	4950-1100	INORG	Arsenic	7440-38-2	A	7.31E+00	9.90E+00	7.4E-01	1.1E+03	EqP	7.0E-03	8.6E+01	EqP	8.5E-02
Landbay E	4950-1100	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	4950-1100	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	4950-1100	INORG	Chromium III	16065-83-1	D	2.10E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay E	4950-1100	INORG	Chromium VI	18540-29-9	A	3.10E+00	4.97E+00	6.2E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.0E-01
Landbay E	4950-1100	INORG	Cobalt	7440-48-4	LC	5.14E+01	8.60E+01	6.0E-01	1.4E+04	EqP	3.7E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	4950-1100	INORG	Copper	7440-50-8	D	3.89E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.6E+00**
Landbay E	4950-1100	INORG	Iron	7439-89-6	D	5.30E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	4950-1100	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay E	4950-1100	INORG	Manganese	7439-96-5	D	1.74E+03	4.27E+03	4.1E-01	3.1E+05	EqP	5.6E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	4950-1100	INORG	Mercury	7439-97-6	D	5.50E-02	7.10E-02	7.7E-01		NA		3.7E-01	EqP	1.5E-01
Landbay E	4950-1100	INORG	Nickel	7440-02-0	A	4.86E+01	7.30E+01	6.7E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay E	4950-1100	INORG	Strontium	7440-24-6		2.88E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay E	4950-1100	INORG	Vanadium	7440-62-2	ID	1.84E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	4950-1100	INORG	Zinc	7440-66-6	ID	5.69E+01	1.02E+02	5.6E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	3.0E-01
Landbay E	5100-0350	INORG	Aluminum	7429-90-5	ID	2.85E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5100-0350	INORG	Antimony	7440-36-0	ID	1.77E+00	1.70E+00	1.0E+00	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.5E-02
Landbay E	5100-0350	INORG	Arsenic	7440-38-2	A	1.01E+01	9.90E+00	1.0E+00	1.1E+03	EqP	9.6E-03	8.6E+01	EqP	1.2E-01
Landbay E	5100-0350	INORG	Barium	7440-39-3	NC	9.34E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	5100-0350	INORG	Beryllium	7440-41-7	B1	5.36E-01	1.20E+00	4.5E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay E	5100-0350	INORG	Cadmium	7440-43-9	B1	2.98E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.8E-04	2.1E+00	EqP	1.4E-01
Landbay E	5100-0350	INORG	Chromium III	16065-83-1	D	1.83E+02	2.61E+02	7.0E-01	2.1E+10	EqP	8.6E-09	3.4E+06	EqP	5.4E-05
Landbay E	5100-0350	INORG	Chromium VI	18540-29-9	A	2.50E+00	4.97E+00	5.0E-01	6.6E+01	LT	3.8E-02	4.4E+00	LT	5.7E-01
Landbay E	5100-0350	INORG	Cobalt	7440-48-4	LC	4.49E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	5100-0350	INORG	Copper	7440-50-8	D	2.92E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.4E-05	8.4E+00	EqP	**3.5E+00**
Landbay E	5100-0350	INORG	Iron	7439-89-6	D	5.21E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5100-0350	INORG	Lead	7439-92-1	B2	1.67E+01						3.5E+02	EqP	4.8E-02
Landbay E	5100-0350	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	5100-0350	INORG	Mercury	7439-97-6	D	5.17E-02	7.10E-02	7.3E-01		NA		3.7E-01	EqP	1.4E-01
Landbay E	5100-0350	INORG	Nickel	7440-02-0	A	3.61E+01	7.30E+01	4.9E-01	1.2E+05	EqP	2.9E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	5100-0350	INORG	Strontium	7440-24-6		1.87E+01	3.80E+01	4.9E-01	1.6E+07	EqP	1.1E-06	1.1E+03	EqP	1.8E-02
Landbay E	5100-0350	INORG	Vanadium	7440-62-2	ID	1.86E+02	2.83E+02	6.6E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	5100-0350	INORG	Zinc	7440-66-6	ID	1.03E+02	1.02E+02	1.0E+00	5.5E+06	EqP	1.9E-05	1.9E+02	EqP	5.4E-01
Landbay E	5100-0500	PCB	PCBs (total)	1336-36-3	B2	1.82E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	5100-0500	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	5100-0500	INORG	Antimony	7440-36-0	ID	1.48E+00	1.70E+00	8.7E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.5E-02
Landbay E	5100-0500	INORG	Arsenic	7440-38-2	A	3.86E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay E	5100-0500	INORG	Barium	7440-39-3	NC	9.71E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	5100-0500	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	5100-0500	INORG	Chromium III	16065-83-1	D	8.68E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay E	5100-0500	INORG	Cobalt	7440-48-4	LC	3.31E+01	8.60E+01	3.8E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay E	5100-0500	INORG	Copper	7440-50-8	D	2.80E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5100-0500	INORG	Iron	7439-89-6	D	3.88E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.6E+02**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	5100-0500	INORG	Lead	7439-92-1	B2	1.81E+01						3.5E+02	EqP	5.2E-02
Landbay E	5100-0500	INORG	Manganese	7439-96-5	D	1.41E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**9.0E+00**
Landbay E	5100-0500	INORG	Mercury	7439-97-6	D	5.61E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay E	5100-0500	INORG	Nickel	7440-02-0	A	2.24E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.6E-01
Landbay E	5100-0500	INORG	Silver	7440-22-4	D	2.11E-01	2.30E+00	9.2E-02	3.8E+03	LT	5.6E-05	2.7E+00	LT	7.9E-02
Landbay E	5100-0500	INORG	Strontium	7440-24-6		2.06E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay E	5100-0500	INORG	Vanadium	7440-62-2	ID	1.33E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay E	5100-0500	INORG	Zinc	7440-66-6	ID	5.48E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	5100-0650	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay E	5100-0650	INORG	Antimony	7440-36-0	ID	1.13E+00	1.70E+00	6.6E-01	1.4E+03	EqP	8.2E-04	2.7E+01	EqP	4.2E-02
Landbay E	5100-0650	INORG	Arsenic	7440-38-2	A	3.07E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay E	5100-0650	INORG	Barium	7440-39-3	NC	9.81E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	5100-0650	INORG	Beryllium	7440-41-7	B1	4.46E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.6E-05	1.0E+01	EqP	4.3E-02
Landbay E	5100-0650	INORG	Chromium III	16065-83-1	D	1.01E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay E	5100-0650	INORG	Cobalt	7440-48-4	LC	5.30E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	5100-0650	INORG	Copper	7440-50-8	D	2.38E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.8E+00**
Landbay E	5100-0650	INORG	Iron	7439-89-6	D	3.68E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.5E-03	1.5E+02	EqP	**2.4E+02**
Landbay E	5100-0650	INORG	Lead	7439-92-1	B2	1.50E+01						3.5E+02	EqP	4.3E-02
Landbay E	5100-0650	INORG	Manganese	7439-96-5	D	2.20E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	5100-0650	INORG	Mercury	7439-97-6	D	3.77E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	5100-0650	INORG	Nickel	7440-02-0	A	2.70E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.0E-01
Landbay E	5100-0650	INORG	Strontium	7440-24-6		1.44E+01	3.80E+01	3.8E-01	1.6E+07	EqP	8.8E-07	1.1E+03	EqP	1.4E-02
Landbay E	5100-0650	INORG	Vanadium	7440-62-2	ID	1.28E+02	2.83E+02	4.5E-01	1.5E+05	EqP	8.3E-04	4.0E+02	EqP	3.2E-01
Landbay E	5100-0650	INORG	Zinc	7440-66-6	ID	5.20E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay E	5100-0800	INORG	Aluminum	7429-90-5	ID	2.32E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.9E+00**
Landbay E	5100-0800	INORG	Antimony	7440-36-0	ID	1.13E+00	1.70E+00	6.6E-01	1.4E+03	EqP	8.2E-04	2.7E+01	EqP	4.2E-02
Landbay E	5100-0800	INORG	Arsenic	7440-38-2	A	3.07E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay E	5100-0800	INORG	Barium	7440-39-3	NC	9.81E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	5100-0800	INORG	Beryllium	7440-41-7	B1	4.46E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.6E-05	1.0E+01	EqP	4.3E-02
Landbay E	5100-0800	INORG	Chromium III	16065-83-1	D	1.01E+02	2.61E+02	3.9E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay E	5100-0800	INORG	Cobalt	7440-48-4	LC	5.30E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	5100-0800	INORG	Copper	7440-50-8	D	2.38E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.8E+00**
Landbay E	5100-0800	INORG	Iron	7439-89-6	D	3.68E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.5E-03	1.5E+02	EqP	**2.4E+02**
Landbay E	5100-0800	INORG	Lead	7439-92-1	B2	1.50E+01						3.5E+02	EqP	4.3E-02
Landbay E	5100-0800	INORG	Manganese	7439-96-5	D	2.20E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	5100-0800	INORG	Mercury	7439-97-6	D	3.77E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	5100-0800	INORG	Nickel	7440-02-0	A	2.70E+01	7.30E+01	3.7E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.0E-01
Landbay E	5100-0800	INORG	Strontium	7440-24-6		1.44E+01	3.80E+01	3.8E-01	1.6E+07	EqP	8.8E-07	1.1E+03	EqP	1.4E-02
Landbay E	5100-0800	INORG	Vanadium	7440-62-2	ID	1.28E+02	2.83E+02	4.5E-01	1.5E+05	EqP	8.3E-04	4.0E+02	EqP	3.2E-01
Landbay E	5100-0800	INORG	Zinc	7440-66-6	ID	5.20E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay E	5100-1250	PCB	PCBs (total)	1336-36-3	B2	2.77E-02				NA		1.4E+00	EqP	2.0E-02
Landbay E	5100-1250	INORG	Aluminum	7429-90-5	ID	3.07E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5100-1250	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay E	5100-1250	INORG	Arsenic	7440-38-2	A	5.94E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.7E-03	8.6E+01	EqP	6.9E-02
Landbay E	5100-1250	INORG	Barium	7440-39-3	NC	2.86E+02	2.24E+02	**1.3E+00**	3.2E+05	EqP	8.8E-04	3.3E+00	EqP	**8.7E+01**
Landbay E	5100-1250	INORG	Beryllium	7440-41-7	B1	5.89E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.7E-05	1.0E+01	EqP	5.6E-02
Landbay E	5100-1250	INORG	Cadmium	7440-43-9	B1	2.42E-01	2.70E+00	9.0E-02	1.1E+03	EqP	2.2E-04	2.1E+00	EqP	1.1E-01
Landbay E	5100-1250	INORG	Chromium III	16065-83-1	D	9.26E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.3E-09	3.4E+06	EqP	2.7E-05
Landbay E	5100-1250	INORG	Chromium VI	18540-29-9	A	8.30E-01	4.97E+00	1.7E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.9E-01
Landbay E	5100-1250	INORG	Cobalt	7440-48-4	LC	8.88E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.5E-03	2.1E+01	EqP	**4.3E+00**
Landbay E	5100-1250	INORG	Copper	7440-50-8	D	4.77E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.7E+00**
Landbay E	5100-1250	INORG	Iron	7439-89-6	D	4.76E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay E	5100-1250	INORG	Lead	7439-92-1	B2	2.58E+01						3.5E+02	EqP	7.4E-02
Landbay E	5100-1250	INORG	Manganese	7439-96-5	D	5.70E+03	4.27E+03	**1.3E+00**	3.1E+05	EqP	1.8E-02	1.6E+02	EqP	**3.6E+01**
Landbay E	5100-1250	INORG	Nickel	7440-02-0	A	3.40E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay E	5100-1250	INORG	Silver	7440-22-4	D	2.81E-01	2.30E+00	1.2E-01	3.8E+03	LT	7.5E-05	2.7E+00	LT	1.1E-01
Landbay E	5100-1250	INORG	Strontium	7440-24-6		2.89E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay E	5100-1250	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay E	5100-1250	INORG	Zinc	7440-66-6	ID	5.25E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay E	5100-1400	SVOC	Benzo(b)fluoranthene	205-99-2	B2	8.60E-02				NA			NA	
Landbay E	5100-1400	SVOC	Benzo(k)fluoranthene	207-08-9	B2	5.00E-02				NA			NA	
Landbay E	5100-1400	SVOC	Pyrene	129-00-0	NC	4.30E-02				NA		1.1E-01	EqP	4.1E-01
Landbay E	5100-1400	PCB	PCBs (total)	1336-36-3	B2	2.77E-02				NA		1.4E+00	EqP	2.0E-02
Landbay E	5100-1400	INORG	Aluminum	7429-90-5	ID	3.07E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5100-1400	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay E	5100-1400	INORG	Arsenic	7440-38-2	A	5.94E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.7E-03	8.6E+01	EqP	6.9E-02
Landbay E	5100-1400	INORG	Barium	7440-39-3	NC	2.86E+02	2.24E+02	**1.3E+00**	3.2E+05	EqP	8.8E-04	3.3E+00	EqP	**8.7E+01**
Landbay E	5100-1400	INORG	Beryllium	7440-41-7	B1	5.89E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.7E-05	1.0E+01	EqP	5.6E-02
Landbay E	5100-1400	INORG	Cadmium	7440-43-9	B1	2.42E-01	2.70E+00	9.0E-02	1.1E+03	EqP	2.2E-04	2.1E+00	EqP	1.1E-01
Landbay E	5100-1400	INORG	Chromium III	16065-83-1	D	9.26E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.3E-09	3.4E+06	EqP	2.7E-05
Landbay E	5100-1400	INORG	Chromium VI	18540-29-9	A	8.30E-01	4.97E+00	1.7E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.9E-01
Landbay E	5100-1400	INORG	Cobalt	7440-48-4	LC	8.88E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.5E-03	2.1E+01	EqP	**4.3E+00**
Landbay E	5100-1400	INORG	Copper	7440-50-8	D	4.77E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.7E+00**
Landbay E	5100-1400	INORG	Iron	7439-89-6	D	4.76E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay E	5100-1400	INORG	Lead	7439-92-1	B2	2.58E+01						3.5E+02	EqP	7.4E-02
Landbay E	5100-1400	INORG	Manganese	7439-96-5	D	5.70E+03	4.27E+03	**1.3E+00**	3.1E+05	EqP	1.8E-02	1.6E+02	EqP	**3.6E+01**
Landbay E	5100-1400	INORG	Nickel	7440-02-0	A	3.40E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay E	5100-1400	INORG	Silver	7440-22-4	D	2.81E-01	2.30E+00	1.2E-01	3.8E+03	LT	7.5E-05	2.7E+00	LT	1.1E-01
Landbay E	5100-1400	INORG	Strontium	7440-24-6		2.89E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay E	5100-1400	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay E	5100-1400	INORG	Zinc	7440-66-6	ID	5.25E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay E	5100-1550	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	5100-1550	INORG	Antimony	7440-36-0	ID	1.65E+00	1.70E+00	9.7E-01	1.4E+03	EqP	1.2E-03	2.7E+01	EqP	6.1E-02
Landbay E	5100-1550	INORG	Arsenic	7440-38-2	A	7.69E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.3E-03	8.6E+01	EqP	9.0E-02
Landbay E	5100-1550	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	5100-1550	INORG	Beryllium	7440-41-7	B1	5.32E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.8E-05	1.0E+01	EqP	5.1E-02
Landbay E	5100-1550	INORG	Boron	7440-42-8	ID	1.65E+01	1.34E+01	**1.2E+00**	9.9E+05	LT	1.7E-05	6.4E-01	LT	**2.6E+01**
Landbay E	5100-1550	INORG	Cadmium	7440-43-9	B1	2.46E+00	2.70E+00	9.1E-01	1.1E+03	EqP	2.3E-03	2.1E+00	EqP	**1.2E+00**
Landbay E	5100-1550	INORG	Chromium III	16065-83-1	D	2.08E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay E	5100-1550	INORG	Chromium VI	18540-29-9	A	3.70E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.4E-01
Landbay E	5100-1550	INORG	Cobalt	7440-48-4	LC	8.55E+01	8.60E+01	9.9E-01	1.4E+04	EqP	6.2E-03	2.1E+01	EqP	**4.1E+00**
Landbay E	5100-1550	INORG	Copper	7440-50-8	D	2.37E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.8E-05	8.4E+00	EqP	**2.8E+00**
Landbay E	5100-1550	INORG	Iron	7439-89-6	D	6.76E+04	9.52E+04	7.1E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.5E+02**
Landbay E	5100-1550	INORG	Lead	7439-92-1	B2	2.45E+01						3.5E+02	EqP	7.0E-02
Landbay E	5100-1550	INORG	Manganese	7439-96-5	D	3.14E+03	4.27E+03	7.4E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.0E+01**
Landbay E	5100-1550	INORG	Mercury	7439-97-6	D	4.28E-02	7.10E-02	6.0E-01		NA		3.7E-01	EqP	1.2E-01
Landbay E	5100-1550	INORG	Nickel	7440-02-0	A	2.91E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.6E-01
Landbay E	5100-1550	INORG	Silver	7440-22-4	D	2.03E+00	2.30E+00	8.8E-01	3.8E+03	LT	5.4E-04	2.7E+00	LT	7.6E-01
Landbay E	5100-1550	INORG	Strontium	7440-24-6		9.91E+00	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.4E-03
Landbay E	5100-1550	INORG	Vanadium	7440-62-2	ID	2.45E+02	2.83E+02	8.7E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.1E-01
Landbay E	5100-1550	INORG	Zinc	7440-66-6	ID	4.78E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	5250-0350	PCB	PCBs (total)	1336-36-3	B2	1.82E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	5250-0350	INORG	Aluminum	7429-90-5	ID	2.73E+04	5.34E+04	5.1E-01	3.7E+08	EqP	7.4E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	5250-0350	INORG	Antimony	7440-36-0	ID	1.48E+00	1.70E+00	8.7E-01	1.4E+03	EqP	1.1E-03	2.7E+01	EqP	5.5E-02
Landbay E	5250-0350	INORG	Arsenic	7440-38-2	A	3.86E+00	9.90E+00	3.9E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.5E-02
Landbay E	5250-0350	INORG	Barium	7440-39-3	NC	9.71E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	5250-0350	INORG	Beryllium	7440-41-7	B1	5.11E-01	1.20E+00	4.3E-01	6.8E+03	EqP	7.5E-05	1.0E+01	EqP	4.9E-02
Landbay E	5250-0350	INORG	Chromium III	16065-83-1	D	8.68E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.1E-09	3.4E+06	EqP	2.6E-05
Landbay E	5250-0350	INORG	Cobalt	7440-48-4	LC	3.31E+01	8.60E+01	3.8E-01	1.4E+04	EqP	2.4E-03	2.1E+01	EqP	**1.6E+00**
Landbay E	5250-0350	INORG	Copper	7440-50-8	D	2.80E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.1E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5250-0350	INORG	Iron	7439-89-6	D	3.88E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	5250-0350	INORG	Lead	7439-92-1	B2	1.81E+01						3.5E+02	EqP	5.2E-02
Landbay E	5250-0350	INORG	Manganese	7439-96-5	D	1.41E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**9.0E+00**
Landbay E	5250-0350	INORG	Mercury	7439-97-6	D	5.61E-02	7.10E-02	7.9E-01		NA		3.7E-01	EqP	1.5E-01
Landbay E	5250-0350	INORG	Nickel	7440-02-0	A	2.24E+01	7.30E+01	3.1E-01	1.2E+05	EqP	1.8E-04	3.4E+01	EqP	6.6E-01
Landbay E	5250-0350	INORG	Silver	7440-22-4	D	2.11E-01	2.30E+00	9.2E-02	3.8E+03	LT	5.6E-05	2.7E+00	LT	7.9E-02
Landbay E	5250-0350	INORG	Strontium	7440-24-6		2.06E+01	3.80E+01	5.4E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	1.9E-02
Landbay E	5250-0350	INORG	Vanadium	7440-62-2	ID	1.33E+02	2.83E+02	4.7E-01	1.5E+05	EqP	8.6E-04	4.0E+02	EqP	3.3E-01
Landbay E	5250-0350	INORG	Zinc	7440-66-6	ID	5.48E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	5250-0500	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5250-0500	INORG	Antimony	7440-36-0	ID	1.73E+00	1.70E+00	1.0E+00	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.4E-02
Landbay E	5250-0500	INORG	Arsenic	7440-38-2	A	1.49E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay E	5250-0500	INORG	Barium	7440-39-3	NC	9.88E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	5250-0500	INORG	Beryllium	7440-41-7	B1	5.77E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay E	5250-0500	INORG	Chromium III	16065-83-1	D	1.15E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay E	5250-0500	INORG	Cobalt	7440-48-4	LC	3.41E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay E	5250-0500	INORG	Copper	7440-50-8	D	4.03E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay E	5250-0500	INORG	Iron	7439-89-6	D	4.79E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	5250-0500	INORG	Lead	7439-92-1	B2	1.22E+01						3.5E+02	EqP	3.5E-02
Landbay E	5250-0500	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay E	5250-0500	INORG	Mercury	7439-97-6	D	3.15E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	5250-0500	INORG	Nickel	7440-02-0	A	3.07E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay E	5250-0500	INORG	Silver	7440-22-4	D	1.80E-01	2.30E+00	7.8E-02	3.8E+03	LT	4.8E-05	2.7E+00	LT	6.8E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	5250-0500	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay E	5250-0500	INORG	Vanadium	7440-62-2	ID	1.52E+02	2.83E+02	5.4E-01	1.5E+05	EqP	9.8E-04	4.0E+02	EqP	3.8E-01
Landbay E	5250-0500	INORG	Zinc	7440-66-6	ID	6.13E+01	1.02E+02	6.0E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay E	5250-0650	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5250-0650	INORG	Antimony	7440-36-0	ID	1.73E+00	1.70E+00	1.0E+00	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.4E-02
Landbay E	5250-0650	INORG	Arsenic	7440-38-2	A	1.49E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay E	5250-0650	INORG	Barium	7440-39-3	NC	9.88E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	5250-0650	INORG	Beryllium	7440-41-7	B1	5.77E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay E	5250-0650	INORG	Chromium III	16065-83-1	D	1.15E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay E	5250-0650	INORG	Cobalt	7440-48-4	LC	3.41E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay E	5250-0650	INORG	Copper	7440-50-8	D	4.03E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay E	5250-0650	INORG	Iron	7439-89-6	D	4.79E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	5250-0650	INORG	Lead	7439-92-1	B2	1.22E+01						3.5E+02	EqP	3.5E-02
Landbay E	5250-0650	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay E	5250-0650	INORG	Mercury	7439-97-6	D	3.15E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	5250-0650	INORG	Nickel	7440-02-0	A	3.07E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay E	5250-0650	INORG	Silver	7440-22-4	D	1.80E-01	2.30E+00	7.8E-02	3.8E+03	LT	4.8E-05	2.7E+00	LT	6.8E-02
Landbay E	5250-0650	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay E	5250-0650	INORG	Vanadium	7440-62-2	ID	1.52E+02	2.83E+02	5.4E-01	1.5E+05	EqP	9.8E-04	4.0E+02	EqP	3.8E-01
Landbay E	5250-0650	INORG	Zinc	7440-66-6	ID	6.13E+01	1.02E+02	6.0E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay E	5400-0200	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5400-0200	INORG	Antimony	7440-36-0	ID	1.73E+00	1.70E+00	1.0E+00	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.4E-02
Landbay E	5400-0200	INORG	Arsenic	7440-38-2	A	1.49E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay E	5400-0200	INORG	Barium	7440-39-3	NC	9.88E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	5400-0200	INORG	Beryllium	7440-41-7	B1	5.77E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay E	5400-0200	INORG	Chromium III	16065-83-1	D	1.15E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay E	5400-0200	INORG	Cobalt	7440-48-4	LC	3.41E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay E	5400-0200	INORG	Copper	7440-50-8	D	4.03E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay E	5400-0200	INORG	Iron	7439-89-6	D	4.79E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	5400-0200	INORG	Lead	7439-92-1	B2	1.22E+01						3.5E+02	EqP	3.5E-02
Landbay E	5400-0200	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay E	5400-0200	INORG	Mercury	7439-97-6	D	3.15E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	5400-0200	INORG	Nickel	7440-02-0	A	3.07E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay E	5400-0200	INORG	Silver	7440-22-4	D	1.80E-01	2.30E+00	7.8E-02	3.8E+03	LT	4.8E-05	2.7E+00	LT	6.8E-02
Landbay E	5400-0200	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay E	5400-0200	INORG	Vanadium	7440-62-2	ID	1.52E+02	2.83E+02	5.4E-01	1.5E+05	EqP	9.8E-04	4.0E+02	EqP	3.8E-01
Landbay E	5400-0200	INORG	Zinc	7440-66-6	ID	6.13E+01	1.02E+02	6.0E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay E	5400-0350	INORG	Aluminum	7429-90-5	ID	3.77E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	5400-0350	INORG	Arsenic	7440-38-2	A	3.77E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay E	5400-0350	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	5400-0350	INORG	Beryllium	7440-41-7	B1	2.04E-01	1.20E+00	1.7E-01	6.8E+03	EqP	3.0E-05	1.0E+01	EqP	2.0E-02
Landbay E	5400-0350	INORG	Cadmium	7440-43-9	B1	3.68E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay E	5400-0350	INORG	Chromium III	16065-83-1	D	2.28E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.8E-05
Landbay E	5400-0350	INORG	Chromium VI	18540-29-9	A	4.15E+00	4.97E+00	8.4E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay E	5400-0350	INORG	Cobalt	7440-48-4	LC	7.90E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay E	5400-0350	INORG	Copper	7440-50-8	D	4.06E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay E	5400-0350	INORG	Iron	7439-89-6	D	7.15E+04	9.52E+04	7.5E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay E	5400-0350	INORG	Lead	7439-92-1	B2	1.33E+01						3.5E+02	EqP	3.8E-02
Landbay E	5400-0350	INORG	Manganese	7439-96-5	D	2.39E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay E	5400-0350	INORG	Mercury	7439-97-6	D	2.76E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay E	5400-0350	INORG	Nickel	7440-02-0	A	5.09E+01	7.30E+01	7.0E-01	1.2E+05	EqP	4.1E-04	3.4E+01	EqP	**1.5E+00**
Landbay E	5400-0350	INORG	Silver	7440-22-4	D	2.94E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	7.8E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5400-0350	INORG	Vanadium	7440-62-2	ID	2.69E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay E	5400-0350	INORG	Zinc	7440-66-6	ID	6.58E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	5400-0500	INORG	Aluminum	7429-90-5	ID	3.77E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	5400-0500	INORG	Arsenic	7440-38-2	A	3.77E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay E	5400-0500	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	5400-0500	INORG	Beryllium	7440-41-7	B1	2.04E-01	1.20E+00	1.7E-01	6.8E+03	EqP	3.0E-05	1.0E+01	EqP	2.0E-02
Landbay E	5400-0500	INORG	Cadmium	7440-43-9	B1	3.68E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay E	5400-0500	INORG	Chromium III	16065-83-1	D	2.28E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.8E-05
Landbay E	5400-0500	INORG	Chromium VI	18540-29-9	A	4.15E+00	4.97E+00	8.4E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay E	5400-0500	INORG	Cobalt	7440-48-4	LC	7.90E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay E	5400-0500	INORG	Copper	7440-50-8	D	4.06E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay E	5400-0500	INORG	Iron	7439-89-6	D	7.15E+04	9.52E+04	7.5E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay E	5400-0500	INORG	Lead	7439-92-1	B2	1.33E+01						3.5E+02	EqP	3.8E-02
Landbay E	5400-0500	INORG	Manganese	7439-96-5	D	2.39E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay E	5400-0500	INORG	Mercury	7439-97-6	D	2.76E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay E	5400-0500	INORG	Nickel	7440-02-0	A	5.09E+01	7.30E+01	7.0E-01	1.2E+05	EqP	4.1E-04	3.4E+01	EqP	**1.5E+00**
Landbay E	5400-0500	INORG	Silver	7440-22-4	D	2.94E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	7.8E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5400-0500	INORG	Vanadium	7440-62-2	ID	2.69E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay E	5400-0500	INORG	Zinc	7440-66-6	ID	6.58E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	5400-0650	INORG	Aluminum	7429-90-5	ID	3.77E+04	5.34E+04	7.1E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	5400-0650	INORG	Arsenic	7440-38-2	A	3.77E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay E	5400-0650	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	5400-0650	INORG	Beryllium	7440-41-7	B1	2.04E-01	1.20E+00	1.7E-01	6.8E+03	EqP	3.0E-05	1.0E+01	EqP	2.0E-02
Landbay E	5400-0650	INORG	Cadmium	7440-43-9	B1	3.68E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay E	5400-0650	INORG	Chromium III	16065-83-1	D	2.28E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.8E-05
Landbay E	5400-0650	INORG	Chromium VI	18540-29-9	A	4.15E+00	4.97E+00	8.4E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay E	5400-0650	INORG	Cobalt	7440-48-4	LC	7.90E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay E	5400-0650	INORG	Copper	7440-50-8	D	4.06E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay E	5400-0650	INORG	Iron	7439-89-6	D	7.15E+04	9.52E+04	7.5E-01	4.4E+06	EqP	1.6E-02	1.5E+02	EqP	**4.7E+02**
Landbay E	5400-0650	INORG	Lead	7439-92-1	B2	1.33E+01						3.5E+02	EqP	3.8E-02
Landbay E	5400-0650	INORG	Manganese	7439-96-5	D	2.39E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay E	5400-0650	INORG	Mercury	7439-97-6	D	2.76E-02	7.10E-02	3.9E-01		NA		3.7E-01	EqP	7.5E-02
Landbay E	5400-0650	INORG	Nickel	7440-02-0	A	5.09E+01	7.30E+01	7.0E-01	1.2E+05	EqP	4.1E-04	3.4E+01	EqP	**1.5E+00**
Landbay E	5400-0650	INORG	Silver	7440-22-4	D	2.94E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	7.8E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5400-0650	INORG	Vanadium	7440-62-2	ID	2.69E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay E	5400-0650	INORG	Zinc	7440-66-6	ID	6.58E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	5400-0800	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5400-0800	INORG	Antimony	7440-36-0	ID	1.73E+00	1.70E+00	1.0E+00	1.4E+03	EqP	1.3E-03	2.7E+01	EqP	6.4E-02
Landbay E	5400-0800	INORG	Arsenic	7440-38-2	A	1.49E+00	9.90E+00	1.5E-01	1.1E+03	EqP	1.4E-03	8.6E+01	EqP	1.7E-02
Landbay E	5400-0800	INORG	Barium	7440-39-3	NC	9.88E+01	2.24E+02	4.4E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	5400-0800	INORG	Beryllium	7440-41-7	B1	5.77E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay E	5400-0800	INORG	Chromium III	16065-83-1	D	1.15E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay E	5400-0800	INORG	Cobalt	7440-48-4	LC	3.41E+01	8.60E+01	4.0E-01	1.4E+04	EqP	2.5E-03	2.1E+01	EqP	**1.6E+00**
Landbay E	5400-0800	INORG	Copper	7440-50-8	D	4.03E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.8E+00**
Landbay E	5400-0800	INORG	Iron	7439-89-6	D	4.79E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	5400-0800	INORG	Lead	7439-92-1	B2	1.22E+01						3.5E+02	EqP	3.5E-02
Landbay E	5400-0800	INORG	Manganese	7439-96-5	D	1.48E+03	4.27E+03	3.5E-01	3.1E+05	EqP	4.8E-03	1.6E+02	EqP	**9.5E+00**
Landbay E	5400-0800	INORG	Mercury	7439-97-6	D	3.15E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	5400-0800	INORG	Nickel	7440-02-0	A	3.07E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay E	5400-0800	INORG	Silver	7440-22-4	D	1.80E-01	2.30E+00	7.8E-02	3.8E+03	LT	4.8E-05	2.7E+00	LT	6.8E-02
Landbay E	5400-0800	INORG	Strontium	7440-24-6		2.48E+01	3.80E+01	6.5E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay E	5400-0800	INORG	Vanadium	7440-62-2	ID	1.52E+02	2.83E+02	5.4E-01	1.5E+05	EqP	9.8E-04	4.0E+02	EqP	3.8E-01
Landbay E	5400-0800	INORG	Zinc	7440-66-6	ID	6.13E+01	1.02E+02	6.0E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay E	5400-0950	PCB	PCBs (total)	1336-36-3	B2	2.51E-02				NA		1.4E+00	EqP	1.8E-02
Landbay E	5400-0950	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5400-0950	INORG	Antimony	7440-36-0	ID	1.03E+00	1.70E+00	6.1E-01	1.4E+03	EqP	7.5E-04	2.7E+01	EqP	3.8E-02
Landbay E	5400-0950	INORG	Arsenic	7440-38-2	A	2.99E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay E	5400-0950	INORG	Barium	7440-39-3	NC	9.25E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	5400-0950	INORG	Beryllium	7440-41-7	B1	3.70E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.5E-05	1.0E+01	EqP	3.5E-02
Landbay E	5400-0950	INORG	Cadmium	7440-43-9	B1	1.84E+00	2.70E+00	6.8E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.6E-01
Landbay E	5400-0950	INORG	Chromium III	16065-83-1	D	1.27E+02	2.61E+02	4.9E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.8E-05
Landbay E	5400-0950	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5400-0950	INORG	Cobalt	7440-48-4	LC	5.27E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	5400-0950	INORG	Copper	7440-50-8	D	2.76E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5400-0950	INORG	Iron	7439-89-6	D	5.21E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5400-0950	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay E	5400-0950	INORG	Manganese	7439-96-5	D	2.23E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	5400-0950	INORG	Mercury	7439-97-6	D	3.19E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.6E-02
Landbay E	5400-0950	INORG	Nickel	7440-02-0	A	2.94E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.7E-01
Landbay E	5400-0950	INORG	Silver	7440-22-4	D	2.80E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.5E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5400-0950	INORG	Thallium	7440-28-0	ID	2.43E+00	4.50E+00	5.4E-01				1.1E+00	EqP	**2.1E+00**
Landbay E	5400-0950	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	5400-0950	INORG	Zinc	7440-66-6	ID	5.78E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.0E-01
Landbay E	5400-1100	PCB	PCBs (total)	1336-36-3	B2	2.51E-02				NA		1.4E+00	EqP	1.8E-02
Landbay E	5400-1100	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5400-1100	INORG	Antimony	7440-36-0	ID	1.03E+00	1.70E+00	6.1E-01	1.4E+03	EqP	7.5E-04	2.7E+01	EqP	3.8E-02
Landbay E	5400-1100	INORG	Arsenic	7440-38-2	A	2.99E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay E	5400-1100	INORG	Barium	7440-39-3	NC	9.25E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	5400-1100	INORG	Beryllium	7440-41-7	B1	3.70E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.5E-05	1.0E+01	EqP	3.5E-02
Landbay E	5400-1100	INORG	Cadmium	7440-43-9	B1	1.84E+00	2.70E+00	6.8E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.6E-01
Landbay E	5400-1100	INORG	Chromium III	16065-83-1	D	1.27E+02	2.61E+02	4.9E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.8E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	5400-1100	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5400-1100	INORG	Cobalt	7440-48-4	LC	5.27E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	5400-1100	INORG	Copper	7440-50-8	D	2.76E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5400-1100	INORG	Iron	7439-89-6	D	5.21E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5400-1100	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay E	5400-1100	INORG	Manganese	7439-96-5	D	2.23E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	5400-1100	INORG	Mercury	7439-97-6	D	3.19E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.6E-02
Landbay E	5400-1100	INORG	Nickel	7440-02-0	A	2.94E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.7E-01
Landbay E	5400-1100	INORG	Silver	7440-22-4	D	2.80E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.5E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5400-1100	INORG	Thallium	7440-28-0	ID	2.43E+00	4.50E+00	5.4E-01				1.1E+00	EqP	**2.1E+00**
Landbay E	5400-1100	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	5400-1100	INORG	Zinc	7440-66-6	ID	5.78E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.0E-01
Landbay E	5400-1250	VOC	Acetone	67-64-1	ID	1.60E-02			2.0E+06	LT	7.8E-09	6.0E+02	LT	2.7E-05
Landbay E	5400-1250	SVOC	Benzo(b)fluoranthene	205-99-2	B2	4.40E-02				NA			NA	
Landbay E	5400-1250	SVOC	Pyrene	129-00-0	NC	5.30E-02				NA		1.1E-01	EqP	5.0E-01
Landbay E	5400-1250	PCB	PCBs (total)	1336-36-3	B2	2.77E-02				NA		1.4E+00	EqP	2.0E-02
Landbay E	5400-1250	INORG	Aluminum	7429-90-5	ID	3.07E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5400-1250	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay E	5400-1250	INORG	Arsenic	7440-38-2	A	5.94E+00	9.90E+00	6.0E-01	1.1E+03	EqP	5.7E-03	8.6E+01	EqP	6.9E-02
Landbay E	5400-1250	INORG	Barium	7440-39-3	NC	2.86E+02	2.24E+02	**1.3E+00**	3.2E+05	EqP	8.8E-04	3.3E+00	EqP	**8.7E+01**
Landbay E	5400-1250	INORG	Beryllium	7440-41-7	B1	5.89E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.7E-05	1.0E+01	EqP	5.6E-02
Landbay E	5400-1250	INORG	Cadmium	7440-43-9	B1	2.42E-01	2.70E+00	9.0E-02	1.1E+03	EqP	2.2E-04	2.1E+00	EqP	1.1E-01
Landbay E	5400-1250	INORG	Chromium III	16065-83-1	D	9.26E+01	2.61E+02	3.6E-01	2.1E+10	EqP	4.3E-09	3.4E+06	EqP	2.7E-05
Landbay E	5400-1250	INORG	Chromium VI	18540-29-9	A	8.30E-01	4.97E+00	1.7E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.9E-01
Landbay E	5400-1250	INORG	Cobalt	7440-48-4	LC	8.88E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.5E-03	2.1E+01	EqP	**4.3E+00**
Landbay E	5400-1250	INORG	Copper	7440-50-8	D	4.77E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.7E+00**
Landbay E	5400-1250	INORG	Iron	7439-89-6	D	4.76E+04	9.52E+04	5.0E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.1E+02**
Landbay E	5400-1250	INORG	Lead	7439-92-1	B2	2.58E+01						3.5E+02	EqP	7.4E-02
Landbay E	5400-1250	INORG	Manganese	7439-96-5	D	5.70E+03	4.27E+03	**1.3E+00**	3.1E+05	EqP	1.8E-02	1.6E+02	EqP	**3.6E+01**
Landbay E	5400-1250	INORG	Nickel	7440-02-0	A	3.40E+01	7.30E+01	4.7E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay E	5400-1250	INORG	Silver	7440-22-4	D	2.81E-01	2.30E+00	1.2E-01	3.8E+03	LT	7.5E-05	2.7E+00	LT	1.1E-01
Landbay E	5400-1250	INORG	Strontium	7440-24-6		2.89E+01	3.80E+01	7.6E-01	1.6E+07	EqP	1.8E-06	1.1E+03	EqP	2.7E-02
Landbay E	5400-1250	INORG	Vanadium	7440-62-2	ID	1.37E+02	2.83E+02	4.8E-01	1.5E+05	EqP	8.8E-04	4.0E+02	EqP	3.4E-01
Landbay E	5400-1250	INORG	Zinc	7440-66-6	ID	5.25E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.6E-06	1.9E+02	EqP	2.8E-01
Landbay E	5400-79	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1.70E-01				NA		9.6E+03	EqP	1.8E-05
Landbay E	5400-79	PCB	PCBs (total)	1336-36-3	B2	5.97E-02				NA		1.4E+00	EqP	4.3E-02
Landbay E	5400-79	INORG	Aluminum	7429-90-5	ID	3.09E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5400-79	INORG	Arsenic	7440-38-2	A	1.22E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.2E-02	8.6E+01	EqP	1.4E-01
Landbay E	5400-79	INORG	Barium	7440-39-3	NC	1.34E+02	2.24E+02	6.0E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.1E+01**
Landbay E	5400-79	INORG	Beryllium	7440-41-7	B1	8.22E-01	1.20E+00	6.9E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay E	5400-79	INORG	Boron	7440-42-8	ID	4.53E+00	1.34E+01	3.4E-01	9.9E+05	LT	4.6E-06	6.4E-01	LT	**7.1E+00**
Landbay E	5400-79	INORG	Cadmium	7440-43-9	B1	7.17E-01	2.70E+00	2.7E-01	1.1E+03	EqP	6.6E-04	2.1E+00	EqP	3.4E-01
Landbay E	5400-79	INORG	Chromium III	16065-83-1	D	1.59E+02	2.61E+02	6.1E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.7E-05
Landbay E	5400-79	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay E	5400-79	INORG	Cobalt	7440-48-4	LC	6.50E+01	8.60E+01	7.6E-01	1.4E+04	EqP	4.7E-03	2.1E+01	EqP	**3.1E+00**
Landbay E	5400-79	INORG	Copper	7440-50-8	D	3.10E+01	1.31E+02	2.4E-01	3.5E+05	EqP	8.9E-05	8.4E+00	EqP	**3.7E+00**
Landbay E	5400-79	INORG	Iron	7439-89-6	D	8.06E+04	9.52E+04	8.5E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.3E+02**
Landbay E	5400-79	INORG	Lead	7439-92-1	B2	2.02E+01						3.5E+02	EqP	5.8E-02
Landbay E	5400-79	INORG	Manganese	7439-96-5	D	3.56E+03	4.27E+03	8.3E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.3E+01**
Landbay E	5400-79	INORG	Mercury	7439-97-6	D	3.26E-02	7.10E-02	4.6E-01		NA		3.7E-01	EqP	8.8E-02
Landbay E	5400-79	INORG	Nickel	7440-02-0	A	3.02E+01	7.30E+01	4.1E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.9E-01
Landbay E	5400-79	INORG	Strontium	7440-24-6		1.91E+01	3.80E+01	5.0E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.8E-02
Landbay E	5400-79	INORG	Vanadium	7440-62-2	ID	2.71E+02	2.83E+02	9.6E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.8E-01
Landbay E	5400-79	INORG	Zinc	7440-66-6	ID	6.68E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	5500-84-1	PCB	PCBs (total)	1336-36-3	B2	1.69E-02				NA		1.4E+00	EqP	1.2E-02
Landbay E	5500-84-1	INORG	Aluminum	7429-90-5	ID	4.47E+04	5.34E+04	8.4E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay E	5500-84-1	INORG	Arsenic	7440-38-2	A	9.82E+00	9.90E+00	9.9E-01	1.1E+03	EqP	9.3E-03	8.6E+01	EqP	1.1E-01
Landbay E	5500-84-1	INORG	Barium	7440-39-3	NC	1.33E+02	2.24E+02	5.9E-01	3.2E+05	EqP	4.1E-04	3.3E+00	EqP	**4.0E+01**
Landbay E	5500-84-1	INORG	Beryllium	7440-41-7	B1	6.86E-01	1.20E+00	5.7E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.6E-02
Landbay E	5500-84-1	INORG	Boron	7440-42-8	ID	3.69E+00	1.34E+01	2.8E-01	9.9E+05	LT	3.7E-06	6.4E-01	LT	**5.8E+00**
Landbay E	5500-84-1	INORG	Chromium III	16065-83-1	D	1.50E+02	2.61E+02	5.8E-01	2.1E+10	EqP	7.1E-09	3.4E+06	EqP	4.5E-05
Landbay E	5500-84-1	INORG	Chromium VI	18540-29-9	A	3.62E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	5500-84-1	INORG	Cobalt	7440-48-4	LC	3.87E+01	8.60E+01	4.5E-01	1.4E+04	EqP	2.8E-03	2.1E+01	EqP	**1.9E+00**
Landbay E	5500-84-1	INORG	Copper	7440-50-8	D	4.61E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.5E+00**
Landbay E	5500-84-1	INORG	Iron	7439-89-6	D	6.09E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay E	5500-84-1	INORG	Lead	7439-92-1	B2	7.50E+00						3.5E+02	EqP	2.1E-02
Landbay E	5500-84-1	INORG	Manganese	7439-96-5	D	1.65E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.3E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	5500-84-1	INORG	Mercury	7439-97-6	D	1.97E-02	7.10E-02	2.8E-01		NA		3.7E-01	EqP	5.3E-02
Landbay E	5500-84-1	INORG	Nickel	7440-02-0	A	3.83E+01	7.30E+01	5.2E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	5500-84-1	INORG	Perchlorate	14797-73-0	NC	2.60E-03			3.4E+03	LT	7.5E-07	7.7E+02	LT	3.4E-06
Landbay E	5500-84-1	INORG	Silver	7440-22-4	D	3.25E-01	2.30E+00	1.4E-01	3.8E+03	LT	8.7E-05	2.7E+00	LT	1.2E-01
Landbay E	5500-84-1	INORG	Strontium	7440-24-6		2.79E+01	3.80E+01	7.3E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.6E-02
Landbay E	5500-84-1	INORG	Thallium	7440-28-0	ID	2.48E+00	4.50E+00	5.5E-01				1.1E+00	EqP	**2.2E+00**
Landbay E	5500-84-1	INORG	Vanadium	7440-62-2	ID	1.90E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.7E-01
Landbay E	5500-84-1	INORG	Zinc	7440-66-6	ID	5.17E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01
Landbay E	5500-84-2	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.00E-01				NA		9.6E+03	EqP	2.1E-05
Landbay E	5500-84-2	INORG	Aluminum	7429-90-5	ID	3.70E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	5500-84-2	INORG	Arsenic	7440-38-2	A	7.61E+00	9.90E+00	7.7E-01	1.1E+03	EqP	7.2E-03	8.6E+01	EqP	8.9E-02
Landbay E	5500-84-2	INORG	Barium	7440-39-3	NC	1.13E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	5500-84-2	INORG	Beryllium	7440-41-7	B1	6.39E-01	1.20E+00	5.3E-01	6.8E+03	EqP	9.4E-05	1.0E+01	EqP	6.1E-02
Landbay E	5500-84-2	INORG	Boron	7440-42-8	ID	3.33E+00	1.34E+01	2.5E-01	9.9E+05	LT	3.4E-06	6.4E-01	LT	**5.2E+00**
Landbay E	5500-84-2	INORG	Cadmium	7440-43-9	B1	1.34E-01	2.70E+00	5.0E-02	1.1E+03	EqP	1.2E-04	2.1E+00	EqP	6.3E-02
Landbay E	5500-84-2	INORG	Chromium III	16065-83-1	D	1.30E+02	2.61E+02	5.0E-01	2.1E+10	EqP	6.1E-09	3.4E+06	EqP	3.8E-05
Landbay E	5500-84-2	INORG	Chromium VI	18540-29-9	A	3.47E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay E	5500-84-2	INORG	Cobalt	7440-48-4	LC	4.54E+01	8.60E+01	5.3E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	5500-84-2	INORG	Copper	7440-50-8	D	4.15E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.9E+00**
Landbay E	5500-84-2	INORG	Iron	7439-89-6	D	6.10E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.0E+02**
Landbay E	5500-84-2	INORG	Lead	7439-92-1	B2	1.49E+01						3.5E+02	EqP	4.2E-02
Landbay E	5500-84-2	INORG	Manganese	7439-96-5	D	1.67E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	5500-84-2	INORG	Mercury	7439-97-6	D	2.72E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.4E-02
Landbay E	5500-84-2	INORG	Nickel	7440-02-0	A	3.28E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.7E-01
Landbay E	5500-84-2	INORG	Perchlorate	14797-73-0	NC	4.85E-03			3.4E+03	LT	1.4E-06	7.7E+02	LT	6.3E-06
Landbay E	5500-84-2	INORG	Silver	7440-22-4	D	3.65E-01	2.30E+00	1.6E-01	3.8E+03	LT	9.7E-05	2.7E+00	LT	1.4E-01
Landbay E	5500-84-2	INORG	Strontium	7440-24-6		2.40E+01	3.80E+01	6.3E-01	1.6E+07	EqP	1.5E-06	1.1E+03	EqP	2.3E-02
Landbay E	5500-84-2	INORG	Thallium	7440-28-0	ID	2.09E+00	4.50E+00	4.6E-01				1.1E+00	EqP	**1.8E+00**
Landbay E	5500-84-2	INORG	Vanadium	7440-62-2	ID	2.18E+02	2.83E+02	7.7E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.4E-01
Landbay E	5500-84-2	INORG	Zinc	7440-66-6	ID	4.92E+01	1.02E+02	4.8E-01	5.5E+06	EqP	9.0E-06	1.9E+02	EqP	2.6E-01
Landbay E	5500-84-3	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	6.30E-01				NA		9.6E+03	EqP	6.6E-05
Landbay E	5500-84-3	INORG	Aluminum	7429-90-5	ID	3.74E+04	5.34E+04	7.0E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	5500-84-3	INORG	Antimony	7440-36-0	ID	1.15E+00	1.70E+00	6.8E-01	1.4E+03	EqP	8.4E-04	2.7E+01	EqP	4.2E-02
Landbay E	5500-84-3	INORG	Arsenic	7440-38-2	A	1.47E+01	9.90E+00	**1.5E+00**	1.1E+03	EqP	1.4E-02	8.6E+01	EqP	1.7E-01
Landbay E	5500-84-3	INORG	Barium	7440-39-3	NC	1.64E+02	2.24E+02	7.3E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay E	5500-84-3	INORG	Beryllium	7440-41-7	B1	8.26E-01	1.20E+00	6.9E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.9E-02
Landbay E	5500-84-3	INORG	Boron	7440-42-8	ID	3.96E+00	1.34E+01	3.0E-01	9.9E+05	LT	4.0E-06	6.4E-01	LT	**6.2E+00**
Landbay E	5500-84-3	INORG	Chromium III	16065-83-1	D	1.63E+02	2.61E+02	6.3E-01	2.1E+10	EqP	7.7E-09	3.4E+06	EqP	4.8E-05
Landbay E	5500-84-3	INORG	Chromium VI	18540-29-9	A	3.71E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.4E-01
Landbay E	5500-84-3	INORG	Cobalt	7440-48-4	LC	8.47E+01	8.60E+01	9.8E-01	1.4E+04	EqP	6.2E-03	2.1E+01	EqP	**4.1E+00**
Landbay E	5500-84-3	INORG	Copper	7440-50-8	D	4.09E+01	1.31E+02	3.1E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.9E+00**
Landbay E	5500-84-3	INORG	Iron	7439-89-6	D	7.99E+04	9.52E+04	8.4E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.3E+02**
Landbay E	5500-84-3	INORG	Lead	7439-92-1	B2	2.41E+01						3.5E+02	EqP	6.9E-02
Landbay E	5500-84-3	INORG	Manganese	7439-96-5	D	4.09E+03	4.27E+03	9.6E-01	3.1E+05	EqP	1.3E-02	1.6E+02	EqP	**2.6E+01**
Landbay E	5500-84-3	INORG	Mercury	7439-97-6	D	2.67E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.2E-02
Landbay E	5500-84-3	INORG	Nickel	7440-02-0	A	3.37E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay E	5500-84-3	INORG	Perchlorate	14797-73-0	NC	6.90E-03			3.4E+03	LT	2.0E-06	7.7E+02	LT	8.9E-06
Landbay E	5500-84-3	INORG	Silver	7440-22-4	D	3.09E-01	2.30E+00	1.3E-01	3.8E+03	LT	8.2E-05	2.7E+00	LT	1.2E-01
Landbay E	5500-84-3	INORG	Strontium	7440-24-6		1.90E+01	3.80E+01	5.0E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.8E-02
Landbay E	5500-84-3	INORG	Thallium	7440-28-0	ID	1.97E+00	4.50E+00	4.4E-01				1.1E+00	EqP	**1.7E+00**
Landbay E	5500-84-3	INORG	Vanadium	7440-62-2	ID	2.68E+02	2.83E+02	9.5E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay E	5500-84-3	INORG	Zinc	7440-66-6	ID	6.01E+01	1.02E+02	5.9E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay E	5550-0200	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	5550-0200	INORG	Arsenic	7440-38-2	A	3.35E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay E	5550-0200	INORG	Barium	7440-39-3	NC	1.39E+02	2.24E+02	6.2E-01	3.2E+05	EqP	4.3E-04	3.3E+00	EqP	**4.2E+01**
Landbay E	5550-0200	INORG	Beryllium	7440-41-7	B1	1.79E-01	1.20E+00	1.5E-01	6.8E+03	EqP	2.6E-05	1.0E+01	EqP	1.7E-02
Landbay E	5550-0200	INORG	Cadmium	7440-43-9	B1	3.29E-01	2.70E+00	1.2E-01	1.1E+03	EqP	3.0E-04	2.1E+00	EqP	1.5E-01
Landbay E	5550-0200	INORG	Chromium III	16065-83-1	D	1.53E+02	2.61E+02	5.9E-01	2.1E+10	EqP	7.2E-09	3.4E+06	EqP	4.5E-05
Landbay E	5550-0200	INORG	Chromium VI	18540-29-9	A	3.64E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay E	5550-0200	INORG	Cobalt	7440-48-4	LC	4.50E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	5550-0200	INORG	Copper	7440-50-8	D	3.57E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay E	5550-0200	INORG	Iron	7439-89-6	D	4.51E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay E	5550-0200	INORG	Lead	7439-92-1	B2	1.07E+01						3.5E+02	EqP	3.1E-02
Landbay E	5550-0200	INORG	Manganese	7439-96-5	D	1.52E+03	4.27E+03	3.6E-01	3.1E+05	EqP	4.9E-03	1.6E+02	EqP	**9.7E+00**
Landbay E	5550-0200	INORG	Mercury	7439-97-6	D	1.69E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.6E-02
Landbay E	5550-0200	INORG	Nickel	7440-02-0	A	4.25E+01	7.30E+01	5.8E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.3E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	5550-0200	INORG	Silver	7440-22-4	D	2.23E+00	2.30E+00	9.7E-01	3.8E+03	LT	5.9E-04	2.7E+00	LT	8.4E-01
Landbay E	5550-0200	INORG	Thallium	7440-28-0	ID	1.46E+00	4.50E+00	3.2E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5550-0200	INORG	Vanadium	7440-62-2	ID	1.45E+02	2.83E+02	5.1E-01	1.5E+05	EqP	9.4E-04	4.0E+02	EqP	3.6E-01
Landbay E	5550-0200	INORG	Zinc	7440-66-6	ID	5.12E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	5550-0500	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	5550-0500	INORG	Arsenic	7440-38-2	A	3.35E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay E	5550-0500	INORG	Barium	7440-39-3	NC	1.39E+02	2.24E+02	6.2E-01	3.2E+05	EqP	4.3E-04	3.3E+00	EqP	**4.2E+01**
Landbay E	5550-0500	INORG	Beryllium	7440-41-7	B1	1.79E-01	1.20E+00	1.5E-01	6.8E+03	EqP	2.6E-05	1.0E+01	EqP	1.7E-02
Landbay E	5550-0500	INORG	Cadmium	7440-43-9	B1	3.29E-01	2.70E+00	1.2E-01	1.1E+03	EqP	3.0E-04	2.1E+00	EqP	1.5E-01
Landbay E	5550-0500	INORG	Chromium III	16065-83-1	D	1.53E+02	2.61E+02	5.9E-01	2.1E+10	EqP	7.2E-09	3.4E+06	EqP	4.5E-05
Landbay E	5550-0500	INORG	Chromium VI	18540-29-9	A	3.64E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay E	5550-0500	INORG	Cobalt	7440-48-4	LC	4.50E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	5550-0500	INORG	Copper	7440-50-8	D	3.57E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay E	5550-0500	INORG	Iron	7439-89-6	D	4.51E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay E	5550-0500	INORG	Lead	7439-92-1	B2	1.07E+01						3.5E+02	EqP	3.1E-02
Landbay E	5550-0500	INORG	Manganese	7439-96-5	D	1.52E+03	4.27E+03	3.6E-01	3.1E+05	EqP	4.9E-03	1.6E+02	EqP	**9.7E+00**
Landbay E	5550-0500	INORG	Mercury	7439-97-6	D	1.69E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.6E-02
Landbay E	5550-0500	INORG	Nickel	7440-02-0	A	4.25E+01	7.30E+01	5.8E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	5550-0500	INORG	Silver	7440-22-4	D	2.23E+00	2.30E+00	9.7E-01	3.8E+03	LT	5.9E-04	2.7E+00	LT	8.4E-01
Landbay E	5550-0500	INORG	Thallium	7440-28-0	ID	1.46E+00	4.50E+00	3.2E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5550-0500	INORG	Vanadium	7440-62-2	ID	1.45E+02	2.83E+02	5.1E-01	1.5E+05	EqP	9.4E-04	4.0E+02	EqP	3.6E-01
Landbay E	5550-0500	INORG	Zinc	7440-66-6	ID	5.12E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	5550-0650	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	5550-0650	INORG	Arsenic	7440-38-2	A	3.35E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay E	5550-0650	INORG	Barium	7440-39-3	NC	1.39E+02	2.24E+02	6.2E-01	3.2E+05	EqP	4.3E-04	3.3E+00	EqP	**4.2E+01**
Landbay E	5550-0650	INORG	Beryllium	7440-41-7	B1	1.79E-01	1.20E+00	1.5E-01	6.8E+03	EqP	2.6E-05	1.0E+01	EqP	1.7E-02
Landbay E	5550-0650	INORG	Cadmium	7440-43-9	B1	3.29E-01	2.70E+00	1.2E-01	1.1E+03	EqP	3.0E-04	2.1E+00	EqP	1.5E-01
Landbay E	5550-0650	INORG	Chromium III	16065-83-1	D	1.53E+02	2.61E+02	5.9E-01	2.1E+10	EqP	7.2E-09	3.4E+06	EqP	4.5E-05
Landbay E	5550-0650	INORG	Chromium VI	18540-29-9	A	3.64E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay E	5550-0650	INORG	Cobalt	7440-48-4	LC	4.50E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	5550-0650	INORG	Copper	7440-50-8	D	3.57E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay E	5550-0650	INORG	Iron	7439-89-6	D	4.51E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay E	5550-0650	INORG	Lead	7439-92-1	B2	1.07E+01						3.5E+02	EqP	3.1E-02
Landbay E	5550-0650	INORG	Manganese	7439-96-5	D	1.52E+03	4.27E+03	3.6E-01	3.1E+05	EqP	4.9E-03	1.6E+02	EqP	**9.7E+00**
Landbay E	5550-0650	INORG	Mercury	7439-97-6	D	1.69E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.6E-02
Landbay E	5550-0650	INORG	Nickel	7440-02-0	A	4.25E+01	7.30E+01	5.8E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	5550-0650	INORG	Silver	7440-22-4	D	2.23E+00	2.30E+00	9.7E-01	3.8E+03	LT	5.9E-04	2.7E+00	LT	8.4E-01
Landbay E	5550-0650	INORG	Thallium	7440-28-0	ID	1.46E+00	4.50E+00	3.2E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5550-0650	INORG	Vanadium	7440-62-2	ID	1.45E+02	2.83E+02	5.1E-01	1.5E+05	EqP	9.4E-04	4.0E+02	EqP	3.6E-01
Landbay E	5550-0650	INORG	Zinc	7440-66-6	ID	5.12E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	5550-0800	INORG	Aluminum	7429-90-5	ID	3.87E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	5550-0800	INORG	Arsenic	7440-38-2	A	3.06E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay E	5550-0800	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	5550-0800	INORG	Beryllium	7440-41-7	B1	5.33E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay E	5550-0800	INORG	Cadmium	7440-43-9	B1	8.88E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.2E-04	2.1E+00	EqP	4.2E-01
Landbay E	5550-0800	INORG	Chromium III	16065-83-1	D	2.12E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.9E-09	3.4E+06	EqP	6.3E-05
Landbay E	5550-0800	INORG	Chromium VI	18540-29-9	A	4.04E+00	4.97E+00	8.1E-01	6.6E+01	LT	6.1E-02	4.4E+00	LT	9.2E-01
Landbay E	5550-0800	INORG	Cobalt	7440-48-4	LC	6.26E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5550-0800	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	5550-0800	INORG	Iron	7439-89-6	D	5.10E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5550-0800	INORG	Lead	7439-92-1	B2	1.59E+01						3.5E+02	EqP	4.5E-02
Landbay E	5550-0800	INORG	Manganese	7439-96-5	D	1.86E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay E	5550-0800	INORG	Mercury	7439-97-6	D	3.48E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay E	5550-0800	INORG	Nickel	7440-02-0	A	5.17E+01	7.30E+01	7.1E-01	1.2E+05	EqP	4.2E-04	3.4E+01	EqP	**1.5E+00**
Landbay E	5550-0800	INORG	Thallium	7440-28-0	ID	1.53E+00	4.50E+00	3.4E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5550-0800	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	5550-0800	INORG	Zinc	7440-66-6	ID	4.59E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.4E-06	1.9E+02	EqP	2.4E-01
Landbay E	5550-0950	PCB	PCBs (total)	1336-36-3	B2	2.51E-02				NA		1.4E+00	EqP	1.8E-02
Landbay E	5550-0950	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5550-0950	INORG	Antimony	7440-36-0	ID	1.03E+00	1.70E+00	6.1E-01	1.4E+03	EqP	7.5E-04	2.7E+01	EqP	3.8E-02
Landbay E	5550-0950	INORG	Arsenic	7440-38-2	A	2.99E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay E	5550-0950	INORG	Barium	7440-39-3	NC	9.25E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	5550-0950	INORG	Beryllium	7440-41-7	B1	3.70E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.5E-05	1.0E+01	EqP	3.5E-02
Landbay E	5550-0950	INORG	Cadmium	7440-43-9	B1	1.84E+00	2.70E+00	6.8E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.6E-01
Landbay E	5550-0950	INORG	Chromium III	16065-83-1	D	1.27E+02	2.61E+02	4.9E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.8E-05
Landbay E	5550-0950	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5550-0950	INORG	Cobalt	7440-48-4	LC	5.27E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	5550-0950	INORG	Copper	7440-50-8	D	2.76E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5550-0950	INORG	Iron	7439-89-6	D	5.21E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5550-0950	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay E	5550-0950	INORG	Manganese	7439-96-5	D	2.23E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	5550-0950	INORG	Mercury	7439-97-6	D	3.19E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.6E-02
Landbay E	5550-0950	INORG	Nickel	7440-02-0	A	2.94E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.7E-01
Landbay E	5550-0950	INORG	Silver	7440-22-4	D	2.80E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.5E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5550-0950	INORG	Thallium	7440-28-0	ID	2.43E+00	4.50E+00	5.4E-01				1.1E+00	EqP	**2.1E+00**
Landbay E	5550-0950	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	5550-0950	INORG	Zinc	7440-66-6	ID	5.78E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.0E-01
Landbay E	5550-1100	PCB	PCBs (total)	1336-36-3	B2	2.51E-02				NA		1.4E+00	EqP	1.8E-02
Landbay E	5550-1100	INORG	Aluminum	7429-90-5	ID	3.11E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5550-1100	INORG	Antimony	7440-36-0	ID	1.03E+00	1.70E+00	6.1E-01	1.4E+03	EqP	7.5E-04	2.7E+01	EqP	3.8E-02
Landbay E	5550-1100	INORG	Arsenic	7440-38-2	A	2.99E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.8E-03	8.6E+01	EqP	3.5E-02
Landbay E	5550-1100	INORG	Barium	7440-39-3	NC	9.25E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	5550-1100	INORG	Beryllium	7440-41-7	B1	3.70E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.5E-05	1.0E+01	EqP	3.5E-02
Landbay E	5550-1100	INORG	Cadmium	7440-43-9	B1	1.84E+00	2.70E+00	6.8E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.6E-01
Landbay E	5550-1100	INORG	Chromium III	16065-83-1	D	1.27E+02	2.61E+02	4.9E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.8E-05
Landbay E	5550-1100	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5550-1100	INORG	Cobalt	7440-48-4	LC	5.27E+01	8.60E+01	6.1E-01	1.4E+04	EqP	3.8E-03	2.1E+01	EqP	**2.5E+00**
Landbay E	5550-1100	INORG	Copper	7440-50-8	D	2.76E+01	1.31E+02	2.1E-01	3.5E+05	EqP	7.9E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5550-1100	INORG	Iron	7439-89-6	D	5.21E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5550-1100	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay E	5550-1100	INORG	Manganese	7439-96-5	D	2.23E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	5550-1100	INORG	Mercury	7439-97-6	D	3.19E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.6E-02
Landbay E	5550-1100	INORG	Nickel	7440-02-0	A	2.94E+01	7.30E+01	4.0E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	8.7E-01
Landbay E	5550-1100	INORG	Silver	7440-22-4	D	2.80E+00	2.30E+00	**1.2E+00**	3.8E+03	LT	7.5E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5550-1100	INORG	Thallium	7440-28-0	ID	2.43E+00	4.50E+00	5.4E-01				1.1E+00	EqP	**2.1E+00**
Landbay E	5550-1100	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	5550-1100	INORG	Zinc	7440-66-6	ID	5.78E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.0E-01
Landbay E	5550-1250	INORG	Aluminum	7429-90-5	ID	3.09E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5550-1250	INORG	Arsenic	7440-38-2	A	6.45E+00	9.90E+00	6.5E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.5E-02
Landbay E	5550-1250	INORG	Barium	7440-39-3	NC	1.66E+02	2.24E+02	7.4E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay E	5550-1250	INORG	Beryllium	7440-41-7	B1	4.65E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.9E-05	1.0E+01	EqP	4.5E-02
Landbay E	5550-1250	INORG	Cadmium	7440-43-9	B1	3.42E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay E	5550-1250	INORG	Chromium III	16065-83-1	D	1.15E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay E	5550-1250	INORG	Chromium VI	18540-29-9	A	3.37E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay E	5550-1250	INORG	Cobalt	7440-48-4	LC	6.23E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5550-1250	INORG	Copper	7440-50-8	D	3.43E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.9E-05	8.4E+00	EqP	**4.1E+00**
Landbay E	5550-1250	INORG	Iron	7439-89-6	D	5.14E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5550-1250	INORG	Lead	7439-92-1	B2	1.90E+01						3.5E+02	EqP	5.4E-02
Landbay E	5550-1250	INORG	Manganese	7439-96-5	D	2.89E+03	4.27E+03	6.8E-01	3.1E+05	EqP	9.3E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	5550-1250	INORG	Mercury	7439-97-6	D	3.22E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay E	5550-1250	INORG	Nickel	7440-02-0	A	3.17E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.4E-01
Landbay E	5550-1250	INORG	Silver	7440-22-4	D	3.00E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	8.0E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5550-1250	INORG	Thallium	7440-28-0	ID	1.35E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	5550-1250	INORG	Vanadium	7440-62-2	ID	1.71E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay E	5550-1250	INORG	Zinc	7440-66-6	ID	5.84E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay E	5550-1400	INORG	Aluminum	7429-90-5	ID	3.09E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5550-1400	INORG	Arsenic	7440-38-2	A	6.45E+00	9.90E+00	6.5E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.5E-02
Landbay E	5550-1400	INORG	Barium	7440-39-3	NC	1.66E+02	2.24E+02	7.4E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay E	5550-1400	INORG	Beryllium	7440-41-7	B1	4.65E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.9E-05	1.0E+01	EqP	4.5E-02
Landbay E	5550-1400	INORG	Cadmium	7440-43-9	B1	3.42E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay E	5550-1400	INORG	Chromium III	16065-83-1	D	1.15E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay E	5550-1400	INORG	Chromium VI	18540-29-9	A	3.37E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay E	5550-1400	INORG	Cobalt	7440-48-4	LC	6.23E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5550-1400	INORG	Copper	7440-50-8	D	3.43E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.9E-05	8.4E+00	EqP	**4.1E+00**
Landbay E	5550-1400	INORG	Iron	7439-89-6	D	5.14E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5550-1400	INORG	Lead	7439-92-1	B2	1.90E+01						3.5E+02	EqP	5.4E-02
Landbay E	5550-1400	INORG	Manganese	7439-96-5	D	2.89E+03	4.27E+03	6.8E-01	3.1E+05	EqP	9.3E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	5550-1400	INORG	Mercury	7439-97-6	D	3.22E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay E	5550-1400	INORG	Nickel	7440-02-0	A	3.17E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.4E-01
Landbay E	5550-1400	INORG	Silver	7440-22-4	D	3.00E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	8.0E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5550-1400	INORG	Thallium	7440-28-0	ID	1.35E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	5550-1400	INORG	Vanadium	7440-62-2	ID	1.71E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay E	5550-1400	INORG	Zinc	7440-66-6	ID	5.84E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	5550-1550	INORG	Aluminum	7429-90-5	ID	3.09E+04	5.34E+04	5.8E-01	3.7E+08	EqP	8.4E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	5550-1550	INORG	Arsenic	7440-38-2	A	6.45E+00	9.90E+00	6.5E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.5E-02
Landbay E	5550-1550	INORG	Barium	7440-39-3	NC	1.66E+02	2.24E+02	7.4E-01	3.2E+05	EqP	5.1E-04	3.3E+00	EqP	**5.0E+01**
Landbay E	5550-1550	INORG	Beryllium	7440-41-7	B1	4.65E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.9E-05	1.0E+01	EqP	4.5E-02
Landbay E	5550-1550	INORG	Cadmium	7440-43-9	B1	3.42E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.2E-04	2.1E+00	EqP	1.6E-01
Landbay E	5550-1550	INORG	Chromium III	16065-83-1	D	1.15E+02	2.61E+02	4.4E-01	2.1E+10	EqP	5.4E-09	3.4E+06	EqP	3.4E-05
Landbay E	5550-1550	INORG	Chromium VI	18540-29-9	A	3.37E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay E	5550-1550	INORG	Cobalt	7440-48-4	LC	6.23E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5550-1550	INORG	Copper	7440-50-8	D	3.43E+01	1.31E+02	2.6E-01	3.5E+05	EqP	9.9E-05	8.4E+00	EqP	**4.1E+00**
Landbay E	5550-1550	INORG	Iron	7439-89-6	D	5.14E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5550-1550	INORG	Lead	7439-92-1	B2	1.90E+01						3.5E+02	EqP	5.4E-02
Landbay E	5550-1550	INORG	Manganese	7439-96-5	D	2.89E+03	4.27E+03	6.8E-01	3.1E+05	EqP	9.3E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	5550-1550	INORG	Mercury	7439-97-6	D	3.22E-02	7.10E-02	4.5E-01		NA		3.7E-01	EqP	8.7E-02
Landbay E	5550-1550	INORG	Nickel	7440-02-0	A	3.17E+01	7.30E+01	4.3E-01	1.2E+05	EqP	2.6E-04	3.4E+01	EqP	9.4E-01
Landbay E	5550-1550	INORG	Silver	7440-22-4	D	3.00E+00	2.30E+00	**1.3E+00**	3.8E+03	LT	8.0E-04	2.7E+00	LT	**1.1E+00**
Landbay E	5550-1550	INORG	Thallium	7440-28-0	ID	1.35E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	5550-1550	INORG	Vanadium	7440-62-2	ID	1.71E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay E	5550-1550	INORG	Zinc	7440-66-6	ID	5.84E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay E	5550-1700	PCB	PCBs (total)	1336-36-3	B2	7.80E-02				NA		1.4E+00	EqP	5.7E-02
Landbay E	5550-1700	INORG	Aluminum	7429-90-5	ID	2.35E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay E	5550-1700	INORG	Arsenic	7440-38-2	A	4.66E+00	9.90E+00	4.7E-01	1.1E+03	EqP	4.4E-03	8.6E+01	EqP	5.4E-02
Landbay E	5550-1700	INORG	Barium	7440-39-3	NC	1.01E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	5550-1700	INORG	Beryllium	7440-41-7	B1	2.94E-01	1.20E+00	2.5E-01	6.8E+03	EqP	4.3E-05	1.0E+01	EqP	2.8E-02
Landbay E	5550-1700	INORG	Cadmium	7440-43-9	B1	3.78E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.5E-04	2.1E+00	EqP	1.8E-01
Landbay E	5550-1700	INORG	Chromium III	16065-83-1	D	1.25E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.8E-09	3.4E+06	EqP	3.7E-05
Landbay E	5550-1700	INORG	Chromium VI	18540-29-9	A	3.44E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5550-1700	INORG	Cobalt	7440-48-4	LC	5.64E+01	8.60E+01	6.6E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay E	5550-1700	INORG	Copper	7440-50-8	D	2.26E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.5E-05	8.4E+00	EqP	**2.7E+00**
Landbay E	5550-1700	INORG	Iron	7439-89-6	D	5.17E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5550-1700	INORG	Lead	7439-92-1	B2	2.11E+01						3.5E+02	EqP	6.0E-02
Landbay E	5550-1700	INORG	Manganese	7439-96-5	D	2.82E+03	4.27E+03	6.6E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	5550-1700	INORG	Mercury	7439-97-6	D	3.64E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.9E-02
Landbay E	5550-1700	INORG	Nickel	7440-02-0	A	2.17E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.4E-01
Landbay E	5550-1700	INORG	Silver	7440-22-4	D	7.51E+00	2.30E+00	**3.3E+00**	3.8E+03	LT	2.0E-03	2.7E+00	LT	**2.8E+00**
Landbay E	5550-1700	INORG	Vanadium	7440-62-2	ID	2.15E+02	2.83E+02	7.6E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.4E-01
Landbay E	5550-1700	INORG	Zinc	7440-66-6	ID	5.15E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	5550-1850	INORG	Aluminum	7429-90-5	ID	2.35E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay E	5550-1850	INORG	Arsenic	7440-38-2	A	4.66E+00	9.90E+00	4.7E-01	1.1E+03	EqP	4.4E-03	8.6E+01	EqP	5.4E-02
Landbay E	5550-1850	INORG	Barium	7440-39-3	NC	1.01E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	5550-1850	INORG	Beryllium	7440-41-7	B1	2.94E-01	1.20E+00	2.5E-01	6.8E+03	EqP	4.3E-05	1.0E+01	EqP	2.8E-02
Landbay E	5550-1850	INORG	Cadmium	7440-43-9	B1	3.78E-01	2.70E+00	1.4E-01	1.1E+03	EqP	3.5E-04	2.1E+00	EqP	1.8E-01
Landbay E	5550-1850	INORG	Chromium III	16065-83-1	D	1.25E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.8E-09	3.4E+06	EqP	3.7E-05
Landbay E	5550-1850	INORG	Chromium VI	18540-29-9	A	3.44E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5550-1850	INORG	Cobalt	7440-48-4	LC	5.64E+01	8.60E+01	6.6E-01	1.4E+04	EqP	4.1E-03	2.1E+01	EqP	**2.7E+00**
Landbay E	5550-1850	INORG	Copper	7440-50-8	D	2.26E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.5E-05	8.4E+00	EqP	**2.7E+00**
Landbay E	5550-1850	INORG	Iron	7439-89-6	D	5.17E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5550-1850	INORG	Lead	7439-92-1	B2	2.11E+01						3.5E+02	EqP	6.0E-02
Landbay E	5550-1850	INORG	Manganese	7439-96-5	D	2.82E+03	4.27E+03	6.6E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	5550-1850	INORG	Mercury	7439-97-6	D	3.64E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.9E-02
Landbay E	5550-1850	INORG	Nickel	7440-02-0	A	2.17E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.4E-01
Landbay E	5550-1850	INORG	Silver	7440-22-4	D	7.51E+00	2.30E+00	**3.3E+00**	3.8E+03	LT	2.0E-03	2.7E+00	LT	**2.8E+00**
Landbay E	5550-1850	INORG	Vanadium	7440-62-2	ID	2.15E+02	2.83E+02	7.6E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.4E-01
Landbay E	5550-1850	INORG	Zinc	7440-66-6	ID	5.15E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	5600-82	PCB	PCBs (total)	1336-36-3	B2	4.91E-02				NA		1.4E+00	EqP	3.6E-02
Landbay E	5600-82	INORG	Aluminum	7429-90-5	ID	3.40E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.2E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	5600-82	INORG	Arsenic	7440-38-2	A	3.93E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.7E-03	8.6E+01	EqP	4.6E-02
Landbay E	5600-82	INORG	Barium	7440-39-3	NC	5.78E+01	2.24E+02	2.6E-01	3.2E+05	EqP	1.8E-04	3.3E+00	EqP	**1.8E+01**
Landbay E	5600-82	INORG	Beryllium	7440-41-7	B1	2.55E-01	1.20E+00	2.1E-01	6.8E+03	EqP	3.8E-05	1.0E+01	EqP	2.4E-02
Landbay E	5600-82	INORG	Boron	7440-42-8	ID	6.59E+00	1.34E+01	4.9E-01	9.9E+05	LT	6.7E-06	6.4E-01	LT	**1.0E+01**
Landbay E	5600-82	INORG	Chromium III	16065-83-1	D	5.84E+01	2.61E+02	2.2E-01	2.1E+10	EqP	2.7E-09	3.4E+06	EqP	1.7E-05
Landbay E	5600-82	INORG	Chromium VI	18540-29-9	A	2.99E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	5600-82	INORG	Cobalt	7440-48-4	LC	1.93E+01	8.60E+01	2.2E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.3E-01
Landbay E	5600-82	INORG	Copper	7440-50-8	D	6.42E+01	1.31E+02	4.9E-01	3.5E+05	EqP	1.8E-04	8.4E+00	EqP	**7.6E+00**
Landbay E	5600-82	INORG	Iron	7439-89-6	D	2.82E+04	9.52E+04	3.0E-01	4.4E+06	EqP	6.5E-03	1.5E+02	EqP	**1.9E+02**
Landbay E	5600-82	INORG	Lead	7439-92-1	B2	6.71E+00						3.5E+02	EqP	1.9E-02
Landbay E	5600-82	INORG	Manganese	7439-96-5	D	4.85E+02	4.27E+03	1.1E-01	3.1E+05	EqP	1.6E-03	1.6E+02	EqP	**3.1E+00**
Landbay E	5600-82	INORG	Mercury	7439-97-6	D	6.70E-02	7.10E-02	9.4E-01		NA		3.7E-01	EqP	1.8E-01
Landbay E	5600-82	INORG	Nickel	7440-02-0	A	3.07E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.1E-01
Landbay E	5600-82	INORG	Strontium	7440-24-6		4.71E+01	3.80E+01	**1.2E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.5E-02
Landbay E	5600-82	INORG	Thallium	7440-28-0	ID	1.50E+00	4.50E+00	3.3E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5600-82	INORG	Vanadium	7440-62-2	ID	8.26E+01	2.83E+02	2.9E-01	1.5E+05	EqP	5.3E-04	4.0E+02	EqP	2.1E-01
Landbay E	5600-82	INORG	Zinc	7440-66-6	ID	5.35E+01	1.02E+02	5.2E-01	5.5E+06	EqP	9.8E-06	1.9E+02	EqP	2.8E-01
Landbay E	5600-82	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.80E-01				NA		1.4E+02	LT	1.9E-03
Landbay E	5600-82	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	3.50E+00				NA		6.0E+01	LT	5.8E-02
Landbay E	5600-83	INORG	Perchlorate	14797-73-0	NC	4.50E-04			3.4E+03	LT	1.3E-07	7.7E+02	LT	5.8E-07
Landbay E	5700-0650	INORG	Aluminum	7429-90-5	ID	3.33E+04	5.34E+04	6.2E-01	3.7E+08	EqP	9.0E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	5700-0650	INORG	Arsenic	7440-38-2	A	3.35E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay E	5700-0650	INORG	Barium	7440-39-3	NC	1.39E+02	2.24E+02	6.2E-01	3.2E+05	EqP	4.3E-04	3.3E+00	EqP	**4.2E+01**
Landbay E	5700-0650	INORG	Beryllium	7440-41-7	B1	1.79E-01	1.20E+00	1.5E-01	6.8E+03	EqP	2.6E-05	1.0E+01	EqP	1.7E-02
Landbay E	5700-0650	INORG	Cadmium	7440-43-9	B1	3.29E-01	2.70E+00	1.2E-01	1.1E+03	EqP	3.0E-04	2.1E+00	EqP	1.5E-01
Landbay E	5700-0650	INORG	Chromium III	16065-83-1	D	1.53E+02	2.61E+02	5.9E-01	2.1E+10	EqP	7.2E-09	3.4E+06	EqP	4.5E-05
Landbay E	5700-0650	INORG	Chromium VI	18540-29-9	A	3.64E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay E	5700-0650	INORG	Cobalt	7440-48-4	LC	4.50E+01	8.60E+01	5.2E-01	1.4E+04	EqP	3.3E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	5700-0650	INORG	Copper	7440-50-8	D	3.57E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay E	5700-0650	INORG	Iron	7439-89-6	D	4.51E+04	9.52E+04	4.7E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay E	5700-0650	INORG	Lead	7439-92-1	B2	1.07E+01						3.5E+02	EqP	3.1E-02
Landbay E	5700-0650	INORG	Manganese	7439-96-5	D	1.52E+03	4.27E+03	3.6E-01	3.1E+05	EqP	4.9E-03	1.6E+02	EqP	**9.7E+00**
Landbay E	5700-0650	INORG	Mercury	7439-97-6	D	1.69E-02	7.10E-02	2.4E-01		NA		3.7E-01	EqP	4.6E-02
Landbay E	5700-0650	INORG	Nickel	7440-02-0	A	4.25E+01	7.30E+01	5.8E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	5700-0650	INORG	Silver	7440-22-4	D	2.23E+00	2.30E+00	9.7E-01	3.8E+03	LT	5.9E-04	2.7E+00	LT	8.4E-01
Landbay E	5700-0650	INORG	Thallium	7440-28-0	ID	1.46E+00	4.50E+00	3.2E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5700-0650	INORG	Vanadium	7440-62-2	ID	1.45E+02	2.83E+02	5.1E-01	1.5E+05	EqP	9.4E-04	4.0E+02	EqP	3.6E-01
Landbay E	5700-0650	INORG	Zinc	7440-66-6	ID	5.12E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	5700-0800	INORG	Aluminum	7429-90-5	ID	3.87E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	5700-0800	INORG	Arsenic	7440-38-2	A	3.06E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay E	5700-0800	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	5700-0800	INORG	Beryllium	7440-41-7	B1	5.33E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay E	5700-0800	INORG	Cadmium	7440-43-9	B1	8.88E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.2E-04	2.1E+00	EqP	4.2E-01
Landbay E	5700-0800	INORG	Chromium III	16065-83-1	D	2.12E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.9E-09	3.4E+06	EqP	6.3E-05
Landbay E	5700-0800	INORG	Chromium VI	18540-29-9	A	4.04E+00	4.97E+00	8.1E-01	6.6E+01	LT	6.1E-02	4.4E+00	LT	9.2E-01
Landbay E	5700-0800	INORG	Cobalt	7440-48-4	LC	6.26E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5700-0800	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	5700-0800	INORG	Iron	7439-89-6	D	5.10E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5700-0800	INORG	Lead	7439-92-1	B2	1.59E+01						3.5E+02	EqP	4.5E-02
Landbay E	5700-0800	INORG	Manganese	7439-96-5	D	1.86E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay E	5700-0800	INORG	Mercury	7439-97-6	D	3.48E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay E	5700-0800	INORG	Nickel	7440-02-0	A	5.17E+01	7.30E+01	7.1E-01	1.2E+05	EqP	4.2E-04	3.4E+01	EqP	**1.5E+00**
Landbay E	5700-0800	INORG	Thallium	7440-28-0	ID	1.53E+00	4.50E+00	3.4E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5700-0800	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	5700-0800	INORG	Zinc	7440-66-6	ID	4.59E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.4E-06	1.9E+02	EqP	2.4E-01
Landbay E	5700-0950	INORG	Aluminum	7429-90-5	ID	3.87E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	5700-0950	INORG	Arsenic	7440-38-2	A	3.06E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay E	5700-0950	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	5700-0950	INORG	Beryllium	7440-41-7	B1	5.33E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay E	5700-0950	INORG	Cadmium	7440-43-9	B1	8.88E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.2E-04	2.1E+00	EqP	4.2E-01
Landbay E	5700-0950	INORG	Chromium III	16065-83-1	D	2.12E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.9E-09	3.4E+06	EqP	6.3E-05
Landbay E	5700-0950	INORG	Chromium VI	18540-29-9	A	4.04E+00	4.97E+00	8.1E-01	6.6E+01	LT	6.1E-02	4.4E+00	LT	9.2E-01
Landbay E	5700-0950	INORG	Cobalt	7440-48-4	LC	6.26E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5700-0950	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	5700-0950	INORG	Iron	7439-89-6	D	5.10E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5700-0950	INORG	Lead	7439-92-1	B2	1.59E+01						3.5E+02	EqP	4.5E-02
Landbay E	5700-0950	INORG	Manganese	7439-96-5	D	1.86E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay E	5700-0950	INORG	Mercury	7439-97-6	D	3.48E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay E	5700-0950	INORG	Nickel	7440-02-0	A	5.17E+01	7.30E+01	7.1E-01	1.2E+05	EqP	4.2E-04	3.4E+01	EqP	**1.5E+00**
Landbay E	5700-0950	INORG	Thallium	7440-28-0	ID	1.53E+00	4.50E+00	3.4E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5700-0950	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	5700-0950	INORG	Zinc	7440-66-6	ID	4.59E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.4E-06	1.9E+02	EqP	2.4E-01
Landbay E	5700-1100	INORG	Aluminum	7429-90-5	ID	2.89E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5700-1100	INORG	Arsenic	7440-38-2	A	3.97E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.6E-02
Landbay E	5700-1100	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay E	5700-1100	INORG	Beryllium	7440-41-7	B1	5.78E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay E	5700-1100	INORG	Cadmium	7440-43-9	B1	7.20E-01	2.70E+00	2.7E-01	1.1E+03	EqP	6.6E-04	2.1E+00	EqP	3.4E-01
Landbay E	5700-1100	INORG	Chromium III	16065-83-1	D	1.47E+02	2.61E+02	5.7E-01	2.1E+10	EqP	6.9E-09	3.4E+06	EqP	4.4E-05

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	5700-1100	INORG	Chromium VI	18540-29-9	A	3.60E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	5700-1100	INORG	Cobalt	7440-48-4	LC	5.34E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	5700-1100	INORG	Copper	7440-50-8	D	2.08E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.0E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	5700-1100	INORG	Iron	7439-89-6	D	4.55E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay E	5700-1100	INORG	Lead	7439-92-1	B2	1.80E+01						3.5E+02	EqP	5.1E-02
Landbay E	5700-1100	INORG	Manganese	7439-96-5	D	2.00E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	5700-1100	INORG	Mercury	7439-97-6	D	3.30E-02	7.10E-02	4.6E-01		NA		3.7E-01	EqP	8.9E-02
Landbay E	5700-1100	INORG	Nickel	7440-02-0	A	3.37E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay E	5700-1100	INORG	Thallium	7440-28-0	ID	2.16E+00	4.50E+00	4.8E-01				1.1E+00	EqP	**1.9E+00**
Landbay E	5700-1100	INORG	Vanadium	7440-62-2	ID	1.63E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay E	5700-1100	INORG	Zinc	7440-66-6	ID	4.77E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	5700-1250	INORG	Aluminum	7429-90-5	ID	2.89E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5700-1250	INORG	Arsenic	7440-38-2	A	3.97E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.6E-02
Landbay E	5700-1250	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay E	5700-1250	INORG	Beryllium	7440-41-7	B1	5.78E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay E	5700-1250	INORG	Cadmium	7440-43-9	B1	7.20E-01	2.70E+00	2.7E-01	1.1E+03	EqP	6.6E-04	2.1E+00	EqP	3.4E-01
Landbay E	5700-1250	INORG	Chromium III	16065-83-1	D	1.47E+02	2.61E+02	5.7E-01	2.1E+10	EqP	6.9E-09	3.4E+06	EqP	4.4E-05
Landbay E	5700-1250	INORG	Chromium VI	18540-29-9	A	3.60E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	5700-1250	INORG	Cobalt	7440-48-4	LC	5.34E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	5700-1250	INORG	Copper	7440-50-8	D	2.08E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.0E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	5700-1250	INORG	Iron	7439-89-6	D	4.55E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay E	5700-1250	INORG	Lead	7439-92-1	B2	1.80E+01						3.5E+02	EqP	5.1E-02
Landbay E	5700-1250	INORG	Manganese	7439-96-5	D	2.00E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	5700-1250	INORG	Mercury	7439-97-6	D	3.30E-02	7.10E-02	4.6E-01		NA		3.7E-01	EqP	8.9E-02
Landbay E	5700-1250	INORG	Nickel	7440-02-0	A	3.37E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay E	5700-1250	INORG	Thallium	7440-28-0	ID	2.16E+00	4.50E+00	4.8E-01				1.1E+00	EqP	**1.9E+00**
Landbay E	5700-1250	INORG	Vanadium	7440-62-2	ID	1.63E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay E	5700-1250	INORG	Zinc	7440-66-6	ID	4.77E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	5700-1400	INORG	Aluminum	7429-90-5	ID	2.98E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5700-1400	INORG	Arsenic	7440-38-2	A	6.24E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.3E-02
Landbay E	5700-1400	INORG	Barium	7440-39-3	NC	1.45E+02	2.24E+02	6.5E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay E	5700-1400	INORG	Beryllium	7440-41-7	B1	7.52E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay E	5700-1400	INORG	Cadmium	7440-43-9	B1	9.67E-01	2.70E+00	3.6E-01	1.1E+03	EqP	8.9E-04	2.1E+00	EqP	4.5E-01
Landbay E	5700-1400	INORG	Chromium III	16065-83-1	D	1.43E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.3E-05
Landbay E	5700-1400	INORG	Chromium VI	18540-29-9	A	3.57E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay E	5700-1400	INORG	Cobalt	7440-48-4	LC	6.29E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5700-1400	INORG	Copper	7440-50-8	D	1.88E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay E	5700-1400	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay E	5700-1400	INORG	Lead	7439-92-1	B2	2.33E+01						3.5E+02	EqP	6.6E-02
Landbay E	5700-1400	INORG	Manganese	7439-96-5	D	2.93E+03	4.27E+03	6.9E-01	3.1E+05	EqP	9.4E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	5700-1400	INORG	Mercury	7439-97-6	D	2.99E-02	7.10E-02	4.2E-01		NA		3.7E-01	EqP	8.1E-02
Landbay E	5700-1400	INORG	Nickel	7440-02-0	A	3.10E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.2E-01
Landbay E	5700-1400	INORG	Thallium	7440-28-0	ID	1.36E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	5700-1400	INORG	Vanadium	7440-62-2	ID	2.11E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay E	5700-1400	INORG	Zinc	7440-66-6	ID	4.88E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	5700-1550	INORG	Aluminum	7429-90-5	ID	2.98E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5700-1550	INORG	Arsenic	7440-38-2	A	6.24E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.3E-02
Landbay E	5700-1550	INORG	Barium	7440-39-3	NC	1.45E+02	2.24E+02	6.5E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay E	5700-1550	INORG	Beryllium	7440-41-7	B1	7.52E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay E	5700-1550	INORG	Cadmium	7440-43-9	B1	9.67E-01	2.70E+00	3.6E-01	1.1E+03	EqP	8.9E-04	2.1E+00	EqP	4.5E-01
Landbay E	5700-1550	INORG	Chromium III	16065-83-1	D	1.43E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.3E-05
Landbay E	5700-1550	INORG	Chromium VI	18540-29-9	A	3.57E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay E	5700-1550	INORG	Cobalt	7440-48-4	LC	6.29E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5700-1550	INORG	Copper	7440-50-8	D	1.88E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay E	5700-1550	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay E	5700-1550	INORG	Lead	7439-92-1	B2	2.33E+01						3.5E+02	EqP	6.6E-02
Landbay E	5700-1550	INORG	Manganese	7439-96-5	D	2.93E+03	4.27E+03	6.9E-01	3.1E+05	EqP	9.4E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	5700-1550	INORG	Mercury	7439-97-6	D	2.99E-02	7.10E-02	4.2E-01		NA		3.7E-01	EqP	8.1E-02
Landbay E	5700-1550	INORG	Nickel	7440-02-0	A	3.10E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.2E-01
Landbay E	5700-1550	INORG	Thallium	7440-28-0	ID	1.36E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	5700-1550	INORG	Vanadium	7440-62-2	ID	2.11E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay E	5700-1550	INORG	Zinc	7440-66-6	ID	4.88E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	5700-1700	INORG	Aluminum	7429-90-5	ID	2.53E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay E	5700-1700	INORG	Arsenic	7440-38-2	A	5.62E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay E	5700-1700	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	5700-1700	INORG	Beryllium	7440-41-7	B1	4.38E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.5E-05	1.0E+01	EqP	4.2E-02
Landbay E	5700-1700	INORG	Cadmium	7440-43-9	B1	2.77E-01	2.70E+00	1.0E-01	1.1E+03	EqP	2.6E-04	2.1E+00	EqP	1.3E-01
Landbay E	5700-1700	INORG	Chromium III	16065-83-1	D	1.26E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay E	5700-1700	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5700-1700	INORG	Cobalt	7440-48-4	LC	7.06E+01	8.60E+01	8.2E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay E	5700-1700	INORG	Copper	7440-50-8	D	2.77E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5700-1700	INORG	Iron	7439-89-6	D	5.60E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	5700-1700	INORG	Lead	7439-92-1	B2	2.49E+01						3.5E+02	EqP	7.1E-02
Landbay E	5700-1700	INORG	Manganese	7439-96-5	D	2.84E+03	4.27E+03	6.7E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	5700-1700	INORG	Mercury	7439-97-6	D	3.13E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	5700-1700	INORG	Nickel	7440-02-0	A	2.51E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay E	5700-1700	INORG	Silver	7440-22-4	D	2.62E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	7.0E-04	2.7E+00	LT	9.9E-01
Landbay E	5700-1700	INORG	Vanadium	7440-62-2	ID	1.95E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay E	5700-1700	INORG	Zinc	7440-66-6	ID	6.77E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay E	5700-1850	INORG	Aluminum	7429-90-5	ID	2.53E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay E	5700-1850	INORG	Arsenic	7440-38-2	A	5.62E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay E	5700-1850	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	5700-1850	INORG	Beryllium	7440-41-7	B1	4.38E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.5E-05	1.0E+01	EqP	4.2E-02
Landbay E	5700-1850	INORG	Cadmium	7440-43-9	B1	2.77E-01	2.70E+00	1.0E-01	1.1E+03	EqP	2.6E-04	2.1E+00	EqP	1.3E-01
Landbay E	5700-1850	INORG	Chromium III	16065-83-1	D	1.26E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay E	5700-1850	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5700-1850	INORG	Cobalt	7440-48-4	LC	7.06E+01	8.60E+01	8.2E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay E	5700-1850	INORG	Copper	7440-50-8	D	2.77E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5700-1850	INORG	Iron	7439-89-6	D	5.60E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	5700-1850	INORG	Lead	7439-92-1	B2	2.49E+01						3.5E+02	EqP	7.1E-02
Landbay E	5700-1850	INORG	Manganese	7439-96-5	D	2.84E+03	4.27E+03	6.7E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	5700-1850	INORG	Mercury	7439-97-6	D	3.13E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	5700-1850	INORG	Nickel	7440-02-0	A	2.51E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay E	5700-1850	INORG	Silver	7440-22-4	D	2.62E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	7.0E-04	2.7E+00	LT	9.9E-01
Landbay E	5700-1850	INORG	Vanadium	7440-62-2	ID	1.95E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay E	5700-1850	INORG	Zinc	7440-66-6	ID	6.77E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay E	5850-0950	INORG	Aluminum	7429-90-5	ID	3.87E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	5850-0950	INORG	Arsenic	7440-38-2	A	3.06E+00	9.90E+00	3.1E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.6E-02
Landbay E	5850-0950	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	5850-0950	INORG	Beryllium	7440-41-7	B1	5.33E-01	1.20E+00	4.4E-01	6.8E+03	EqP	7.9E-05	1.0E+01	EqP	5.1E-02
Landbay E	5850-0950	INORG	Cadmium	7440-43-9	B1	8.88E-01	2.70E+00	3.3E-01	1.1E+03	EqP	8.2E-04	2.1E+00	EqP	4.2E-01
Landbay E	5850-0950	INORG	Chromium III	16065-83-1	D	2.12E+02	2.61E+02	8.1E-01	2.1E+10	EqP	9.9E-09	3.4E+06	EqP	6.3E-05
Landbay E	5850-0950	INORG	Chromium VI	18540-29-9	A	4.04E+00	4.97E+00	8.1E-01	6.6E+01	LT	6.1E-02	4.4E+00	LT	9.2E-01
Landbay E	5850-0950	INORG	Cobalt	7440-48-4	LC	6.26E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5850-0950	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	5850-0950	INORG	Iron	7439-89-6	D	5.10E+04	9.52E+04	5.4E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.4E+02**
Landbay E	5850-0950	INORG	Lead	7439-92-1	B2	1.59E+01						3.5E+02	EqP	4.5E-02
Landbay E	5850-0950	INORG	Manganese	7439-96-5	D	1.86E+03	4.27E+03	4.4E-01	3.1E+05	EqP	6.0E-03	1.6E+02	EqP	**1.2E+01**
Landbay E	5850-0950	INORG	Mercury	7439-97-6	D	3.48E-02	7.10E-02	4.9E-01		NA		3.7E-01	EqP	9.4E-02
Landbay E	5850-0950	INORG	Nickel	7440-02-0	A	5.17E+01	7.30E+01	7.1E-01	1.2E+05	EqP	4.2E-04	3.4E+01	EqP	**1.5E+00**
Landbay E	5850-0950	INORG	Thallium	7440-28-0	ID	1.53E+00	4.50E+00	3.4E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	5850-0950	INORG	Vanadium	7440-62-2	ID	1.79E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.5E-01
Landbay E	5850-0950	INORG	Zinc	7440-66-6	ID	4.59E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.4E-06	1.9E+02	EqP	2.4E-01
Landbay E	5850-1100	INORG	Aluminum	7429-90-5	ID	2.89E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5850-1100	INORG	Arsenic	7440-38-2	A	3.97E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.6E-02
Landbay E	5850-1100	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay E	5850-1100	INORG	Beryllium	7440-41-7	B1	5.78E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay E	5850-1100	INORG	Cadmium	7440-43-9	B1	7.20E-01	2.70E+00	2.7E-01	1.1E+03	EqP	6.6E-04	2.1E+00	EqP	3.4E-01
Landbay E	5850-1100	INORG	Chromium III	16065-83-1	D	1.47E+02	2.61E+02	5.7E-01	2.1E+10	EqP	6.9E-09	3.4E+06	EqP	4.4E-05
Landbay E	5850-1100	INORG	Chromium VI	18540-29-9	A	3.60E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	5850-1100	INORG	Cobalt	7440-48-4	LC	5.34E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	5850-1100	INORG	Copper	7440-50-8	D	2.08E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.0E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	5850-1100	INORG	Iron	7439-89-6	D	4.55E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay E	5850-1100	INORG	Lead	7439-92-1	B2	1.80E+01						3.5E+02	EqP	5.1E-02
Landbay E	5850-1100	INORG	Manganese	7439-96-5	D	2.00E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	5850-1100	INORG	Mercury	7439-97-6	D	3.30E-02	7.10E-02	4.6E-01		NA		3.7E-01	EqP	8.9E-02
Landbay E	5850-1100	INORG	Nickel	7440-02-0	A	3.37E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay E	5850-1100	INORG	Thallium	7440-28-0	ID	2.16E+00	4.50E+00	4.8E-01				1.1E+00	EqP	**1.9E+00**
Landbay E	5850-1100	INORG	Vanadium	7440-62-2	ID	1.63E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay E	5850-1100	INORG	Zinc	7440-66-6	ID	4.77E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	5850-1250	INORG	Aluminum	7429-90-5	ID	2.89E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5850-1250	INORG	Arsenic	7440-38-2	A	3.97E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.6E-02
Landbay E	5850-1250	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	5850-1250	INORG	Beryllium	7440-41-7	B1	5.78E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.5E-05	1.0E+01	EqP	5.5E-02
Landbay E	5850-1250	INORG	Cadmium	7440-43-9	B1	7.20E-01	2.70E+00	2.7E-01	1.1E+03	EqP	6.6E-04	2.1E+00	EqP	3.4E-01
Landbay E	5850-1250	INORG	Chromium III	16065-83-1	D	1.47E+02	2.61E+02	5.7E-01	2.1E+10	EqP	6.9E-09	3.4E+06	EqP	4.4E-05
Landbay E	5850-1250	INORG	Chromium VI	18540-29-9	A	3.60E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	5850-1250	INORG	Cobalt	7440-48-4	LC	5.34E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	5850-1250	INORG	Copper	7440-50-8	D	2.08E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.0E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	5850-1250	INORG	Iron	7439-89-6	D	4.55E+04	9.52E+04	4.8E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**3.0E+02**
Landbay E	5850-1250	INORG	Lead	7439-92-1	B2	1.80E+01						3.5E+02	EqP	5.1E-02
Landbay E	5850-1250	INORG	Manganese	7439-96-5	D	2.00E+03	4.27E+03	4.7E-01	3.1E+05	EqP	6.4E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	5850-1250	INORG	Mercury	7439-97-6	D	3.30E-02	7.10E-02	4.6E-01		NA		3.7E-01	EqP	8.9E-02
Landbay E	5850-1250	INORG	Nickel	7440-02-0	A	3.37E+01	7.30E+01	4.6E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	1.0E+00
Landbay E	5850-1250	INORG	Thallium	7440-28-0	ID	2.16E+00	4.50E+00	4.8E-01				1.1E+00	EqP	**1.9E+00**
Landbay E	5850-1250	INORG	Vanadium	7440-62-2	ID	1.63E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay E	5850-1250	INORG	Zinc	7440-66-6	ID	4.77E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	5850-1400	INORG	Aluminum	7429-90-5	ID	2.98E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5850-1400	INORG	Arsenic	7440-38-2	A	6.24E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.3E-02
Landbay E	5850-1400	INORG	Barium	7440-39-3	NC	1.45E+02	2.24E+02	6.5E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay E	5850-1400	INORG	Beryllium	7440-41-7	B1	7.52E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay E	5850-1400	INORG	Cadmium	7440-43-9	B1	9.67E-01	2.70E+00	3.6E-01	1.1E+03	EqP	8.9E-04	2.1E+00	EqP	4.5E-01
Landbay E	5850-1400	INORG	Chromium III	16065-83-1	D	1.43E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.3E-05
Landbay E	5850-1400	INORG	Chromium VI	18540-29-9	A	3.57E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay E	5850-1400	INORG	Cobalt	7440-48-4	LC	6.29E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5850-1400	INORG	Copper	7440-50-8	D	1.88E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay E	5850-1400	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay E	5850-1400	INORG	Lead	7439-92-1	B2	2.33E+01						3.5E+02	EqP	6.6E-02
Landbay E	5850-1400	INORG	Manganese	7439-96-5	D	2.93E+03	4.27E+03	6.9E-01	3.1E+05	EqP	9.4E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	5850-1400	INORG	Mercury	7439-97-6	D	2.99E-02	7.10E-02	4.2E-01		NA		3.7E-01	EqP	8.1E-02
Landbay E	5850-1400	INORG	Nickel	7440-02-0	A	3.10E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.2E-01
Landbay E	5850-1400	INORG	Thallium	7440-28-0	ID	1.36E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	5850-1400	INORG	Vanadium	7440-62-2	ID	2.11E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay E	5850-1400	INORG	Zinc	7440-66-6	ID	4.88E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	5850-1550	INORG	Aluminum	7429-90-5	ID	2.98E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.1E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	5850-1550	INORG	Arsenic	7440-38-2	A	6.24E+00	9.90E+00	6.3E-01	1.1E+03	EqP	5.9E-03	8.6E+01	EqP	7.3E-02
Landbay E	5850-1550	INORG	Barium	7440-39-3	NC	1.45E+02	2.24E+02	6.5E-01	3.2E+05	EqP	4.5E-04	3.3E+00	EqP	**4.4E+01**
Landbay E	5850-1550	INORG	Beryllium	7440-41-7	B1	7.52E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.2E-02
Landbay E	5850-1550	INORG	Cadmium	7440-43-9	B1	9.67E-01	2.70E+00	3.6E-01	1.1E+03	EqP	8.9E-04	2.1E+00	EqP	4.5E-01
Landbay E	5850-1550	INORG	Chromium III	16065-83-1	D	1.43E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.3E-05
Landbay E	5850-1550	INORG	Chromium VI	18540-29-9	A	3.57E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay E	5850-1550	INORG	Cobalt	7440-48-4	LC	6.29E+01	8.60E+01	7.3E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	5850-1550	INORG	Copper	7440-50-8	D	1.88E+01	1.31E+02	1.4E-01	3.5E+05	EqP	5.4E-05	8.4E+00	EqP	**2.2E+00**
Landbay E	5850-1550	INORG	Iron	7439-89-6	D	5.93E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay E	5850-1550	INORG	Lead	7439-92-1	B2	2.33E+01						3.5E+02	EqP	6.6E-02
Landbay E	5850-1550	INORG	Manganese	7439-96-5	D	2.93E+03	4.27E+03	6.9E-01	3.1E+05	EqP	9.4E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	5850-1550	INORG	Mercury	7439-97-6	D	2.99E-02	7.10E-02	4.2E-01		NA		3.7E-01	EqP	8.1E-02
Landbay E	5850-1550	INORG	Nickel	7440-02-0	A	3.10E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.2E-01
Landbay E	5850-1550	INORG	Thallium	7440-28-0	ID	1.36E+00	4.50E+00	3.0E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	5850-1550	INORG	Vanadium	7440-62-2	ID	2.11E+02	2.83E+02	7.5E-01	1.5E+05	EqP	1.4E-03	4.0E+02	EqP	5.3E-01
Landbay E	5850-1550	INORG	Zinc	7440-66-6	ID	4.88E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	5850-1700	INORG	Aluminum	7429-90-5	ID	4.47E+04	5.34E+04	8.4E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay E	5850-1700	INORG	Arsenic	7440-38-2	A	1.80E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay E	5850-1700	INORG	Barium	7440-39-3	NC	1.37E+02	2.24E+02	6.1E-01	3.2E+05	EqP	4.2E-04	3.3E+00	EqP	**4.2E+01**
Landbay E	5850-1700	INORG	Beryllium	7440-41-7	B1	4.21E-01	1.20E+00	3.5E-01	6.8E+03	EqP	6.2E-05	1.0E+01	EqP	4.0E-02
Landbay E	5850-1700	INORG	Chromium III	16065-83-1	D	1.52E+02	2.61E+02	5.8E-01	2.1E+10	EqP	7.1E-09	3.4E+06	EqP	4.5E-05
Landbay E	5850-1700	INORG	Chromium VI	18540-29-9	A	3.63E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay E	5850-1700	INORG	Cobalt	7440-48-4	LC	3.85E+01	8.60E+01	4.5E-01	1.4E+04	EqP	2.8E-03	2.1E+01	EqP	**1.8E+00**
Landbay E	5850-1700	INORG	Copper	7440-50-8	D	4.23E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**5.0E+00**
Landbay E	5850-1700	INORG	Iron	7439-89-6	D	4.24E+04	9.52E+04	4.5E-01	4.4E+06	EqP	9.7E-03	1.5E+02	EqP	**2.8E+02**
Landbay E	5850-1700	INORG	Lead	7439-92-1	B2	8.34E+00						3.5E+02	EqP	2.4E-02
Landbay E	5850-1700	INORG	Manganese	7439-96-5	D	7.42E+02	4.27E+03	1.7E-01	3.1E+05	EqP	2.4E-03	1.6E+02	EqP	**4.7E+00**
Landbay E	5850-1700	INORG	Nickel	7440-02-0	A	6.13E+01	7.30E+01	8.4E-01	1.2E+05	EqP	4.9E-04	3.4E+01	EqP	**1.8E+00**
Landbay E	5850-1700	INORG	Strontium	7440-24-6		2.59E+01	3.80E+01	6.8E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.4E-02
Landbay E	5850-1700	INORG	Vanadium	7440-62-2	ID	1.21E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.8E-04	4.0E+02	EqP	3.0E-01
Landbay E	5850-1700	INORG	Zinc	7440-66-6	ID	3.95E+01	1.02E+02	3.9E-01	5.5E+06	EqP	7.2E-06	1.9E+02	EqP	2.1E-01
Landbay E	5850-1850	INORG	Aluminum	7429-90-5	ID	2.53E+04	5.34E+04	4.7E-01	3.7E+08	EqP	6.8E-05	2.6E+03	EqP	**9.7E+00**
Landbay E	5850-1850	INORG	Arsenic	7440-38-2	A	5.62E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.4E-03	8.6E+01	EqP	6.6E-02
Landbay E	5850-1850	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	5850-1850	INORG	Beryllium	7440-41-7	B1	4.38E-01	1.20E+00	3.7E-01	6.8E+03	EqP	6.5E-05	1.0E+01	EqP	4.2E-02
Landbay E	5850-1850	INORG	Cadmium	7440-43-9	B1	2.77E-01	2.70E+00	1.0E-01	1.1E+03	EqP	2.6E-04	2.1E+00	EqP	1.3E-01
Landbay E	5850-1850	INORG	Chromium III	16065-83-1	D	1.26E+02	2.61E+02	4.8E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.7E-05
Landbay E	5850-1850	INORG	Chromium VI	18540-29-9	A	3.45E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	5850-1850	INORG	Cobalt	7440-48-4	LC	7.06E+01	8.60E+01	8.2E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay E	5850-1850	INORG	Copper	7440-50-8	D	2.77E+01	1.31E+02	2.1E-01	3.5E+05	EqP	8.0E-05	8.4E+00	EqP	**3.3E+00**
Landbay E	5850-1850	INORG	Iron	7439-89-6	D	5.60E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	5850-1850	INORG	Lead	7439-92-1	B2	2.49E+01						3.5E+02	EqP	7.1E-02
Landbay E	5850-1850	INORG	Manganese	7439-96-5	D	2.84E+03	4.27E+03	6.7E-01	3.1E+05	EqP	9.1E-03	1.6E+02	EqP	**1.8E+01**
Landbay E	5850-1850	INORG	Mercury	7439-97-6	D	3.13E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	5850-1850	INORG	Nickel	7440-02-0	A	2.51E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.4E-01
Landbay E	5850-1850	INORG	Silver	7440-22-4	D	2.62E+00	2.30E+00	**1.1E+00**	3.8E+03	LT	7.0E-04	2.7E+00	LT	9.9E-01
Landbay E	5850-1850	INORG	Vanadium	7440-62-2	ID	1.95E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay E	5850-1850	INORG	Zinc	7440-66-6	ID	6.77E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.6E-01
Landbay E	6000-0950	INORG	Aluminum	7429-90-5	ID	3.06E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6000-0950	INORG	Arsenic	7440-38-2	A	4.36E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay E	6000-0950	INORG	Barium	7440-39-3	NC	8.53E+01	2.24E+02	3.8E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.6E+01**
Landbay E	6000-0950	INORG	Beryllium	7440-41-7	B1	6.91E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.6E-02
Landbay E	6000-0950	INORG	Chromium III	16065-83-1	D	3.18E+02	2.61E+02	**1.2E+00**	2.1E+10	EqP	1.5E-08	3.4E+06	EqP	9.4E-05
Landbay E	6000-0950	INORG	Chromium VI	18540-29-9	A	4.70E+00	4.97E+00	9.5E-01	6.6E+01	LT	7.1E-02	4.4E+00	LT	**1.1E+00**
Landbay E	6000-0950	INORG	Cobalt	7440-48-4	LC	7.90E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.8E-03	2.1E+01	EqP	**3.8E+00**
Landbay E	6000-0950	INORG	Copper	7440-50-8	D	2.68E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.7E-05	8.4E+00	EqP	**3.2E+00**
Landbay E	6000-0950	INORG	Iron	7439-89-6	D	9.17E+04	9.52E+04	9.6E-01	4.4E+06	EqP	2.1E-02	1.5E+02	EqP	**6.1E+02**
Landbay E	6000-0950	INORG	Lead	7439-92-1	B2	1.85E+01						3.5E+02	EqP	5.3E-02
Landbay E	6000-0950	INORG	Manganese	7439-96-5	D	4.63E+03	4.27E+03	**1.1E+00**	3.1E+05	EqP	1.5E-02	1.6E+02	EqP	**3.0E+01**
Landbay E	6000-0950	INORG	Nickel	7440-02-0	A	3.71E+01	7.30E+01	5.1E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	6000-0950	INORG	Strontium	7440-24-6		1.04E+01	3.80E+01	2.7E-01	1.6E+07	EqP	6.4E-07	1.1E+03	EqP	9.8E-03
Landbay E	6000-0950	INORG	Vanadium	7440-62-2	ID	2.67E+02	2.83E+02	9.4E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.7E-01
Landbay E	6000-0950	INORG	Zinc	7440-66-6	ID	4.76E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	6000-1100	INORG	Aluminum	7429-90-5	ID	3.03E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.2E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6000-1100	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay E	6000-1100	INORG	Barium	7440-39-3	NC	9.46E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	6000-1100	INORG	Beryllium	7440-41-7	B1	5.82E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	6000-1100	INORG	Cadmium	7440-43-9	B1	8.53E-01	2.70E+00	3.2E-01	1.1E+03	EqP	7.9E-04	2.1E+00	EqP	4.0E-01
Landbay E	6000-1100	INORG	Chromium III	16065-83-1	D	2.42E+02	2.61E+02	9.3E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.2E-05
Landbay E	6000-1100	INORG	Chromium VI	18540-29-9	A	4.25E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.4E-02	4.4E+00	LT	9.7E-01
Landbay E	6000-1100	INORG	Cobalt	7440-48-4	LC	7.00E+01	8.60E+01	8.1E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay E	6000-1100	INORG	Copper	7440-50-8	D	2.39E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.8E+00**
Landbay E	6000-1100	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	6000-1100	INORG	Lead	7439-92-1	B2	1.93E+01						3.5E+02	EqP	5.5E-02
Landbay E	6000-1100	INORG	Manganese	7439-96-5	D	2.25E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6000-1100	INORG	Mercury	7439-97-6	D	3.37E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.1E-02
Landbay E	6000-1100	INORG	Nickel	7440-02-0	A	4.35E+01	7.30E+01	6.0E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	6000-1100	INORG	Thallium	7440-28-0	ID	1.80E+00	4.50E+00	4.0E-01				1.1E+00	EqP	**1.6E+00**
Landbay E	6000-1100	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay E	6000-1100	INORG	Zinc	7440-66-6	ID	4.85E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	6000-1250	INORG	Aluminum	7429-90-5	ID	3.03E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.2E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6000-1250	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay E	6000-1250	INORG	Barium	7440-39-3	NC	9.46E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	6000-1250	INORG	Beryllium	7440-41-7	B1	5.82E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	6000-1250	INORG	Cadmium	7440-43-9	B1	8.53E-01	2.70E+00	3.2E-01	1.1E+03	EqP	7.9E-04	2.1E+00	EqP	4.0E-01
Landbay E	6000-1250	INORG	Chromium III	16065-83-1	D	2.42E+02	2.61E+02	9.3E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.2E-05
Landbay E	6000-1250	INORG	Chromium VI	18540-29-9	A	4.25E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.4E-02	4.4E+00	LT	9.7E-01
Landbay E	6000-1250	INORG	Cobalt	7440-48-4	LC	7.00E+01	8.60E+01	8.1E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay E	6000-1250	INORG	Copper	7440-50-8	D	2.39E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.8E+00**
Landbay E	6000-1250	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	6000-1250	INORG	Lead	7439-92-1	B2	1.93E+01						3.5E+02	EqP	5.5E-02
Landbay E	6000-1250	INORG	Manganese	7439-96-5	D	2.25E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6000-1250	INORG	Mercury	7439-97-6	D	3.37E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.1E-02
Landbay E	6000-1250	INORG	Nickel	7440-02-0	A	4.35E+01	7.30E+01	6.0E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	6000-1250	INORG	Thallium	7440-28-0	ID	1.80E+00	4.50E+00	4.0E-01				1.1E+00	EqP	**1.6E+00**
Landbay E	6000-1250	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay E	6000-1250	INORG	Zinc	7440-66-6	ID	4.85E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	6000-1400	PCB	PCBs (total)	1336-36-3	B2	5.93E-02				NA		1.4E+00	EqP	4.3E-02
Landbay E	6000-1400	INORG	Aluminum	7429-90-5	ID	2.91E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	6000-1400	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay E	6000-1400	INORG	Arsenic	7440-38-2	A	3.46E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	6000-1400	INORG	Barium	7440-39-3	NC	1.11E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6000-1400	INORG	Beryllium	7440-41-7	B1	4.28E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.3E-05	1.0E+01	EqP	4.1E-02
Landbay E	6000-1400	INORG	Cadmium	7440-43-9	B1	2.77E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.6E-03	2.1E+00	EqP	**1.3E+00**
Landbay E	6000-1400	INORG	Chromium III	16065-83-1	D	1.90E+02	2.61E+02	7.3E-01	2.1E+10	EqP	8.9E-09	3.4E+06	EqP	5.6E-05
Landbay E	6000-1400	INORG	Chromium VI	18540-29-9	A	3.89E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.8E-01
Landbay E	6000-1400	INORG	Cobalt	7440-48-4	LC	9.48E+01	8.60E+01	**1.1E+00**	1.4E+04	EqP	6.9E-03	2.1E+01	EqP	**4.6E+00**
Landbay E	6000-1400	INORG	Copper	7440-50-8	D	2.06E+01	1.31E+02	1.6E-01	3.5E+05	EqP	5.9E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	6000-1400	INORG	Iron	7439-89-6	D	6.50E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay E	6000-1400	INORG	Lead	7439-92-1	B2	2.74E+01						3.5E+02	EqP	7.8E-02
Landbay E	6000-1400	INORG	Manganese	7439-96-5	D	3.39E+03	4.27E+03	7.9E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.2E+01**
Landbay E	6000-1400	INORG	Mercury	7439-97-6	D	2.34E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.3E-02
Landbay E	6000-1400	INORG	Nickel	7440-02-0	A	3.04E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.0E-01
Landbay E	6000-1400	INORG	Silver	7440-22-4	D	4.40E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	6000-1400	INORG	Thallium	7440-28-0	ID	1.70E+00	4.50E+00	3.8E-01				1.1E+00	EqP	**1.5E+00**
Landbay E	6000-1400	INORG	Vanadium	7440-62-2	ID	2.33E+02	2.83E+02	8.2E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay E	6000-1400	INORG	Zinc	7440-66-6	ID	5.55E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6000-1550	PCB	PCBs (total)	1336-36-3	B2	5.93E-02				NA		1.4E+00	EqP	4.3E-02
Landbay E	6000-1550	INORG	Aluminum	7429-90-5	ID	2.91E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	6000-1550	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay E	6000-1550	INORG	Arsenic	7440-38-2	A	3.46E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay E	6000-1550	INORG	Barium	7440-39-3	NC	1.11E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6000-1550	INORG	Beryllium	7440-41-7	B1	4.28E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.3E-05	1.0E+01	EqP	4.1E-02
Landbay E	6000-1550	INORG	Cadmium	7440-43-9	B1	2.77E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.6E-03	2.1E+00	EqP	**1.3E+00**
Landbay E	6000-1550	INORG	Chromium III	16065-83-1	D	1.90E+02	2.61E+02	7.3E-01	2.1E+10	EqP	8.9E-09	3.4E+06	EqP	5.6E-05
Landbay E	6000-1550	INORG	Chromium VI	18540-29-9	A	3.89E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.8E-01
Landbay E	6000-1550	INORG	Cobalt	7440-48-4	LC	9.48E+01	8.60E+01	**1.1E+00**	1.4E+04	EqP	6.9E-03	2.1E+01	EqP	**4.6E+00**
Landbay E	6000-1550	INORG	Copper	7440-50-8	D	2.06E+01	1.31E+02	1.6E-01	3.5E+05	EqP	5.9E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	6000-1550	INORG	Iron	7439-89-6	D	6.50E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay E	6000-1550	INORG	Lead	7439-92-1	B2	2.74E+01						3.5E+02	EqP	7.8E-02
Landbay E	6000-1550	INORG	Manganese	7439-96-5	D	3.39E+03	4.27E+03	7.9E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.2E+01**
Landbay E	6000-1550	INORG	Mercury	7439-97-6	D	2.34E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.3E-02
Landbay E	6000-1550	INORG	Nickel	7440-02-0	A	3.04E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.0E-01
Landbay E	6000-1550	INORG	Silver	7440-22-4	D	4.40E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	6000-1550	INORG	Thallium	7440-28-0	ID	1.70E+00	4.50E+00	3.8E-01				1.1E+00	EqP	**1.5E+00**
Landbay E	6000-1550	INORG	Vanadium	7440-62-2	ID	2.33E+02	2.83E+02	8.2E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay E	6000-1550	INORG	Zinc	7440-66-6	ID	5.55E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6000-1700	INORG	Aluminum	7429-90-5	ID	3.71E+04	5.34E+04	6.9E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.4E+01**
Landbay E	6000-1700	INORG	Arsenic	7440-38-2	A	4.43E+00	9.90E+00	4.5E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.2E-02
Landbay E	6000-1700	INORG	Barium	7440-39-3	NC	1.48E+02	2.24E+02	6.6E-01	3.2E+05	EqP	4.6E-04	3.3E+00	EqP	**4.5E+01**
Landbay E	6000-1700	INORG	Beryllium	7440-41-7	B1	6.77E-01	1.20E+00	5.6E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.5E-02
Landbay E	6000-1700	INORG	Chromium III	16065-83-1	D	1.88E+02	2.61E+02	7.2E-01	2.1E+10	EqP	8.8E-09	3.4E+06	EqP	5.6E-05
Landbay E	6000-1700	INORG	Chromium VI	18540-29-9	A	3.88E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay E	6000-1700	INORG	Cobalt	7440-48-4	LC	6.15E+01	8.60E+01	7.2E-01	1.4E+04	EqP	4.5E-03	2.1E+01	EqP	**3.0E+00**
Landbay E	6000-1700	INORG	Copper	7440-50-8	D	3.27E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay E	6000-1700	INORG	Iron	7439-89-6	D	5.48E+04	9.52E+04	5.8E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.6E+02**
Landbay E	6000-1700	INORG	Lead	7439-92-1	B2	2.24E+01						3.5E+02	EqP	6.4E-02
Landbay E	6000-1700	INORG	Manganese	7439-96-5	D	1.78E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.7E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	6000-1700	INORG	Nickel	7440-02-0	A	4.84E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay E	6000-1700	INORG	Strontium	7440-24-6		1.48E+01	3.80E+01	3.9E-01	1.6E+07	EqP	9.1E-07	1.1E+03	EqP	1.4E-02
Landbay E	6000-1700	INORG	Vanadium	7440-62-2	ID	1.77E+02	2.83E+02	6.3E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.4E-01
Landbay E	6000-1700	INORG	Zinc	7440-66-6	ID	5.57E+01	1.02E+02	5.5E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6000-91	INORG	Aluminum	7429-90-5	ID	2.10E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.7E-05	2.6E+03	EqP	**8.0E+00**
Landbay E	6000-91	INORG	Arsenic	7440-38-2	A	7.45E+00	9.90E+00	7.5E-01	1.1E+03	EqP	7.1E-03	8.6E+01	EqP	8.7E-02
Landbay E	6000-91	INORG	Barium	7440-39-3	NC	9.39E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	6000-91	INORG	Beryllium	7440-41-7	B1	3.42E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.0E-05	1.0E+01	EqP	3.3E-02
Landbay E	6000-91	INORG	Chromium III	16065-83-1	D	1.69E+02	2.61E+02	6.5E-01	2.1E+10	EqP	7.9E-09	3.4E+06	EqP	5.0E-05
Landbay E	6000-91	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay E	6000-91	INORG	Copper	7440-50-8	D	1.67E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay E	6000-91	INORG	Lead	7439-92-1	B2	3.00E+01						3.5E+02	EqP	8.6E-02
Landbay E	6000-91	INORG	Mercury	7439-97-6	D	3.69E-02	7.10E-02	5.2E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	6000-91	INORG	Perchlorate	14797-73-0	NC	1.70E-03			3.4E+03	LT	4.9E-07	7.7E+02	LT	2.2E-06
Landbay E	6000-91	INORG	Silver	7440-22-4	D	7.43E-01	2.30E+00	3.2E-01	3.8E+03	LT	2.0E-04	2.7E+00	LT	2.8E-01
Landbay E	6000-91	INORG	Strontium	7440-24-6		8.65E+00	3.80E+01	2.3E-01	1.6E+07	EqP	5.3E-07	1.1E+03	EqP	8.2E-03
Landbay E	6150-0050	PCB	PCBs (total)	1336-36-3	B2	2.27E-02				NA		1.4E+00	EqP	1.7E-02
Landbay E	6150-0050	INORG	Aluminum	7429-90-5	ID	3.43E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6150-0050	INORG	Arsenic	7440-38-2	A	1.28E+00	9.90E+00	1.3E-01	1.1E+03	EqP	1.2E-03	8.6E+01	EqP	1.5E-02
Landbay E	6150-0050	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6150-0050	INORG	Beryllium	7440-41-7	B1	6.13E-01	1.20E+00	5.1E-01	6.8E+03	EqP	9.0E-05	1.0E+01	EqP	5.9E-02
Landbay E	6150-0050	INORG	Cadmium	7440-43-9	B1	1.54E+00	2.70E+00	5.7E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.2E-01
Landbay E	6150-0050	INORG	Chromium III	16065-83-1	D	1.70E+02	2.61E+02	6.5E-01	2.1E+10	EqP	8.0E-09	3.4E+06	EqP	5.0E-05
Landbay E	6150-0050	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay E	6150-0050	INORG	Cobalt	7440-48-4	LC	5.37E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	6150-0050	INORG	Copper	7440-50-8	D	3.26E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay E	6150-0050	INORG	Iron	7439-89-6	D	5.57E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	6150-0050	INORG	Lead	7439-92-1	B2	1.79E+01						3.5E+02	EqP	5.1E-02
Landbay E	6150-0050	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	6150-0050	INORG	Mercury	7439-97-6	D	4.02E-02	7.10E-02	5.7E-01		NA		3.7E-01	EqP	1.1E-01
Landbay E	6150-0050	INORG	Nickel	7440-02-0	A	4.18E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6150-0050	INORG	Silver	7440-22-4	D	3.95E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay E	6150-0050	INORG	Vanadium	7440-62-2	ID	1.83E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	6150-0050	INORG	Zinc	7440-66-6	ID	5.40E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	6150-0950	INORG	Aluminum	7429-90-5	ID	4.10E+04	5.34E+04	7.7E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay E	6150-0950	INORG	Arsenic	7440-38-2	A	1.90E+00	9.90E+00	1.9E-01	1.1E+03	EqP	1.8E-03	8.6E+01	EqP	2.2E-02
Landbay E	6150-0950	INORG	Barium	7440-39-3	NC	6.10E+01	2.24E+02	2.7E-01	3.2E+05	EqP	1.9E-04	3.3E+00	EqP	**1.8E+01**
Landbay E	6150-0950	INORG	Beryllium	7440-41-7	B1	3.51E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.2E-05	1.0E+01	EqP	3.4E-02
Landbay E	6150-0950	INORG	Chromium III	16065-83-1	D	8.95E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.7E-05
Landbay E	6150-0950	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay E	6150-0950	INORG	Cobalt	7440-48-4	LC	2.44E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay E	6150-0950	INORG	Copper	7440-50-8	D	4.67E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.6E+00**
Landbay E	6150-0950	INORG	Iron	7439-89-6	D	3.00E+04	9.52E+04	3.2E-01	4.4E+06	EqP	6.9E-03	1.5E+02	EqP	**2.0E+02**
Landbay E	6150-0950	INORG	Lead	7439-92-1	B2	5.00E+00						3.5E+02	EqP	1.4E-02
Landbay E	6150-0950	INORG	Manganese	7439-96-5	D	6.50E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.1E-03	1.6E+02	EqP	**4.2E+00**
Landbay E	6150-0950	INORG	Nickel	7440-02-0	A	3.84E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	6150-0950	INORG	Strontium	7440-24-6		4.92E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.0E-06	1.1E+03	EqP	4.7E-02
Landbay E	6150-0950	INORG	Vanadium	7440-62-2	ID	8.02E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.2E-04	4.0E+02	EqP	2.0E-01
Landbay E	6150-0950	INORG	Zinc	7440-66-6	ID	2.93E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.4E-06	1.9E+02	EqP	1.5E-01
Landbay E	6150-1100	INORG	Aluminum	7429-90-5	ID	3.03E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.2E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6150-1100	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay E	6150-1100	INORG	Barium	7440-39-3	NC	9.46E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	6150-1100	INORG	Beryllium	7440-41-7	B1	5.82E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	6150-1100	INORG	Cadmium	7440-43-9	B1	8.53E-01	2.70E+00	3.2E-01	1.1E+03	EqP	7.9E-04	2.1E+00	EqP	4.0E-01
Landbay E	6150-1100	INORG	Chromium III	16065-83-1	D	2.42E+02	2.61E+02	9.3E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.2E-05
Landbay E	6150-1100	INORG	Chromium VI	18540-29-9	A	4.25E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.4E-02	4.4E+00	LT	9.7E-01
Landbay E	6150-1100	INORG	Cobalt	7440-48-4	LC	7.00E+01	8.60E+01	8.1E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay E	6150-1100	INORG	Copper	7440-50-8	D	2.39E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.8E+00**
Landbay E	6150-1100	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	6150-1100	INORG	Lead	7439-92-1	B2	1.93E+01						3.5E+02	EqP	5.5E-02
Landbay E	6150-1100	INORG	Manganese	7439-96-5	D	2.25E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6150-1100	INORG	Mercury	7439-97-6	D	3.37E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.1E-02
Landbay E	6150-1100	INORG	Nickel	7440-02-0	A	4.35E+01	7.30E+01	6.0E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	6150-1100	INORG	Thallium	7440-28-0	ID	1.80E+00	4.50E+00	4.0E-01				1.1E+00	EqP	**1.6E+00**
Landbay E	6150-1100	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay E	6150-1100	INORG	Zinc	7440-66-6	ID	4.85E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	6150-1250	INORG	Aluminum	7429-90-5	ID	3.03E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.2E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6150-1250	INORG	Arsenic	7440-38-2	A	3.63E+00	9.90E+00	3.7E-01	1.1E+03	EqP	3.5E-03	8.6E+01	EqP	4.2E-02
Landbay E	6150-1250	INORG	Barium	7440-39-3	NC	9.46E+01	2.24E+02	4.2E-01	3.2E+05	EqP	2.9E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	6150-1250	INORG	Beryllium	7440-41-7	B1	5.82E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	6150-1250	INORG	Cadmium	7440-43-9	B1	8.53E-01	2.70E+00	3.2E-01	1.1E+03	EqP	7.9E-04	2.1E+00	EqP	4.0E-01
Landbay E	6150-1250	INORG	Chromium III	16065-83-1	D	2.42E+02	2.61E+02	9.3E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.2E-05
Landbay E	6150-1250	INORG	Chromium VI	18540-29-9	A	4.25E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.4E-02	4.4E+00	LT	9.7E-01
Landbay E	6150-1250	INORG	Cobalt	7440-48-4	LC	7.00E+01	8.60E+01	8.1E-01	1.4E+04	EqP	5.1E-03	2.1E+01	EqP	**3.4E+00**
Landbay E	6150-1250	INORG	Copper	7440-50-8	D	2.39E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.9E-05	8.4E+00	EqP	**2.8E+00**
Landbay E	6150-1250	INORG	Iron	7439-89-6	D	5.37E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	6150-1250	INORG	Lead	7439-92-1	B2	1.93E+01						3.5E+02	EqP	5.5E-02
Landbay E	6150-1250	INORG	Manganese	7439-96-5	D	2.25E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6150-1250	INORG	Mercury	7439-97-6	D	3.37E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.1E-02
Landbay E	6150-1250	INORG	Nickel	7440-02-0	A	4.35E+01	7.30E+01	6.0E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	6150-1250	INORG	Thallium	7440-28-0	ID	1.80E+00	4.50E+00	4.0E-01				1.1E+00	EqP	**1.6E+00**
Landbay E	6150-1250	INORG	Vanadium	7440-62-2	ID	1.91E+02	2.83E+02	6.7E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay E	6150-1250	INORG	Zinc	7440-66-6	ID	4.85E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	6150-1400	PCB	PCBs (total)	1336-36-3	B2	5.93E-02				NA		1.4E+00	EqP	4.3E-02
Landbay E	6150-1400	INORG	Aluminum	7429-90-5	ID	2.91E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	6150-1400	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	6150-1400	INORG	Arsenic	7440-38-2	A	3.46E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay E	6150-1400	INORG	Barium	7440-39-3	NC	1.11E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6150-1400	INORG	Beryllium	7440-41-7	B1	4.28E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.3E-05	1.0E+01	EqP	4.1E-02
Landbay E	6150-1400	INORG	Cadmium	7440-43-9	B1	2.77E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.6E-03	2.1E+00	EqP	**1.3E+00**
Landbay E	6150-1400	INORG	Chromium III	16065-83-1	D	1.90E+02	2.61E+02	7.3E-01	2.1E+10	EqP	8.9E-09	3.4E+06	EqP	5.6E-05
Landbay E	6150-1400	INORG	Chromium VI	18540-29-9	A	3.89E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.8E-01
Landbay E	6150-1400	INORG	Cobalt	7440-48-4	LC	9.48E+01	8.60E+01	**1.1E+00**	1.4E+04	EqP	6.9E-03	2.1E+01	EqP	**4.6E+00**
Landbay E	6150-1400	INORG	Copper	7440-50-8	D	2.06E+01	1.31E+02	1.6E-01	3.5E+05	EqP	5.9E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	6150-1400	INORG	Iron	7439-89-6	D	6.50E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay E	6150-1400	INORG	Lead	7439-92-1	B2	2.74E+01						3.5E+02	EqP	7.8E-02
Landbay E	6150-1400	INORG	Manganese	7439-96-5	D	3.39E+03	4.27E+03	7.9E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.2E+01**
Landbay E	6150-1400	INORG	Mercury	7439-97-6	D	2.34E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.3E-02
Landbay E	6150-1400	INORG	Nickel	7440-02-0	A	3.04E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.0E-01
Landbay E	6150-1400	INORG	Silver	7440-22-4	D	4.40E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	6150-1400	INORG	Thallium	7440-28-0	ID	1.70E+00	4.50E+00	3.8E-01				1.1E+00	EqP	**1.5E+00**
Landbay E	6150-1400	INORG	Vanadium	7440-62-2	ID	2.33E+02	2.83E+02	8.2E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay E	6150-1400	INORG	Zinc	7440-66-6	ID	5.55E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6150-1550	PCB	PCBs (total)	1336-36-3	B2	5.93E-02				NA		1.4E+00	EqP	4.3E-02
Landbay E	6150-1550	INORG	Aluminum	7429-90-5	ID	2.91E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	6150-1550	INORG	Antimony	7440-36-0	ID	1.27E+00	1.70E+00	7.5E-01	1.4E+03	EqP	9.3E-04	2.7E+01	EqP	4.7E-02
Landbay E	6150-1550	INORG	Arsenic	7440-38-2	A	3.46E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay E	6150-1550	INORG	Barium	7440-39-3	NC	1.11E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.4E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6150-1550	INORG	Beryllium	7440-41-7	B1	4.28E-01	1.20E+00	3.6E-01	6.8E+03	EqP	6.3E-05	1.0E+01	EqP	4.1E-02
Landbay E	6150-1550	INORG	Cadmium	7440-43-9	B1	2.77E+00	2.70E+00	1.0E+00	1.1E+03	EqP	2.6E-03	2.1E+00	EqP	**1.3E+00**
Landbay E	6150-1550	INORG	Chromium III	16065-83-1	D	1.90E+02	2.61E+02	7.3E-01	2.1E+10	EqP	8.9E-09	3.4E+06	EqP	5.6E-05
Landbay E	6150-1550	INORG	Chromium VI	18540-29-9	A	3.89E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.8E-01
Landbay E	6150-1550	INORG	Cobalt	7440-48-4	LC	9.48E+01	8.60E+01	**1.1E+00**	1.4E+04	EqP	6.9E-03	2.1E+01	EqP	**4.6E+00**
Landbay E	6150-1550	INORG	Copper	7440-50-8	D	2.06E+01	1.31E+02	1.6E-01	3.5E+05	EqP	5.9E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	6150-1550	INORG	Iron	7439-89-6	D	6.50E+04	9.52E+04	6.8E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.3E+02**
Landbay E	6150-1550	INORG	Lead	7439-92-1	B2	2.74E+01						3.5E+02	EqP	7.8E-02
Landbay E	6150-1550	INORG	Manganese	7439-96-5	D	3.39E+03	4.27E+03	7.9E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.2E+01**
Landbay E	6150-1550	INORG	Mercury	7439-97-6	D	2.34E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.3E-02
Landbay E	6150-1550	INORG	Nickel	7440-02-0	A	3.04E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.0E-01
Landbay E	6150-1550	INORG	Silver	7440-22-4	D	4.40E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	6150-1550	INORG	Thallium	7440-28-0	ID	1.70E+00	4.50E+00	3.8E-01				1.1E+00	EqP	**1.5E+00**
Landbay E	6150-1550	INORG	Vanadium	7440-62-2	ID	2.33E+02	2.83E+02	8.2E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.8E-01
Landbay E	6150-1550	INORG	Zinc	7440-66-6	ID	5.55E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6150-1700	INORG	Aluminum	7429-90-5	ID	5.10E+04	5.34E+04	9.6E-01	3.7E+08	EqP	1.4E-04	2.6E+03	EqP	**2.0E+01**
Landbay E	6150-1700	INORG	Arsenic	7440-38-2	A	3.41E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	4.0E-02
Landbay E	6150-1700	INORG	Barium	7440-39-3	NC	1.84E+02	2.24E+02	8.2E-01	3.2E+05	EqP	5.7E-04	3.3E+00	EqP	**5.6E+01**
Landbay E	6150-1700	INORG	Beryllium	7440-41-7	B1	6.01E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay E	6150-1700	INORG	Chromium III	16065-83-1	D	2.39E+02	2.61E+02	9.2E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.1E-05
Landbay E	6150-1700	INORG	Chromium VI	18540-29-9	A	4.23E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.4E-02	4.4E+00	LT	9.6E-01
Landbay E	6150-1700	INORG	Cobalt	7440-48-4	LC	6.35E+01	8.60E+01	7.4E-01	1.4E+04	EqP	4.6E-03	2.1E+01	EqP	**3.1E+00**
Landbay E	6150-1700	INORG	Copper	7440-50-8	D	4.59E+01	1.31E+02	3.5E-01	3.5E+05	EqP	1.3E-04	8.4E+00	EqP	**5.5E+00**
Landbay E	6150-1700	INORG	Iron	7439-89-6	D	6.14E+04	9.52E+04	6.4E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay E	6150-1700	INORG	Lead	7439-92-1	B2	2.02E+01						3.5E+02	EqP	5.8E-02
Landbay E	6150-1700	INORG	Manganese	7439-96-5	D	2.95E+03	4.27E+03	6.9E-01	3.1E+05	EqP	9.5E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	6150-1700	INORG	Nickel	7440-02-0	A	6.48E+01	7.30E+01	8.9E-01	1.2E+05	EqP	5.2E-04	3.4E+01	EqP	**1.9E+00**
Landbay E	6150-1700	INORG	Strontium	7440-24-6		2.32E+01	3.80E+01	6.1E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.2E-02
Landbay E	6150-1700	INORG	Vanadium	7440-62-2	ID	1.65E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay E	6150-1700	INORG	Zinc	7440-66-6	ID	6.68E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6150-9750	PCB	PCBs (total)	1336-36-3	B2	2.27E-02				NA		1.4E+00	EqP	1.7E-02
Landbay E	6150-9750	INORG	Aluminum	7429-90-5	ID	3.43E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6150-9750	INORG	Arsenic	7440-38-2	A	1.28E+00	9.90E+00	1.3E-01	1.1E+03	EqP	1.2E-03	8.6E+01	EqP	1.5E-02
Landbay E	6150-9750	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6150-9750	INORG	Beryllium	7440-41-7	B1	6.13E-01	1.20E+00	5.1E-01	6.8E+03	EqP	9.0E-05	1.0E+01	EqP	5.9E-02
Landbay E	6150-9750	INORG	Cadmium	7440-43-9	B1	1.54E+00	2.70E+00	5.7E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.2E-01
Landbay E	6150-9750	INORG	Chromium III	16065-83-1	D	1.70E+02	2.61E+02	6.5E-01	2.1E+10	EqP	8.0E-09	3.4E+06	EqP	5.0E-05
Landbay E	6150-9750	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay E	6150-9750	INORG	Cobalt	7440-48-4	LC	5.37E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	6150-9750	INORG	Copper	7440-50-8	D	3.26E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay E	6150-9750	INORG	Iron	7439-89-6	D	5.57E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	6150-9750	INORG	Lead	7439-92-1	B2	1.79E+01						3.5E+02	EqP	5.1E-02
Landbay E	6150-9750	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	6150-9750	INORG	Mercury	7439-97-6	D	4.02E-02	7.10E-02	5.7E-01		NA		3.7E-01	EqP	1.1E-01
Landbay E	6150-9750	INORG	Nickel	7440-02-0	A	4.18E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6150-9750	INORG	Silver	7440-22-4	D	3.95E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay E	6150-9750	INORG	Vanadium	7440-62-2	ID	1.83E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	6150-9750	INORG	Zinc	7440-66-6	ID	5.40E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	6150-9900	PCB	PCBs (total)	1336-36-3	B2	2.27E-02				NA		1.4E+00	EqP	1.7E-02
Landbay E	6150-9900	INORG	Aluminum	7429-90-5	ID	3.43E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6150-9900	INORG	Arsenic	7440-38-2	A	1.28E+00	9.90E+00	1.3E-01	1.1E+03	EqP	1.2E-03	8.6E+01	EqP	1.5E-02
Landbay E	6150-9900	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6150-9900	INORG	Beryllium	7440-41-7	B1	6.13E-01	1.20E+00	5.1E-01	6.8E+03	EqP	9.0E-05	1.0E+01	EqP	5.9E-02
Landbay E	6150-9900	INORG	Cadmium	7440-43-9	B1	1.54E+00	2.70E+00	5.7E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.2E-01
Landbay E	6150-9900	INORG	Chromium III	16065-83-1	D	1.70E+02	2.61E+02	6.5E-01	2.1E+10	EqP	8.0E-09	3.4E+06	EqP	5.0E-05
Landbay E	6150-9900	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay E	6150-9900	INORG	Cobalt	7440-48-4	LC	5.37E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	6150-9900	INORG	Copper	7440-50-8	D	3.26E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay E	6150-9900	INORG	Iron	7439-89-6	D	5.57E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	6150-9900	INORG	Lead	7439-92-1	B2	1.79E+01						3.5E+02	EqP	5.1E-02
Landbay E	6150-9900	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	6150-9900	INORG	Mercury	7439-97-6	D	4.02E-02	7.10E-02	5.7E-01		NA		3.7E-01	EqP	1.1E-01
Landbay E	6150-9900	INORG	Nickel	7440-02-0	A	4.18E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6150-9900	INORG	Silver	7440-22-4	D	3.95E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay E	6150-9900	INORG	Vanadium	7440-62-2	ID	1.83E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	6150-9900	INORG	Zinc	7440-66-6	ID	5.40E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	6300-0800	INORG	Aluminum	7429-90-5	ID	2.89E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	6300-0800	INORG	Arsenic	7440-38-2	A	6.86E+00	9.90E+00	6.9E-01	1.1E+03	EqP	6.5E-03	8.6E+01	EqP	8.0E-02
Landbay E	6300-0800	INORG	Barium	7440-39-3	NC	1.21E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.7E-04	3.3E+00	EqP	**3.7E+01**
Landbay E	6300-0800	INORG	Beryllium	7440-41-7	B1	8.42E-01	1.20E+00	7.0E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	8.1E-02
Landbay E	6300-0800	INORG	Chromium III	16065-83-1	D	2.69E+02	2.61E+02	1.0E+00	2.1E+10	EqP	1.3E-08	3.4E+06	EqP	8.0E-05
Landbay E	6300-0800	INORG	Chromium VI	18540-29-9	A	4.44E+00	4.97E+00	8.9E-01	6.6E+01	LT	6.7E-02	4.4E+00	LT	1.0E+00
Landbay E	6300-0800	INORG	Cobalt	7440-48-4	LC	9.68E+01	8.60E+01	**1.1E+00**	1.4E+04	EqP	7.1E-03	2.1E+01	EqP	**4.7E+00**
Landbay E	6300-0800	INORG	Copper	7440-50-8	D	2.47E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.1E-05	8.4E+00	EqP	**2.9E+00**
Landbay E	6300-0800	INORG	Iron	7439-89-6	D	8.18E+04	9.52E+04	8.6E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.4E+02**
Landbay E	6300-0800	INORG	Lead	7439-92-1	B2	3.33E+01						3.5E+02	EqP	9.5E-02
Landbay E	6300-0800	INORG	Manganese	7439-96-5	D	3.25E+03	4.27E+03	7.6E-01	3.1E+05	EqP	1.0E-02	1.6E+02	EqP	**2.1E+01**
Landbay E	6300-0800	INORG	Nickel	7440-02-0	A	3.04E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.5E-04	3.4E+01	EqP	9.0E-01
Landbay E	6300-0800	INORG	Strontium	7440-24-6		1.08E+01	3.80E+01	2.8E-01	1.6E+07	EqP	6.6E-07	1.1E+03	EqP	1.0E-02
Landbay E	6300-0800	INORG	Thallium	7440-28-0	ID	1.89E+00	4.50E+00	4.2E-01				1.1E+00	EqP	**1.7E+00**
Landbay E	6300-0800	INORG	Vanadium	7440-62-2	ID	3.29E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.1E-03	4.0E+02	EqP	8.2E-01
Landbay E	6300-0800	INORG	Zinc	7440-66-6	ID	4.96E+01	1.02E+02	4.9E-01	5.5E+06	EqP	9.1E-06	1.9E+02	EqP	2.6E-01
Landbay E	6300-0950	INORG	Aluminum	7429-90-5	ID	3.83E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	6300-0950	INORG	Arsenic	7440-38-2	A	6.96E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay E	6300-0950	INORG	Barium	7440-39-3	NC	1.27E+02	2.24E+02	5.7E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	6300-0950	INORG	Beryllium	7440-41-7	B1	9.87E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.5E-02
Landbay E	6300-0950	INORG	Chromium III	16065-83-1	D	2.42E+02	2.61E+02	9.3E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.2E-05
Landbay E	6300-0950	INORG	Chromium VI	18540-29-9	A	4.25E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.4E-02	4.4E+00	LT	9.7E-01
Landbay E	6300-0950	INORG	Cobalt	7440-48-4	LC	9.09E+01	8.60E+01	**1.1E+00**	1.4E+04	EqP	6.6E-03	2.1E+01	EqP	**4.4E+00**
Landbay E	6300-0950	INORG	Copper	7440-50-8	D	2.44E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.0E-05	8.4E+00	EqP	**2.9E+00**
Landbay E	6300-0950	INORG	Iron	7439-89-6	D	7.49E+04	9.52E+04	7.9E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay E	6300-0950	INORG	Lead	7439-92-1	B2	2.25E+01						3.5E+02	EqP	6.4E-02
Landbay E	6300-0950	INORG	Manganese	7439-96-5	D	3.06E+03	4.27E+03	7.2E-01	3.1E+05	EqP	9.8E-03	1.6E+02	EqP	**2.0E+01**
Landbay E	6300-0950	INORG	Nickel	7440-02-0	A	4.28E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	6300-0950	INORG	Strontium	7440-24-6		1.20E+01	3.80E+01	3.2E-01	1.6E+07	EqP	7.4E-07	1.1E+03	EqP	1.1E-02
Landbay E	6300-0950	INORG	Thallium	7440-28-0	ID	2.05E+00	4.50E+00	4.6E-01				1.1E+00	EqP	**1.8E+00**
Landbay E	6300-0950	INORG	Vanadium	7440-62-2	ID	2.52E+02	2.83E+02	8.9E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay E	6300-0950	INORG	Zinc	7440-66-6	ID	5.41E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	6300-1100	INORG	Aluminum	7429-90-5	ID	3.57E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	6300-1100	INORG	Arsenic	7440-38-2	A	5.56E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay E	6300-1100	INORG	Barium	7440-39-3	NC	1.00E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	6300-1100	INORG	Beryllium	7440-41-7	B1	7.38E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay E	6300-1100	INORG	Cadmium	7440-43-9	B1	4.92E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.5E-04	2.1E+00	EqP	2.3E-01
Landbay E	6300-1100	INORG	Chromium III	16065-83-1	D	2.36E+02	2.61E+02	9.0E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.0E-05
Landbay E	6300-1100	INORG	Chromium VI	18540-29-9	A	4.21E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.3E-02	4.4E+00	LT	9.6E-01
Landbay E	6300-1100	INORG	Cobalt	7440-48-4	LC	8.60E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay E	6300-1100	INORG	Copper	7440-50-8	D	3.09E+01	1.31E+02	2.4E-01	3.5E+05	EqP	8.9E-05	8.4E+00	EqP	**3.7E+00**
Landbay E	6300-1100	INORG	Iron	7439-89-6	D	6.71E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay E	6300-1100	INORG	Lead	7439-92-1	B2	2.78E+01						3.5E+02	EqP	7.9E-02
Landbay E	6300-1100	INORG	Manganese	7439-96-5	D	2.73E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.7E+01**
Landbay E	6300-1100	INORG	Nickel	7440-02-0	A	3.92E+01	7.30E+01	5.4E-01	1.2E+05	EqP	3.2E-04	3.4E+01	EqP	**1.2E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	6300-1100	INORG	Vanadium	7440-62-2	ID	2.37E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay E	6300-1100	INORG	Zinc	7440-66-6	ID	4.77E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	6300-1250	INORG	Aluminum	7429-90-5	ID	3.57E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	6300-1250	INORG	Arsenic	7440-38-2	A	5.56E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay E	6300-1250	INORG	Barium	7440-39-3	NC	1.00E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	6300-1250	INORG	Beryllium	7440-41-7	B1	7.38E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay E	6300-1250	INORG	Cadmium	7440-43-9	B1	4.92E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.5E-04	2.1E+00	EqP	2.3E-01
Landbay E	6300-1250	INORG	Chromium III	16065-83-1	D	2.36E+02	2.61E+02	9.0E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.0E-05
Landbay E	6300-1250	INORG	Chromium VI	18540-29-9	A	4.21E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.3E-02	4.4E+00	LT	9.6E-01
Landbay E	6300-1250	INORG	Cobalt	7440-48-4	LC	8.60E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay E	6300-1250	INORG	Copper	7440-50-8	D	3.09E+01	1.31E+02	2.4E-01	3.5E+05	EqP	8.9E-05	8.4E+00	EqP	**3.7E+00**
Landbay E	6300-1250	INORG	Iron	7439-89-6	D	6.71E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay E	6300-1250	INORG	Lead	7439-92-1	B2	2.78E+01						3.5E+02	EqP	7.9E-02
Landbay E	6300-1250	INORG	Manganese	7439-96-5	D	2.73E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.7E+01**
Landbay E	6300-1250	INORG	Nickel	7440-02-0	A	3.92E+01	7.30E+01	5.4E-01	1.2E+05	EqP	3.2E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6300-1250	INORG	Vanadium	7440-62-2	ID	2.37E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay E	6300-1250	INORG	Zinc	7440-66-6	ID	4.77E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	6300-1400	INORG	Aluminum	7429-90-5	ID	4.00E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	6300-1400	INORG	Arsenic	7440-38-2	A	5.16E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay E	6300-1400	INORG	Barium	7440-39-3	NC	1.71E+02	2.24E+02	7.6E-01	3.2E+05	EqP	5.3E-04	3.3E+00	EqP	**5.2E+01**
Landbay E	6300-1400	INORG	Beryllium	7440-41-7	B1	8.67E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay E	6300-1400	INORG	Cadmium	7440-43-9	B1	7.08E-01	2.70E+00	2.6E-01	1.1E+03	EqP	6.5E-04	2.1E+00	EqP	3.3E-01
Landbay E	6300-1400	INORG	Chromium III	16065-83-1	D	2.61E+02	2.61E+02	1.0E+00	2.1E+10	EqP	1.2E-08	3.4E+06	EqP	7.7E-05
Landbay E	6300-1400	INORG	Chromium VI	18540-29-9	A	4.38E+00	4.97E+00	8.8E-01	6.6E+01	LT	6.6E-02	4.4E+00	LT	1.0E+00
Landbay E	6300-1400	INORG	Cobalt	7440-48-4	LC	1.21E+02	8.60E+01	**1.4E+00**	1.4E+04	EqP	8.8E-03	2.1E+01	EqP	**5.8E+00**
Landbay E	6300-1400	INORG	Copper	7440-50-8	D	3.34E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay E	6300-1400	INORG	Iron	7439-89-6	D	7.65E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay E	6300-1400	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay E	6300-1400	INORG	Manganese	7439-96-5	D	4.27E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay E	6300-1400	INORG	Nickel	7440-02-0	A	5.32E+01	7.30E+01	7.3E-01	1.2E+05	EqP	4.3E-04	3.4E+01	EqP	**1.6E+00**
Landbay E	6300-1400	INORG	Silver	7440-22-4	D	2.57E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.9E-05	2.7E+00	LT	9.7E-02
Landbay E	6300-1400	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay E	6300-1400	INORG	Zinc	7440-66-6	ID	5.53E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6300-1550	INORG	Aluminum	7429-90-5	ID	4.00E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	6300-1550	INORG	Arsenic	7440-38-2	A	5.16E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay E	6300-1550	INORG	Barium	7440-39-3	NC	1.71E+02	2.24E+02	7.6E-01	3.2E+05	EqP	5.3E-04	3.3E+00	EqP	**5.2E+01**
Landbay E	6300-1550	INORG	Beryllium	7440-41-7	B1	8.67E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay E	6300-1550	INORG	Cadmium	7440-43-9	B1	7.08E-01	2.70E+00	2.6E-01	1.1E+03	EqP	6.5E-04	2.1E+00	EqP	3.3E-01
Landbay E	6300-1550	INORG	Chromium III	16065-83-1	D	2.61E+02	2.61E+02	1.0E+00	2.1E+10	EqP	1.2E-08	3.4E+06	EqP	7.7E-05
Landbay E	6300-1550	INORG	Chromium VI	18540-29-9	A	4.38E+00	4.97E+00	8.8E-01	6.6E+01	LT	6.6E-02	4.4E+00	LT	1.0E+00
Landbay E	6300-1550	INORG	Cobalt	7440-48-4	LC	1.21E+02	8.60E+01	**1.4E+00**	1.4E+04	EqP	8.8E-03	2.1E+01	EqP	**5.8E+00**
Landbay E	6300-1550	INORG	Copper	7440-50-8	D	3.34E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay E	6300-1550	INORG	Iron	7439-89-6	D	7.65E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay E	6300-1550	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay E	6300-1550	INORG	Manganese	7439-96-5	D	4.27E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay E	6300-1550	INORG	Nickel	7440-02-0	A	5.32E+01	7.30E+01	7.3E-01	1.2E+05	EqP	4.3E-04	3.4E+01	EqP	**1.6E+00**
Landbay E	6300-1550	INORG	Silver	7440-22-4	D	2.57E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.9E-05	2.7E+00	LT	9.7E-02
Landbay E	6300-1550	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay E	6300-1550	INORG	Zinc	7440-66-6	ID	5.53E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6300-1700	INORG	Aluminum	7429-90-5	ID	3.06E+04	5.34E+04	5.7E-01	3.7E+08	EqP	8.3E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6300-1700	INORG	Arsenic	7440-38-2	A	3.16E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.7E-02
Landbay E	6300-1700	INORG	Barium	7440-39-3	NC	1.23E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay E	6300-1700	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay E	6300-1700	INORG	Chromium III	16065-83-1	D	1.72E+02	2.61E+02	6.6E-01	2.1E+10	EqP	8.1E-09	3.4E+06	EqP	5.1E-05
Landbay E	6300-1700	INORG	Chromium VI	18540-29-9	A	3.77E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.6E-01
Landbay E	6300-1700	INORG	Cobalt	7440-48-4	LC	4.42E+01	8.60E+01	5.1E-01	1.4E+04	EqP	3.2E-03	2.1E+01	EqP	**2.1E+00**
Landbay E	6300-1700	INORG	Copper	7440-50-8	D	2.58E+01	1.31E+02	2.0E-01	3.5E+05	EqP	7.4E-05	8.4E+00	EqP	**3.1E+00**
Landbay E	6300-1700	INORG	Iron	7439-89-6	D	4.39E+04	9.52E+04	4.6E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay E	6300-1700	INORG	Lead	7439-92-1	B2	1.25E+01						3.5E+02	EqP	3.6E-02
Landbay E	6300-1700	INORG	Manganese	7439-96-5	D	1.56E+03	4.27E+03	3.7E-01	3.1E+05	EqP	5.0E-03	1.6E+02	EqP	**1.0E+01**
Landbay E	6300-1700	INORG	Mercury	7439-97-6	D	2.84E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.7E-02
Landbay E	6300-1700	INORG	Nickel	7440-02-0	A	4.30E+01	7.30E+01	5.9E-01	1.2E+05	EqP	3.5E-04	3.4E+01	EqP	**1.3E+00**
Landbay E	6300-1700	INORG	Strontium	7440-24-6		1.66E+01	3.80E+01	4.4E-01	1.6E+07	EqP	1.0E-06	1.1E+03	EqP	1.6E-02
Landbay E	6300-1700	INORG	Vanadium	7440-62-2	ID	1.29E+02	2.83E+02	4.6E-01	1.5E+05	EqP	8.3E-04	4.0E+02	EqP	3.2E-01
Landbay E	6300-1700	INORG	Zinc	7440-66-6	ID	5.15E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	6300-9900	PCB	PCBs (total)	1336-36-3	B2	2.27E-02				NA		1.4E+00	EqP	1.7E-02
Landbay E	6300-9900	INORG	Aluminum	7429-90-5	ID	3.43E+04	5.34E+04	6.4E-01	3.7E+08	EqP	9.3E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6300-9900	INORG	Arsenic	7440-38-2	A	1.28E+00	9.90E+00	1.3E-01	1.1E+03	EqP	1.2E-03	8.6E+01	EqP	1.5E-02
Landbay E	6300-9900	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6300-9900	INORG	Beryllium	7440-41-7	B1	6.13E-01	1.20E+00	5.1E-01	6.8E+03	EqP	9.0E-05	1.0E+01	EqP	5.9E-02
Landbay E	6300-9900	INORG	Cadmium	7440-43-9	B1	1.54E+00	2.70E+00	5.7E-01	1.1E+03	EqP	1.4E-03	2.1E+00	EqP	7.2E-01
Landbay E	6300-9900	INORG	Chromium III	16065-83-1	D	1.70E+02	2.61E+02	6.5E-01	2.1E+10	EqP	8.0E-09	3.4E+06	EqP	5.0E-05
Landbay E	6300-9900	INORG	Chromium VI	18540-29-9	A	3.75E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay E	6300-9900	INORG	Cobalt	7440-48-4	LC	5.37E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	6300-9900	INORG	Copper	7440-50-8	D	3.26E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.4E-05	8.4E+00	EqP	**3.9E+00**
Landbay E	6300-9900	INORG	Iron	7439-89-6	D	5.57E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	6300-9900	INORG	Lead	7439-92-1	B2	1.79E+01						3.5E+02	EqP	5.1E-02
Landbay E	6300-9900	INORG	Manganese	7439-96-5	D	1.68E+03	4.27E+03	3.9E-01	3.1E+05	EqP	5.4E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	6300-9900	INORG	Mercury	7439-97-6	D	4.02E-02	7.10E-02	5.7E-01		NA		3.7E-01	EqP	1.1E-01
Landbay E	6300-9900	INORG	Nickel	7440-02-0	A	4.18E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6300-9900	INORG	Silver	7440-22-4	D	3.95E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay E	6300-9900	INORG	Vanadium	7440-62-2	ID	1.83E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	6300-9900	INORG	Zinc	7440-66-6	ID	5.40E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	6400-103	VOC	Acetone	67-64-1	ID	1.80E-02			2.0E+06	LT	8.8E-09	6.0E+02	LT	3.0E-05
Landbay E	6400-103	INORG	Aluminum	7429-90-5	ID	6.26E+04	5.34E+04	**1.2E+00**	3.7E+08	EqP	1.7E-04	2.6E+03	EqP	**2.4E+01**
Landbay E	6400-103	INORG	Arsenic	7440-38-2	A	1.14E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.1E-02	8.6E+01	EqP	1.3E-01
Landbay E	6400-103	INORG	Barium	7440-39-3	NC	1.22E+02	2.24E+02	5.4E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay E	6400-103	INORG	Beryllium	7440-41-7	B1	8.96E-01	1.20E+00	7.5E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.6E-02
Landbay E	6400-103	INORG	Boron	7440-42-8	ID	4.44E+00	1.34E+01	3.3E-01	9.9E+05	LT	4.5E-06	6.4E-01	LT	**6.9E+00**
Landbay E	6400-103	INORG	Chromium III	16065-83-1	D	2.63E+02	2.61E+02	1.0E+00	2.1E+10	EqP	1.2E-08	3.4E+06	EqP	7.8E-05
Landbay E	6400-103	INORG	Chromium VI	18540-29-9	A	4.40E+00	4.97E+00	8.8E-01	6.6E+01	LT	6.6E-02	4.4E+00	LT	1.0E+00
Landbay E	6400-103	INORG	Cobalt	7440-48-4	LC	4.73E+01	8.60E+01	5.5E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.3E+00**
Landbay E	6400-103	INORG	Copper	7440-50-8	D	4.78E+01	1.31E+02	3.6E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**5.7E+00**
Landbay E	6400-103	INORG	Iron	7439-89-6	D	7.35E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay E	6400-103	INORG	Lead	7439-92-1	B2	1.04E+01						3.5E+02	EqP	3.0E-02
Landbay E	6400-103	INORG	Manganese	7439-96-5	D	1.39E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**8.9E+00**
Landbay E	6400-103	INORG	Mercury	7439-97-6	D	2.73E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.4E-02
Landbay E	6400-103	INORG	Nickel	7440-02-0	A	5.89E+01	7.30E+01	8.1E-01	1.2E+05	EqP	4.7E-04	3.4E+01	EqP	**1.7E+00**
Landbay E	6400-103	INORG	Silver	7440-22-4	D	2.99E-01	2.30E+00	1.3E-01	3.8E+03	LT	8.0E-05	2.7E+00	LT	1.1E-01
Landbay E	6400-103	INORG	Strontium	7440-24-6		2.27E+01	3.80E+01	6.0E-01	1.6E+07	EqP	1.4E-06	1.1E+03	EqP	2.1E-02
Landbay E	6400-103	INORG	Thallium	7440-28-0	ID	3.67E+00	4.50E+00	8.2E-01				1.1E+00	EqP	**3.2E+00**
Landbay E	6400-103	INORG	Vanadium	7440-62-2	ID	1.84E+02	2.83E+02	6.5E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.6E-01
Landbay E	6400-103	INORG	Zinc	7440-66-6	ID	6.38E+01	1.02E+02	6.3E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay E	6450-0050	PCB	PCBs (total)	1336-36-3	B2	1.95E-02				NA		1.4E+00	EqP	1.4E-02
Landbay E	6450-0050	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6450-0050	INORG	Antimony	7440-36-0	ID	1.26E+00	1.70E+00	7.4E-01	1.4E+03	EqP	9.2E-04	2.7E+01	EqP	4.6E-02
Landbay E	6450-0050	INORG	Arsenic	7440-38-2	A	6.32E+00	9.90E+00	6.4E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.4E-02
Landbay E	6450-0050	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	6450-0050	INORG	Beryllium	7440-41-7	B1	7.60E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay E	6450-0050	INORG	Cadmium	7440-43-9	B1	3.73E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay E	6450-0050	INORG	Chromium III	16065-83-1	D	1.73E+02	2.61E+02	6.6E-01	2.1E+10	EqP	8.1E-09	3.4E+06	EqP	5.1E-05
Landbay E	6450-0050	INORG	Chromium VI	18540-29-9	A	3.77E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.6E-01
Landbay E	6450-0050	INORG	Cobalt	7440-48-4	LC	1.27E+02	8.60E+01	**1.5E+00**	1.4E+04	EqP	9.3E-03	2.1E+01	EqP	**6.1E+00**
Landbay E	6450-0050	INORG	Copper	7440-50-8	D	2.83E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.2E-05	8.4E+00	EqP	**3.4E+00**
Landbay E	6450-0050	INORG	Iron	7439-89-6	D	7.63E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.0E+02**
Landbay E	6450-0050	INORG	Lead	7439-92-1	B2	3.84E+01						3.5E+02	EqP	1.1E-01
Landbay E	6450-0050	INORG	Manganese	7439-96-5	D	4.98E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.6E-02	1.6E+02	EqP	**3.2E+01**
Landbay E	6450-0050	INORG	Mercury	7439-97-6	D	4.83E-02	7.10E-02	6.8E-01		NA		3.7E-01	EqP	1.3E-01
Landbay E	6450-0050	INORG	Nickel	7440-02-0	A	3.53E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay E	6450-0050	INORG	Silver	7440-22-4	D	4.78E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.8E-01
Landbay E	6450-0050	INORG	Vanadium	7440-62-2	ID	2.54E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay E	6450-0050	INORG	Zinc	7440-66-6	ID	6.75E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6450-1100	INORG	Aluminum	7429-90-5	ID	3.57E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	6450-1100	INORG	Arsenic	7440-38-2	A	5.56E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay E	6450-1100	INORG	Barium	7440-39-3	NC	1.00E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	6450-1100	INORG	Beryllium	7440-41-7	B1	7.38E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay E	6450-1100	INORG	Cadmium	7440-43-9	B1	4.92E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.5E-04	2.1E+00	EqP	2.3E-01
Landbay E	6450-1100	INORG	Chromium III	16065-83-1	D	2.36E+02	2.61E+02	9.0E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.0E-05
Landbay E	6450-1100	INORG	Chromium VI	18540-29-9	A	4.21E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.3E-02	4.4E+00	LT	9.6E-01
Landbay E	6450-1100	INORG	Cobalt	7440-48-4	LC	8.60E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay E	6450-1100	INORG	Copper	7440-50-8	D	3.09E+01	1.31E+02	2.4E-01	3.5E+05	EqP	8.9E-05	8.4E+00	EqP	**3.7E+00**
Landbay E	6450-1100	INORG	Iron	7439-89-6	D	6.71E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay E	6450-1100	INORG	Lead	7439-92-1	B2	2.78E+01						3.5E+02	EqP	7.9E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	6450-1100	INORG	Manganese	7439-96-5	D	2.73E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.7E+01**
Landbay E	6450-1100	INORG	Nickel	7440-02-0	A	3.92E+01	7.30E+01	5.4E-01	1.2E+05	EqP	3.2E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6450-1100	INORG	Vanadium	7440-62-2	ID	2.37E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay E	6450-1100	INORG	Zinc	7440-66-6	ID	4.77E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	6450-1250	INORG	Aluminum	7429-90-5	ID	3.57E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	6450-1250	INORG	Arsenic	7440-38-2	A	5.56E+00	9.90E+00	5.6E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay E	6450-1250	INORG	Barium	7440-39-3	NC	1.00E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	6450-1250	INORG	Beryllium	7440-41-7	B1	7.38E-01	1.20E+00	6.2E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.1E-02
Landbay E	6450-1250	INORG	Cadmium	7440-43-9	B1	4.92E-01	2.70E+00	1.8E-01	1.1E+03	EqP	4.5E-04	2.1E+00	EqP	2.3E-01
Landbay E	6450-1250	INORG	Chromium III	16065-83-1	D	2.36E+02	2.61E+02	9.0E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	7.0E-05
Landbay E	6450-1250	INORG	Chromium VI	18540-29-9	A	4.21E+00	4.97E+00	8.5E-01	6.6E+01	LT	6.3E-02	4.4E+00	LT	9.6E-01
Landbay E	6450-1250	INORG	Cobalt	7440-48-4	LC	8.60E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.1E+00**
Landbay E	6450-1250	INORG	Copper	7440-50-8	D	3.09E+01	1.31E+02	2.4E-01	3.5E+05	EqP	8.9E-05	8.4E+00	EqP	**3.7E+00**
Landbay E	6450-1250	INORG	Iron	7439-89-6	D	6.71E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay E	6450-1250	INORG	Lead	7439-92-1	B2	2.78E+01						3.5E+02	EqP	7.9E-02
Landbay E	6450-1250	INORG	Manganese	7439-96-5	D	2.73E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.7E+01**
Landbay E	6450-1250	INORG	Nickel	7440-02-0	A	3.92E+01	7.30E+01	5.4E-01	1.2E+05	EqP	3.2E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6450-1250	INORG	Vanadium	7440-62-2	ID	2.37E+02	2.83E+02	8.4E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.9E-01
Landbay E	6450-1250	INORG	Zinc	7440-66-6	ID	4.77E+01	1.02E+02	4.7E-01	5.5E+06	EqP	8.7E-06	1.9E+02	EqP	2.5E-01
Landbay E	6450-1400	INORG	Aluminum	7429-90-5	ID	4.00E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	6450-1400	INORG	Arsenic	7440-38-2	A	5.16E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay E	6450-1400	INORG	Barium	7440-39-3	NC	1.71E+02	2.24E+02	7.6E-01	3.2E+05	EqP	5.3E-04	3.3E+00	EqP	**5.2E+01**
Landbay E	6450-1400	INORG	Beryllium	7440-41-7	B1	8.67E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay E	6450-1400	INORG	Cadmium	7440-43-9	B1	7.08E-01	2.70E+00	2.6E-01	1.1E+03	EqP	6.5E-04	2.1E+00	EqP	3.3E-01
Landbay E	6450-1400	INORG	Chromium III	16065-83-1	D	2.61E+02	2.61E+02	1.0E+00	2.1E+10	EqP	1.2E-08	3.4E+06	EqP	7.7E-05
Landbay E	6450-1400	INORG	Chromium VI	18540-29-9	A	4.38E+00	4.97E+00	8.8E-01	6.6E+01	LT	6.6E-02	4.4E+00	LT	1.0E+00
Landbay E	6450-1400	INORG	Cobalt	7440-48-4	LC	1.21E+02	8.60E+01	**1.4E+00**	1.4E+04	EqP	8.8E-03	2.1E+01	EqP	**5.8E+00**
Landbay E	6450-1400	INORG	Copper	7440-50-8	D	3.34E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay E	6450-1400	INORG	Iron	7439-89-6	D	7.65E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay E	6450-1400	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay E	6450-1400	INORG	Manganese	7439-96-5	D	4.27E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay E	6450-1400	INORG	Nickel	7440-02-0	A	5.32E+01	7.30E+01	7.3E-01	1.2E+05	EqP	4.3E-04	3.4E+01	EqP	**1.6E+00**
Landbay E	6450-1400	INORG	Silver	7440-22-4	D	2.57E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.9E-05	2.7E+00	LT	9.7E-02
Landbay E	6450-1400	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay E	6450-1400	INORG	Zinc	7440-66-6	ID	5.53E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6450-1550	INORG	Aluminum	7429-90-5	ID	4.00E+04	5.34E+04	7.5E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	6450-1550	INORG	Arsenic	7440-38-2	A	5.16E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay E	6450-1550	INORG	Barium	7440-39-3	NC	1.71E+02	2.24E+02	7.6E-01	3.2E+05	EqP	5.3E-04	3.3E+00	EqP	**5.2E+01**
Landbay E	6450-1550	INORG	Beryllium	7440-41-7	B1	8.67E-01	1.20E+00	7.2E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.3E-02
Landbay E	6450-1550	INORG	Cadmium	7440-43-9	B1	7.08E-01	2.70E+00	2.6E-01	1.1E+03	EqP	6.5E-04	2.1E+00	EqP	3.3E-01
Landbay E	6450-1550	INORG	Chromium III	16065-83-1	D	2.61E+02	2.61E+02	1.0E+00	2.1E+10	EqP	1.2E-08	3.4E+06	EqP	7.7E-05
Landbay E	6450-1550	INORG	Chromium VI	18540-29-9	A	4.38E+00	4.97E+00	8.8E-01	6.6E+01	LT	6.6E-02	4.4E+00	LT	1.0E+00
Landbay E	6450-1550	INORG	Cobalt	7440-48-4	LC	1.21E+02	8.60E+01	**1.4E+00**	1.4E+04	EqP	8.8E-03	2.1E+01	EqP	**5.8E+00**
Landbay E	6450-1550	INORG	Copper	7440-50-8	D	3.34E+01	1.31E+02	2.5E-01	3.5E+05	EqP	9.6E-05	8.4E+00	EqP	**4.0E+00**
Landbay E	6450-1550	INORG	Iron	7439-89-6	D	7.65E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.1E+02**
Landbay E	6450-1550	INORG	Lead	7439-92-1	B2	2.47E+01						3.5E+02	EqP	7.0E-02
Landbay E	6450-1550	INORG	Manganese	7439-96-5	D	4.27E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay E	6450-1550	INORG	Nickel	7440-02-0	A	5.32E+01	7.30E+01	7.3E-01	1.2E+05	EqP	4.3E-04	3.4E+01	EqP	**1.6E+00**
Landbay E	6450-1550	INORG	Silver	7440-22-4	D	2.57E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.9E-05	2.7E+00	LT	9.7E-02
Landbay E	6450-1550	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay E	6450-1550	INORG	Zinc	7440-66-6	ID	5.53E+01	1.02E+02	5.4E-01	5.5E+06	EqP	1.0E-05	1.9E+02	EqP	2.9E-01
Landbay E	6600-0050	PCB	PCBs (total)	1336-36-3	B2	1.95E-02				NA		1.4E+00	EqP	1.4E-02
Landbay E	6600-0050	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6600-0050	INORG	Antimony	7440-36-0	ID	1.26E+00	1.70E+00	7.4E-01	1.4E+03	EqP	9.2E-04	2.7E+01	EqP	4.6E-02
Landbay E	6600-0050	INORG	Arsenic	7440-38-2	A	6.32E+00	9.90E+00	6.4E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.4E-02
Landbay E	6600-0050	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	6600-0050	INORG	Beryllium	7440-41-7	B1	7.60E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay E	6600-0050	INORG	Cadmium	7440-43-9	B1	3.73E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay E	6600-0050	INORG	Chromium III	16065-83-1	D	1.73E+02	2.61E+02	6.6E-01	2.1E+10	EqP	8.1E-09	3.4E+06	EqP	5.1E-05
Landbay E	6600-0050	INORG	Chromium VI	18540-29-9	A	3.77E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.6E-01
Landbay E	6600-0050	INORG	Cobalt	7440-48-4	LC	1.27E+02	8.60E+01	**1.5E+00**	1.4E+04	EqP	9.3E-03	2.1E+01	EqP	**6.1E+00**
Landbay E	6600-0050	INORG	Copper	7440-50-8	D	2.83E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.2E-05	8.4E+00	EqP	**3.4E+00**
Landbay E	6600-0050	INORG	Iron	7439-89-6	D	7.63E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.0E+02**
Landbay E	6600-0050	INORG	Lead	7439-92-1	B2	3.84E+01						3.5E+02	EqP	1.1E-01
Landbay E	6600-0050	INORG	Manganese	7439-96-5	D	4.98E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.6E-02	1.6E+02	EqP	**3.2E+01**
Landbay E	6600-0050	INORG	Mercury	7439-97-6	D	4.83E-02	7.10E-02	6.8E-01		NA		3.7E-01	EqP	1.3E-01
Landbay E	6600-0050	INORG	Nickel	7440-02-0	A	3.53E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay E	6600-0050	INORG	Silver	7440-22-4	D	4.78E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.8E-01
Landbay E	6600-0050	INORG	Vanadium	7440-62-2	ID	2.54E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay E	6600-0050	INORG	Zinc	7440-66-6	ID	6.75E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6600-0200	PCB	PCBs (total)	1336-36-3	B2	1.95E-02				NA		1.4E+00	EqP	1.4E-02
Landbay E	6600-0200	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6600-0200	INORG	Antimony	7440-36-0	ID	1.26E+00	1.70E+00	7.4E-01	1.4E+03	EqP	9.2E-04	2.7E+01	EqP	4.6E-02
Landbay E	6600-0200	INORG	Arsenic	7440-38-2	A	6.32E+00	9.90E+00	6.4E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.4E-02
Landbay E	6600-0200	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	6600-0200	INORG	Beryllium	7440-41-7	B1	7.60E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay E	6600-0200	INORG	Cadmium	7440-43-9	B1	3.73E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay E	6600-0200	INORG	Chromium III	16065-83-1	D	1.73E+02	2.61E+02	6.6E-01	2.1E+10	EqP	8.1E-09	3.4E+06	EqP	5.1E-05
Landbay E	6600-0200	INORG	Chromium VI	18540-29-9	A	3.77E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.6E-01
Landbay E	6600-0200	INORG	Cobalt	7440-48-4	LC	1.27E+02	8.60E+01	**1.5E+00**	1.4E+04	EqP	9.3E-03	2.1E+01	EqP	**6.1E+00**
Landbay E	6600-0200	INORG	Copper	7440-50-8	D	2.83E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.2E-05	8.4E+00	EqP	**3.4E+00**
Landbay E	6600-0200	INORG	Iron	7439-89-6	D	7.63E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.0E+02**
Landbay E	6600-0200	INORG	Lead	7439-92-1	B2	3.84E+01						3.5E+02	EqP	1.1E-01
Landbay E	6600-0200	INORG	Manganese	7439-96-5	D	4.98E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.6E-02	1.6E+02	EqP	**3.2E+01**
Landbay E	6600-0200	INORG	Mercury	7439-97-6	D	4.83E-02	7.10E-02	6.8E-01		NA		3.7E-01	EqP	1.3E-01
Landbay E	6600-0200	INORG	Nickel	7440-02-0	A	3.53E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay E	6600-0200	INORG	Silver	7440-22-4	D	4.78E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.8E-01
Landbay E	6600-0200	INORG	Vanadium	7440-62-2	ID	2.54E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay E	6600-0200	INORG	Zinc	7440-66-6	ID	6.75E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6600-0350	PCB	PCBs (total)	1336-36-3	B2	1.95E-02				NA		1.4E+00	EqP	1.4E-02
Landbay E	6600-0350	INORG	Aluminum	7429-90-5	ID	3.50E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.5E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6600-0350	INORG	Antimony	7440-36-0	ID	1.26E+00	1.70E+00	7.4E-01	1.4E+03	EqP	9.2E-04	2.7E+01	EqP	4.6E-02
Landbay E	6600-0350	INORG	Arsenic	7440-38-2	A	6.32E+00	9.90E+00	6.4E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.4E-02
Landbay E	6600-0350	INORG	Barium	7440-39-3	NC	1.26E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	6600-0350	INORG	Beryllium	7440-41-7	B1	7.60E-01	1.20E+00	6.3E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay E	6600-0350	INORG	Cadmium	7440-43-9	B1	3.73E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.4E-03	2.1E+00	EqP	**1.7E+00**
Landbay E	6600-0350	INORG	Chromium III	16065-83-1	D	1.73E+02	2.61E+02	6.6E-01	2.1E+10	EqP	8.1E-09	3.4E+06	EqP	5.1E-05
Landbay E	6600-0350	INORG	Chromium VI	18540-29-9	A	3.77E+00	4.97E+00	7.6E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.6E-01
Landbay E	6600-0350	INORG	Cobalt	7440-48-4	LC	1.27E+02	8.60E+01	**1.5E+00**	1.4E+04	EqP	9.3E-03	2.1E+01	EqP	**6.1E+00**
Landbay E	6600-0350	INORG	Copper	7440-50-8	D	2.83E+01	1.31E+02	2.2E-01	3.5E+05	EqP	8.2E-05	8.4E+00	EqP	**3.4E+00**
Landbay E	6600-0350	INORG	Iron	7439-89-6	D	7.63E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.0E+02**
Landbay E	6600-0350	INORG	Lead	7439-92-1	B2	3.84E+01						3.5E+02	EqP	1.1E-01
Landbay E	6600-0350	INORG	Manganese	7439-96-5	D	4.98E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.6E-02	1.6E+02	EqP	**3.2E+01**
Landbay E	6600-0350	INORG	Mercury	7439-97-6	D	4.83E-02	7.10E-02	6.8E-01		NA		3.7E-01	EqP	1.3E-01
Landbay E	6600-0350	INORG	Nickel	7440-02-0	A	3.53E+01	7.30E+01	4.8E-01	1.2E+05	EqP	2.8E-04	3.4E+01	EqP	1.0E+00
Landbay E	6600-0350	INORG	Silver	7440-22-4	D	4.78E-01	2.30E+00	2.1E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.8E-01
Landbay E	6600-0350	INORG	Vanadium	7440-62-2	ID	2.54E+02	2.83E+02	9.0E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay E	6600-0350	INORG	Zinc	7440-66-6	ID	6.75E+01	1.02E+02	6.6E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6600-1100	INORG	Aluminum	7429-90-5	ID	3.54E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	6600-1100	INORG	Arsenic	7440-38-2	A	3.79E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay E	6600-1100	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	6600-1100	INORG	Beryllium	7440-41-7	B1	5.83E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	6600-1100	INORG	Cadmium	7440-43-9	B1	8.43E-01	2.70E+00	3.1E-01	1.1E+03	EqP	7.8E-04	2.1E+00	EqP	3.9E-01
Landbay E	6600-1100	INORG	Chromium III	16065-83-1	D	1.78E+02	2.61E+02	6.8E-01	2.1E+10	EqP	8.4E-09	3.4E+06	EqP	5.3E-05
Landbay E	6600-1100	INORG	Chromium VI	18540-29-9	A	3.81E+00	4.97E+00	7.7E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.7E-01
Landbay E	6600-1100	INORG	Cobalt	7440-48-4	LC	6.45E+01	8.60E+01	7.5E-01	1.4E+04	EqP	4.7E-03	2.1E+01	EqP	**3.1E+00**
Landbay E	6600-1100	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	6600-1100	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay E	6600-1100	INORG	Lead	7439-92-1	B2	1.81E+01						3.5E+02	EqP	5.2E-02
Landbay E	6600-1100	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6600-1100	INORG	Mercury	7439-97-6	D	2.40E-02	7.10E-02	3.4E-01		NA		3.7E-01	EqP	6.5E-02
Landbay E	6600-1100	INORG	Nickel	7440-02-0	A	4.15E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.3E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6600-1100	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay E	6600-1100	INORG	Silver	7440-22-4	D	3.80E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay E	6600-1100	INORG	Strontium	7440-24-6		2.69E+01	3.80E+01	7.1E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.5E-02
Landbay E	6600-1100	INORG	Thallium	7440-28-0	ID	3.90E+00	4.50E+00	8.7E-01				1.1E+00	EqP	**3.4E+00**
Landbay E	6600-1100	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay E	6600-1100	INORG	Zinc	7440-66-6	ID	5.15E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	6600-112	INORG	Aluminum	7429-90-5	ID	2.44E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.6E-05	2.6E+03	EqP	**9.3E+00**
Landbay E	6600-112	INORG	Arsenic	7440-38-2	A	1.23E+01	9.90E+00	**1.2E+00**	1.1E+03	EqP	1.2E-02	8.6E+01	EqP	1.4E-01
Landbay E	6600-112	INORG	Barium	7440-39-3	NC	2.08E+02	2.24E+02	9.3E-01	3.2E+05	EqP	6.4E-04	3.3E+00	EqP	**6.3E+01**
Landbay E	6600-112	INORG	Beryllium	7440-41-7	B1	8.13E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay E	6600-112	INORG	Boron	7440-42-8	ID	4.53E+00	1.34E+01	3.4E-01	9.9E+05	LT	4.6E-06	6.4E-01	LT	**7.1E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	6600-112	INORG	Cadmium	7440-43-9	B1	2.02E-01	2.70E+00	7.5E-02	1.1E+03	EqP	1.9E-04	2.1E+00	EqP	9.4E-02
Landbay E	6600-112	INORG	Chromium III	16065-83-1	D	2.17E+02	2.61E+02	8.3E-01	2.1E+10	EqP	1.0E-08	3.4E+06	EqP	6.4E-05
Landbay E	6600-112	INORG	Chromium VI	18540-29-9	A	4.08E+00	4.97E+00	8.2E-01	6.6E+01	LT	6.1E-02	4.4E+00	LT	9.3E-01
Landbay E	6600-112	INORG	Cobalt	7440-48-4	LC	1.45E+02	8.60E+01	**1.7E+00**	1.4E+04	EqP	1.1E-02	2.1E+01	EqP	**7.0E+00**
Landbay E	6600-112	INORG	Copper	7440-50-8	D	2.18E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.3E-05	8.4E+00	EqP	**2.6E+00**
Landbay E	6600-112	INORG	Iron	7439-89-6	D	7.34E+04	9.52E+04	7.7E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.8E+02**
Landbay E	6600-112	INORG	Lead	7439-92-1	B2	3.60E+01						3.5E+02	EqP	1.0E-01
Landbay E	6600-112	INORG	Manganese	7439-96-5	D	5.95E+03	4.27E+03	**1.4E+00**	3.1E+05	EqP	1.9E-02	1.6E+02	EqP	**3.8E+01**
Landbay E	6600-112	INORG	Mercury	7439-97-6	D	2.34E-02	7.10E-02	3.3E-01		NA		3.7E-01	EqP	6.3E-02
Landbay E	6600-112	INORG	Nickel	7440-02-0	A	4.21E+01	7.30E+01	5.8E-01	1.2E+05	EqP	3.4E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6600-112	INORG	Silver	7440-22-4	D	4.59E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	6600-112	INORG	Strontium	7440-24-6		1.14E+01	3.80E+01	3.0E-01	1.6E+07	EqP	7.0E-07	1.1E+03	EqP	1.1E-02
Landbay E	6600-112	INORG	Vanadium	7440-62-2	ID	2.75E+02	2.83E+02	9.7E-01	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	6.9E-01
Landbay E	6600-112	INORG	Zinc	7440-66-6	ID	7.22E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay E	6600-1250	INORG	Aluminum	7429-90-5	ID	3.54E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	6600-1250	INORG	Arsenic	7440-38-2	A	3.79E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay E	6600-1250	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	6600-1250	INORG	Beryllium	7440-41-7	B1	5.83E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	6600-1250	INORG	Cadmium	7440-43-9	B1	8.43E-01	2.70E+00	3.1E-01	1.1E+03	EqP	7.8E-04	2.1E+00	EqP	3.9E-01
Landbay E	6600-1250	INORG	Chromium III	16065-83-1	D	1.78E+02	2.61E+02	6.8E-01	2.1E+10	EqP	8.4E-09	3.4E+06	EqP	5.3E-05
Landbay E	6600-1250	INORG	Chromium VI	18540-29-9	A	3.81E+00	4.97E+00	7.7E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.7E-01
Landbay E	6600-1250	INORG	Cobalt	7440-48-4	LC	6.45E+01	8.60E+01	7.5E-01	1.4E+04	EqP	4.7E-03	2.1E+01	EqP	**3.1E+00**
Landbay E	6600-1250	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	6600-1250	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay E	6600-1250	INORG	Lead	7439-92-1	B2	1.81E+01						3.5E+02	EqP	5.2E-02
Landbay E	6600-1250	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6600-1250	INORG	Mercury	7439-97-6	D	2.40E-02	7.10E-02	3.4E-01		NA		3.7E-01	EqP	6.5E-02
Landbay E	6600-1250	INORG	Nickel	7440-02-0	A	4.15E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.3E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6600-1250	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay E	6600-1250	INORG	Silver	7440-22-4	D	3.80E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay E	6600-1250	INORG	Strontium	7440-24-6		2.69E+01	3.80E+01	7.1E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.5E-02
Landbay E	6600-1250	INORG	Thallium	7440-28-0	ID	3.90E+00	4.50E+00	8.7E-01				1.1E+00	EqP	**3.4E+00**
Landbay E	6600-1250	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay E	6600-1250	INORG	Zinc	7440-66-6	ID	5.15E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	6600-1400	INORG	Aluminum	7429-90-5	ID	4.33E+04	5.34E+04	8.1E-01	3.7E+08	EqP	1.2E-04	2.6E+03	EqP	**1.7E+01**
Landbay E	6600-1400	INORG	Arsenic	7440-38-2	A	6.43E+00	9.90E+00	6.5E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.5E-02
Landbay E	6600-1400	INORG	Barium	7440-39-3	NC	1.12E+02	2.24E+02	5.0E-01	3.2E+05	EqP	3.5E-04	3.3E+00	EqP	**3.4E+01**
Landbay E	6600-1400	INORG	Beryllium	7440-41-7	B1	9.07E-01	1.20E+00	7.6E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.7E-02
Landbay E	6600-1400	INORG	Chromium III	16065-83-1	D	2.34E+02	2.61E+02	9.0E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.9E-05
Landbay E	6600-1400	INORG	Chromium VI	18540-29-9	A	4.19E+00	4.97E+00	8.4E-01	6.6E+01	LT	6.3E-02	4.4E+00	LT	9.5E-01
Landbay E	6600-1400	INORG	Cobalt	7440-48-4	LC	5.91E+01	8.60E+01	6.9E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay E	6600-1400	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	6600-1400	INORG	Iron	7439-89-6	D	7.60E+04	9.52E+04	8.0E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**5.0E+02**
Landbay E	6600-1400	INORG	Lead	7439-92-1	B2	2.56E+01						3.5E+02	EqP	7.3E-02
Landbay E	6600-1400	INORG	Manganese	7439-96-5	D	2.46E+03	4.27E+03	5.8E-01	3.1E+05	EqP	7.9E-03	1.6E+02	EqP	**1.6E+01**
Landbay E	6600-1400	INORG	Nickel	7440-02-0	A	3.86E+01	7.30E+01	5.3E-01	1.2E+05	EqP	3.1E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	6600-1400	INORG	Strontium	7440-24-6		2.00E+01	3.80E+01	5.3E-01	1.6E+07	EqP	1.2E-06	1.1E+03	EqP	1.9E-02
Landbay E	6600-1400	INORG	Thallium	7440-28-0	ID	1.40E+00	4.50E+00	3.1E-01				1.1E+00	EqP	**1.2E+00**
Landbay E	6600-1400	INORG	Vanadium	7440-62-2	ID	2.49E+02	2.83E+02	8.8E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.2E-01
Landbay E	6600-1400	INORG	Zinc	7440-66-6	ID	5.98E+01	1.02E+02	5.9E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay E	6750-0050	PCB	PCBs (total)	1336-36-3	B2	2.02E-02				NA		1.4E+00	EqP	1.5E-02
Landbay E	6750-0050	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	6750-0050	INORG	Antimony	7440-36-0	ID	1.32E+00	1.70E+00	7.8E-01	1.4E+03	EqP	9.6E-04	2.7E+01	EqP	4.9E-02
Landbay E	6750-0050	INORG	Arsenic	7440-38-2	A	6.97E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay E	6750-0050	INORG	Barium	7440-39-3	NC	9.03E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	6750-0050	INORG	Beryllium	7440-41-7	B1	7.26E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay E	6750-0050	INORG	Cadmium	7440-43-9	B1	3.11E+00	2.70E+00	**1.2E+00**	1.1E+03	EqP	2.9E-03	2.1E+00	EqP	**1.5E+00**
Landbay E	6750-0050	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay E	6750-0050	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay E	6750-0050	INORG	Cobalt	7440-48-4	LC	7.88E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.7E-03	2.1E+01	EqP	**3.8E+00**
Landbay E	6750-0050	INORG	Copper	7440-50-8	D	1.60E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay E	6750-0050	INORG	Iron	7439-89-6	D	6.29E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.2E+02**
Landbay E	6750-0050	INORG	Lead	7439-92-1	B2	4.05E+01						3.5E+02	EqP	1.2E-01
Landbay E	6750-0050	INORG	Manganese	7439-96-5	D	4.30E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay E	6750-0050	INORG	Mercury	7439-97-6	D	4.01E-02	7.10E-02	5.6E-01		NA		3.7E-01	EqP	1.1E-01
Landbay E	6750-0050	INORG	Nickel	7440-02-0	A	1.64E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay E	6750-0050	INORG	Silver	7440-22-4	D	5.61E-01	2.30E+00	2.4E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay E	6750-0050	INORG	Vanadium	7440-62-2	ID	2.26E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.6E-01
Landbay E	6750-0050	INORG	Zinc	7440-66-6	ID	5.41E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	6750-0200	PCB	PCBs (total)	1336-36-3	B2	2.02E-02				NA		1.4E+00	EqP	1.5E-02
Landbay E	6750-0200	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	6750-0200	INORG	Antimony	7440-36-0	ID	1.32E+00	1.70E+00	7.8E-01	1.4E+03	EqP	9.6E-04	2.7E+01	EqP	4.9E-02
Landbay E	6750-0200	INORG	Arsenic	7440-38-2	A	6.97E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay E	6750-0200	INORG	Barium	7440-39-3	NC	9.03E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	6750-0200	INORG	Beryllium	7440-41-7	B1	7.26E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay E	6750-0200	INORG	Cadmium	7440-43-9	B1	3.11E+00	2.70E+00	**1.2E+00**	1.1E+03	EqP	2.9E-03	2.1E+00	EqP	**1.5E+00**
Landbay E	6750-0200	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay E	6750-0200	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay E	6750-0200	INORG	Cobalt	7440-48-4	LC	7.88E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.7E-03	2.1E+01	EqP	**3.8E+00**
Landbay E	6750-0200	INORG	Copper	7440-50-8	D	1.60E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay E	6750-0200	INORG	Iron	7439-89-6	D	6.29E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.2E+02**
Landbay E	6750-0200	INORG	Lead	7439-92-1	B2	4.05E+01						3.5E+02	EqP	1.2E-01
Landbay E	6750-0200	INORG	Manganese	7439-96-5	D	4.30E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay E	6750-0200	INORG	Mercury	7439-97-6	D	4.01E-02	7.10E-02	5.6E-01		NA		3.7E-01	EqP	1.1E-01
Landbay E	6750-0200	INORG	Nickel	7440-02-0	A	1.64E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay E	6750-0200	INORG	Silver	7440-22-4	D	5.61E-01	2.30E+00	2.4E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay E	6750-0200	INORG	Vanadium	7440-62-2	ID	2.26E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.6E-01
Landbay E	6750-0200	INORG	Zinc	7440-66-6	ID	5.41E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	6750-0350	PCB	PCBs (total)	1336-36-3	B2	2.03E-02				NA		1.4E+00	EqP	1.5E-02
Landbay E	6750-0350	INORG	Aluminum	7429-90-5	ID	3.29E+04	5.34E+04	6.2E-01	3.7E+08	EqP	8.9E-05	2.6E+03	EqP	**1.3E+01**
Landbay E	6750-0350	INORG	Arsenic	7440-38-2	A	1.02E+01	9.90E+00	1.0E+00	1.1E+03	EqP	9.7E-03	8.6E+01	EqP	1.2E-01
Landbay E	6750-0350	INORG	Barium	7440-39-3	NC	1.16E+02	2.24E+02	5.2E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	6750-0350	INORG	Beryllium	7440-41-7	B1	7.77E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.4E-02
Landbay E	6750-0350	INORG	Chromium III	16065-83-1	D	2.08E+02	2.61E+02	8.0E-01	2.1E+10	EqP	9.8E-09	3.4E+06	EqP	6.2E-05
Landbay E	6750-0350	INORG	Chromium VI	18540-29-9	A	4.01E+00	4.97E+00	8.1E-01	6.6E+01	LT	6.0E-02	4.4E+00	LT	9.1E-01
Landbay E	6750-0350	INORG	Cobalt	7440-48-4	LC	1.16E+02	8.60E+01	**1.3E+00**	1.4E+04	EqP	8.5E-03	2.1E+01	EqP	**5.6E+00**
Landbay E	6750-0350	INORG	Copper	7440-50-8	D	2.17E+01	1.31E+02	1.7E-01	3.5E+05	EqP	6.2E-05	8.4E+00	EqP	**2.6E+00**
Landbay E	6750-0350	INORG	Iron	7439-89-6	D	5.78E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay E	6750-0350	INORG	Lead	7439-92-1	B2	4.28E+01						3.5E+02	EqP	1.2E-01
Landbay E	6750-0350	INORG	Manganese	7439-96-5	D	3.90E+03	4.27E+03	9.1E-01	3.1E+05	EqP	1.3E-02	1.6E+02	EqP	**2.5E+01**
Landbay E	6750-0350	INORG	Nickel	7440-02-0	A	2.36E+01	7.30E+01	3.2E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay E	6750-0350	INORG	Strontium	7440-24-6		6.51E+00	3.80E+01	1.7E-01	1.6E+07	EqP	4.0E-07	1.1E+03	EqP	6.2E-03
Landbay E	6750-0350	INORG	Thallium	7440-28-0	ID	2.01E+00	4.50E+00	4.5E-01				1.1E+00	EqP	**1.8E+00**
Landbay E	6750-0350	INORG	Vanadium	7440-62-2	ID	3.49E+02	2.83E+02	**1.2E+00**	1.5E+05	EqP	2.3E-03	4.0E+02	EqP	8.7E-01
Landbay E	6750-0350	INORG	Zinc	7440-66-6	ID	4.63E+01	1.02E+02	4.5E-01	5.5E+06	EqP	8.5E-06	1.9E+02	EqP	2.4E-01
Landbay E	6750-0500	PCB	PCBs (total)	1336-36-3	B2	2.03E-02				NA		1.4E+00	EqP	1.5E-02
Landbay E	6750-0500	INORG	Aluminum	7429-90-5	ID	4.20E+04	5.34E+04	7.9E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.6E+01**
Landbay E	6750-0500	INORG	Arsenic	7440-38-2	A	3.32E+00	9.90E+00	3.4E-01	1.1E+03	EqP	3.2E-03	8.6E+01	EqP	3.9E-02
Landbay E	6750-0500	INORG	Barium	7440-39-3	NC	1.00E+02	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	6750-0500	INORG	Beryllium	7440-41-7	B1	5.45E-01	1.20E+00	4.5E-01	6.8E+03	EqP	8.0E-05	1.0E+01	EqP	5.2E-02
Landbay E	6750-0500	INORG	Chromium III	16065-83-1	D	1.84E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.6E-09	3.4E+06	EqP	5.5E-05
Landbay E	6750-0500	INORG	Chromium VI	18540-29-9	A	3.85E+00	4.97E+00	7.7E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.7E-01
Landbay E	6750-0500	INORG	Cobalt	7440-48-4	LC	4.84E+01	8.60E+01	5.6E-01	1.4E+04	EqP	3.5E-03	2.1E+01	EqP	**2.3E+00**
Landbay E	6750-0500	INORG	Copper	7440-50-8	D	3.62E+01	1.31E+02	2.8E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.3E+00**
Landbay E	6750-0500	INORG	Iron	7439-89-6	D	5.23E+04	9.52E+04	5.5E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	6750-0500	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay E	6750-0500	INORG	Manganese	7439-96-5	D	1.85E+03	4.27E+03	4.3E-01	3.1E+05	EqP	5.9E-03	1.6E+02	EqP	**1.2E+01**
Landbay E	6750-0500	INORG	Nickel	7440-02-0	A	4.85E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay E	6750-0500	INORG	Strontium	7440-24-6		2.19E+01	3.80E+01	5.8E-01	1.6E+07	EqP	1.3E-06	1.1E+03	EqP	2.1E-02
Landbay E	6750-0500	INORG	Vanadium	7440-62-2	ID	1.62E+02	2.83E+02	5.7E-01	1.5E+05	EqP	1.0E-03	4.0E+02	EqP	4.0E-01
Landbay E	6750-0500	INORG	Zinc	7440-66-6	ID	4.88E+01	1.02E+02	4.8E-01	5.5E+06	EqP	8.9E-06	1.9E+02	EqP	2.6E-01
Landbay E	6750-0650	PCB	PCBs (total)	1336-36-3	B2	1.83E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	6750-0650	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6750-0650	INORG	Arsenic	7440-38-2	A	3.20E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.7E-02
Landbay E	6750-0650	INORG	Barium	7440-39-3	NC	1.23E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay E	6750-0650	INORG	Beryllium	7440-41-7	B1	7.91E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay E	6750-0650	INORG	Cadmium	7440-43-9	B1	3.80E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.5E-03	2.1E+00	EqP	**1.8E+00**
Landbay E	6750-0650	INORG	Chromium III	16065-83-1	D	1.85E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay E	6750-0650	INORG	Chromium VI	18540-29-9	A	3.86E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay E	6750-0650	INORG	Cobalt	7440-48-4	LC	8.71E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.2E+00**
Landbay E	6750-0650	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay E	6750-0650	INORG	Iron	7439-89-6	D	6.68E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay E	6750-0650	INORG	Lead	7439-92-1	B2	3.39E+01						3.5E+02	EqP	9.7E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	6750-0650	INORG	Manganese	7439-96-5	D	3.04E+03	4.27E+03	7.1E-01	3.1E+05	EqP	9.8E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	6750-0650	INORG	Mercury	7439-97-6	D	3.09E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.4E-02
Landbay E	6750-0650	INORG	Nickel	7440-02-0	A	3.31E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay E	6750-0650	INORG	Silver	7440-22-4	D	3.76E-01	2.30E+00	1.6E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay E	6750-0650	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay E	6750-0650	INORG	Zinc	7440-66-6	ID	6.67E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6750-0800	VOC	Acetone	67-64-1	ID	3.00E-01			2.0E+06	LT	1.5E-07	6.0E+02	LT	5.0E-04
Landbay E	6750-0800	PCB	PCBs (total)	1336-36-3	B2	1.83E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	6750-0800	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6750-0800	INORG	Arsenic	7440-38-2	A	3.20E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.7E-02
Landbay E	6750-0800	INORG	Barium	7440-39-3	NC	1.23E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay E	6750-0800	INORG	Beryllium	7440-41-7	B1	7.91E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay E	6750-0800	INORG	Cadmium	7440-43-9	B1	3.80E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.5E-03	2.1E+00	EqP	**1.8E+00**
Landbay E	6750-0800	INORG	Chromium III	16065-83-1	D	1.85E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay E	6750-0800	INORG	Chromium VI	18540-29-9	A	3.86E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay E	6750-0800	INORG	Cobalt	7440-48-4	LC	8.71E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.2E+00**
Landbay E	6750-0800	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay E	6750-0800	INORG	Iron	7439-89-6	D	6.68E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay E	6750-0800	INORG	Lead	7439-92-1	B2	3.39E+01						3.5E+02	EqP	9.7E-02
Landbay E	6750-0800	INORG	Manganese	7439-96-5	D	3.04E+03	4.27E+03	7.1E-01	3.1E+05	EqP	9.8E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	6750-0800	INORG	Mercury	7439-97-6	D	3.09E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.4E-02
Landbay E	6750-0800	INORG	Nickel	7440-02-0	A	3.31E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay E	6750-0800	INORG	Silver	7440-22-4	D	3.76E-01	2.30E+00	1.6E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay E	6750-0800	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay E	6750-0800	INORG	Zinc	7440-66-6	ID	6.67E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6750-1100	INORG	Aluminum	7429-90-5	ID	3.54E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	6750-1100	INORG	Arsenic	7440-38-2	A	3.79E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay E	6750-1100	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	6750-1100	INORG	Beryllium	7440-41-7	B1	5.83E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	6750-1100	INORG	Cadmium	7440-43-9	B1	8.43E-01	2.70E+00	3.1E-01	1.1E+03	EqP	7.8E-04	2.1E+00	EqP	3.9E-01
Landbay E	6750-1100	INORG	Chromium III	16065-83-1	D	1.78E+02	2.61E+02	6.8E-01	2.1E+10	EqP	8.4E-09	3.4E+06	EqP	5.3E-05
Landbay E	6750-1100	INORG	Chromium VI	18540-29-9	A	3.81E+00	4.97E+00	7.7E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.7E-01
Landbay E	6750-1100	INORG	Cobalt	7440-48-4	LC	6.45E+01	8.60E+01	7.5E-01	1.4E+04	EqP	4.7E-03	2.1E+01	EqP	**3.1E+00**
Landbay E	6750-1100	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	6750-1100	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay E	6750-1100	INORG	Lead	7439-92-1	B2	1.81E+01						3.5E+02	EqP	5.2E-02
Landbay E	6750-1100	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6750-1100	INORG	Mercury	7439-97-6	D	2.40E-02	7.10E-02	3.4E-01		NA		3.7E-01	EqP	6.5E-02
Landbay E	6750-1100	INORG	Nickel	7440-02-0	A	4.15E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.3E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6750-1100	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay E	6750-1100	INORG	Silver	7440-22-4	D	3.80E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay E	6750-1100	INORG	Strontium	7440-24-6		2.69E+01	3.80E+01	7.1E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.5E-02
Landbay E	6750-1100	INORG	Thallium	7440-28-0	ID	3.90E+00	4.50E+00	8.7E-01				1.1E+00	EqP	**3.4E+00**
Landbay E	6750-1100	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay E	6750-1100	INORG	Zinc	7440-66-6	ID	5.15E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	6750-1250	INORG	Aluminum	7429-90-5	ID	3.54E+04	5.34E+04	6.6E-01	3.7E+08	EqP	9.6E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	6750-1250	INORG	Arsenic	7440-38-2	A	3.79E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay E	6750-1250	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	6750-1250	INORG	Beryllium	7440-41-7	B1	5.83E-01	1.20E+00	4.9E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	6750-1250	INORG	Cadmium	7440-43-9	B1	8.43E-01	2.70E+00	3.1E-01	1.1E+03	EqP	7.8E-04	2.1E+00	EqP	3.9E-01
Landbay E	6750-1250	INORG	Chromium III	16065-83-1	D	1.78E+02	2.61E+02	6.8E-01	2.1E+10	EqP	8.4E-09	3.4E+06	EqP	5.3E-05
Landbay E	6750-1250	INORG	Chromium VI	18540-29-9	A	3.81E+00	4.97E+00	7.7E-01	6.6E+01	LT	5.7E-02	4.4E+00	LT	8.7E-01
Landbay E	6750-1250	INORG	Cobalt	7440-48-4	LC	6.45E+01	8.60E+01	7.5E-01	1.4E+04	EqP	4.7E-03	2.1E+01	EqP	**3.1E+00**
Landbay E	6750-1250	INORG	Copper	7440-50-8	D	3.20E+01	1.31E+02	2.4E-01	3.5E+05	EqP	9.2E-05	8.4E+00	EqP	**3.8E+00**
Landbay E	6750-1250	INORG	Iron	7439-89-6	D	5.77E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay E	6750-1250	INORG	Lead	7439-92-1	B2	1.81E+01						3.5E+02	EqP	5.2E-02
Landbay E	6750-1250	INORG	Manganese	7439-96-5	D	2.22E+03	4.27E+03	5.2E-01	3.1E+05	EqP	7.1E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6750-1250	INORG	Mercury	7439-97-6	D	2.40E-02	7.10E-02	3.4E-01		NA		3.7E-01	EqP	6.5E-02
Landbay E	6750-1250	INORG	Nickel	7440-02-0	A	4.15E+01	7.30E+01	5.7E-01	1.2E+05	EqP	3.3E-04	3.4E+01	EqP	**1.2E+00**
Landbay E	6750-1250	INORG	Perchlorate	14797-73-0	NC	1.30E-03			3.4E+03	LT	3.8E-07	7.7E+02	LT	1.7E-06
Landbay E	6750-1250	INORG	Silver	7440-22-4	D	3.80E-01	2.30E+00	1.7E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay E	6750-1250	INORG	Strontium	7440-24-6		2.69E+01	3.80E+01	7.1E-01	1.6E+07	EqP	1.7E-06	1.1E+03	EqP	2.5E-02
Landbay E	6750-1250	INORG	Thallium	7440-28-0	ID	3.90E+00	4.50E+00	8.7E-01				1.1E+00	EqP	**3.4E+00**
Landbay E	6750-1250	INORG	Vanadium	7440-62-2	ID	1.69E+02	2.83E+02	6.0E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.2E-01
Landbay E	6750-1250	INORG	Zinc	7440-66-6	ID	5.15E+01	1.02E+02	5.0E-01	5.5E+06	EqP	9.4E-06	1.9E+02	EqP	2.7E-01
Landbay E	6750-1400	INORG	Aluminum	7429-90-5	ID	6.09E+03	5.34E+04	1.1E-01	3.7E+08	EqP	1.6E-05	2.6E+03	EqP	**2.3E+00**
Landbay E	6750-1400	INORG	Arsenic	7440-38-2	A	1.09E+00	9.90E+00	1.1E-01	1.1E+03	EqP	1.0E-03	8.6E+01	EqP	1.3E-02
Landbay E	6750-1400	INORG	Barium	7440-39-3	NC	1.68E+01	2.24E+02	7.5E-02	3.2E+05	EqP	5.2E-05	3.3E+00	EqP	**5.1E+00**
Landbay E	6750-1400	INORG	Beryllium	7440-41-7	B1	1.42E-01	1.20E+00	1.2E-01	6.8E+03	EqP	2.1E-05	1.0E+01	EqP	1.4E-02
Landbay E	6750-1400	INORG	Chromium III	16065-83-1	D	6.19E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.8E-05
Landbay E	6750-1400	INORG	Chromium VI	18540-29-9	A	3.01E+00	4.97E+00	6.1E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	6750-1400	INORG	Cobalt	7440-48-4	LC	1.59E+01	8.60E+01	1.8E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	7.6E-01
Landbay E	6750-1400	INORG	Copper	7440-50-8	D	5.37E+00	1.31E+02	4.1E-02	3.5E+05	EqP	1.5E-05	8.4E+00	EqP	6.4E-01
Landbay E	6750-1400	INORG	Iron	7439-89-6	D	1.47E+04	9.52E+04	1.5E-01	4.4E+06	EqP	3.4E-03	1.5E+02	EqP	**9.7E+01**
Landbay E	6750-1400	INORG	Lead	7439-92-1	B2	3.69E+00						3.5E+02	EqP	1.1E-02
Landbay E	6750-1400	INORG	Manganese	7439-96-5	D	4.24E+02	4.27E+03	9.9E-02	3.1E+05	EqP	1.4E-03	1.6E+02	EqP	**2.7E+00**
Landbay E	6750-1400	INORG	Nickel	7440-02-0	A	7.56E+00	7.30E+01	1.0E-01	1.2E+05	EqP	6.1E-05	3.4E+01	EqP	2.2E-01
Landbay E	6750-1400	INORG	Strontium	7440-24-6		2.03E+00	3.80E+01	5.3E-02	1.6E+07	EqP	1.2E-07	1.1E+03	EqP	1.9E-03
Landbay E	6750-1400	INORG	Vanadium	7440-62-2	ID	5.39E+01	2.83E+02	1.9E-01	1.5E+05	EqP	3.5E-04	4.0E+02	EqP	1.3E-01
Landbay E	6750-1400	INORG	Zinc	7440-66-6	ID	9.50E+00	1.02E+02	9.3E-02	5.5E+06	EqP	1.7E-06	1.9E+02	EqP	5.0E-02
Landbay E	6900-0050	PCB	PCBs (total)	1336-36-3	B2	2.02E-02				NA		1.4E+00	EqP	1.5E-02
Landbay E	6900-0050	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	6900-0050	INORG	Antimony	7440-36-0	ID	1.32E+00	1.70E+00	7.8E-01	1.4E+03	EqP	9.6E-04	2.7E+01	EqP	4.9E-02
Landbay E	6900-0050	INORG	Arsenic	7440-38-2	A	6.97E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay E	6900-0050	INORG	Barium	7440-39-3	NC	9.03E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	6900-0050	INORG	Beryllium	7440-41-7	B1	7.26E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay E	6900-0050	INORG	Cadmium	7440-43-9	B1	3.11E+00	2.70E+00	**1.2E+00**	1.1E+03	EqP	2.9E-03	2.1E+00	EqP	**1.5E+00**
Landbay E	6900-0050	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay E	6900-0050	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay E	6900-0050	INORG	Cobalt	7440-48-4	LC	7.88E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.7E-03	2.1E+01	EqP	**3.8E+00**
Landbay E	6900-0050	INORG	Copper	7440-50-8	D	1.60E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay E	6900-0050	INORG	Iron	7439-89-6	D	6.29E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.2E+02**
Landbay E	6900-0050	INORG	Lead	7439-92-1	B2	4.05E+01						3.5E+02	EqP	1.2E-01
Landbay E	6900-0050	INORG	Manganese	7439-96-5	D	4.30E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay E	6900-0050	INORG	Mercury	7439-97-6	D	4.01E-02	7.10E-02	5.6E-01		NA		3.7E-01	EqP	1.1E-01
Landbay E	6900-0050	INORG	Nickel	7440-02-0	A	1.64E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay E	6900-0050	INORG	Silver	7440-22-4	D	5.61E-01	2.30E+00	2.4E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay E	6900-0050	INORG	Vanadium	7440-62-2	ID	2.26E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.6E-01
Landbay E	6900-0050	INORG	Zinc	7440-66-6	ID	5.41E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	6900-0200	PCB	PCBs (total)	1336-36-3	B2	2.03E-02				NA		1.4E+00	EqP	1.5E-02
Landbay E	6900-0200	INORG	Aluminum	7429-90-5	ID	3.86E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	6900-0200	INORG	Arsenic	7440-38-2	A	7.73E+00	9.90E+00	7.8E-01	1.1E+03	EqP	7.4E-03	8.6E+01	EqP	9.0E-02
Landbay E	6900-0200	INORG	Barium	7440-39-3	NC	1.24E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	6900-0200	INORG	Beryllium	7440-41-7	B1	8.49E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.1E-02
Landbay E	6900-0200	INORG	Cadmium	7440-43-9	B1	3.39E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.1E-04	2.1E+00	EqP	1.6E-01
Landbay E	6900-0200	INORG	Chromium III	16065-83-1	D	2.27E+02	2.61E+02	8.7E-01	2.1E+10	EqP	1.1E-08	3.4E+06	EqP	6.7E-05
Landbay E	6900-0200	INORG	Chromium VI	18540-29-9	A	4.15E+00	4.97E+00	8.3E-01	6.6E+01	LT	6.2E-02	4.4E+00	LT	9.4E-01
Landbay E	6900-0200	INORG	Cobalt	7440-48-4	LC	1.38E+02	8.60E+01	**1.6E+00**	1.4E+04	EqP	1.0E-02	2.1E+01	EqP	**6.6E+00**
Landbay E	6900-0200	INORG	Copper	7440-50-8	D	3.56E+01	1.31E+02	2.7E-01	3.5E+05	EqP	1.0E-04	8.4E+00	EqP	**4.2E+00**
Landbay E	6900-0200	INORG	Iron	7439-89-6	D	8.42E+04	9.52E+04	8.8E-01	4.4E+06	EqP	1.9E-02	1.5E+02	EqP	**5.6E+02**
Landbay E	6900-0200	INORG	Lead	7439-92-1	B2	5.75E+01						3.5E+02	EqP	1.6E-01
Landbay E	6900-0200	INORG	Manganese	7439-96-5	D	4.00E+03	4.27E+03	9.4E-01	3.1E+05	EqP	1.3E-02	1.6E+02	EqP	**2.6E+01**
Landbay E	6900-0200	INORG	Nickel	7440-02-0	A	3.32E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay E	6900-0200	INORG	Strontium	7440-24-6		1.10E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay E	6900-0200	INORG	Vanadium	7440-62-2	ID	3.03E+02	2.83E+02	**1.1E+00**	1.5E+05	EqP	2.0E-03	4.0E+02	EqP	7.6E-01
Landbay E	6900-0200	INORG	Zinc	7440-66-6	ID	6.08E+01	1.02E+02	6.0E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.2E-01
Landbay E	6900-0350	PCB	PCBs (total)	1336-36-3	B2	2.03E-02				NA		1.4E+00	EqP	1.5E-02
Landbay E	6900-0350	INORG	Aluminum	7429-90-5	ID	2.85E+04	5.34E+04	5.3E-01	3.7E+08	EqP	7.7E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	6900-0350	INORG	Arsenic	7440-38-2	A	5.17E+00	9.90E+00	5.2E-01	1.1E+03	EqP	4.9E-03	8.6E+01	EqP	6.0E-02
Landbay E	6900-0350	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	6900-0350	INORG	Beryllium	7440-41-7	B1	7.63E-01	1.20E+00	6.4E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.3E-02
Landbay E	6900-0350	INORG	Chromium III	16065-83-1	D	1.47E+02	2.61E+02	5.7E-01	2.1E+10	EqP	6.9E-09	3.4E+06	EqP	4.4E-05
Landbay E	6900-0350	INORG	Chromium VI	18540-29-9	A	3.60E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	6900-0350	INORG	Cobalt	7440-48-4	LC	7.49E+01	8.60E+01	8.7E-01	1.4E+04	EqP	5.5E-03	2.1E+01	EqP	**3.6E+00**
Landbay E	6900-0350	INORG	Copper	7440-50-8	D	2.42E+01	1.31E+02	1.8E-01	3.5E+05	EqP	7.0E-05	8.4E+00	EqP	**2.9E+00**
Landbay E	6900-0350	INORG	Iron	7439-89-6	D	6.16E+04	9.52E+04	6.5E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.1E+02**
Landbay E	6900-0350	INORG	Lead	7439-92-1	B2	2.83E+01						3.5E+02	EqP	8.1E-02
Landbay E	6900-0350	INORG	Manganese	7439-96-5	D	2.25E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.2E-03	1.6E+02	EqP	**1.4E+01**
Landbay E	6900-0350	INORG	Nickel	7440-02-0	A	3.03E+01	7.30E+01	4.2E-01	1.2E+05	EqP	2.4E-04	3.4E+01	EqP	9.0E-01
Landbay E	6900-0350	INORG	Strontium	7440-24-6		1.16E+01	3.80E+01	3.1E-01	1.6E+07	EqP	7.1E-07	1.1E+03	EqP	1.1E-02
Landbay E	6900-0350	INORG	Thallium	7440-28-0	ID	1.53E+00	4.50E+00	3.4E-01				1.1E+00	EqP	**1.3E+00**
Landbay E	6900-0350	INORG	Vanadium	7440-62-2	ID	1.96E+02	2.83E+02	6.9E-01	1.5E+05	EqP	1.3E-03	4.0E+02	EqP	4.9E-01
Landbay E	6900-0350	INORG	Zinc	7440-66-6	ID	5.21E+01	1.02E+02	5.1E-01	5.5E+06	EqP	9.5E-06	1.9E+02	EqP	2.7E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	6900-0500	PCB	PCBs (total)	1336-36-3	B2	1.83E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	6900-0500	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6900-0500	INORG	Arsenic	7440-38-2	A	3.20E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.7E-02
Landbay E	6900-0500	INORG	Barium	7440-39-3	NC	1.23E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay E	6900-0500	INORG	Beryllium	7440-41-7	B1	7.91E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay E	6900-0500	INORG	Cadmium	7440-43-9	B1	3.80E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.5E-03	2.1E+00	EqP	**1.8E+00**
Landbay E	6900-0500	INORG	Chromium III	16065-83-1	D	1.85E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay E	6900-0500	INORG	Chromium VI	18540-29-9	A	3.86E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay E	6900-0500	INORG	Cobalt	7440-48-4	LC	8.71E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.2E+00**
Landbay E	6900-0500	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay E	6900-0500	INORG	Iron	7439-89-6	D	6.68E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay E	6900-0500	INORG	Lead	7439-92-1	B2	3.39E+01						3.5E+02	EqP	9.7E-02
Landbay E	6900-0500	INORG	Manganese	7439-96-5	D	3.04E+03	4.27E+03	7.1E-01	3.1E+05	EqP	9.8E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	6900-0500	INORG	Mercury	7439-97-6	D	3.09E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.4E-02
Landbay E	6900-0500	INORG	Nickel	7440-02-0	A	3.31E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay E	6900-0500	INORG	Silver	7440-22-4	D	3.76E-01	2.30E+00	1.6E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay E	6900-0500	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay E	6900-0500	INORG	Zinc	7440-66-6	ID	6.67E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6900-0650	PCB	PCBs (total)	1336-36-3	B2	1.83E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	6900-0650	INORG	Aluminum	7429-90-5	ID	3.14E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.5E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	6900-0650	INORG	Arsenic	7440-38-2	A	3.20E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.7E-02
Landbay E	6900-0650	INORG	Barium	7440-39-3	NC	1.23E+02	2.24E+02	5.5E-01	3.2E+05	EqP	3.8E-04	3.3E+00	EqP	**3.7E+01**
Landbay E	6900-0650	INORG	Beryllium	7440-41-7	B1	7.91E-01	1.20E+00	6.6E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.6E-02
Landbay E	6900-0650	INORG	Cadmium	7440-43-9	B1	3.80E+00	2.70E+00	**1.4E+00**	1.1E+03	EqP	3.5E-03	2.1E+00	EqP	**1.8E+00**
Landbay E	6900-0650	INORG	Chromium III	16065-83-1	D	1.85E+02	2.61E+02	7.1E-01	2.1E+10	EqP	8.7E-09	3.4E+06	EqP	5.5E-05
Landbay E	6900-0650	INORG	Chromium VI	18540-29-9	A	3.86E+00	4.97E+00	7.8E-01	6.6E+01	LT	5.8E-02	4.4E+00	LT	8.8E-01
Landbay E	6900-0650	INORG	Cobalt	7440-48-4	LC	8.71E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.3E-03	2.1E+01	EqP	**4.2E+00**
Landbay E	6900-0650	INORG	Copper	7440-50-8	D	2.31E+01	1.31E+02	1.8E-01	3.5E+05	EqP	6.7E-05	8.4E+00	EqP	**2.7E+00**
Landbay E	6900-0650	INORG	Iron	7439-89-6	D	6.68E+04	9.52E+04	7.0E-01	4.4E+06	EqP	1.5E-02	1.5E+02	EqP	**4.4E+02**
Landbay E	6900-0650	INORG	Lead	7439-92-1	B2	3.39E+01						3.5E+02	EqP	9.7E-02
Landbay E	6900-0650	INORG	Manganese	7439-96-5	D	3.04E+03	4.27E+03	7.1E-01	3.1E+05	EqP	9.8E-03	1.6E+02	EqP	**1.9E+01**
Landbay E	6900-0650	INORG	Mercury	7439-97-6	D	3.09E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.4E-02
Landbay E	6900-0650	INORG	Nickel	7440-02-0	A	3.31E+01	7.30E+01	4.5E-01	1.2E+05	EqP	2.7E-04	3.4E+01	EqP	9.8E-01
Landbay E	6900-0650	INORG	Silver	7440-22-4	D	3.76E-01	2.30E+00	1.6E-01	3.8E+03	LT	1.0E-04	2.7E+00	LT	1.4E-01
Landbay E	6900-0650	INORG	Vanadium	7440-62-2	ID	2.57E+02	2.83E+02	9.1E-01	1.5E+05	EqP	1.7E-03	4.0E+02	EqP	6.4E-01
Landbay E	6900-0650	INORG	Zinc	7440-66-6	ID	6.67E+01	1.02E+02	6.5E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.5E-01
Landbay E	6900-9900	PCB	PCBs (total)	1336-36-3	B2	2.02E-02				NA		1.4E+00	EqP	1.5E-02
Landbay E	6900-9900	INORG	Aluminum	7429-90-5	ID	2.66E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.2E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	6900-9900	INORG	Antimony	7440-36-0	ID	1.32E+00	1.70E+00	7.8E-01	1.4E+03	EqP	9.6E-04	2.7E+01	EqP	4.9E-02
Landbay E	6900-9900	INORG	Arsenic	7440-38-2	A	6.97E+00	9.90E+00	7.0E-01	1.1E+03	EqP	6.6E-03	8.6E+01	EqP	8.1E-02
Landbay E	6900-9900	INORG	Barium	7440-39-3	NC	9.03E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	6900-9900	INORG	Beryllium	7440-41-7	B1	7.26E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay E	6900-9900	INORG	Cadmium	7440-43-9	B1	3.11E+00	2.70E+00	**1.2E+00**	1.1E+03	EqP	2.9E-03	2.1E+00	EqP	**1.5E+00**
Landbay E	6900-9900	INORG	Chromium III	16065-83-1	D	1.19E+02	2.61E+02	4.6E-01	2.1E+10	EqP	5.6E-09	3.4E+06	EqP	3.5E-05
Landbay E	6900-9900	INORG	Chromium VI	18540-29-9	A	3.40E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay E	6900-9900	INORG	Cobalt	7440-48-4	LC	7.88E+01	8.60E+01	9.2E-01	1.4E+04	EqP	5.7E-03	2.1E+01	EqP	**3.8E+00**
Landbay E	6900-9900	INORG	Copper	7440-50-8	D	1.60E+01	1.31E+02	1.2E-01	3.5E+05	EqP	4.6E-05	8.4E+00	EqP	**1.9E+00**
Landbay E	6900-9900	INORG	Iron	7439-89-6	D	6.29E+04	9.52E+04	6.6E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**4.2E+02**
Landbay E	6900-9900	INORG	Lead	7439-92-1	B2	4.05E+01						3.5E+02	EqP	1.2E-01
Landbay E	6900-9900	INORG	Manganese	7439-96-5	D	4.30E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.7E+01**
Landbay E	6900-9900	INORG	Mercury	7439-97-6	D	4.01E-02	7.10E-02	5.6E-01		NA		3.7E-01	EqP	1.1E-01
Landbay E	6900-9900	INORG	Nickel	7440-02-0	A	1.64E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay E	6900-9900	INORG	Silver	7440-22-4	D	5.61E-01	2.30E+00	2.4E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay E	6900-9900	INORG	Vanadium	7440-62-2	ID	2.26E+02	2.83E+02	8.0E-01	1.5E+05	EqP	1.5E-03	4.0E+02	EqP	5.6E-01
Landbay E	6900-9900	INORG	Zinc	7440-66-6	ID	5.41E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	7000-126	INORG	Aluminum	7429-90-5	ID	2.92E+04	5.34E+04	5.5E-01	3.7E+08	EqP	7.9E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	7000-126	INORG	Arsenic	7440-38-2	A	1.61E+01	9.90E+00	**1.6E+00**	1.1E+03	EqP	1.5E-02	8.6E+01	EqP	1.9E-01
Landbay E	7000-126	INORG	Barium	7440-39-3	NC	1.04E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.2E+01**
Landbay E	7000-126	INORG	Beryllium	7440-41-7	B1	1.08E+00	1.20E+00	9.0E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay E	7000-126	INORG	Boron	7440-42-8	ID	4.45E+00	1.34E+01	3.3E-01	9.9E+05	LT	4.5E-06	6.4E-01	LT	**7.0E+00**
Landbay E	7000-126	INORG	Cadmium	7440-43-9	B1	3.34E-01	2.70E+00	1.2E-01	1.1E+03	EqP	3.1E-04	2.1E+00	EqP	1.6E-01
Landbay E	7000-126	INORG	Chromium III	16065-83-1	D	2.04E+02	2.61E+02	7.8E-01	2.1E+10	EqP	9.6E-09	3.4E+06	EqP	6.0E-05
Landbay E	7000-126	INORG	Chromium VI	18540-29-9	A	3.99E+00	4.97E+00	8.0E-01	6.6E+01	LT	6.0E-02	4.4E+00	LT	9.1E-01
Landbay E	7000-126	INORG	Cobalt	7440-48-4	LC	9.87E+01	8.60E+01	**1.1E+00**	1.4E+04	EqP	7.2E-03	2.1E+01	EqP	**4.7E+00**
Landbay E	7000-126	INORG	Copper	7440-50-8	D	1.96E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.6E-05	8.4E+00	EqP	**2.3E+00**
Landbay E	7000-126	INORG	Iron	7439-89-6	D	7.85E+04	9.52E+04	8.2E-01	4.4E+06	EqP	1.8E-02	1.5E+02	EqP	**5.2E+02**
Landbay E	7000-126	INORG	Lead	7439-92-1	B2	3.97E+01						3.5E+02	EqP	1.1E-01
Landbay E	7000-126	INORG	Manganese	7439-96-5	D	2.74E+03	4.27E+03	6.4E-01	3.1E+05	EqP	8.8E-03	1.6E+02	EqP	**1.7E+01**
Landbay E	7000-126	INORG	Mercury	7439-97-6	D	3.29E-02	7.10E-02	4.6E-01		NA		3.7E-01	EqP	8.9E-02
Landbay E	7000-126	INORG	Nickel	7440-02-0	A	2.79E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.2E-04	3.4E+01	EqP	8.3E-01
Landbay E	7000-126	INORG	Silver	7440-22-4	D	2.48E-01	2.30E+00	1.1E-01	3.8E+03	LT	6.6E-05	2.7E+00	LT	9.3E-02
Landbay E	7000-126	INORG	Strontium	7440-24-6		1.18E+01	3.80E+01	3.1E-01	1.6E+07	EqP	7.3E-07	1.1E+03	EqP	1.1E-02
Landbay E	7000-126	INORG	Vanadium	7440-62-2	ID	2.84E+02	2.83E+02	1.0E+00	1.5E+05	EqP	1.8E-03	4.0E+02	EqP	7.1E-01
Landbay E	7000-126	INORG	Zinc	7440-66-6	ID	5.42E+01	1.02E+02	5.3E-01	5.5E+06	EqP	9.9E-06	1.9E+02	EqP	2.8E-01
Landbay E	7050-0050	INORG	Aluminum	7429-90-5	ID	2.13E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.2E+00**
Landbay E	7050-0050	INORG	Arsenic	7440-38-2	A	6.42E+00	9.90E+00	6.5E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.5E-02
Landbay E	7050-0050	INORG	Barium	7440-39-3	NC	8.34E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay E	7050-0050	INORG	Beryllium	7440-41-7	B1	6.92E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.6E-02
Landbay E	7050-0050	INORG	Boron	7440-42-8	ID	2.54E+00	1.34E+01	1.9E-01	9.9E+05	LT	2.6E-06	6.4E-01	LT	**4.0E+00**
Landbay E	7050-0050	INORG	Chromium III	16065-83-1	D	8.48E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay E	7050-0050	INORG	Chromium VI	18540-29-9	A	3.17E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay E	7050-0050	INORG	Cobalt	7440-48-4	LC	4.15E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay E	7050-0050	INORG	Copper	7440-50-8	D	1.68E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay E	7050-0050	INORG	Iron	7439-89-6	D	4.40E+04	9.52E+04	4.6E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay E	7050-0050	INORG	Lead	7439-92-1	B2	2.75E+01						3.5E+02	EqP	7.8E-02
Landbay E	7050-0050	INORG	Manganese	7439-96-5	D	2.11E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.8E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	7050-0050	INORG	Mercury	7439-97-6	D	3.37E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.1E-02
Landbay E	7050-0050	INORG	Nickel	7440-02-0	A	1.59E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay E	7050-0050	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay E	7050-0050	INORG	Vanadium	7440-62-2	ID	1.45E+02	2.83E+02	5.1E-01	1.5E+05	EqP	9.4E-04	4.0E+02	EqP	3.6E-01
Landbay E	7050-0050	INORG	Zinc	7440-66-6	ID	4.06E+01	1.02E+02	4.0E-01	5.5E+06	EqP	7.4E-06	1.9E+02	EqP	2.1E-01
Landbay E	7050-0200	PCB	PCBs (total)	1336-36-3	B2	1.84E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	7050-0200	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay E	7050-0200	INORG	Arsenic	7440-38-2	A	5.22E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay E	7050-0200	INORG	Barium	7440-39-3	NC	1.51E+02	2.24E+02	6.7E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay E	7050-0200	INORG	Beryllium	7440-41-7	B1	4.64E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.8E-05	1.0E+01	EqP	4.4E-02
Landbay E	7050-0200	INORG	Cadmium	7440-43-9	B1	2.22E+00	2.70E+00	8.2E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay E	7050-0200	INORG	Chromium III	16065-83-1	D	9.56E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay E	7050-0200	INORG	Chromium VI	18540-29-9	A	3.24E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay E	7050-0200	INORG	Cobalt	7440-48-4	LC	7.43E+01	8.60E+01	8.6E-01	1.4E+04	EqP	5.4E-03	2.1E+01	EqP	**3.6E+00**
Landbay E	7050-0200	INORG	Copper	7440-50-8	D	1.40E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay E	7050-0200	INORG	Iron	7439-89-6	D	5.64E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	7050-0200	INORG	Lead	7439-92-1	B2	2.91E+01						3.5E+02	EqP	8.3E-02
Landbay E	7050-0200	INORG	Manganese	7439-96-5	D	4.36E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.8E+01**
Landbay E	7050-0200	INORG	Mercury	7439-97-6	D	2.29E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.2E-02
Landbay E	7050-0200	INORG	Nickel	7440-02-0	A	1.72E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.1E-01
Landbay E	7050-0200	INORG	Perchlorate	14797-73-0	NC	1.40E-03			3.4E+03	LT	4.1E-07	7.7E+02	LT	1.8E-06
Landbay E	7050-0200	INORG	Silver	7440-22-4	D	7.24E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay E	7050-0200	INORG	Thallium	7440-28-0	ID	1.77E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.6E+00**
Landbay E	7050-0200	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay E	7050-0200	INORG	Zinc	7440-66-6	ID	4.27E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay E	7050-0350	PCB	PCBs (total)	1336-36-3	B2	1.84E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	7050-0350	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay E	7050-0350	INORG	Arsenic	7440-38-2	A	5.22E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay E	7050-0350	INORG	Barium	7440-39-3	NC	1.51E+02	2.24E+02	6.7E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay E	7050-0350	INORG	Beryllium	7440-41-7	B1	4.64E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.8E-05	1.0E+01	EqP	4.4E-02
Landbay E	7050-0350	INORG	Cadmium	7440-43-9	B1	2.22E+00	2.70E+00	8.2E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay E	7050-0350	INORG	Chromium III	16065-83-1	D	9.56E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay E	7050-0350	INORG	Chromium VI	18540-29-9	A	3.24E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay E	7050-0350	INORG	Cobalt	7440-48-4	LC	7.43E+01	8.60E+01	8.6E-01	1.4E+04	EqP	5.4E-03	2.1E+01	EqP	**3.6E+00**
Landbay E	7050-0350	INORG	Copper	7440-50-8	D	1.40E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay E	7050-0350	INORG	Iron	7439-89-6	D	5.64E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	7050-0350	INORG	Lead	7439-92-1	B2	2.91E+01						3.5E+02	EqP	8.3E-02
Landbay E	7050-0350	INORG	Manganese	7439-96-5	D	4.36E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.8E+01**
Landbay E	7050-0350	INORG	Mercury	7439-97-6	D	2.29E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.2E-02
Landbay E	7050-0350	INORG	Nickel	7440-02-0	A	1.72E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.1E-01
Landbay E	7050-0350	INORG	Perchlorate	14797-73-0	NC	1.40E-03			3.4E+03	LT	4.1E-07	7.7E+02	LT	1.8E-06
Landbay E	7050-0350	INORG	Silver	7440-22-4	D	7.24E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay E	7050-0350	INORG	Thallium	7440-28-0	ID	1.77E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.6E+00**
Landbay E	7050-0350	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay E	7050-0350	INORG	Zinc	7440-66-6	ID	4.27E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay E	7050-0500	PCB	PCBs (total)	1336-36-3	B2	1.84E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	7050-0500	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	7050-0500	INORG	Arsenic	7440-38-2	A	5.22E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay E	7050-0500	INORG	Barium	7440-39-3	NC	1.51E+02	2.24E+02	6.7E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay E	7050-0500	INORG	Beryllium	7440-41-7	B1	4.64E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.8E-05	1.0E+01	EqP	4.4E-02
Landbay E	7050-0500	INORG	Cadmium	7440-43-9	B1	2.22E+00	2.70E+00	8.2E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay E	7050-0500	INORG	Chromium III	16065-83-1	D	9.56E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay E	7050-0500	INORG	Chromium VI	18540-29-9	A	3.24E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay E	7050-0500	INORG	Cobalt	7440-48-4	LC	7.43E+01	8.60E+01	8.6E-01	1.4E+04	EqP	5.4E-03	2.1E+01	EqP	**3.6E+00**
Landbay E	7050-0500	INORG	Copper	7440-50-8	D	1.40E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay E	7050-0500	INORG	Iron	7439-89-6	D	5.64E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	7050-0500	INORG	Lead	7439-92-1	B2	2.91E+01						3.5E+02	EqP	8.3E-02
Landbay E	7050-0500	INORG	Manganese	7439-96-5	D	4.36E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.8E+01**
Landbay E	7050-0500	INORG	Mercury	7439-97-6	D	2.29E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.2E-02
Landbay E	7050-0500	INORG	Nickel	7440-02-0	A	1.72E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.1E-01
Landbay E	7050-0500	INORG	Perchlorate	14797-73-0	NC	1.40E-03			3.4E+03	LT	4.1E-07	7.7E+02	LT	1.8E-06
Landbay E	7050-0500	INORG	Silver	7440-22-4	D	7.24E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay E	7050-0500	INORG	Thallium	7440-28-0	ID	1.77E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.6E+00**
Landbay E	7050-0500	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay E	7050-0500	INORG	Zinc	7440-66-6	ID	4.27E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay E	7050-0650	PCB	PCBs (total)	1336-36-3	B2	1.84E-02				NA		1.4E+00	EqP	1.3E-02
Landbay E	7050-0650	INORG	Aluminum	7429-90-5	ID	2.36E+04	5.34E+04	4.4E-01	3.7E+08	EqP	6.4E-05	2.6E+03	EqP	**9.0E+00**
Landbay E	7050-0650	INORG	Arsenic	7440-38-2	A	5.22E+00	9.90E+00	5.3E-01	1.1E+03	EqP	5.0E-03	8.6E+01	EqP	6.1E-02
Landbay E	7050-0650	INORG	Barium	7440-39-3	NC	1.51E+02	2.24E+02	6.7E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay E	7050-0650	INORG	Beryllium	7440-41-7	B1	4.64E-01	1.20E+00	3.9E-01	6.8E+03	EqP	6.8E-05	1.0E+01	EqP	4.4E-02
Landbay E	7050-0650	INORG	Cadmium	7440-43-9	B1	2.22E+00	2.70E+00	8.2E-01	1.1E+03	EqP	2.0E-03	2.1E+00	EqP	1.0E+00
Landbay E	7050-0650	INORG	Chromium III	16065-83-1	D	9.56E+01	2.61E+02	3.7E-01	2.1E+10	EqP	4.5E-09	3.4E+06	EqP	2.8E-05
Landbay E	7050-0650	INORG	Chromium VI	18540-29-9	A	3.24E+00	4.97E+00	6.5E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay E	7050-0650	INORG	Cobalt	7440-48-4	LC	7.43E+01	8.60E+01	8.6E-01	1.4E+04	EqP	5.4E-03	2.1E+01	EqP	**3.6E+00**
Landbay E	7050-0650	INORG	Copper	7440-50-8	D	1.40E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay E	7050-0650	INORG	Iron	7439-89-6	D	5.64E+04	9.52E+04	5.9E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.7E+02**
Landbay E	7050-0650	INORG	Lead	7439-92-1	B2	2.91E+01						3.5E+02	EqP	8.3E-02
Landbay E	7050-0650	INORG	Manganese	7439-96-5	D	4.36E+03	4.27E+03	1.0E+00	3.1E+05	EqP	1.4E-02	1.6E+02	EqP	**2.8E+01**
Landbay E	7050-0650	INORG	Mercury	7439-97-6	D	2.29E-02	7.10E-02	3.2E-01		NA		3.7E-01	EqP	6.2E-02
Landbay E	7050-0650	INORG	Nickel	7440-02-0	A	1.72E+01	7.30E+01	2.4E-01	1.2E+05	EqP	1.4E-04	3.4E+01	EqP	5.1E-01
Landbay E	7050-0650	INORG	Perchlorate	14797-73-0	NC	1.40E-03			3.4E+03	LT	4.1E-07	7.7E+02	LT	1.8E-06
Landbay E	7050-0650	INORG	Silver	7440-22-4	D	7.24E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay E	7050-0650	INORG	Thallium	7440-28-0	ID	1.77E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.6E+00**
Landbay E	7050-0650	INORG	Vanadium	7440-62-2	ID	1.73E+02	2.83E+02	6.1E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.3E-01
Landbay E	7050-0650	INORG	Zinc	7440-66-6	ID	4.27E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay E	7050-0800	INORG	Aluminum	7429-90-5	ID	2.28E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.2E-05	2.6E+03	EqP	**8.7E+00**
Landbay E	7050-0800	INORG	Arsenic	7440-38-2	A	5.04E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay E	7050-0800	INORG	Barium	7440-39-3	NC	8.02E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay E	7050-0800	INORG	Beryllium	7440-41-7	B1	7.32E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay E	7050-0800	INORG	Cadmium	7440-43-9	B1	1.97E-01	2.70E+00	7.3E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.2E-02
Landbay E	7050-0800	INORG	Chromium III	16065-83-1	D	5.89E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.7E-05
Landbay E	7050-0800	INORG	Chromium VI	18540-29-9	A	2.99E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	7050-0800	INORG	Cobalt	7440-48-4	LC	2.15E+01	8.60E+01	2.5E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	1.0E+00
Landbay E	7050-0800	INORG	Copper	7440-50-8	D	8.13E+00	1.31E+02	6.2E-02	3.5E+05	EqP	2.3E-05	8.4E+00	EqP	9.7E-01
Landbay E	7050-0800	INORG	Iron	7439-89-6	D	3.07E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.1E-03	1.5E+02	EqP	**2.0E+02**
Landbay E	7050-0800	INORG	Lead	7439-92-1	B2	2.25E+01						3.5E+02	EqP	6.4E-02
Landbay E	7050-0800	INORG	Manganese	7439-96-5	D	1.27E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.1E+00**
Landbay E	7050-0800	INORG	Mercury	7439-97-6	D	3.13E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	7050-0800	INORG	Nickel	7440-02-0	A	1.20E+01	7.30E+01	1.6E-01	1.2E+05	EqP	9.7E-05	3.4E+01	EqP	3.5E-01
Landbay E	7050-0800	INORG	Silver	7440-22-4	D	4.06E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay E	7050-0800	INORG	Vanadium	7440-62-2	ID	9.83E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay E	7050-0800	INORG	Zinc	7440-66-6	ID	3.81E+01	1.02E+02	3.7E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay E	7050-0950	INORG	Aluminum	7429-90-5	ID	2.21E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay E	7050-0950	INORG	Arsenic	7440-38-2	A	8.16E+00	9.90E+00	8.2E-01	1.1E+03	EqP	7.8E-03	8.6E+01	EqP	9.5E-02
Landbay E	7050-0950	INORG	Barium	7440-39-3	NC	9.13E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	7050-0950	INORG	Beryllium	7440-41-7	B1	7.15E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay E	7050-0950	INORG	Cadmium	7440-43-9	B1	5.46E-01	2.70E+00	2.0E-01	1.1E+03	EqP	5.0E-04	2.1E+00	EqP	2.6E-01
Landbay E	7050-0950	INORG	Chromium III	16065-83-1	D	8.94E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.6E-05
Landbay E	7050-0950	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay E	7050-0950	INORG	Cobalt	7440-48-4	LC	5.86E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay E	7050-0950	INORG	Copper	7440-50-8	D	8.88E+00	1.31E+02	6.8E-02	3.5E+05	EqP	2.6E-05	8.4E+00	EqP	**1.1E+00**
Landbay E	7050-0950	INORG	Iron	7439-89-6	D	5.02E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay E	7050-0950	INORG	Lead	7439-92-1	B2	3.25E+01						3.5E+02	EqP	9.3E-02
Landbay E	7050-0950	INORG	Manganese	7439-96-5	D	2.09E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	7050-0950	INORG	Mercury	7439-97-6	D	3.86E-02	7.10E-02	5.4E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	7050-0950	INORG	Nickel	7440-02-0	A	1.40E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.1E-01
Landbay E	7050-0950	INORG	Silver	7440-22-4	D	5.06E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay E	7050-0950	INORG	Vanadium	7440-62-2	ID	1.51E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.7E-04	4.0E+02	EqP	3.8E-01
Landbay E	7050-0950	INORG	Zinc	7440-66-6	ID	4.26E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay E	7050-1100	INORG	Aluminum	7429-90-5	ID	2.21E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay E	7050-1100	INORG	Arsenic	7440-38-2	A	8.16E+00	9.90E+00	8.2E-01	1.1E+03	EqP	7.8E-03	8.6E+01	EqP	9.5E-02
Landbay E	7050-1100	INORG	Barium	7440-39-3	NC	9.13E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	7050-1100	INORG	Beryllium	7440-41-7	B1	7.15E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay E	7050-1100	INORG	Cadmium	7440-43-9	B1	5.46E-01	2.70E+00	2.0E-01	1.1E+03	EqP	5.0E-04	2.1E+00	EqP	2.6E-01
Landbay E	7050-1100	INORG	Chromium III	16065-83-1	D	8.94E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.6E-05
Landbay E	7050-1100	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay E	7050-1100	INORG	Cobalt	7440-48-4	LC	5.86E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay E	7050-1100	INORG	Copper	7440-50-8	D	8.88E+00	1.31E+02	6.8E-02	3.5E+05	EqP	2.6E-05	8.4E+00	EqP	**1.1E+00**
Landbay E	7050-1100	INORG	Iron	7439-89-6	D	5.02E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay E	7050-1100	INORG	Lead	7439-92-1	B2	3.25E+01						3.5E+02	EqP	9.3E-02
Landbay E	7050-1100	INORG	Manganese	7439-96-5	D	2.09E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	7050-1100	INORG	Mercury	7439-97-6	D	3.86E-02	7.10E-02	5.4E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	7050-1100	INORG	Nickel	7440-02-0	A	1.40E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.1E-01
Landbay E	7050-1100	INORG	Silver	7440-22-4	D	5.06E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay E	7050-1100	INORG	Vanadium	7440-62-2	ID	1.51E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.7E-04	4.0E+02	EqP	3.8E-01
Landbay E	7050-1100	INORG	Zinc	7440-66-6	ID	4.26E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay E	7200-0200	INORG	Aluminum	7429-90-5	ID	2.13E+04	5.34E+04	4.0E-01	3.7E+08	EqP	5.8E-05	2.6E+03	EqP	**8.2E+00**
Landbay E	7200-0200	INORG	Arsenic	7440-38-2	A	6.42E+00	9.90E+00	6.5E-01	1.1E+03	EqP	6.1E-03	8.6E+01	EqP	7.5E-02
Landbay E	7200-0200	INORG	Barium	7440-39-3	NC	8.34E+01	2.24E+02	3.7E-01	3.2E+05	EqP	2.6E-04	3.3E+00	EqP	**2.5E+01**
Landbay E	7200-0200	INORG	Beryllium	7440-41-7	B1	6.92E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.6E-02
Landbay E	7200-0200	INORG	Boron	7440-42-8	ID	2.54E+00	1.34E+01	1.9E-01	9.9E+05	LT	2.6E-06	6.4E-01	LT	**4.0E+00**
Landbay E	7200-0200	INORG	Chromium III	16065-83-1	D	8.48E+01	2.61E+02	3.3E-01	2.1E+10	EqP	4.0E-09	3.4E+06	EqP	2.5E-05
Landbay E	7200-0200	INORG	Chromium VI	18540-29-9	A	3.17E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.2E-01
Landbay E	7200-0200	INORG	Cobalt	7440-48-4	LC	4.15E+01	8.60E+01	4.8E-01	1.4E+04	EqP	3.0E-03	2.1E+01	EqP	**2.0E+00**
Landbay E	7200-0200	INORG	Copper	7440-50-8	D	1.68E+01	1.31E+02	1.3E-01	3.5E+05	EqP	4.8E-05	8.4E+00	EqP	**2.0E+00**
Landbay E	7200-0200	INORG	Iron	7439-89-6	D	4.40E+04	9.52E+04	4.6E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay E	7200-0200	INORG	Lead	7439-92-1	B2	2.75E+01						3.5E+02	EqP	7.8E-02
Landbay E	7200-0200	INORG	Manganese	7439-96-5	D	2.11E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.8E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	7200-0200	INORG	Mercury	7439-97-6	D	3.37E-02	7.10E-02	4.7E-01		NA		3.7E-01	EqP	9.1E-02
Landbay E	7200-0200	INORG	Nickel	7440-02-0	A	1.59E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay E	7200-0200	INORG	Strontium	7440-24-6		1.11E+01	3.80E+01	2.9E-01	1.6E+07	EqP	6.8E-07	1.1E+03	EqP	1.0E-02
Landbay E	7200-0200	INORG	Vanadium	7440-62-2	ID	1.45E+02	2.83E+02	5.1E-01	1.5E+05	EqP	9.4E-04	4.0E+02	EqP	3.6E-01
Landbay E	7200-0200	INORG	Zinc	7440-66-6	ID	4.06E+01	1.02E+02	4.0E-01	5.5E+06	EqP	7.4E-06	1.9E+02	EqP	2.1E-01
Landbay E	7200-0350	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay E	7200-0350	INORG	Antimony	7440-36-0	ID	9.57E-01	1.70E+00	5.6E-01	1.4E+03	EqP	7.0E-04	2.7E+01	EqP	3.5E-02
Landbay E	7200-0350	INORG	Arsenic	7440-38-2	A	7.04E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay E	7200-0350	INORG	Barium	7440-39-3	NC	1.29E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay E	7200-0350	INORG	Beryllium	7440-41-7	B1	8.18E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay E	7200-0350	INORG	Cadmium	7440-43-9	B1	1.82E+00	2.70E+00	6.7E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.5E-01
Landbay E	7200-0350	INORG	Chromium III	16065-83-1	D	5.60E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay E	7200-0350	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	7200-0350	INORG	Cobalt	7440-48-4	LC	2.80E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay E	7200-0350	INORG	Copper	7440-50-8	D	5.78E+00	1.31E+02	4.4E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	6.9E-01
Landbay E	7200-0350	INORG	Iron	7439-89-6	D	4.90E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	7200-0350	INORG	Lead	7439-92-1	B2	2.71E+01						3.5E+02	EqP	7.7E-02
Landbay E	7200-0350	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	7200-0350	INORG	Mercury	7439-97-6	D	3.74E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	7200-0350	INORG	Nickel	7440-02-0	A	1.02E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.2E-05	3.4E+01	EqP	3.0E-01
Landbay E	7200-0350	INORG	Silver	7440-22-4	D	5.64E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay E	7200-0350	INORG	Thallium	7440-28-0	ID	1.30E+00	4.50E+00	2.9E-01				1.1E+00	EqP	**1.1E+00**
Landbay E	7200-0350	INORG	Vanadium	7440-62-2	ID	1.10E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.1E-04	4.0E+02	EqP	2.7E-01
Landbay E	7200-0350	INORG	Zinc	7440-66-6	ID	3.44E+01	1.02E+02	3.4E-01	5.5E+06	EqP	6.3E-06	1.9E+02	EqP	1.8E-01
Landbay E	7200-0500	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay E	7200-0500	INORG	Antimony	7440-36-0	ID	9.57E-01	1.70E+00	5.6E-01	1.4E+03	EqP	7.0E-04	2.7E+01	EqP	3.5E-02
Landbay E	7200-0500	INORG	Arsenic	7440-38-2	A	7.04E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay E	7200-0500	INORG	Barium	7440-39-3	NC	1.29E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay E	7200-0500	INORG	Beryllium	7440-41-7	B1	8.18E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay E	7200-0500	INORG	Cadmium	7440-43-9	B1	1.82E+00	2.70E+00	6.7E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.5E-01
Landbay E	7200-0500	INORG	Chromium III	16065-83-1	D	5.60E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay E	7200-0500	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	7200-0500	INORG	Cobalt	7440-48-4	LC	2.80E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay E	7200-0500	INORG	Copper	7440-50-8	D	5.78E+00	1.31E+02	4.4E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	6.9E-01
Landbay E	7200-0500	INORG	Iron	7439-89-6	D	4.90E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	7200-0500	INORG	Lead	7439-92-1	B2	2.71E+01						3.5E+02	EqP	7.7E-02
Landbay E	7200-0500	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	7200-0500	INORG	Mercury	7439-97-6	D	3.74E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	7200-0500	INORG	Nickel	7440-02-0	A	1.02E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.2E-05	3.4E+01	EqP	3.0E-01
Landbay E	7200-0500	INORG	Silver	7440-22-4	D	5.64E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay E	7200-0500	INORG	Thallium	7440-28-0	ID	1.30E+00	4.50E+00	2.9E-01				1.1E+00	EqP	**1.1E+00**
Landbay E	7200-0500	INORG	Vanadium	7440-62-2	ID	1.10E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.1E-04	4.0E+02	EqP	2.7E-01
Landbay E	7200-0500	INORG	Zinc	7440-66-6	ID	3.44E+01	1.02E+02	3.4E-01	5.5E+06	EqP	6.3E-06	1.9E+02	EqP	1.8E-01
Landbay E	7200-0650	INORG	Aluminum	7429-90-5	ID	2.28E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.2E-05	2.6E+03	EqP	**8.7E+00**
Landbay E	7200-0650	INORG	Arsenic	7440-38-2	A	5.04E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay E	7200-0650	INORG	Barium	7440-39-3	NC	8.02E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay E	7200-0650	INORG	Beryllium	7440-41-7	B1	7.32E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay E	7200-0650	INORG	Cadmium	7440-43-9	B1	1.97E-01	2.70E+00	7.3E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.2E-02
Landbay E	7200-0650	INORG	Chromium III	16065-83-1	D	5.89E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.7E-05
Landbay E	7200-0650	INORG	Chromium VI	18540-29-9	A	2.99E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	7200-0650	INORG	Cobalt	7440-48-4	LC	2.15E+01	8.60E+01	2.5E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	1.0E+00
Landbay E	7200-0650	INORG	Copper	7440-50-8	D	8.13E+00	1.31E+02	6.2E-02	3.5E+05	EqP	2.3E-05	8.4E+00	EqP	9.7E-01
Landbay E	7200-0650	INORG	Iron	7439-89-6	D	3.07E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.1E-03	1.5E+02	EqP	**2.0E+02**
Landbay E	7200-0650	INORG	Lead	7439-92-1	B2	2.25E+01						3.5E+02	EqP	6.4E-02
Landbay E	7200-0650	INORG	Manganese	7439-96-5	D	1.27E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.1E+00**
Landbay E	7200-0650	INORG	Mercury	7439-97-6	D	3.13E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	7200-0650	INORG	Nickel	7440-02-0	A	1.20E+01	7.30E+01	1.6E-01	1.2E+05	EqP	9.7E-05	3.4E+01	EqP	3.5E-01
Landbay E	7200-0650	INORG	Silver	7440-22-4	D	4.06E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay E	7200-0650	INORG	Vanadium	7440-62-2	ID	9.83E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay E	7200-0650	INORG	Zinc	7440-66-6	ID	3.81E+01	1.02E+02	3.7E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay E	7200-0800	INORG	Aluminum	7429-90-5	ID	2.28E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.2E-05	2.6E+03	EqP	**8.7E+00**
Landbay E	7200-0800	INORG	Arsenic	7440-38-2	A	5.04E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay E	7200-0800	INORG	Barium	7440-39-3	NC	8.02E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay E	7200-0800	INORG	Beryllium	7440-41-7	B1	7.32E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay E	7200-0800	INORG	Cadmium	7440-43-9	B1	1.97E-01	2.70E+00	7.3E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.2E-02
Landbay E	7200-0800	INORG	Chromium III	16065-83-1	D	5.89E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.7E-05
Landbay E	7200-0800	INORG	Chromium VI	18540-29-9	A	2.99E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	7200-0800	INORG	Cobalt	7440-48-4	LC	2.15E+01	8.60E+01	2.5E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	1.0E+00
Landbay E	7200-0800	INORG	Copper	7440-50-8	D	8.13E+00	1.31E+02	6.2E-02	3.5E+05	EqP	2.3E-05	8.4E+00	EqP	9.7E-01
Landbay E	7200-0800	INORG	Iron	7439-89-6	D	3.07E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.1E-03	1.5E+02	EqP	**2.0E+02**
Landbay E	7200-0800	INORG	Lead	7439-92-1	B2	2.25E+01						3.5E+02	EqP	6.4E-02
Landbay E	7200-0800	INORG	Manganese	7439-96-5	D	1.27E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.1E+00**
Landbay E	7200-0800	INORG	Mercury	7439-97-6	D	3.13E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	7200-0800	INORG	Nickel	7440-02-0	A	1.20E+01	7.30E+01	1.6E-01	1.2E+05	EqP	9.7E-05	3.4E+01	EqP	3.5E-01
Landbay E	7200-0800	INORG	Silver	7440-22-4	D	4.06E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay E	7200-0800	INORG	Vanadium	7440-62-2	ID	9.83E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay E	7200-0800	INORG	Zinc	7440-66-6	ID	3.81E+01	1.02E+02	3.7E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay E	7200-0950	INORG	Aluminum	7429-90-5	ID	2.21E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay E	7200-0950	INORG	Arsenic	7440-38-2	A	8.16E+00	9.90E+00	8.2E-01	1.1E+03	EqP	7.8E-03	8.6E+01	EqP	9.5E-02
Landbay E	7200-0950	INORG	Barium	7440-39-3	NC	9.13E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	7200-0950	INORG	Beryllium	7440-41-7	B1	7.15E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay E	7200-0950	INORG	Cadmium	7440-43-9	B1	5.46E-01	2.70E+00	2.0E-01	1.1E+03	EqP	5.0E-04	2.1E+00	EqP	2.6E-01
Landbay E	7200-0950	INORG	Chromium III	16065-83-1	D	8.94E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.6E-05
Landbay E	7200-0950	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay E	7200-0950	INORG	Cobalt	7440-48-4	LC	5.86E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay E	7200-0950	INORG	Copper	7440-50-8	D	8.88E+00	1.31E+02	6.8E-02	3.5E+05	EqP	2.6E-05	8.4E+00	EqP	**1.1E+00**
Landbay E	7200-0950	INORG	Iron	7439-89-6	D	5.02E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay E	7200-0950	INORG	Lead	7439-92-1	B2	3.25E+01						3.5E+02	EqP	9.3E-02
Landbay E	7200-0950	INORG	Manganese	7439-96-5	D	2.09E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	7200-0950	INORG	Mercury	7439-97-6	D	3.86E-02	7.10E-02	5.4E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	7200-0950	INORG	Nickel	7440-02-0	A	1.40E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.1E-01
Landbay E	7200-0950	INORG	Silver	7440-22-4	D	5.06E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay E	7200-0950	INORG	Vanadium	7440-62-2	ID	1.51E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.7E-04	4.0E+02	EqP	3.8E-01
Landbay E	7200-0950	INORG	Zinc	7440-66-6	ID	4.26E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay E	7200-1100	INORG	Aluminum	7429-90-5	ID	2.21E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay E	7200-1100	INORG	Arsenic	7440-38-2	A	8.16E+00	9.90E+00	8.2E-01	1.1E+03	EqP	7.8E-03	8.6E+01	EqP	9.5E-02
Landbay E	7200-1100	INORG	Barium	7440-39-3	NC	9.13E+01	2.24E+02	4.1E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.8E+01**
Landbay E	7200-1100	INORG	Beryllium	7440-41-7	B1	7.15E-01	1.20E+00	6.0E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	6.9E-02
Landbay E	7200-1100	INORG	Cadmium	7440-43-9	B1	5.46E-01	2.70E+00	2.0E-01	1.1E+03	EqP	5.0E-04	2.1E+00	EqP	2.6E-01
Landbay E	7200-1100	INORG	Chromium III	16065-83-1	D	8.94E+01	2.61E+02	3.4E-01	2.1E+10	EqP	4.2E-09	3.4E+06	EqP	2.6E-05
Landbay E	7200-1100	INORG	Chromium VI	18540-29-9	A	3.20E+00	4.97E+00	6.4E-01	6.6E+01	LT	4.8E-02	4.4E+00	LT	7.3E-01
Landbay E	7200-1100	INORG	Cobalt	7440-48-4	LC	5.86E+01	8.60E+01	6.8E-01	1.4E+04	EqP	4.3E-03	2.1E+01	EqP	**2.8E+00**
Landbay E	7200-1100	INORG	Copper	7440-50-8	D	8.88E+00	1.31E+02	6.8E-02	3.5E+05	EqP	2.6E-05	8.4E+00	EqP	**1.1E+00**
Landbay E	7200-1100	INORG	Iron	7439-89-6	D	5.02E+04	9.52E+04	5.3E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.3E+02**
Landbay E	7200-1100	INORG	Lead	7439-92-1	B2	3.25E+01						3.5E+02	EqP	9.3E-02
Landbay E	7200-1100	INORG	Manganese	7439-96-5	D	2.09E+03	4.27E+03	4.9E-01	3.1E+05	EqP	6.7E-03	1.6E+02	EqP	**1.3E+01**
Landbay E	7200-1100	INORG	Mercury	7439-97-6	D	3.86E-02	7.10E-02	5.4E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	7200-1100	INORG	Nickel	7440-02-0	A	1.40E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.1E-01
Landbay E	7200-1100	INORG	Silver	7440-22-4	D	5.06E-01	2.30E+00	2.2E-01	3.8E+03	LT	1.3E-04	2.7E+00	LT	1.9E-01
Landbay E	7200-1100	INORG	Vanadium	7440-62-2	ID	1.51E+02	2.83E+02	5.3E-01	1.5E+05	EqP	9.7E-04	4.0E+02	EqP	3.8E-01
Landbay E	7200-1100	INORG	Zinc	7440-66-6	ID	4.26E+01	1.02E+02	4.2E-01	5.5E+06	EqP	7.8E-06	1.9E+02	EqP	2.2E-01
Landbay E	7200-1400	INORG	Aluminum	7429-90-5	ID	2.90E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	7200-1400	INORG	Arsenic	7440-38-2	A	7.10E+00	9.90E+00	7.2E-01	1.1E+03	EqP	6.8E-03	8.6E+01	EqP	8.3E-02
Landbay E	7200-1400	INORG	Barium	7440-39-3	NC	9.71E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	7200-1400	INORG	Beryllium	7440-41-7	B1	9.90E-01	1.20E+00	8.3E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.5E-02
Landbay E	7200-1400	INORG	Cadmium	7440-43-9	B1	3.61E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.3E-04	2.1E+00	EqP	1.7E-01
Landbay E	7200-1400	INORG	Chromium III	16065-83-1	D	9.97E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay E	7200-1400	INORG	Chromium VI	18540-29-9	A	3.27E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay E	7200-1400	INORG	Cobalt	7440-48-4	LC	5.35E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	7200-1400	INORG	Copper	7440-50-8	D	2.47E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.1E-05	8.4E+00	EqP	**2.9E+00**
Landbay E	7200-1400	INORG	Iron	7439-89-6	D	5.94E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay E	7200-1400	INORG	Lead	7439-92-1	B2	2.75E+01						3.5E+02	EqP	7.8E-02
Landbay E	7200-1400	INORG	Manganese	7439-96-5	D	2.28E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.5E+01**
Landbay E	7200-1400	INORG	Nickel	7440-02-0	A	2.13E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.3E-01
Landbay E	7200-1400	INORG	Vanadium	7440-62-2	ID	1.65E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay E	7200-1400	INORG	Zinc	7440-66-6	ID	4.39E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.0E-06	1.9E+02	EqP	2.3E-01
Landbay E	7350-0500	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay E	7350-0500	INORG	Antimony	7440-36-0	ID	9.57E-01	1.70E+00	5.6E-01	1.4E+03	EqP	7.0E-04	2.7E+01	EqP	3.5E-02
Landbay E	7350-0500	INORG	Arsenic	7440-38-2	A	7.04E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay E	7350-0500	INORG	Barium	7440-39-3	NC	1.29E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay E	7350-0500	INORG	Beryllium	7440-41-7	B1	8.18E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay E	7350-0500	INORG	Cadmium	7440-43-9	B1	1.82E+00	2.70E+00	6.7E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.5E-01
Landbay E	7350-0500	INORG	Chromium III	16065-83-1	D	5.60E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay E	7350-0500	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	7350-0500	INORG	Cobalt	7440-48-4	LC	2.80E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay E	7350-0500	INORG	Copper	7440-50-8	D	5.78E+00	1.31E+02	4.4E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	6.9E-01
Landbay E	7350-0500	INORG	Iron	7439-89-6	D	4.90E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	7350-0500	INORG	Lead	7439-92-1	B2	2.71E+01						3.5E+02	EqP	7.7E-02
Landbay E	7350-0500	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	7350-0500	INORG	Mercury	7439-97-6	D	3.74E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	7350-0500	INORG	Nickel	7440-02-0	A	1.02E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.2E-05	3.4E+01	EqP	3.0E-01
Landbay E	7350-0500	INORG	Silver	7440-22-4	D	5.64E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay E	7350-0500	INORG	Thallium	7440-28-0	ID	1.30E+00	4.50E+00	2.9E-01				1.1E+00	EqP	**1.1E+00**
Landbay E	7350-0500	INORG	Vanadium	7440-62-2	ID	1.10E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.1E-04	4.0E+02	EqP	2.7E-01
Landbay E	7350-0500	INORG	Zinc	7440-66-6	ID	3.44E+01	1.02E+02	3.4E-01	5.5E+06	EqP	6.3E-06	1.9E+02	EqP	1.8E-01
Landbay E	7350-0650	INORG	Aluminum	7429-90-5	ID	2.20E+04	5.34E+04	4.1E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.4E+00**
Landbay E	7350-0650	INORG	Antimony	7440-36-0	ID	9.57E-01	1.70E+00	5.6E-01	1.4E+03	EqP	7.0E-04	2.7E+01	EqP	3.5E-02
Landbay E	7350-0650	INORG	Arsenic	7440-38-2	A	7.04E+00	9.90E+00	7.1E-01	1.1E+03	EqP	6.7E-03	8.6E+01	EqP	8.2E-02
Landbay E	7350-0650	INORG	Barium	7440-39-3	NC	1.29E+02	2.24E+02	5.8E-01	3.2E+05	EqP	4.0E-04	3.3E+00	EqP	**3.9E+01**
Landbay E	7350-0650	INORG	Beryllium	7440-41-7	B1	8.18E-01	1.20E+00	6.8E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.8E-02
Landbay E	7350-0650	INORG	Cadmium	7440-43-9	B1	1.82E+00	2.70E+00	6.7E-01	1.1E+03	EqP	1.7E-03	2.1E+00	EqP	8.5E-01
Landbay E	7350-0650	INORG	Chromium III	16065-83-1	D	5.60E+01	2.61E+02	2.1E-01	2.1E+10	EqP	2.6E-09	3.4E+06	EqP	1.7E-05
Landbay E	7350-0650	INORG	Chromium VI	18540-29-9	A	2.97E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	7350-0650	INORG	Cobalt	7440-48-4	LC	2.80E+01	8.60E+01	3.3E-01	1.4E+04	EqP	2.0E-03	2.1E+01	EqP	**1.3E+00**
Landbay E	7350-0650	INORG	Copper	7440-50-8	D	5.78E+00	1.31E+02	4.4E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	6.9E-01
Landbay E	7350-0650	INORG	Iron	7439-89-6	D	4.90E+04	9.52E+04	5.1E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.2E+02**
Landbay E	7350-0650	INORG	Lead	7439-92-1	B2	2.71E+01						3.5E+02	EqP	7.7E-02
Landbay E	7350-0650	INORG	Manganese	7439-96-5	D	1.79E+03	4.27E+03	4.2E-01	3.1E+05	EqP	5.8E-03	1.6E+02	EqP	**1.1E+01**
Landbay E	7350-0650	INORG	Mercury	7439-97-6	D	3.74E-02	7.10E-02	5.3E-01		NA		3.7E-01	EqP	1.0E-01
Landbay E	7350-0650	INORG	Nickel	7440-02-0	A	1.02E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.2E-05	3.4E+01	EqP	3.0E-01
Landbay E	7350-0650	INORG	Silver	7440-22-4	D	5.64E-01	2.30E+00	2.5E-01	3.8E+03	LT	1.5E-04	2.7E+00	LT	2.1E-01
Landbay E	7350-0650	INORG	Thallium	7440-28-0	ID	1.30E+00	4.50E+00	2.9E-01				1.1E+00	EqP	**1.1E+00**
Landbay E	7350-0650	INORG	Vanadium	7440-62-2	ID	1.10E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.1E-04	4.0E+02	EqP	2.7E-01
Landbay E	7350-0650	INORG	Zinc	7440-66-6	ID	3.44E+01	1.02E+02	3.4E-01	5.5E+06	EqP	6.3E-06	1.9E+02	EqP	1.8E-01
Landbay E	7350-0800	INORG	Aluminum	7429-90-5	ID	2.28E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.2E-05	2.6E+03	EqP	**8.7E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	7350-0800	INORG	Arsenic	7440-38-2	A	5.04E+00	9.90E+00	5.1E-01	1.1E+03	EqP	4.8E-03	8.6E+01	EqP	5.9E-02
Landbay E	7350-0800	INORG	Barium	7440-39-3	NC	8.02E+01	2.24E+02	3.6E-01	3.2E+05	EqP	2.5E-04	3.3E+00	EqP	**2.4E+01**
Landbay E	7350-0800	INORG	Beryllium	7440-41-7	B1	7.32E-01	1.20E+00	6.1E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.0E-02
Landbay E	7350-0800	INORG	Cadmium	7440-43-9	B1	1.97E-01	2.70E+00	7.3E-02	1.1E+03	EqP	1.8E-04	2.1E+00	EqP	9.2E-02
Landbay E	7350-0800	INORG	Chromium III	16065-83-1	D	5.89E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.7E-05
Landbay E	7350-0800	INORG	Chromium VI	18540-29-9	A	2.99E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	7350-0800	INORG	Cobalt	7440-48-4	LC	2.15E+01	8.60E+01	2.5E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	1.0E+00
Landbay E	7350-0800	INORG	Copper	7440-50-8	D	8.13E+00	1.31E+02	6.2E-02	3.5E+05	EqP	2.3E-05	8.4E+00	EqP	9.7E-01
Landbay E	7350-0800	INORG	Iron	7439-89-6	D	3.07E+04	9.52E+04	3.2E-01	4.4E+06	EqP	7.1E-03	1.5E+02	EqP	**2.0E+02**
Landbay E	7350-0800	INORG	Lead	7439-92-1	B2	2.25E+01						3.5E+02	EqP	6.4E-02
Landbay E	7350-0800	INORG	Manganese	7439-96-5	D	1.27E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.1E+00**
Landbay E	7350-0800	INORG	Mercury	7439-97-6	D	3.13E-02	7.10E-02	4.4E-01		NA		3.7E-01	EqP	8.5E-02
Landbay E	7350-0800	INORG	Nickel	7440-02-0	A	1.20E+01	7.30E+01	1.6E-01	1.2E+05	EqP	9.7E-05	3.4E+01	EqP	3.5E-01
Landbay E	7350-0800	INORG	Silver	7440-22-4	D	4.06E-01	2.30E+00	1.8E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.5E-01
Landbay E	7350-0800	INORG	Vanadium	7440-62-2	ID	9.83E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.5E-01
Landbay E	7350-0800	INORG	Zinc	7440-66-6	ID	3.81E+01	1.02E+02	3.7E-01	5.5E+06	EqP	7.0E-06	1.9E+02	EqP	2.0E-01
Landbay E	7350-1400	INORG	Aluminum	7429-90-5	ID	2.90E+04	5.34E+04	5.4E-01	3.7E+08	EqP	7.8E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	7350-1400	INORG	Arsenic	7440-38-2	A	7.10E+00	9.90E+00	7.2E-01	1.1E+03	EqP	6.8E-03	8.6E+01	EqP	8.3E-02
Landbay E	7350-1400	INORG	Barium	7440-39-3	NC	9.71E+01	2.24E+02	4.3E-01	3.2E+05	EqP	3.0E-04	3.3E+00	EqP	**2.9E+01**
Landbay E	7350-1400	INORG	Beryllium	7440-41-7	B1	9.90E-01	1.20E+00	8.3E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.5E-02
Landbay E	7350-1400	INORG	Cadmium	7440-43-9	B1	3.61E-01	2.70E+00	1.3E-01	1.1E+03	EqP	3.3E-04	2.1E+00	EqP	1.7E-01
Landbay E	7350-1400	INORG	Chromium III	16065-83-1	D	9.97E+01	2.61E+02	3.8E-01	2.1E+10	EqP	4.7E-09	3.4E+06	EqP	3.0E-05
Landbay E	7350-1400	INORG	Chromium VI	18540-29-9	A	3.27E+00	4.97E+00	6.6E-01	6.6E+01	LT	4.9E-02	4.4E+00	LT	7.4E-01
Landbay E	7350-1400	INORG	Cobalt	7440-48-4	LC	5.35E+01	8.60E+01	6.2E-01	1.4E+04	EqP	3.9E-03	2.1E+01	EqP	**2.6E+00**
Landbay E	7350-1400	INORG	Copper	7440-50-8	D	2.47E+01	1.31E+02	1.9E-01	3.5E+05	EqP	7.1E-05	8.4E+00	EqP	**2.9E+00**
Landbay E	7350-1400	INORG	Iron	7439-89-6	D	5.94E+04	9.52E+04	6.2E-01	4.4E+06	EqP	1.4E-02	1.5E+02	EqP	**3.9E+02**
Landbay E	7350-1400	INORG	Lead	7439-92-1	B2	2.75E+01						3.5E+02	EqP	7.8E-02
Landbay E	7350-1400	INORG	Manganese	7439-96-5	D	2.28E+03	4.27E+03	5.3E-01	3.1E+05	EqP	7.3E-03	1.6E+02	EqP	**1.5E+01**
Landbay E	7350-1400	INORG	Nickel	7440-02-0	A	2.13E+01	7.30E+01	2.9E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.3E-01
Landbay E	7350-1400	INORG	Vanadium	7440-62-2	ID	1.65E+02	2.83E+02	5.8E-01	1.5E+05	EqP	1.1E-03	4.0E+02	EqP	4.1E-01
Landbay E	7350-1400	INORG	Zinc	7440-66-6	ID	4.39E+01	1.02E+02	4.3E-01	5.5E+06	EqP	8.0E-06	1.9E+02	EqP	2.3E-01
Landbay E	7500-0650	INORG	Aluminum	7429-90-5	ID	2.23E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay E	7500-0650	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay E	7500-0650	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	7500-0650	INORG	Beryllium	7440-41-7	B1	9.86E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.5E-02
Landbay E	7500-0650	INORG	Cadmium	7440-43-9	B1	2.89E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.7E-04	2.1E+00	EqP	1.4E-01
Landbay E	7500-0650	INORG	Chromium III	16065-83-1	D	4.48E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	7500-0650	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	7500-0650	INORG	Cobalt	7440-48-4	LC	1.49E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.1E-03	2.1E+01	EqP	7.2E-01
Landbay E	7500-0650	INORG	Copper	7440-50-8	D	7.39E+00	1.31E+02	5.6E-02	3.5E+05	EqP	2.1E-05	8.4E+00	EqP	8.8E-01
Landbay E	7500-0650	INORG	Iron	7439-89-6	D	3.98E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.1E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	7500-0650	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay E	7500-0650	INORG	Manganese	7439-96-5	D	1.27E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.1E+00**
Landbay E	7500-0650	INORG	Mercury	7439-97-6	D	3.64E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.9E-02
Landbay E	7500-0650	INORG	Nickel	7440-02-0	A	1.53E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.5E-01
Landbay E	7500-0650	INORG	Vanadium	7440-62-2	ID	9.52E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay E	7500-0650	INORG	Zinc	7440-66-6	ID	4.53E+01	1.02E+02	4.4E-01	5.5E+06	EqP	8.3E-06	1.9E+02	EqP	2.4E-01
Landbay E	7500-0800	INORG	Aluminum	7429-90-5	ID	2.23E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay E	7500-0800	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay E	7500-0800	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	7500-0800	INORG	Beryllium	7440-41-7	B1	9.86E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.5E-02
Landbay E	7500-0800	INORG	Cadmium	7440-43-9	B1	2.89E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.7E-04	2.1E+00	EqP	1.4E-01
Landbay E	7500-0800	INORG	Chromium III	16065-83-1	D	4.48E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	7500-0800	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	7500-0800	INORG	Cobalt	7440-48-4	LC	1.49E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.1E-03	2.1E+01	EqP	7.2E-01
Landbay E	7500-0800	INORG	Copper	7440-50-8	D	7.39E+00	1.31E+02	5.6E-02	3.5E+05	EqP	2.1E-05	8.4E+00	EqP	8.8E-01
Landbay E	7500-0800	INORG	Iron	7439-89-6	D	3.98E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.1E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	7500-0800	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay E	7500-0800	INORG	Manganese	7439-96-5	D	1.27E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.1E+00**
Landbay E	7500-0800	INORG	Mercury	7439-97-6	D	3.64E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.9E-02
Landbay E	7500-0800	INORG	Nickel	7440-02-0	A	1.53E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.5E-01
Landbay E	7500-0800	INORG	Vanadium	7440-62-2	ID	9.52E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay E	7500-0800	INORG	Zinc	7440-66-6	ID	4.53E+01	1.02E+02	4.4E-01	5.5E+06	EqP	8.3E-06	1.9E+02	EqP	2.4E-01
Landbay E	7500-0950	INORG	Aluminum	7429-90-5	ID	2.23E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay E	7500-0950	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay E	7500-0950	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	7500-0950	INORG	Beryllium	7440-41-7	B1	9.86E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.5E-02
Landbay E	7500-0950	INORG	Cadmium	7440-43-9	B1	2.89E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.7E-04	2.1E+00	EqP	1.4E-01
Landbay E	7500-0950	INORG	Chromium III	16065-83-1	D	4.48E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	7500-0950	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	7500-0950	INORG	Cobalt	7440-48-4	LC	1.49E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.1E-03	2.1E+01	EqP	7.2E-01
Landbay E	7500-0950	INORG	Copper	7440-50-8	D	7.39E+00	1.31E+02	5.6E-02	3.5E+05	EqP	2.1E-05	8.4E+00	EqP	8.8E-01
Landbay E	7500-0950	INORG	Iron	7439-89-6	D	3.98E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.1E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	7500-0950	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay E	7500-0950	INORG	Manganese	7439-96-5	D	1.27E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.1E+00**
Landbay E	7500-0950	INORG	Mercury	7439-97-6	D	3.64E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.9E-02
Landbay E	7500-0950	INORG	Nickel	7440-02-0	A	1.53E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.5E-01
Landbay E	7500-0950	INORG	Vanadium	7440-62-2	ID	9.52E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay E	7500-0950	INORG	Zinc	7440-66-6	ID	4.53E+01	1.02E+02	4.4E-01	5.5E+06	EqP	8.3E-06	1.9E+02	EqP	2.4E-01
Landbay E	7500-1100	INORG	Aluminum	7429-90-5	ID	2.23E+04	5.34E+04	4.2E-01	3.7E+08	EqP	6.0E-05	2.6E+03	EqP	**8.5E+00**
Landbay E	7500-1100	INORG	Arsenic	7440-38-2	A	5.73E+00	9.90E+00	5.8E-01	1.1E+03	EqP	5.5E-03	8.6E+01	EqP	6.7E-02
Landbay E	7500-1100	INORG	Barium	7440-39-3	NC	1.03E+02	2.24E+02	4.6E-01	3.2E+05	EqP	3.2E-04	3.3E+00	EqP	**3.1E+01**
Landbay E	7500-1100	INORG	Beryllium	7440-41-7	B1	9.86E-01	1.20E+00	8.2E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.5E-02
Landbay E	7500-1100	INORG	Cadmium	7440-43-9	B1	2.89E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.7E-04	2.1E+00	EqP	1.4E-01
Landbay E	7500-1100	INORG	Chromium III	16065-83-1	D	4.48E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	7500-1100	INORG	Chromium VI	18540-29-9	A	2.90E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	7500-1100	INORG	Cobalt	7440-48-4	LC	1.49E+01	8.60E+01	1.7E-01	1.4E+04	EqP	1.1E-03	2.1E+01	EqP	7.2E-01
Landbay E	7500-1100	INORG	Copper	7440-50-8	D	7.39E+00	1.31E+02	5.6E-02	3.5E+05	EqP	2.1E-05	8.4E+00	EqP	8.8E-01
Landbay E	7500-1100	INORG	Iron	7439-89-6	D	3.98E+04	9.52E+04	4.2E-01	4.4E+06	EqP	9.1E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	7500-1100	INORG	Lead	7439-92-1	B2	2.03E+01						3.5E+02	EqP	5.8E-02
Landbay E	7500-1100	INORG	Manganese	7439-96-5	D	1.27E+03	4.27E+03	3.0E-01	3.1E+05	EqP	4.1E-03	1.6E+02	EqP	**8.1E+00**
Landbay E	7500-1100	INORG	Mercury	7439-97-6	D	3.64E-02	7.10E-02	5.1E-01		NA		3.7E-01	EqP	9.9E-02
Landbay E	7500-1100	INORG	Nickel	7440-02-0	A	1.53E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.5E-01
Landbay E	7500-1100	INORG	Vanadium	7440-62-2	ID	9.52E+01	2.83E+02	3.4E-01	1.5E+05	EqP	6.1E-04	4.0E+02	EqP	2.4E-01
Landbay E	7500-1100	INORG	Zinc	7440-66-6	ID	4.53E+01	1.02E+02	4.4E-01	5.5E+06	EqP	8.3E-06	1.9E+02	EqP	2.4E-01
Landbay E	7500-1400	INORG	Aluminum	7429-90-5	ID	2.31E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.8E+00**
Landbay E	7500-1400	INORG	Antimony	7440-36-0	ID	9.95E-01	1.70E+00	5.9E-01	1.4E+03	EqP	7.3E-04	2.7E+01	EqP	3.7E-02
Landbay E	7500-1400	INORG	Arsenic	7440-38-2	A	3.99E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay E	7500-1400	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	7500-1400	INORG	Beryllium	7440-41-7	B1	6.20E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay E	7500-1400	INORG	Cadmium	7440-43-9	B1	4.11E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.8E-04	2.1E+00	EqP	1.9E-01
Landbay E	7500-1400	INORG	Chromium III	16065-83-1	D	4.93E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.5E-05
Landbay E	7500-1400	INORG	Chromium VI	18540-29-9	A	2.93E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay E	7500-1400	INORG	Cobalt	7440-48-4	LC	2.42E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay E	7500-1400	INORG	Copper	7440-50-8	D	1.39E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay E	7500-1400	INORG	Iron	7439-89-6	D	4.14E+04	9.52E+04	4.3E-01	4.4E+06	EqP	9.5E-03	1.5E+02	EqP	**2.7E+02**
Landbay E	7500-1400	INORG	Lead	7439-92-1	B2	2.58E+01						3.5E+02	EqP	7.4E-02
Landbay E	7500-1400	INORG	Manganese	7439-96-5	D	2.41E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay E	7500-1400	INORG	Mercury	7439-97-6	D	3.57E-02	7.10E-02	5.0E-01		NA		3.7E-01	EqP	9.7E-02
Landbay E	7500-1400	INORG	Nickel	7440-02-0	A	1.42E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.2E-01
Landbay E	7500-1400	INORG	Silver	7440-22-4	D	7.13E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay E	7500-1400	INORG	Vanadium	7440-62-2	ID	1.17E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.5E-04	4.0E+02	EqP	2.9E-01
Landbay E	7500-1400	INORG	Zinc	7440-66-6	ID	6.22E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay E	7500-1550	INORG	Aluminum	7429-90-5	ID	2.31E+04	5.34E+04	4.3E-01	3.7E+08	EqP	6.3E-05	2.6E+03	EqP	**8.8E+00**
Landbay E	7500-1550	INORG	Antimony	7440-36-0	ID	9.95E-01	1.70E+00	5.9E-01	1.4E+03	EqP	7.3E-04	2.7E+01	EqP	3.7E-02
Landbay E	7500-1550	INORG	Arsenic	7440-38-2	A	3.99E+00	9.90E+00	4.0E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay E	7500-1550	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	7500-1550	INORG	Beryllium	7440-41-7	B1	6.20E-01	1.20E+00	5.2E-01	6.8E+03	EqP	9.1E-05	1.0E+01	EqP	5.9E-02
Landbay E	7500-1550	INORG	Cadmium	7440-43-9	B1	4.11E-01	2.70E+00	1.5E-01	1.1E+03	EqP	3.8E-04	2.1E+00	EqP	1.9E-01
Landbay E	7500-1550	INORG	Chromium III	16065-83-1	D	4.93E+01	2.61E+02	1.9E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.5E-05
Landbay E	7500-1550	INORG	Chromium VI	18540-29-9	A	2.93E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay E	7500-1550	INORG	Cobalt	7440-48-4	LC	2.42E+01	8.60E+01	2.8E-01	1.4E+04	EqP	1.8E-03	2.1E+01	EqP	**1.2E+00**
Landbay E	7500-1550	INORG	Copper	7440-50-8	D	1.39E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay E	7500-1550	INORG	Iron	7439-89-6	D	4.14E+04	9.52E+04	4.3E-01	4.4E+06	EqP	9.5E-03	1.5E+02	EqP	**2.7E+02**
Landbay E	7500-1550	INORG	Lead	7439-92-1	B2	2.58E+01						3.5E+02	EqP	7.4E-02
Landbay E	7500-1550	INORG	Manganese	7439-96-5	D	2.41E+03	4.27E+03	5.6E-01	3.1E+05	EqP	7.7E-03	1.6E+02	EqP	**1.5E+01**
Landbay E	7500-1550	INORG	Mercury	7439-97-6	D	3.57E-02	7.10E-02	5.0E-01		NA		3.7E-01	EqP	9.7E-02
Landbay E	7500-1550	INORG	Nickel	7440-02-0	A	1.42E+01	7.30E+01	1.9E-01	1.2E+05	EqP	1.1E-04	3.4E+01	EqP	4.2E-01
Landbay E	7500-1550	INORG	Silver	7440-22-4	D	7.13E-01	2.30E+00	3.1E-01	3.8E+03	LT	1.9E-04	2.7E+00	LT	2.7E-01
Landbay E	7500-1550	INORG	Vanadium	7440-62-2	ID	1.17E+02	2.83E+02	4.1E-01	1.5E+05	EqP	7.5E-04	4.0E+02	EqP	2.9E-01
Landbay E	7500-1550	INORG	Zinc	7440-66-6	ID	6.22E+01	1.02E+02	6.1E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.3E-01
Landbay E	7650-0800	INORG	Aluminum	7429-90-5	ID	1.95E+04	5.34E+04	3.7E-01	3.7E+08	EqP	5.3E-05	2.6E+03	EqP	**7.5E+00**
Landbay E	7650-0800	INORG	Arsenic	7440-38-2	A	2.79E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	7650-0800	INORG	Barium	7440-39-3	NC	9.06E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	7650-0800	INORG	Beryllium	7440-41-7	B1	6.63E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.8E-05	1.0E+01	EqP	6.4E-02
Landbay E	7650-0800	INORG	Cadmium	7440-43-9	B1	1.06E-01	2.70E+00	3.9E-02	1.1E+03	EqP	9.8E-05	2.1E+00	EqP	5.0E-02
Landbay E	7650-0800	INORG	Chromium III	16065-83-1	D	3.54E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.0E-05
Landbay E	7650-0800	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay E	7650-0800	INORG	Cobalt	7440-48-4	LC	1.10E+01	8.60E+01	1.3E-01	1.4E+04	EqP	8.0E-04	2.1E+01	EqP	5.3E-01
Landbay E	7650-0800	INORG	Copper	7440-50-8	D	9.14E+00	1.31E+02	7.0E-02	3.5E+05	EqP	2.6E-05	8.4E+00	EqP	**1.1E+00**
Landbay E	7650-0800	INORG	Iron	7439-89-6	D	2.84E+04	9.52E+04	3.0E-01	4.4E+06	EqP	6.5E-03	1.5E+02	EqP	**1.9E+02**
Landbay E	7650-0800	INORG	Lead	7439-92-1	B2	1.87E+01						3.5E+02	EqP	5.3E-02
Landbay E	7650-0800	INORG	Manganese	7439-96-5	D	6.12E+02	4.27E+03	1.4E-01	3.1E+05	EqP	2.0E-03	1.6E+02	EqP	**3.9E+00**
Landbay E	7650-0800	INORG	Mercury	7439-97-6	D	3.04E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay E	7650-0800	INORG	Nickel	7440-02-0	A	1.03E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.3E-05	3.4E+01	EqP	3.0E-01
Landbay E	7650-0800	INORG	Silver	7440-22-4	D	5.31E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay E	7650-0800	INORG	Vanadium	7440-62-2	ID	7.39E+01	2.83E+02	2.6E-01	1.5E+05	EqP	4.8E-04	4.0E+02	EqP	1.8E-01
Landbay E	7650-0800	INORG	Zinc	7440-66-6	ID	2.92E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.3E-06	1.9E+02	EqP	1.5E-01
Landbay E	7650-0950	INORG	Aluminum	7429-90-5	ID	1.95E+04	5.34E+04	3.7E-01	3.7E+08	EqP	5.3E-05	2.6E+03	EqP	**7.5E+00**
Landbay E	7650-0950	INORG	Arsenic	7440-38-2	A	2.79E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay E	7650-0950	INORG	Barium	7440-39-3	NC	9.06E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	7650-0950	INORG	Beryllium	7440-41-7	B1	6.63E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.8E-05	1.0E+01	EqP	6.4E-02
Landbay E	7650-0950	INORG	Cadmium	7440-43-9	B1	1.06E-01	2.70E+00	3.9E-02	1.1E+03	EqP	9.8E-05	2.1E+00	EqP	5.0E-02
Landbay E	7650-0950	INORG	Chromium III	16065-83-1	D	3.54E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.0E-05
Landbay E	7650-0950	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay E	7650-0950	INORG	Cobalt	7440-48-4	LC	1.10E+01	8.60E+01	1.3E-01	1.4E+04	EqP	8.0E-04	2.1E+01	EqP	5.3E-01
Landbay E	7650-0950	INORG	Copper	7440-50-8	D	9.14E+00	1.31E+02	7.0E-02	3.5E+05	EqP	2.6E-05	8.4E+00	EqP	**1.1E+00**
Landbay E	7650-0950	INORG	Iron	7439-89-6	D	2.84E+04	9.52E+04	3.0E-01	4.4E+06	EqP	6.5E-03	1.5E+02	EqP	**1.9E+02**
Landbay E	7650-0950	INORG	Lead	7439-92-1	B2	1.87E+01						3.5E+02	EqP	5.3E-02
Landbay E	7650-0950	INORG	Manganese	7439-96-5	D	6.12E+02	4.27E+03	1.4E-01	3.1E+05	EqP	2.0E-03	1.6E+02	EqP	**3.9E+00**
Landbay E	7650-0950	INORG	Mercury	7439-97-6	D	3.04E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay E	7650-0950	INORG	Nickel	7440-02-0	A	1.03E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.3E-05	3.4E+01	EqP	3.0E-01
Landbay E	7650-0950	INORG	Silver	7440-22-4	D	5.31E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay E	7650-0950	INORG	Vanadium	7440-62-2	ID	7.39E+01	2.83E+02	2.6E-01	1.5E+05	EqP	4.8E-04	4.0E+02	EqP	1.8E-01
Landbay E	7650-0950	INORG	Zinc	7440-66-6	ID	2.92E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.3E-06	1.9E+02	EqP	1.5E-01
Landbay E	7650-1100	INORG	Aluminum	7429-90-5	ID	1.95E+04	5.34E+04	3.7E-01	3.7E+08	EqP	5.3E-05	2.6E+03	EqP	**7.5E+00**
Landbay E	7650-1100	INORG	Arsenic	7440-38-2	A	2.79E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay E	7650-1100	INORG	Barium	7440-39-3	NC	9.06E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	7650-1100	INORG	Beryllium	7440-41-7	B1	6.63E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.8E-05	1.0E+01	EqP	6.4E-02
Landbay E	7650-1100	INORG	Cadmium	7440-43-9	B1	1.06E-01	2.70E+00	3.9E-02	1.1E+03	EqP	9.8E-05	2.1E+00	EqP	5.0E-02
Landbay E	7650-1100	INORG	Chromium III	16065-83-1	D	3.54E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.0E-05
Landbay E	7650-1100	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay E	7650-1100	INORG	Cobalt	7440-48-4	LC	1.10E+01	8.60E+01	1.3E-01	1.4E+04	EqP	8.0E-04	2.1E+01	EqP	5.3E-01
Landbay E	7650-1100	INORG	Copper	7440-50-8	D	9.14E+00	1.31E+02	7.0E-02	3.5E+05	EqP	2.6E-05	8.4E+00	EqP	**1.1E+00**
Landbay E	7650-1100	INORG	Iron	7439-89-6	D	2.84E+04	9.52E+04	3.0E-01	4.4E+06	EqP	6.5E-03	1.5E+02	EqP	**1.9E+02**
Landbay E	7650-1100	INORG	Lead	7439-92-1	B2	1.87E+01						3.5E+02	EqP	5.3E-02
Landbay E	7650-1100	INORG	Manganese	7439-96-5	D	6.12E+02	4.27E+03	1.4E-01	3.1E+05	EqP	2.0E-03	1.6E+02	EqP	**3.9E+00**
Landbay E	7650-1100	INORG	Mercury	7439-97-6	D	3.04E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay E	7650-1100	INORG	Nickel	7440-02-0	A	1.03E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.3E-05	3.4E+01	EqP	3.0E-01
Landbay E	7650-1100	INORG	Silver	7440-22-4	D	5.31E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay E	7650-1100	INORG	Vanadium	7440-62-2	ID	7.39E+01	2.83E+02	2.6E-01	1.5E+05	EqP	4.8E-04	4.0E+02	EqP	1.8E-01
Landbay E	7650-1100	INORG	Zinc	7440-66-6	ID	2.92E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.3E-06	1.9E+02	EqP	1.5E-01
Landbay E	7650-1250	INORG	Aluminum	7429-90-5	ID	1.95E+04	5.34E+04	3.7E-01	3.7E+08	EqP	5.3E-05	2.6E+03	EqP	**7.5E+00**
Landbay E	7650-1250	INORG	Arsenic	7440-38-2	A	2.79E+00	9.90E+00	2.8E-01	1.1E+03	EqP	2.7E-03	8.6E+01	EqP	3.3E-02
Landbay E	7650-1250	INORG	Barium	7440-39-3	NC	9.06E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	7650-1250	INORG	Beryllium	7440-41-7	B1	6.63E-01	1.20E+00	5.5E-01	6.8E+03	EqP	9.8E-05	1.0E+01	EqP	6.4E-02
Landbay E	7650-1250	INORG	Cadmium	7440-43-9	B1	1.06E-01	2.70E+00	3.9E-02	1.1E+03	EqP	9.8E-05	2.1E+00	EqP	5.0E-02
Landbay E	7650-1250	INORG	Chromium III	16065-83-1	D	3.54E+01	2.61E+02	1.4E-01	2.1E+10	EqP	1.7E-09	3.4E+06	EqP	1.0E-05
Landbay E	7650-1250	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay E	7650-1250	INORG	Cobalt	7440-48-4	LC	1.10E+01	8.60E+01	1.3E-01	1.4E+04	EqP	8.0E-04	2.1E+01	EqP	5.3E-01
Landbay E	7650-1250	INORG	Copper	7440-50-8	D	9.14E+00	1.31E+02	7.0E-02	3.5E+05	EqP	2.6E-05	8.4E+00	EqP	**1.1E+00**
Landbay E	7650-1250	INORG	Iron	7439-89-6	D	2.84E+04	9.52E+04	3.0E-01	4.4E+06	EqP	6.5E-03	1.5E+02	EqP	**1.9E+02**
Landbay E	7650-1250	INORG	Lead	7439-92-1	B2	1.87E+01						3.5E+02	EqP	5.3E-02
Landbay E	7650-1250	INORG	Manganese	7439-96-5	D	6.12E+02	4.27E+03	1.4E-01	3.1E+05	EqP	2.0E-03	1.6E+02	EqP	**3.9E+00**
Landbay E	7650-1250	INORG	Mercury	7439-97-6	D	3.04E-02	7.10E-02	4.3E-01		NA		3.7E-01	EqP	8.2E-02
Landbay E	7650-1250	INORG	Nickel	7440-02-0	A	1.03E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.3E-05	3.4E+01	EqP	3.0E-01
Landbay E	7650-1250	INORG	Silver	7440-22-4	D	5.31E-01	2.30E+00	2.3E-01	3.8E+03	LT	1.4E-04	2.7E+00	LT	2.0E-01
Landbay E	7650-1250	INORG	Vanadium	7440-62-2	ID	7.39E+01	2.83E+02	2.6E-01	1.5E+05	EqP	4.8E-04	4.0E+02	EqP	1.8E-01
Landbay E	7650-1250	INORG	Zinc	7440-66-6	ID	2.92E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.3E-06	1.9E+02	EqP	1.5E-01
Landbay E	7650-1550	SVOC	Phenol	108-95-2	ID	7.60E-02			4.9E+05	LT	1.5E-07	1.6E+00	LT	4.8E-02
Landbay E	7650-1550	INORG	Aluminum	7429-90-5	ID	2.19E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay E	7650-1550	INORG	Arsenic	7440-38-2	A	2.37E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay E	7650-1550	INORG	Barium	7440-39-3	NC	9.05E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	7650-1550	INORG	Beryllium	7440-41-7	B1	8.50E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.1E-02
Landbay E	7650-1550	INORG	Cadmium	7440-43-9	B1	2.03E-01	2.70E+00	7.5E-02	1.1E+03	EqP	1.9E-04	2.1E+00	EqP	9.5E-02
Landbay E	7650-1550	INORG	Chromium III	16065-83-1	D	3.39E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay E	7650-1550	INORG	Chromium VI	18540-29-9	A	2.82E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay E	7650-1550	INORG	Cobalt	7440-48-4	LC	1.68E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.1E-01
Landbay E	7650-1550	INORG	Copper	7440-50-8	D	6.18E+00	1.31E+02	4.7E-02	3.5E+05	EqP	1.8E-05	8.4E+00	EqP	7.4E-01
Landbay E	7650-1550	INORG	Iron	7439-89-6	D	2.94E+04	9.52E+04	3.1E-01	4.4E+06	EqP	6.8E-03	1.5E+02	EqP	**1.9E+02**
Landbay E	7650-1550	INORG	Lead	7439-92-1	B2	1.42E+01						3.5E+02	EqP	4.1E-02
Landbay E	7650-1550	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay E	7650-1550	INORG	Mercury	7439-97-6	D	2.72E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.4E-02
Landbay E	7650-1550	INORG	Nickel	7440-02-0	A	1.60E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay E	7650-1550	INORG	Silver	7440-22-4	D	4.28E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay E	7650-1550	INORG	Thallium	7440-28-0	ID	1.04E+00	4.50E+00	2.3E-01				1.1E+00	EqP	9.1E-01
Landbay E	7650-1550	INORG	Vanadium	7440-62-2	ID	6.90E+01	2.83E+02	2.4E-01	1.5E+05	EqP	4.5E-04	4.0E+02	EqP	1.7E-01
Landbay E	7650-1550	INORG	Zinc	7440-66-6	ID	2.77E+01	1.02E+02	2.7E-01	5.5E+06	EqP	5.1E-06	1.9E+02	EqP	1.5E-01
Landbay E	7700-150	INORG	Aluminum	7429-90-5	ID	2.68E+04	5.34E+04	5.0E-01	3.7E+08	EqP	7.3E-05	2.6E+03	EqP	**1.0E+01**
Landbay E	7700-150	INORG	Antimony	7440-36-0	ID	1.36E+00	1.70E+00	8.0E-01	1.4E+03	EqP	9.9E-04	2.7E+01	EqP	5.0E-02
Landbay E	7700-150	INORG	Arsenic	7440-38-2	A	9.89E+00	9.90E+00	1.0E+00	1.1E+03	EqP	9.4E-03	8.6E+01	EqP	1.2E-01
Landbay E	7700-150	INORG	Barium	7440-39-3	NC	9.97E+01	2.24E+02	4.5E-01	3.2E+05	EqP	3.1E-04	3.3E+00	EqP	**3.0E+01**
Landbay E	7700-150	INORG	Beryllium	7440-41-7	B1	1.23E+00	1.20E+00	1.0E+00	6.8E+03	EqP	1.8E-04	1.0E+01	EqP	1.2E-01
Landbay E	7700-150	INORG	Boron	7440-42-8	ID	3.68E+00	1.34E+01	2.7E-01	9.9E+05	LT	3.7E-06	6.4E-01	LT	**5.8E+00**
Landbay E	7700-150	INORG	Chromium III	16065-83-1	D	4.63E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay E	7700-150	INORG	Chromium VI	18540-29-9	A	2.91E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.6E-01
Landbay E	7700-150	INORG	Cobalt	7440-48-4	LC	1.04E+01	8.60E+01	1.2E-01	1.4E+04	EqP	7.6E-04	2.1E+01	EqP	5.0E-01
Landbay E	7700-150	INORG	Copper	7440-50-8	D	1.41E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.1E-05	8.4E+00	EqP	**1.7E+00**
Landbay E	7700-150	INORG	Iron	7439-89-6	D	4.93E+04	9.52E+04	5.2E-01	4.4E+06	EqP	1.1E-02	1.5E+02	EqP	**3.3E+02**
Landbay E	7700-150	INORG	Lead	7439-92-1	B2	1.58E+01						3.5E+02	EqP	4.5E-02
Landbay E	7700-150	INORG	Manganese	7439-96-5	D	6.25E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.0E-03	1.6E+02	EqP	**4.0E+00**
Landbay E	7700-150	INORG	Mercury	7439-97-6	D	2.87E-02	7.10E-02	4.0E-01		NA		3.7E-01	EqP	7.8E-02
Landbay E	7700-150	INORG	Nickel	7440-02-0	A	1.67E+01	7.30E+01	2.3E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.9E-01
Landbay E	7700-150	INORG	Silver	7440-22-4	D	2.31E-01	2.30E+00	1.0E-01	3.8E+03	LT	6.2E-05	2.7E+00	LT	8.7E-02
Landbay E	7700-150	INORG	Strontium	7440-24-6		9.25E+00	3.80E+01	2.4E-01	1.6E+07	EqP	5.7E-07	1.1E+03	EqP	8.7E-03
Landbay E	7700-150	INORG	Thallium	7440-28-0	ID	2.39E+00	4.50E+00	5.3E-01				1.1E+00	EqP	**2.1E+00**
Landbay E	7700-150	INORG	Vanadium	7440-62-2	ID	1.11E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.2E-04	4.0E+02	EqP	2.8E-01
Landbay E	7700-150	INORG	Zinc	7440-66-6	ID	2.99E+01	1.02E+02	2.9E-01	5.5E+06	EqP	5.5E-06	1.9E+02	EqP	1.6E-01
Landbay E	7800-1100	INORG	Aluminum	7429-90-5	ID	1.85E+04	5.34E+04	3.5E-01	3.7E+08	EqP	5.0E-05	2.6E+03	EqP	**7.1E+00**
Landbay E	7800-1100	INORG	Arsenic	7440-38-2	A	2.61E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.0E-02
Landbay E	7800-1100	INORG	Barium	7440-39-3	NC	6.64E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay E	7800-1100	INORG	Beryllium	7440-41-7	B1	5.80E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	7800-1100	INORG	Cadmium	7440-43-9	B1	3.09E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.9E-04	2.1E+00	EqP	1.4E-01
Landbay E	7800-1100	INORG	Chromium III	16065-83-1	D	3.45E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay E	7800-1100	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay E	7800-1100	INORG	Cobalt	7440-48-4	LC	8.00E+00	8.60E+01	9.3E-02	1.4E+04	EqP	5.8E-04	2.1E+01	EqP	3.8E-01
Landbay E	7800-1100	INORG	Copper	7440-50-8	D	5.98E+00	1.31E+02	4.6E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	7.1E-01
Landbay E	7800-1100	INORG	Iron	7439-89-6	D	3.50E+04	9.52E+04	3.7E-01	4.4E+06	EqP	8.0E-03	1.5E+02	EqP	**2.3E+02**
Landbay E	7800-1100	INORG	Lead	7439-92-1	B2	1.39E+01						3.5E+02	EqP	4.0E-02
Landbay E	7800-1100	INORG	Manganese	7439-96-5	D	3.67E+02	4.27E+03	8.6E-02	3.1E+05	EqP	1.2E-03	1.6E+02	EqP	**2.3E+00**
Landbay E	7800-1100	INORG	Mercury	7439-97-6	D	2.91E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.9E-02
Landbay E	7800-1100	INORG	Nickel	7440-02-0	A	1.01E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.1E-05	3.4E+01	EqP	3.0E-01
Landbay E	7800-1100	INORG	Silver	7440-22-4	D	4.49E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	7800-1100	INORG	Thallium	7440-28-0	ID	1.75E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.5E+00**
Landbay E	7800-1100	INORG	Vanadium	7440-62-2	ID	7.40E+01	2.83E+02	2.6E-01	1.5E+05	EqP	4.8E-04	4.0E+02	EqP	1.8E-01
Landbay E	7800-1100	INORG	Zinc	7440-66-6	ID	2.54E+01	1.02E+02	2.5E-01	5.5E+06	EqP	4.6E-06	1.9E+02	EqP	1.3E-01
Landbay E	7800-1250	VOC	Cumene	98-82-8	D	2.00E-01				NA		1.0E+00	LT	1.9E-01
Landbay E	7800-1250	INORG	Aluminum	7429-90-5	ID	1.85E+04	5.34E+04	3.5E-01	3.7E+08	EqP	5.0E-05	2.6E+03	EqP	**7.1E+00**
Landbay E	7800-1250	INORG	Arsenic	7440-38-2	A	2.61E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.0E-02
Landbay E	7800-1250	INORG	Barium	7440-39-3	NC	6.64E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay E	7800-1250	INORG	Beryllium	7440-41-7	B1	5.80E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	7800-1250	INORG	Cadmium	7440-43-9	B1	3.09E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.9E-04	2.1E+00	EqP	1.4E-01
Landbay E	7800-1250	INORG	Chromium III	16065-83-1	D	3.45E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay E	7800-1250	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay E	7800-1250	INORG	Cobalt	7440-48-4	LC	8.00E+00	8.60E+01	9.3E-02	1.4E+04	EqP	5.8E-04	2.1E+01	EqP	3.8E-01
Landbay E	7800-1250	INORG	Copper	7440-50-8	D	5.98E+00	1.31E+02	4.6E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	7.1E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	7800-1250	INORG	Iron	7439-89-6	D	3.50E+04	9.52E+04	3.7E-01	4.4E+06	EqP	8.0E-03	1.5E+02	EqP	**2.3E+02**
Landbay E	7800-1250	INORG	Lead	7439-92-1	B2	1.39E+01						3.5E+02	EqP	4.0E-02
Landbay E	7800-1250	INORG	Manganese	7439-96-5	D	3.67E+02	4.27E+03	8.6E-02	3.1E+05	EqP	1.2E-03	1.6E+02	EqP	**2.3E+00**
Landbay E	7800-1250	INORG	Mercury	7439-97-6	D	2.91E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.9E-02
Landbay E	7800-1250	INORG	Nickel	7440-02-0	A	1.01E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.1E-05	3.4E+01	EqP	3.0E-01
Landbay E	7800-1250	INORG	Silver	7440-22-4	D	4.49E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	7800-1250	INORG	Thallium	7440-28-0	ID	1.75E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.5E+00**
Landbay E	7800-1250	INORG	Vanadium	7440-62-2	ID	7.40E+01	2.83E+02	2.6E-01	1.5E+05	EqP	4.8E-04	4.0E+02	EqP	1.8E-01
Landbay E	7800-1250	INORG	Zinc	7440-66-6	ID	2.54E+01	1.02E+02	2.5E-01	5.5E+06	EqP	4.6E-06	1.9E+02	EqP	1.3E-01
Landbay E	7800-1400	SVOC	Phenol	108-95-2	ID	7.60E-02			4.9E+05	LT	1.5E-07	1.6E+00	LT	4.8E-02
Landbay E	7800-1400	INORG	Aluminum	7429-90-5	ID	2.19E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay E	7800-1400	INORG	Arsenic	7440-38-2	A	2.37E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay E	7800-1400	INORG	Barium	7440-39-3	NC	9.05E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	7800-1400	INORG	Beryllium	7440-41-7	B1	8.50E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.1E-02
Landbay E	7800-1400	INORG	Cadmium	7440-43-9	B1	2.03E-01	2.70E+00	7.5E-02	1.1E+03	EqP	1.9E-04	2.1E+00	EqP	9.5E-02
Landbay E	7800-1400	INORG	Chromium III	16065-83-1	D	3.39E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay E	7800-1400	INORG	Chromium VI	18540-29-9	A	2.82E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay E	7800-1400	INORG	Cobalt	7440-48-4	LC	1.68E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.1E-01
Landbay E	7800-1400	INORG	Copper	7440-50-8	D	6.18E+00	1.31E+02	4.7E-02	3.5E+05	EqP	1.8E-05	8.4E+00	EqP	7.4E-01
Landbay E	7800-1400	INORG	Iron	7439-89-6	D	2.94E+04	9.52E+04	3.1E-01	4.4E+06	EqP	6.8E-03	1.5E+02	EqP	**1.9E+02**
Landbay E	7800-1400	INORG	Lead	7439-92-1	B2	1.42E+01						3.5E+02	EqP	4.1E-02
Landbay E	7800-1400	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay E	7800-1400	INORG	Mercury	7439-97-6	D	2.72E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.4E-02
Landbay E	7800-1400	INORG	Nickel	7440-02-0	A	1.60E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay E	7800-1400	INORG	Silver	7440-22-4	D	4.28E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay E	7800-1400	INORG	Thallium	7440-28-0	ID	1.04E+00	4.50E+00	2.3E-01				1.1E+00	EqP	9.1E-01
Landbay E	7800-1400	INORG	Vanadium	7440-62-2	ID	6.90E+01	2.83E+02	2.4E-01	1.5E+05	EqP	4.5E-04	4.0E+02	EqP	1.7E-01
Landbay E	7800-1400	INORG	Zinc	7440-66-6	ID	2.77E+01	1.02E+02	2.7E-01	5.5E+06	EqP	5.1E-06	1.9E+02	EqP	1.5E-01
Landbay E	7800-1550	SVOC	Phenol	108-95-2	ID	7.60E-02			4.9E+05	LT	1.5E-07	1.6E+00	LT	4.8E-02
Landbay E	7800-1550	INORG	Aluminum	7429-90-5	ID	2.19E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay E	7800-1550	INORG	Arsenic	7440-38-2	A	2.37E+00	9.90E+00	2.4E-01	1.1E+03	EqP	2.3E-03	8.6E+01	EqP	2.8E-02
Landbay E	7800-1550	INORG	Barium	7440-39-3	NC	9.05E+01	2.24E+02	4.0E-01	3.2E+05	EqP	2.8E-04	3.3E+00	EqP	**2.7E+01**
Landbay E	7800-1550	INORG	Beryllium	7440-41-7	B1	8.50E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.1E-02
Landbay E	7800-1550	INORG	Cadmium	7440-43-9	B1	2.03E-01	2.70E+00	7.5E-02	1.1E+03	EqP	1.9E-04	2.1E+00	EqP	9.5E-02
Landbay E	7800-1550	INORG	Chromium III	16065-83-1	D	3.39E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay E	7800-1550	INORG	Chromium VI	18540-29-9	A	2.82E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.2E-02	4.4E+00	LT	6.4E-01
Landbay E	7800-1550	INORG	Cobalt	7440-48-4	LC	1.68E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.1E-01
Landbay E	7800-1550	INORG	Copper	7440-50-8	D	6.18E+00	1.31E+02	4.7E-02	3.5E+05	EqP	1.8E-05	8.4E+00	EqP	7.4E-01
Landbay E	7800-1550	INORG	Iron	7439-89-6	D	2.94E+04	9.52E+04	3.1E-01	4.4E+06	EqP	6.8E-03	1.5E+02	EqP	**1.9E+02**
Landbay E	7800-1550	INORG	Lead	7439-92-1	B2	1.42E+01						3.5E+02	EqP	4.1E-02
Landbay E	7800-1550	INORG	Manganese	7439-96-5	D	1.24E+03	4.27E+03	2.9E-01	3.1E+05	EqP	4.0E-03	1.6E+02	EqP	**7.9E+00**
Landbay E	7800-1550	INORG	Mercury	7439-97-6	D	2.72E-02	7.10E-02	3.8E-01		NA		3.7E-01	EqP	7.4E-02
Landbay E	7800-1550	INORG	Nickel	7440-02-0	A	1.60E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay E	7800-1550	INORG	Silver	7440-22-4	D	4.28E-01	2.30E+00	1.9E-01	3.8E+03	LT	1.1E-04	2.7E+00	LT	1.6E-01
Landbay E	7800-1550	INORG	Thallium	7440-28-0	ID	1.04E+00	4.50E+00	2.3E-01				1.1E+00	EqP	9.1E-01
Landbay E	7800-1550	INORG	Vanadium	7440-62-2	ID	6.90E+01	2.83E+02	2.4E-01	1.5E+05	EqP	4.5E-04	4.0E+02	EqP	1.7E-01
Landbay E	7800-1550	INORG	Zinc	7440-66-6	ID	2.77E+01	1.02E+02	2.7E-01	5.5E+06	EqP	5.1E-06	1.9E+02	EqP	1.5E-01
Landbay E	7950-1250	INORG	Aluminum	7429-90-5	ID	1.85E+04	5.34E+04	3.5E-01	3.7E+08	EqP	5.0E-05	2.6E+03	EqP	**7.1E+00**
Landbay E	7950-1250	INORG	Arsenic	7440-38-2	A	2.61E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.0E-02
Landbay E	7950-1250	INORG	Barium	7440-39-3	NC	6.64E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay E	7950-1250	INORG	Beryllium	7440-41-7	B1	5.80E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	7950-1250	INORG	Cadmium	7440-43-9	B1	3.09E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.9E-04	2.1E+00	EqP	1.4E-01
Landbay E	7950-1250	INORG	Chromium III	16065-83-1	D	3.45E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay E	7950-1250	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay E	7950-1250	INORG	Cobalt	7440-48-4	LC	8.00E+00	8.60E+01	9.3E-02	1.4E+04	EqP	5.8E-04	2.1E+01	EqP	3.8E-01
Landbay E	7950-1250	INORG	Copper	7440-50-8	D	5.98E+00	1.31E+02	4.6E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	7.1E-01
Landbay E	7950-1250	INORG	Iron	7439-89-6	D	3.50E+04	9.52E+04	3.7E-01	4.4E+06	EqP	8.0E-03	1.5E+02	EqP	**2.3E+02**
Landbay E	7950-1250	INORG	Lead	7439-92-1	B2	1.39E+01						3.5E+02	EqP	4.0E-02
Landbay E	7950-1250	INORG	Manganese	7439-96-5	D	3.67E+02	4.27E+03	8.6E-02	3.1E+05	EqP	1.2E-03	1.6E+02	EqP	**2.3E+00**
Landbay E	7950-1250	INORG	Mercury	7439-97-6	D	2.91E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.9E-02
Landbay E	7950-1250	INORG	Nickel	7440-02-0	A	1.01E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.1E-05	3.4E+01	EqP	3.0E-01
Landbay E	7950-1250	INORG	Silver	7440-22-4	D	4.49E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	7950-1250	INORG	Thallium	7440-28-0	ID	1.75E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.5E+00**
Landbay E	7950-1250	INORG	Vanadium	7440-62-2	ID	7.40E+01	2.83E+02	2.6E-01	1.5E+05	EqP	4.8E-04	4.0E+02	EqP	1.8E-01
Landbay E	7950-1250	INORG	Zinc	7440-66-6	ID	2.54E+01	1.02E+02	2.5E-01	5.5E+06	EqP	4.6E-06	1.9E+02	EqP	1.3E-01
Landbay E	7950-1400	INORG	Aluminum	7429-90-5	ID	1.85E+04	5.34E+04	3.5E-01	3.7E+08	EqP	5.0E-05	2.6E+03	EqP	**7.1E+00**
Landbay E	7950-1400	INORG	Arsenic	7440-38-2	A	2.61E+00	9.90E+00	2.6E-01	1.1E+03	EqP	2.5E-03	8.6E+01	EqP	3.0E-02
Landbay E	7950-1400	INORG	Barium	7440-39-3	NC	6.64E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay E	7950-1400	INORG	Beryllium	7440-41-7	B1	5.80E-01	1.20E+00	4.8E-01	6.8E+03	EqP	8.6E-05	1.0E+01	EqP	5.6E-02
Landbay E	7950-1400	INORG	Cadmium	7440-43-9	B1	3.09E-01	2.70E+00	1.1E-01	1.1E+03	EqP	2.9E-04	2.1E+00	EqP	1.4E-01
Landbay E	7950-1400	INORG	Chromium III	16065-83-1	D	3.45E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.6E-09	3.4E+06	EqP	1.0E-05
Landbay E	7950-1400	INORG	Chromium VI	18540-29-9	A	2.83E+00	4.97E+00	5.7E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.4E-01
Landbay E	7950-1400	INORG	Cobalt	7440-48-4	LC	8.00E+00	8.60E+01	9.3E-02	1.4E+04	EqP	5.8E-04	2.1E+01	EqP	3.8E-01
Landbay E	7950-1400	INORG	Copper	7440-50-8	D	5.98E+00	1.31E+02	4.6E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	7.1E-01
Landbay E	7950-1400	INORG	Iron	7439-89-6	D	3.50E+04	9.52E+04	3.7E-01	4.4E+06	EqP	8.0E-03	1.5E+02	EqP	**2.3E+02**
Landbay E	7950-1400	INORG	Lead	7439-92-1	B2	1.39E+01						3.5E+02	EqP	4.0E-02
Landbay E	7950-1400	INORG	Manganese	7439-96-5	D	3.67E+02	4.27E+03	8.6E-02	3.1E+05	EqP	1.2E-03	1.6E+02	EqP	**2.3E+00**
Landbay E	7950-1400	INORG	Mercury	7439-97-6	D	2.91E-02	7.10E-02	4.1E-01		NA		3.7E-01	EqP	7.9E-02
Landbay E	7950-1400	INORG	Nickel	7440-02-0	A	1.01E+01	7.30E+01	1.4E-01	1.2E+05	EqP	8.1E-05	3.4E+01	EqP	3.0E-01
Landbay E	7950-1400	INORG	Silver	7440-22-4	D	4.49E-01	2.30E+00	2.0E-01	3.8E+03	LT	1.2E-04	2.7E+00	LT	1.7E-01
Landbay E	7950-1400	INORG	Thallium	7440-28-0	ID	1.75E+00	4.50E+00	3.9E-01				1.1E+00	EqP	**1.5E+00**
Landbay E	7950-1400	INORG	Vanadium	7440-62-2	ID	7.40E+01	2.83E+02	2.6E-01	1.5E+05	EqP	4.8E-04	4.0E+02	EqP	1.8E-01
Landbay E	7950-1400	INORG	Zinc	7440-66-6	ID	2.54E+01	1.02E+02	2.5E-01	5.5E+06	EqP	4.6E-06	1.9E+02	EqP	1.3E-01
Landbay E	7950-1550	SVOC	Fluoranthene	206-44-0	D	8.60E-02				NA		1.7E-01	EqP	5.0E-01
Landbay E	7950-1550	SVOC	Phenanthrene	85-01-8	D	4.60E-02				NA		3.9E-01	EqP	1.2E-01
Landbay E	7950-1550	SVOC	Pyrene	129-00-0	NC	6.40E-02				NA		1.1E-01	EqP	6.1E-01
Landbay E	7950-1550	INORG	Aluminum	7429-90-5	ID	2.76E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	7950-1550	INORG	Arsenic	7440-38-2	A	5.61E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay E	7950-1550	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	7950-1550	INORG	Beryllium	7440-41-7	B1	1.07E+00	1.20E+00	8.9E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay E	7950-1550	INORG	Chromium III	16065-83-1	D	4.15E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay E	7950-1550	INORG	Chromium VI	18540-29-9	A	2.87E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay E	7950-1550	INORG	Cobalt	7440-48-4	LC	2.24E+01	8.60E+01	2.6E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	**1.1E+00**
Landbay E	7950-1550	INORG	Copper	7440-50-8	D	5.53E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay E	7950-1550	INORG	Iron	7439-89-6	D	3.87E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	7950-1550	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay E	7950-1550	INORG	Manganese	7439-96-5	D	8.66E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.8E-03	1.6E+02	EqP	**5.5E+00**
Landbay E	7950-1550	INORG	Mercury	7439-97-6	D	4.89E-02	7.10E-02	6.9E-01		NA		3.7E-01	EqP	1.3E-01
Landbay E	7950-1550	INORG	Nickel	7440-02-0	A	2.03E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay E	7950-1550	INORG	Vanadium	7440-62-2	ID	7.90E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.1E-04	4.0E+02	EqP	2.0E-01
Landbay E	7950-1550	INORG	Zinc	7440-66-6	ID	4.70E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay E	8100-1400	SVOC	Fluoranthene	206-44-0	D	8.60E-02				NA		1.7E-01	EqP	5.0E-01
Landbay E	8100-1400	SVOC	Phenanthrene	85-01-8	D	4.60E-02				NA		3.9E-01	EqP	1.2E-01
Landbay E	8100-1400	SVOC	Pyrene	129-00-0	NC	6.40E-02				NA		1.1E-01	EqP	6.1E-01
Landbay E	8100-1400	INORG	Aluminum	7429-90-5	ID	2.76E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	8100-1400	INORG	Arsenic	7440-38-2	A	5.61E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay E	8100-1400	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	8100-1400	INORG	Beryllium	7440-41-7	B1	1.07E+00	1.20E+00	8.9E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay E	8100-1400	INORG	Chromium III	16065-83-1	D	4.15E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay E	8100-1400	INORG	Chromium VI	18540-29-9	A	2.87E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay E	8100-1400	INORG	Cobalt	7440-48-4	LC	2.24E+01	8.60E+01	2.6E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	**1.1E+00**
Landbay E	8100-1400	INORG	Copper	7440-50-8	D	5.53E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay E	8100-1400	INORG	Iron	7439-89-6	D	3.87E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	8100-1400	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay E	8100-1400	INORG	Manganese	7439-96-5	D	8.66E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.8E-03	1.6E+02	EqP	**5.5E+00**
Landbay E	8100-1400	INORG	Mercury	7439-97-6	D	4.89E-02	7.10E-02	6.9E-01		NA		3.7E-01	EqP	1.3E-01
Landbay E	8100-1400	INORG	Nickel	7440-02-0	A	2.03E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay E	8100-1400	INORG	Vanadium	7440-62-2	ID	7.90E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.1E-04	4.0E+02	EqP	2.0E-01
Landbay E	8100-1400	INORG	Zinc	7440-66-6	ID	4.70E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay E	8100-1550	SVOC	Fluoranthene	206-44-0	D	8.60E-02				NA		1.7E-01	EqP	5.0E-01
Landbay E	8100-1550	SVOC	Phenanthrene	85-01-8	D	4.60E-02				NA		3.9E-01	EqP	1.2E-01
Landbay E	8100-1550	SVOC	Pyrene	129-00-0	NC	6.40E-02				NA		1.1E-01	EqP	6.1E-01
Landbay E	8100-1550	INORG	Aluminum	7429-90-5	ID	2.76E+04	5.34E+04	5.2E-01	3.7E+08	EqP	7.5E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	8100-1550	INORG	Arsenic	7440-38-2	A	5.61E+00	9.90E+00	5.7E-01	1.1E+03	EqP	5.3E-03	8.6E+01	EqP	6.5E-02
Landbay E	8100-1550	INORG	Barium	7440-39-3	NC	1.25E+02	2.24E+02	5.6E-01	3.2E+05	EqP	3.9E-04	3.3E+00	EqP	**3.8E+01**
Landbay E	8100-1550	INORG	Beryllium	7440-41-7	B1	1.07E+00	1.20E+00	8.9E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay E	8100-1550	INORG	Chromium III	16065-83-1	D	4.15E+01	2.61E+02	1.6E-01	2.1E+10	EqP	1.9E-09	3.4E+06	EqP	1.2E-05
Landbay E	8100-1550	INORG	Chromium VI	18540-29-9	A	2.87E+00	4.97E+00	5.8E-01	6.6E+01	LT	4.3E-02	4.4E+00	LT	6.5E-01
Landbay E	8100-1550	INORG	Cobalt	7440-48-4	LC	2.24E+01	8.60E+01	2.6E-01	1.4E+04	EqP	1.6E-03	2.1E+01	EqP	**1.1E+00**
Landbay E	8100-1550	INORG	Copper	7440-50-8	D	5.53E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.6E+00**
Landbay E	8100-1550	INORG	Iron	7439-89-6	D	3.87E+04	9.52E+04	4.1E-01	4.4E+06	EqP	8.9E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	8100-1550	INORG	Lead	7439-92-1	B2	2.20E+01						3.5E+02	EqP	6.3E-02
Landbay E	8100-1550	INORG	Manganese	7439-96-5	D	8.66E+02	4.27E+03	2.0E-01	3.1E+05	EqP	2.8E-03	1.6E+02	EqP	**5.5E+00**

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5] Criteria (mg/kg)	Basis	Ratio	Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6] Criteria (mg/kg)	Basis	Ratio
Landbay E	8100-1550	INORG	Mercury	7439-97-6	D	4.89E-02	7.10E-02	6.9E-01		NA		3.7E-01	EqP	1.3E-01
Landbay E	8100-1550	INORG	Nickel	7440-02-0	A	2.03E+01	7.30E+01	2.8E-01	1.2E+05	EqP	1.6E-04	3.4E+01	EqP	6.0E-01
Landbay E	8100-1550	INORG	Vanadium	7440-62-2	ID	7.90E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.1E-04	4.0E+02	EqP	2.0E-01
Landbay E	8100-1550	INORG	Zinc	7440-66-6	ID	4.70E+01	1.02E+02	4.6E-01	5.5E+06	EqP	8.6E-06	1.9E+02	EqP	2.5E-01
Landbay E	A7G191	INORG	Aluminum	7429-90-5	ID	2.97E+04	5.34E+04	5.6E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	A7G191	INORG	Barium	7440-39-3	NC	2.47E+01	2.24E+02	1.1E-01	3.2E+05	EqP	7.6E-05	3.3E+00	EqP	**7.5E+00**
Landbay E	A7G191	INORG	Cadmium	7440-43-9	B1	5.78E-01	2.70E+00	2.1E-01	1.1E+03	EqP	5.3E-04	2.1E+00	EqP	2.7E-01
Landbay E	A7G191	INORG	Chromium III	16065-83-1	D	2.62E+01	2.61E+02	1.0E-01	2.1E+10	EqP	1.2E-09	3.4E+06	EqP	7.8E-06
Landbay E	A7G191	INORG	Copper	7440-50-8	D	5.03E+01	1.31E+02	3.8E-01	3.5E+05	EqP	1.4E-04	8.4E+00	EqP	**6.0E+00**
Landbay E	A7G191	INORG	Lead	7439-92-1	B2	1.30E+00						3.5E+02	EqP	3.7E-03
Landbay E	A7G191	INORG	Perchlorate	14797-73-0	NC	2.70E-02			3.4E+03	LT	7.8E-06	7.7E+02	LT	3.5E-05
Landbay E	A7G191	INORG	Silver	7440-22-4	D	1.16E+00	2.30E+00	5.0E-01	3.8E+03	LT	3.1E-04	2.7E+00	LT	4.4E-01
Landbay E	A7G191	INORG	Strontium	7440-24-6		4.79E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	2.9E-06	1.1E+03	EqP	4.5E-02
Landbay E	A7G192	INORG	Aluminum	7429-90-5	ID	2.96E+04	5.34E+04	5.5E-01	3.7E+08	EqP	8.0E-05	2.6E+03	EqP	**1.1E+01**
Landbay E	A7G192	INORG	Barium	7440-39-3	NC	4.38E+01	2.24E+02	2.0E-01	3.2E+05	EqP	1.4E-04	3.3E+00	EqP	**1.3E+01**
Landbay E	A7G192	INORG	Cadmium	7440-43-9	B1	7.69E-01	2.70E+00	2.8E-01	1.1E+03	EqP	7.1E-04	2.1E+00	EqP	3.6E-01
Landbay E	A7G192	INORG	Chromium III	16065-83-1	D	6.29E+01	2.61E+02	2.4E-01	2.1E+10	EqP	2.9E-09	3.4E+06	EqP	1.9E-05
Landbay E	A7G192	INORG	Chromium VI	18540-29-9	A	8.20E-01	4.97E+00	1.6E-01	6.6E+01	LT	1.2E-02	4.4E+00	LT	1.9E-01
Landbay E	A7G192	INORG	Copper	7440-50-8	D	3.74E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay E	A7G192	INORG	Lead	7439-92-1	B2	2.79E+00						3.5E+02	EqP	8.0E-03
Landbay E	A7G192	INORG	Perchlorate	14797-73-0	NC	1.10E-03			3.4E+03	LT	3.2E-07	7.7E+02	LT	1.4E-06
Landbay E	A7G192	INORG	Silver	7440-22-4	D	1.51E+00	2.30E+00	6.6E-01	3.8E+03	LT	4.0E-04	2.7E+00	LT	5.7E-01
Landbay E	A7G192	INORG	Strontium	7440-24-6		3.41E+01	3.80E+01	9.0E-01	1.6E+07	EqP	2.1E-06	1.1E+03	EqP	3.2E-02
Landbay E	A7S160	PCB	PCBs (total)	1336-36-3	B2	1.92E-02				NA		1.4E+00	EqP	1.4E-02
Landbay E	A7S160	INORG	Aluminum	7429-90-5	ID	3.58E+04	5.34E+04	6.7E-01	3.7E+08	EqP	9.7E-05	2.6E+03	EqP	**1.4E+01**
Landbay E	A7S160	INORG	Arsenic	7440-38-2	A	1.27E+00	9.90E+00	1.3E-01	1.1E+03	EqP	1.2E-03	8.6E+01	EqP	1.5E-02
Landbay E	A7S160	INORG	Barium	7440-39-3	NC	5.48E+01	2.24E+02	2.4E-01	3.2E+05	EqP	1.7E-04	3.3E+00	EqP	**1.7E+01**
Landbay E	A7S160	INORG	Cadmium	7440-43-9	B1	1.47E-01	2.70E+00	5.4E-02	1.1E+03	EqP	1.4E-04	2.1E+00	EqP	6.9E-02
Landbay E	A7S160	INORG	Chromium III	16065-83-1	D	4.71E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.2E-09	3.4E+06	EqP	1.4E-05
Landbay E	A7S160	INORG	Cobalt	7440-48-4	LC	8.75E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.4E-03	2.1E+01	EqP	**4.2E+00**
Landbay E	A7S160	INORG	Copper	7440-50-8	D	5.78E+01	1.31E+02	4.4E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**6.9E+00**
Landbay E	A7S160	INORG	Iron	7439-89-6	D	7.39E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay E	A7S160	INORG	Lead	7439-92-1	B2	2.12E+00						3.5E+02	EqP	6.1E-03
Landbay E	A7S160	INORG	Manganese	7439-96-5	D	5.03E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.6E-02	1.6E+02	EqP	**3.2E+01**
Landbay E	A7S160	INORG	Nickel	7440-02-0	A	3.67E+01	7.30E+01	5.0E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	A7S160	INORG	Silver	7440-22-4	D	1.10E+00	2.30E+00	4.8E-01	3.8E+03	LT	2.9E-04	2.7E+00	LT	4.1E-01
Landbay E	A7S160	INORG	Strontium	7440-24-6		5.56E+01	3.80E+01	**1.5E+00**	1.6E+07	EqP	3.4E-06	1.1E+03	EqP	5.3E-02
Landbay E	A7S160	INORG	Thallium	7440-28-0	ID	2.46E+00	4.50E+00	5.5E-01				1.1E+00	EqP	**2.2E+00**
Landbay E	A7S160	INORG	Vanadium	7440-62-2	ID	2.51E+02	2.83E+02	8.9E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay E	A7S160	INORG	Zinc	7440-66-6	ID	5.85E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay E	A7S161	PCB	PCBs (total)	1336-36-3	B2	1.92E-02				NA		1.4E+00	EqP	1.4E-02
Landbay E	A7S161	INORG	Aluminum	7429-90-5	ID	3.84E+04	5.34E+04	7.2E-01	3.7E+08	EqP	1.0E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	A7S161	INORG	Arsenic	7440-38-2	A	1.81E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay E	A7S161	INORG	Barium	7440-39-3	NC	7.07E+01	2.24E+02	3.2E-01	3.2E+05	EqP	2.2E-04	3.3E+00	EqP	**2.1E+01**
Landbay E	A7S161	INORG	Cadmium	7440-43-9	B1	2.26E-01	2.70E+00	8.4E-02	1.1E+03	EqP	2.1E-04	2.1E+00	EqP	1.1E-01
Landbay E	A7S161	INORG	Chromium III	16065-83-1	D	5.30E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.5E-09	3.4E+06	EqP	1.6E-05
Landbay E	A7S161	INORG	Cobalt	7440-48-4	LC	8.75E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.4E-03	2.1E+01	EqP	**4.2E+00**
Landbay E	A7S161	INORG	Copper	7440-50-8	D	6.03E+01	1.31E+02	4.6E-01	3.5E+05	EqP	1.7E-04	8.4E+00	EqP	**7.2E+00**
Landbay E	A7S161	INORG	Iron	7439-89-6	D	7.39E+04	9.52E+04	7.8E-01	4.4E+06	EqP	1.7E-02	1.5E+02	EqP	**4.9E+02**
Landbay E	A7S161	INORG	Lead	7439-92-1	B2	2.26E+00						3.5E+02	EqP	6.4E-03
Landbay E	A7S161	INORG	Manganese	7439-96-5	D	5.03E+03	4.27E+03	**1.2E+00**	3.1E+05	EqP	1.6E-02	1.6E+02	EqP	**3.2E+01**
Landbay E	A7S161	INORG	Nickel	7440-02-0	A	3.67E+01	7.30E+01	5.0E-01	1.2E+05	EqP	3.0E-04	3.4E+01	EqP	**1.1E+00**
Landbay E	A7S161	INORG	Silver	7440-22-4	D	1.08E+00	2.30E+00	4.7E-01	3.8E+03	LT	2.9E-04	2.7E+00	LT	4.1E-01
Landbay E	A7S161	INORG	Strontium	7440-24-6		5.08E+01	3.80E+01	**1.3E+00**	1.6E+07	EqP	3.1E-06	1.1E+03	EqP	4.8E-02
Landbay E	A7S161	INORG	Thallium	7440-28-0	ID	2.46E+00	4.50E+00	5.5E-01				1.1E+00	EqP	**2.2E+00**
Landbay E	A7S161	INORG	Vanadium	7440-62-2	ID	2.51E+02	2.83E+02	8.9E-01	1.5E+05	EqP	1.6E-03	4.0E+02	EqP	6.3E-01
Landbay E	A7S161	INORG	Zinc	7440-66-6	ID	5.85E+01	1.02E+02	5.7E-01	5.5E+06	EqP	1.1E-05	1.9E+02	EqP	3.1E-01
Landbay E	B227AEC-1S	INORG	Perchlorate	14797-73-0	NC	1.90E+00			3.4E+03	LT	5.5E-04	7.7E+02	LT	2.5E-03
Landbay E	DP-223	INORG	Beryllium	7440-41-7	B1	9.32E-01	1.20E+00	7.8E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay E	DP-223A	INORG	Beryllium	7440-41-7	B1	1.35E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	2.0E-04	1.0E+01	EqP	1.3E-01
Landbay E	DP-223B	INORG	Beryllium	7440-41-7	B1	3.08E-01	1.20E+00	2.6E-01	6.8E+03	EqP	4.5E-05	1.0E+01	EqP	3.0E-02
Landbay E	F-234	INORG	Perchlorate	14797-73-0	NC	7.30E-04			3.4E+03	LT	2.1E-07	7.7E+02	LT	9.4E-07
Landbay E	F-6	INORG	Aluminum	7429-90-5	ID	4.88E+04	5.34E+04	9.1E-01	3.7E+08	EqP	1.3E-04	2.6E+03	EqP	**1.9E+01**
Landbay E	F-6	INORG	Barium	7440-39-3	NC	6.52E+01	2.24E+02	2.9E-01	3.2E+05	EqP	2.0E-04	3.3E+00	EqP	**2.0E+01**
Landbay E	F-6	INORG	Chromium III	16065-83-1	D	1.57E+02	2.61E+02	6.0E-01	2.1E+10	EqP	7.4E-09	3.4E+06	EqP	4.7E-05
Landbay E	F-6	INORG	Chromium VI	18540-29-9	A	3.66E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.3E-01
Landbay E	F-6	INORG	Copper	7440-50-8	D	3.75E+01	1.31E+02	2.9E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.5E+00**
Landbay E	F-6	INORG	Lead	7439-92-1	B2	1.08E+01						3.5E+02	EqP	3.1E-02
Landbay E	F-6	INORG	Silver	7440-22-4	D	2.15E+00	2.30E+00	9.3E-01	3.8E+03	LT	5.7E-04	2.7E+00	LT	8.1E-01
Landbay E	F-6	INORG	Strontium	7440-24-6		2.61E+01	3.80E+01	6.9E-01	1.6E+07	EqP	1.6E-06	1.1E+03	EqP	2.5E-02
Landbay E	GP 200-04	INORG	Beryllium	7440-41-7	B1	6.03E-01	1.20E+00	5.0E-01	6.8E+03	EqP	8.9E-05	1.0E+01	EqP	5.8E-02
Landbay E	GP 201-03	INORG	Perchlorate	14797-73-0	NC	1.30E-02			3.4E+03	LT	3.8E-06	7.7E+02	LT	1.7E-05
Landbay E	GP 202-04	INORG	Beryllium	7440-41-7	B1	8.65E-02	1.20E+00	7.2E-02	6.8E+03	EqP	1.3E-05	1.0E+01	EqP	8.3E-03
Landbay E	GP 203-04	INORG	Beryllium	7440-41-7	B1	3.88E-01	1.20E+00	3.2E-01	6.8E+03	EqP	5.7E-05	1.0E+01	EqP	3.7E-02
Landbay E	GP 211-15	INORG	Beryllium	7440-41-7	B1	1.25E+00	1.20E+00	1.0E+00	6.8E+03	EqP	1.8E-04	1.0E+01	EqP	1.2E-01
Landbay E	GP 211-16	INORG	Beryllium	7440-41-7	B1	2.34E-01	1.20E+00	2.0E-01	6.8E+03	EqP	3.5E-05	1.0E+01	EqP	2.2E-02
Landbay E	GP 220-07	INORG	Beryllium	7440-41-7	B1	3.48E-01	1.20E+00	2.9E-01	6.8E+03	EqP	5.1E-05	1.0E+01	EqP	3.3E-02
Landbay E	GP 221-10	INORG	Beryllium	7440-41-7	B1	1.02E+00	1.20E+00	8.5E-01	6.8E+03	EqP	1.5E-04	1.0E+01	EqP	9.8E-02
Landbay E	GP 221-10	INORG	Chromium III	16065-83-1	D	1.23E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.7E-09	3.4E+06	EqP	3.6E-05
Landbay E	GP 221-10	INORG	Chromium VI	18540-29-9	A	3.43E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.8E-01
Landbay E	GP 221-11	INORG	Beryllium	7440-41-7	B1	6.91E-01	1.20E+00	5.8E-01	6.8E+03	EqP	1.0E-04	1.0E+01	EqP	6.6E-02
Landbay E	GP 221-11	INORG	Chromium III	16065-83-1	D	1.60E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.8E-05
Landbay E	GP 221-11	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay E	GP 221-13	INORG	Chromium III	16065-83-1	D	1.62E+02	2.61E+02	6.2E-01	2.1E+10	EqP	7.6E-09	3.4E+06	EqP	4.8E-05
Landbay E	GP 221-13	INORG	Chromium VI	18540-29-9	A	3.70E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.4E-01
Landbay E	GP 221-14	INORG	Chromium III	16065-83-1	D	3.32E+02	2.61E+02	**1.3E+00**	2.1E+10	EqP	1.6E-08	3.4E+06	EqP	9.8E-05
Landbay E	GP 221-14	INORG	Chromium VI	18540-29-9	A	4.88E+00	4.97E+00	9.8E-01	6.6E+01	LT	7.3E-02	4.4E+00	LT	**1.1E+00**
Landbay E	GP 223-06	INORG	Chromium III	16065-83-1	D	1.67E+02	2.61E+02	6.4E-01	2.1E+10	EqP	7.8E-09	3.4E+06	EqP	5.0E-05
Landbay E	GP 223-06	INORG	Chromium VI	18540-29-9	A	3.73E+00	4.97E+00	7.5E-01	6.6E+01	LT	5.6E-02	4.4E+00	LT	8.5E-01
Landbay E	GP 223-07	INORG	Chromium III	16065-83-1	D	1.42E+02	2.61E+02	5.5E-01	2.1E+10	EqP	6.7E-09	3.4E+06	EqP	4.2E-05
Landbay E	GP 223-07	INORG	Chromium VI	18540-29-9	A	3.56E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.1E-01
Landbay E	GP 223-08	INORG	Chromium III	16065-83-1	D	8.12E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay E	GP 223-08	INORG	Chromium VI	18540-29-9	A	3.14E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay E	GP 223-09	INORG	Chromium III	16065-83-1	D	1.22E+02	2.61E+02	4.7E-01	2.1E+10	EqP	5.7E-09	3.4E+06	EqP	3.6E-05
Landbay E	GP 223-09	INORG	Chromium VI	18540-29-9	A	3.42E+00	4.97E+00	6.9E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.8E-01
Landbay E	GP 223-10	INORG	Chromium III	16065-83-1	D	1.47E+02	2.61E+02	5.7E-01	2.1E+10	EqP	6.9E-09	3.4E+06	EqP	4.4E-05
Landbay E	GP 223-10	INORG	Chromium VI	18540-29-9	A	3.60E+00	4.97E+00	7.2E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	GP 223-11	INORG	Chromium III	16065-83-1	D	1.27E+02	2.61E+02	4.9E-01	2.1E+10	EqP	5.9E-09	3.4E+06	EqP	3.8E-05
Landbay E	GP 223-11	INORG	Chromium VI	18540-29-9	A	2.40E+00	4.97E+00	4.8E-01	6.6E+01	LT	3.6E-02	4.4E+00	LT	5.5E-01
Landbay E	GP 223-12	INORG	Chromium III	16065-83-1	D	1.29E+02	2.61E+02	4.9E-01	2.1E+10	EqP	6.0E-09	3.4E+06	EqP	3.8E-05
Landbay E	GP 223-12	INORG	Chromium VI	18540-29-9	A	3.47E+00	4.97E+00	7.0E-01	6.6E+01	LT	5.2E-02	4.4E+00	LT	7.9E-01
Landbay E	GP 223-13	INORG	Chromium III	16065-83-1	D	5.91E+01	2.61E+02	2.3E-01	2.1E+10	EqP	2.8E-09	3.4E+06	EqP	1.8E-05
Landbay E	GP 223-13	INORG	Chromium VI	18540-29-9	A	2.99E+00	4.97E+00	6.0E-01	6.6E+01	LT	4.5E-02	4.4E+00	LT	6.8E-01
Landbay E	GP 223-14	INORG	Chromium III	16065-83-1	D	1.51E+02	2.61E+02	5.8E-01	2.1E+10	EqP	7.1E-09	3.4E+06	EqP	4.5E-05
Landbay E	GP 223-14	INORG	Chromium VI	18540-29-9	A	3.62E+00	4.97E+00	7.3E-01	6.6E+01	LT	5.4E-02	4.4E+00	LT	8.2E-01
Landbay E	GP 227-01	INORG	Perchlorate	14797-73-0	NC	1.10E-02			3.4E+03	LT	3.2E-06	7.7E+02	LT	1.4E-05
Landbay E	GP 236-02	INORG	Perchlorate	14797-73-0	NC	2.80E-02			3.4E+03	LT	8.1E-06	7.7E+02	LT	3.6E-05
Landbay E	GP 237-01	INORG	Perchlorate	14797-73-0	NC	6.40E-02			3.4E+03	LT	1.9E-05	7.7E+02	LT	8.3E-05
Landbay E	GP 40-11	INORG	Perchlorate	14797-73-0	NC	6.20E-02			3.4E+03	LT	1.8E-05	7.7E+02	LT	8.0E-05
Landbay E	GP 46-01	INORG	Perchlorate	14797-73-0	NC	1.85E-01			3.4E+03	LT	5.4E-05	7.7E+02	LT	2.4E-04
Landbay E	GP 47-03	INORG	Perchlorate	14797-73-0	NC	1.79E-01			3.4E+03	LT	5.2E-05	7.7E+02	LT	2.3E-04
Landbay E	GP 47-07	INORG	Perchlorate	14797-73-0	NC	8.00E-02			3.4E+03	LT	2.3E-05	7.7E+02	LT	1.0E-04
Landbay E	GP 47-09	INORG	Perchlorate	14797-73-0	NC	7.60E-02			3.4E+03	LT	2.2E-05	7.7E+02	LT	9.8E-05
Landbay E	GP 47-12	INORG	Perchlorate	14797-73-0	NC	8.90E-02			3.4E+03	LT	2.6E-05	7.7E+02	LT	1.2E-04
Landbay E	GP 47-14	INORG	Perchlorate	14797-73-0	NC	1.76E-01			3.4E+03	LT	5.1E-05	7.7E+02	LT	2.3E-04
Landbay E	GP 47-15	INORG	Perchlorate	14797-73-0	NC	1.44E-01			3.4E+03	LT	4.2E-05	7.7E+02	LT	1.9E-04
Landbay E	GP 47-17	INORG	Perchlorate	14797-73-0	NC	1.60E-02			3.4E+03	LT	4.6E-06	7.7E+02	LT	2.1E-05
Landbay E	GP BG-04	INORG	Aluminum	7429-90-5	ID	2.07E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.6E-05	2.6E+03	EqP	**7.9E+00**
Landbay E	GP BG-04	INORG	Arsenic	7440-38-2	A	6.28E+00	9.90E+00	6.3E-01	1.1E+03	EqP	6.0E-03	8.6E+01	EqP	7.3E-02
Landbay E	GP BG-04	INORG	Barium	7440-39-3	NC	7.73E+01	2.24E+02	3.5E-01	3.2E+05	EqP	2.4E-04	3.3E+00	EqP	**2.3E+01**
Landbay E	GP BG-04	INORG	Beryllium	7440-41-7	B1	7.78E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.1E-04	1.0E+01	EqP	7.5E-02
Landbay E	GP BG-04	INORG	Chromium III	16065-83-1	D	3.27E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.5E-09	3.4E+06	EqP	9.7E-06
Landbay E	GP BG-04	INORG	Chromium VI	18540-29-9	A	1.10E+00	4.97E+00	2.2E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.5E-01
Landbay E	GP BG-04	INORG	Cobalt	7440-48-4	LC	7.40E+00	8.60E+01	8.6E-02	1.4E+04	EqP	5.4E-04	2.1E+01	EqP	3.6E-01
Landbay E	GP BG-04	INORG	Copper	7440-50-8	D	6.08E+00	1.31E+02	4.6E-02	3.5E+05	EqP	1.8E-05	8.4E+00	EqP	7.2E-01
Landbay E	GP BG-04	INORG	Iron	7439-89-6	D	3.62E+04	9.52E+04	3.8E-01	4.4E+06	EqP	8.3E-03	1.5E+02	EqP	**2.4E+02**
Landbay E	GP BG-04	INORG	Lead	7439-92-1	B2	2.07E+01						3.5E+02	EqP	5.9E-02
Landbay E	GP BG-04	INORG	Manganese	7439-96-5	D	6.45E+02	4.27E+03	1.5E-01	3.1E+05	EqP	2.1E-03	1.6E+02	EqP	**4.1E+00**
Landbay E	GP BG-04	INORG	Mercury	7439-97-6	D	2.38E-02	7.10E-02	3.4E-01		NA		3.7E-01	EqP	6.4E-02
Landbay E	GP BG-04	INORG	Nickel	7440-02-0	A	8.59E+00	7.30E+01	1.2E-01	1.2E+05	EqP	6.9E-05	3.4E+01	EqP	2.5E-01
Landbay E	GP BG-04	INORG	Thallium	7440-28-0	ID	2.78E+00	4.50E+00	6.2E-01				1.1E+00	EqP	**2.4E+00**
Landbay E	GP BG-04	INORG	Vanadium	7440-62-2	ID	8.00E+01	2.83E+02	2.8E-01	1.5E+05	EqP	5.2E-04	4.0E+02	EqP	2.0E-01
Landbay E	GP BG-04	INORG	Zinc	7440-66-6	ID	1.98E+01	1.02E+02	1.9E-01	5.5E+06	EqP	3.6E-06	1.9E+02	EqP	1.0E-01

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	GP BG-05	INORG	Aluminum	7429-90-5	ID	2.18E+04	5.34E+04	4.1E-01	3.7E+08	EqP	5.9E-05	2.6E+03	EqP	**8.4E+00**
Landbay E	GP BG-05	INORG	Arsenic	7440-38-2	A	1.00E+01	9.90E+00	1.0E+00	1.1E+03	EqP	9.5E-03	8.6E+01	EqP	1.2E-01
Landbay E	GP BG-05	INORG	Barium	7440-39-3	NC	6.64E+01	2.24E+02	3.0E-01	3.2E+05	EqP	2.1E-04	3.3E+00	EqP	**2.0E+01**
Landbay E	GP BG-05	INORG	Beryllium	7440-41-7	B1	9.33E-01	1.20E+00	7.8E-01	6.8E+03	EqP	1.4E-04	1.0E+01	EqP	8.9E-02
Landbay E	GP BG-05	INORG	Chromium III	16065-83-1	D	8.13E+01	2.61E+02	3.1E-01	2.1E+10	EqP	3.8E-09	3.4E+06	EqP	2.4E-05
Landbay E	GP BG-05	INORG	Chromium VI	18540-29-9	A	3.14E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay E	GP BG-05	INORG	Cobalt	7440-48-4	LC	4.63E+01	8.60E+01	5.4E-01	1.4E+04	EqP	3.4E-03	2.1E+01	EqP	**2.2E+00**
Landbay E	GP BG-05	INORG	Copper	7440-50-8	D	6.94E+00	1.31E+02	5.3E-02	3.5E+05	EqP	2.0E-05	8.4E+00	EqP	8.3E-01
Landbay E	GP BG-05	INORG	Iron	7439-89-6	D	5.33E+04	9.52E+04	5.6E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.5E+02**
Landbay E	GP BG-05	INORG	Lead	7439-92-1	B2	2.57E+01						3.5E+02	EqP	7.3E-02
Landbay E	GP BG-05	INORG	Manganese	7439-96-5	D	1.40E+03	4.27E+03	3.3E-01	3.1E+05	EqP	4.5E-03	1.6E+02	EqP	**8.9E+00**
Landbay E	GP BG-05	INORG	Mercury	7439-97-6	D	4.35E-02	7.10E-02	6.1E-01		NA		3.7E-01	EqP	1.2E-01
Landbay E	GP BG-05	INORG	Nickel	7440-02-0	A	1.14E+01	7.30E+01	1.6E-01	1.2E+05	EqP	9.2E-05	3.4E+01	EqP	3.4E-01
Landbay E	GP BG-05	INORG	Thallium	7440-28-0	ID	3.44E+00	4.50E+00	7.6E-01				1.1E+00	EqP	**3.0E+00**
Landbay E	GP BG-05	INORG	Vanadium	7440-62-2	ID	1.23E+02	2.83E+02	4.3E-01	1.5E+05	EqP	7.9E-04	4.0E+02	EqP	3.1E-01
Landbay E	GP BG-05	INORG	Zinc	7440-66-6	ID	2.45E+01	1.02E+02	2.4E-01	5.5E+06	EqP	4.5E-06	1.9E+02	EqP	1.3E-01
Landbay E	GP BG-06	INORG	Aluminum	7429-90-5	ID	3.95E+04	5.34E+04	7.4E-01	3.7E+08	EqP	1.1E-04	2.6E+03	EqP	**1.5E+01**
Landbay E	GP BG-06	INORG	Arsenic	7440-38-2	A	7.18E+00	9.90E+00	7.3E-01	1.1E+03	EqP	6.8E-03	8.6E+01	EqP	8.4E-02
Landbay E	GP BG-06	INORG	Barium	7440-39-3	NC	1.58E+02	2.24E+02	7.1E-01	3.2E+05	EqP	4.9E-04	3.3E+00	EqP	**4.8E+01**
Landbay E	GP BG-06	INORG	Beryllium	7440-41-7	B1	7.81E-01	1.20E+00	6.5E-01	6.8E+03	EqP	1.2E-04	1.0E+01	EqP	7.5E-02
Landbay E	GP BG-06	INORG	Chromium III	16065-83-1	D	1.69E+02	2.61E+02	6.5E-01	2.1E+10	EqP	7.9E-09	3.4E+06	EqP	5.0E-05
Landbay E	GP BG-06	INORG	Cobalt	7440-48-4	LC	8.83E+01	8.60E+01	1.0E+00	1.4E+04	EqP	6.4E-03	2.1E+01	EqP	**4.2E+00**
Landbay E	GP BG-06	INORG	Copper	7440-50-8	D	3.91E+01	1.31E+02	3.0E-01	3.5E+05	EqP	1.1E-04	8.4E+00	EqP	**4.7E+00**
Landbay E	GP BG-06	INORG	Iron	7439-89-6	D	5.79E+04	9.52E+04	6.1E-01	4.4E+06	EqP	1.3E-02	1.5E+02	EqP	**3.8E+02**
Landbay E	GP BG-06	INORG	Lead	7439-92-1	B2	3.04E+01						3.5E+02	EqP	8.7E-02
Landbay E	GP BG-06	INORG	Manganese	7439-96-5	D	3.31E+03	4.27E+03	7.8E-01	3.1E+05	EqP	1.1E-02	1.6E+02	EqP	**2.1E+01**
Landbay E	GP BG-06	INORG	Mercury	7439-97-6	D	4.74E-02	7.10E-02	6.7E-01		NA		3.7E-01	EqP	1.3E-01
Landbay E	GP BG-06	INORG	Nickel	7440-02-0	A	4.60E+01	7.30E+01	6.3E-01	1.2E+05	EqP	3.7E-04	3.4E+01	EqP	**1.4E+00**
Landbay E	GP BG-06	INORG	Thallium	7440-28-0	ID	5.48E+00	4.50E+00	**1.2E+00**				1.1E+00	EqP	**4.8E+00**
Landbay E	GP BG-06	INORG	Vanadium	7440-62-2	ID	1.93E+02	2.83E+02	6.8E-01	1.5E+05	EqP	1.2E-03	4.0E+02	EqP	4.8E-01
Landbay E	GP BG-06	INORG	Zinc	7440-66-6	ID	7.73E+01	1.02E+02	7.6E-01	5.5E+06	EqP	1.4E-05	1.9E+02	EqP	4.1E-01
Landbay E	GP PBS-04	INORG	Perchlorate	14797-73-0	NC	1.75E-02			3.4E+03	LT	5.1E-06	7.7E+02	LT	2.3E-05
Landbay E	IM12-1	INORG	Aluminum	7429-90-5	ID	2.54E+04	5.34E+04	4.8E-01	3.7E+08	EqP	6.9E-05	2.6E+03	EqP	**9.7E+00**
Landbay E	IM12-1	INORG	Arsenic	7440-38-2	A	4.02E+00	9.90E+00	4.1E-01	1.1E+03	EqP	3.8E-03	8.6E+01	EqP	4.7E-02
Landbay E	IM12-1	INORG	Barium	7440-39-3	NC	1.52E+02	2.24E+02	6.8E-01	3.2E+05	EqP	4.7E-04	3.3E+00	EqP	**4.6E+01**
Landbay E	IM12-1	INORG	Beryllium	7440-41-7	B1	1.66E+00	1.20E+00	**1.4E+00**	6.8E+03	EqP	2.4E-04	1.0E+01	EqP	1.6E-01
Landbay E	IM12-1	INORG	Chromium III	16065-83-1	D	4.35E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.0E-09	3.4E+06	EqP	1.3E-05
Landbay E	IM12-1	INORG	Chromium VI	18540-29-9	A	1.13E+00	4.97E+00	2.3E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.6E-01
Landbay E	IM12-1	INORG	Cobalt	7440-48-4	LC	1.97E+01	8.60E+01	2.3E-01	1.4E+04	EqP	1.4E-03	2.1E+01	EqP	9.5E-01
Landbay E	IM12-1	INORG	Copper	7440-50-8	D	6.07E+00	1.31E+02	4.6E-02	3.5E+05	EqP	1.7E-05	8.4E+00	EqP	7.2E-01
Landbay E	IM12-1	INORG	Iron	7439-89-6	D	3.93E+04	9.52E+04	4.1E-01	4.4E+06	EqP	9.0E-03	1.5E+02	EqP	**2.6E+02**
Landbay E	IM12-1	INORG	Lead	7439-92-1	B2	1.13E+01						3.5E+02	EqP	3.2E-02
Landbay E	IM12-1	INORG	Manganese	7439-96-5	D	2.55E+02	4.27E+03	6.0E-02	3.1E+05	EqP	8.2E-04	1.6E+02	EqP	**1.6E+00**
Landbay E	IM12-1	INORG	Mercury	7439-97-6	D	2.53E-02	7.10E-02	3.6E-01		NA		3.7E-01	EqP	6.9E-02
Landbay E	IM12-1	INORG	Nickel	7440-02-0	A	2.46E+01	7.30E+01	3.4E-01	1.2E+05	EqP	2.0E-04	3.4E+01	EqP	7.3E-01
Landbay E	IM12-1	INORG	Silver	7440-22-4	D	8.72E-01	2.30E+00	3.8E-01	3.8E+03	LT	2.3E-04	2.7E+00	LT	3.3E-01
Landbay E	IM12-1	INORG	Strontium	7440-24-6		1.17E+01	3.80E+01	3.1E-01	1.6E+07	EqP	7.2E-07	1.1E+03	EqP	1.1E-02
Landbay E	IM12-1	INORG	Vanadium	7440-62-2	ID	8.47E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.5E-04	4.0E+02	EqP	2.1E-01
Landbay E	IM12-1	INORG	Zinc	7440-66-6	ID	2.21E+01	1.02E+02	2.2E-01	5.5E+06	EqP	4.0E-06	1.9E+02	EqP	1.2E-01
Landbay E	IM12-2	INORG	Aluminum	7429-90-5	ID	2.48E+04	5.34E+04	4.6E-01	3.7E+08	EqP	6.7E-05	2.6E+03	EqP	**9.5E+00**
Landbay E	IM12-2	INORG	Arsenic	7440-38-2	A	4.39E+00	9.90E+00	4.4E-01	1.1E+03	EqP	4.2E-03	8.6E+01	EqP	5.1E-02
Landbay E	IM12-2	INORG	Barium	7440-39-3	NC	1.07E+02	2.24E+02	4.8E-01	3.2E+05	EqP	3.3E-04	3.3E+00	EqP	**3.2E+01**
Landbay E	IM12-2	INORG	Beryllium	7440-41-7	B1	2.02E+00	1.20E+00	**1.7E+00**	6.8E+03	EqP	3.0E-04	1.0E+01	EqP	1.9E-01
Landbay E	IM12-2	INORG	Chromium III	16065-83-1	D	4.53E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	IM12-2	INORG	Chromium VI	18540-29-9	A	1.34E+00	4.97E+00	2.7E-01	6.6E+01	LT	2.0E-02	4.4E+00	LT	3.0E-01
Landbay E	IM12-2	INORG	Cobalt	7440-48-4	LC	1.54E+01	8.60E+01	1.8E-01	1.4E+04	EqP	1.1E-03	2.1E+01	EqP	7.4E-01
Landbay E	IM12-2	INORG	Copper	7440-50-8	D	5.15E+00	1.31E+02	3.9E-02	3.5E+05	EqP	1.5E-05	8.4E+00	EqP	6.1E-01
Landbay E	IM12-2	INORG	Iron	7439-89-6	D	5.40E+04	9.52E+04	5.7E-01	4.4E+06	EqP	1.2E-02	1.5E+02	EqP	**3.6E+02**
Landbay E	IM12-2	INORG	Lead	7439-92-1	B2	1.49E+01						3.5E+02	EqP	4.3E-02
Landbay E	IM12-2	INORG	Manganese	7439-96-5	D	5.11E+02	4.27E+03	1.2E-01	3.1E+05	EqP	1.6E-03	1.6E+02	EqP	**3.3E+00**
Landbay E	IM12-2	INORG	Nickel	7440-02-0	A	1.88E+01	7.30E+01	2.6E-01	1.2E+05	EqP	1.5E-04	3.4E+01	EqP	5.6E-01
Landbay E	IM12-2	INORG	Silver	7440-22-4	D	1.39E+00	2.30E+00	6.0E-01	3.8E+03	LT	3.7E-04	2.7E+00	LT	5.2E-01
Landbay E	IM12-2	INORG	Strontium	7440-24-6		7.94E+00	3.80E+01	2.1E-01	1.6E+07	EqP	4.9E-07	1.1E+03	EqP	7.5E-03
Landbay E	IM12-2	INORG	Vanadium	7440-62-2	ID	1.11E+02	2.83E+02	3.9E-01	1.5E+05	EqP	7.2E-04	4.0E+02	EqP	2.8E-01
Landbay E	IM12-2	INORG	Zinc	7440-66-6	ID	2.09E+01	1.02E+02	2.0E-01	5.5E+06	EqP	3.8E-06	1.9E+02	EqP	1.1E-01
Landbay E	IM12-3	INORG	Aluminum	7429-90-5	ID	1.72E+04	5.34E+04	3.2E-01	3.7E+08	EqP	4.7E-05	2.6E+03	EqP	**6.6E+00**
Landbay E	IM12-3	INORG	Arsenic	7440-38-2	A	3.00E+00	9.90E+00	3.0E-01	1.1E+03	EqP	2.9E-03	8.6E+01	EqP	3.5E-02
Landbay E	IM12-3	INORG	Barium	7440-39-3	NC	7.35E+01	2.24E+02	3.3E-01	3.2E+05	EqP	2.3E-04	3.3E+00	EqP	**2.2E+01**
Landbay E	IM12-3	INORG	Beryllium	7440-41-7	B1	8.56E-01	1.20E+00	7.1E-01	6.8E+03	EqP	1.3E-04	1.0E+01	EqP	8.2E-02
Landbay E	IM12-3	INORG	Chromium III	16065-83-1	D	4.82E+01	2.61E+02	1.8E-01	2.1E+10	EqP	2.3E-09	3.4E+06	EqP	1.4E-05
Landbay E	IM12-3	INORG	Chromium VI	18540-29-9	A	2.10E+00	4.97E+00	4.2E-01	6.6E+01	LT	3.2E-02	4.4E+00	LT	4.8E-01
Landbay E	IM12-3	INORG	Cobalt	7440-48-4	LC	1.55E+01	8.60E+01	1.8E-01	1.4E+04	EqP	1.1E-03	2.1E+01	EqP	7.4E-01
Landbay E	IM12-3	INORG	Copper	7440-50-8	D	1.11E+00	1.31E+02	8.5E-03	3.5E+05	EqP	3.2E-06	8.4E+00	EqP	1.3E-01
Landbay E	IM12-3	INORG	Iron	7439-89-6	D	3.74E+04	9.52E+04	3.9E-01	4.4E+06	EqP	8.6E-03	1.5E+02	EqP	**2.5E+02**
Landbay E	IM12-3	INORG	Lead	7439-92-1	B2	5.31E+00						3.5E+02	EqP	1.5E-02
Landbay E	IM12-3	INORG	Manganese	7439-96-5	D	1.40E+02	4.27E+03	3.3E-02	3.1E+05	EqP	4.5E-04	1.6E+02	EqP	8.9E-01
Landbay E	IM12-3	INORG	Nickel	7440-02-0	A	2.38E+01	7.30E+01	3.3E-01	1.2E+05	EqP	1.9E-04	3.4E+01	EqP	7.0E-01
Landbay E	IM12-3	INORG	Silver	7440-22-4	D	6.86E-01	2.30E+00	3.0E-01	3.8E+03	LT	1.8E-04	2.7E+00	LT	2.6E-01
Landbay E	IM12-3	INORG	Strontium	7440-24-6		8.09E+00	3.80E+01	2.1E-01	1.6E+07	EqP	5.0E-07	1.1E+03	EqP	7.7E-03
Landbay E	IM12-3	INORG	Vanadium	7440-62-2	ID	8.22E+01	2.83E+02	2.9E-01	1.5E+05	EqP	5.3E-04	4.0E+02	EqP	2.1E-01
Landbay E	IM12-3	INORG	Zinc	7440-66-6	ID	1.88E+01	1.02E+02	1.8E-01	5.5E+06	EqP	3.4E-06	1.9E+02	EqP	9.9E-02
Landbay E	IM12-4	INORG	Aluminum	7429-90-5	ID	1.92E+04	5.34E+04	3.6E-01	3.7E+08	EqP	5.2E-05	2.6E+03	EqP	**7.3E+00**
Landbay E	IM12-4	INORG	Arsenic	7440-38-2	A	3.74E+00	9.90E+00	3.8E-01	1.1E+03	EqP	3.6E-03	8.6E+01	EqP	4.4E-02
Landbay E	IM12-4	INORG	Barium	7440-39-3	NC	7.08E+01	2.24E+02	3.2E-01	3.2E+05	EqP	2.2E-04	3.3E+00	EqP	**2.1E+01**
Landbay E	IM12-4	INORG	Beryllium	7440-41-7	B1	1.18E+00	1.20E+00	9.8E-01	6.8E+03	EqP	1.7E-04	1.0E+01	EqP	1.1E-01
Landbay E	IM12-4	INORG	Cadmium	7440-43-9	B1	3.21E-01	2.70E+00	1.2E-01	1.1E+03	EqP	3.0E-04	2.1E+00	EqP	1.5E-01
Landbay E	IM12-4	INORG	Chromium III	16065-83-1	D	4.52E+01	2.61E+02	1.7E-01	2.1E+10	EqP	2.1E-09	3.4E+06	EqP	1.3E-05
Landbay E	IM12-4	INORG	Chromium VI	18540-29-9	A	1.11E+00	4.97E+00	2.2E-01	6.6E+01	LT	1.7E-02	4.4E+00	LT	2.5E-01
Landbay E	IM12-4	INORG	Cobalt	7440-48-4	LC	1.68E+01	8.60E+01	2.0E-01	1.4E+04	EqP	1.2E-03	2.1E+01	EqP	8.1E-01
Landbay E	IM12-4	INORG	Copper	7440-50-8	D	2.56E+00	1.31E+02	2.0E-02	3.5E+05	EqP	7.4E-06	8.4E+00	EqP	3.0E-01
Landbay E	IM12-4	INORG	Iron	7439-89-6	D	4.39E+04	9.52E+04	4.6E-01	4.4E+06	EqP	1.0E-02	1.5E+02	EqP	**2.9E+02**
Landbay E	IM12-4	INORG	Lead	7439-92-1	B2	9.05E+00						3.5E+02	EqP	2.6E-02
Landbay E	IM12-4	INORG	Manganese	7439-96-5	D	3.03E+02	4.27E+03	7.1E-02	3.1E+05	EqP	9.7E-04	1.6E+02	EqP	**1.9E+00**
Landbay E	IM12-4	INORG	Nickel	7440-02-0	A	2.17E+01	7.30E+01	3.0E-01	1.2E+05	EqP	1.7E-04	3.4E+01	EqP	6.4E-01
Landbay E	IM12-4	INORG	Selenium	7782-49-2	D	1.14E+00	2.50E+00	4.6E-01	2.5E+04	LT	4.6E-05	2.0E+00	LT	5.7E-01
Landbay E	IM12-4	INORG	Silver	7440-22-4	D	9.32E-01	2.30E+00	4.1E-01	3.8E+03	LT	2.5E-04	2.7E+00	LT	3.5E-01
Landbay E	IM12-4	INORG	Strontium	7440-24-6		6.05E+00	3.80E+01	1.6E-01	1.6E+07	EqP	3.7E-07	1.1E+03	EqP	5.7E-03
Landbay E	IM12-4	INORG	Vanadium	7440-62-2	ID	9.78E+01	2.83E+02	3.5E-01	1.5E+05	EqP	6.3E-04	4.0E+02	EqP	2.4E-01
Landbay E	IM12-4	INORG	Zinc	7440-66-6	ID	1.75E+01	1.02E+02	1.7E-01	5.5E+06	EqP	3.2E-06	1.9E+02	EqP	9.2E-02
Landbay E	IM12-5	INORG	Aluminum	7429-90-5	ID	2.06E+04	5.34E+04	3.9E-01	3.7E+08	EqP	5.6E-05	2.6E+03	EqP	**7.9E+00**
Landbay E	IM12-5	INORG	Arsenic	7440-38-2	A	3.13E+00	9.90E+00	3.2E-01	1.1E+03	EqP	3.0E-03	8.6E+01	EqP	3.6E-02
Landbay E	IM12-5	INORG	Barium	7440-39-3	NC	1.15E+02	2.24E+02	5.1E-01	3.2E+05	EqP	3.6E-04	3.3E+00	EqP	**3.5E+01**
Landbay E	IM12-5	INORG	Beryllium	7440-41-7	B1	1.27E+00	1.20E+00	**1.1E+00**	6.8E+03	EqP	1.9E-04	1.0E+01	EqP	1.2E-01
Landbay E	IM12-5	INORG	Chromium III	16065-83-1	D	3.28E+01	2.61E+02	1.3E-01	2.1E+10	EqP	1.5E-09	3.4E+06	EqP	9.7E-06
Landbay E	IM12-5	INORG	Chromium VI	18540-29-9	A	1.45E+00	4.97E+00	2.9E-01	6.6E+01	LT	2.2E-02	4.4E+00	LT	3.3E-01
Landbay E	IM12-5	INORG	Cobalt	7440-48-4	LC	1.11E+01	8.60E+01	1.3E-01	1.4E+04	EqP	8.1E-04	2.1E+01	EqP	5.3E-01
Landbay E	IM12-5	INORG	Copper	7440-50-8	D	3.80E+00	1.31E+02	2.9E-02	3.5E+05	EqP	1.1E-05	8.4E+00	EqP	4.5E-01
Landbay E	IM12-5	INORG	Iron	7439-89-6	D	3.84E+04	9.52E+04	4.0E-01	4.4E+06	EqP	8.8E-03	1.5E+02	EqP	**2.5E+02**
Landbay E	IM12-5	INORG	Lead	7439-92-1	B2	1.09E+01						3.5E+02	EqP	3.1E-02
Landbay E	IM12-5	INORG	Manganese	7439-96-5	D	2.63E+02	4.27E+03	6.2E-02	3.1E+05	EqP	8.5E-04	1.6E+02	EqP	**1.7E+00**
Landbay E	IM12-5	INORG	Nickel	7440-02-0	A	1.53E+01	7.30E+01	2.1E-01	1.2E+05	EqP	1.2E-04	3.4E+01	EqP	4.5E-01
Landbay E	IM12-5	INORG	Silver	7440-22-4	D	8.77E-01	2.30E+00	3.8E-01	3.8E+03	LT	2.3E-04	2.7E+00	LT	3.3E-01
Landbay E	IM12-5	INORG	Strontium	7440-24-6		1.00E+01	3.80E+01	2.6E-01	1.6E+07	EqP	6.1E-07	1.1E+03	EqP	9.5E-03
Landbay E	IM12-5	INORG	Vanadium	7440-62-2	ID	8.38E+01	2.83E+02	3.0E-01	1.5E+05	EqP	5.4E-04	4.0E+02	EqP	2.1E-01
Landbay E	IM12-5	INORG	Zinc	7440-66-6	ID	1.51E+01	1.02E+02	1.5E-01	5.5E+06	EqP	2.8E-06	1.9E+02	EqP	7.9E-02
Landbay E	IM14-1	VOC	Acetone	67-64-1	ID	3.00E-02			2.0E+06	LT	1.5E-08	6.0E+02	LT	5.0E-05
Landbay E	IM14-1	VOC	Carbon Disulfide	75-15-0		2.00E-03			1.4E+04	LT	1.4E-07	3.7E-01	LT	5.4E-03
Landbay E	IM14-1	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03			6.5E+03	LT	3.1E-07	4.0E+02	LT	5.0E-06
Landbay E	IM14-2	VOC	Acetone	67-64-1	ID	8.00E-03			2.0E+06	LT	3.9E-09	6.0E+02	LT	1.3E-05
Landbay E	IM14-2	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.60E-02			6.5E+03	LT	2.5E-06	4.0E+02	LT	4.0E-05
Landbay E	IM14-2	VOC	Tetrachloroethene	127-18-4	LC	3.50E-02			1.5E+03	LT	2.4E-05	4.4E+01	LT	7.9E-04
Landbay E	IM14-2	VOC	Trichloroethene	79-01-6	HC	2.00E-03			1.1E+02	LT	1.8E-05	8.4E+00	LT	2.4E-04
Landbay E	IM14-3	VOC	Acetone	67-64-1	ID	3.50E-02			2.0E+06	LT	1.7E-08	6.0E+02	LT	5.8E-05
Landbay E	IM14-3	VOC	Carbon Disulfide	75-15-0		1.00E-03			1.4E+04	LT	6.9E-08	3.7E-01	LT	2.7E-03
Landbay E	IM14-3	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.40E-02			6.5E+03	LT	2.1E-06	4.0E+02	LT	3.5E-05
Landbay E	IM14-3	VOC	Vinyl Chloride	75-01-4	A	3.00E-03			5.9E+01	LT	5.1E-05	2.5E+01	LT	1.2E-04
Landbay E	IM14-4	VOC	Acetone	67-64-1	ID	1.40E-02			2.0E+06	LT	6.9E-09	6.0E+02	LT	2.3E-05
Landbay E	IM14-4	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.80E-02			6.5E+03	LT	2.8E-06	4.0E+02	LT	4.5E-05
Landbay E	IM14-4	VOC	Methylene Chloride	75-09-2	LC	3.00E-03			2.2E+04	LT	1.4E-07	3.9E+01	LT	7.6E-05
Landbay E	IM14-4	VOC	Vinyl Chloride	75-01-4	A	5.00E-03			5.9E+01	LT	8.5E-05	2.5E+01	LT	2.0E-04
Landbay E	IM14-5	VOC	Acetone	67-64-1	ID	7.00E-03			2.0E+06	LT	3.4E-09	6.0E+02	LT	1.2E-05
Landbay E	IM14-5	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.40E-01			6.5E+03	LT	3.7E-05	4.0E+02	LT	6.0E-04
Landbay E	IM14-5	VOC	Tetrachloroethene	127-18-4	LC	2.80E-01			1.5E+03	LT	1.9E-04	4.4E+01	LT	6.3E-03

Table 4-6: Comparison of Soil Concentrations to Soil-Migration-to-Groundwater Criteria
ARC Gainesville, Gainesville, VA

Land Bay	Location	Chem Group	Chemical	CASRN	Carc Class	Max Detect (mg/kg)	99% UPL Background Conc (mg/kg)	Ratio of Conc to Background Conc	Protection of Worker Contact with Groundwater and Groundwater Vapor Intrusion Exposures[5]			Protection of Surface Water Exposures (Surface Water Criteria and Recreator RBCs)[6]		
									Criteria (mg/kg)	Basis	Ratio	Criteria (mg/kg)	Basis	Ratio
Landbay E	IM14-5	VOC	Trichloroethene	79-01-6	HC	3.30E-02			1.1E+02	LT	3.0E-04	8.4E+00	LT	3.9E-03
Landbay E	IM14-5	VOC	Vinyl Chloride	75-01-4	A	2.00E-03			5.9E+01	LT	3.4E-05	2.5E+01	LT	8.0E-05
Landbay E	IM14-6	VOC	Acetone	67-64-1	ID	9.80E-02			2.0E+06	LT	4.8E-08	6.0E+02	LT	1.6E-04
Landbay E	IM14-6	VOC	2-Butanone	78-93-3	ID	6.00E-03			3.0E+05	LT	2.0E-08	5.6E+03	LT	1.1E-06
Landbay E	IM14-7	VOC	Acetone	67-64-1	ID	2.40E-02			2.0E+06	LT	1.2E-08	6.0E+02	LT	4.0E-05
Landbay E	IM14-7	VOC	Chlorobenzene	108-90-7	D	1.00E-02			3.0E+03	LT	3.3E-06	5.2E-01	LT	1.9E-02
Landbay E	IM14-7	VOC	Tetrachloroethene	127-18-4	LC	3.00E-02			1.5E+03	LT	2.0E-05	4.4E+01	LT	6.8E-04
Landbay E	S-234	INORG	Perchlorate	14797-73-0	NC	7.50E-04			3.4E+03	LT	2.2E-07	7.7E+02	LT	9.7E-07
Landbay E	SR-200S	VOC	Tetrachloroethene	127-18-4	LC	1.00E-01			1.5E+03	LT	6.8E-05	4.4E+01	LT	2.3E-03
Landbay E	SR-200S	INORG	Beryllium	7440-41-7	B1	1.06E+00	1.20E+00	8.8E-01	6.8E+03	EqP	1.6E-04	1.0E+01	EqP	1.0E-01
Landbay E	SR-200S	INORG	Boron	7440-42-8	ID	2.20E+01	1.34E+01	**1.6E+00**	9.9E+05	LT	2.2E-05	6.4E-01	LT	**3.4E+01**
Landbay E	SS-219A	INORG	Perchlorate	14797-73-0	NC	7.70E-03			3.4E+03	LT	2.2E-06	7.7E+02	LT	1.0E-05
Landbay E	SS-227B	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.50E+01				NA		6.0E+01	LT	**1.1E+00**
Landbay E	SS-236A	INORG	Perchlorate	14797-73-0	NC	7.90E-03			3.4E+03	LT	2.3E-06	7.7E+02	LT	1.0E-05
Landbay E	SS-244A	INORG	Aluminum	7429-90-5	ID	3.16E+04	5.34E+04	5.9E-01	3.7E+08	EqP	8.6E-05	2.6E+03	EqP	**1.2E+01**
Landbay E	SS-250A	INORG	Arsenic	7440-38-2	A	3.43E+00	9.90E+00	3.5E-01	1.1E+03	EqP	3.3E-03	8.6E+01	EqP	4.0E-02
Landbay E	SS-250A	INORG	Beryllium	7440-41-7	B1	3.74E-01	1.20E+00	3.1E-01	6.8E+03	EqP	5.5E-05	1.0E+01	EqP	3.6E-02
Landbay E	SS-250A	INORG	Chromium III	16065-83-1	D	1.59E+02	2.61E+02	6.1E-01	2.1E+10	EqP	7.5E-09	3.4E+06	EqP	4.7E-05
Landbay E	SS-250A	INORG	Chromium VI	18540-29-9	A	3.68E+00	4.97E+00	7.4E-01	6.6E+01	LT	5.5E-02	4.4E+00	LT	8.4E-01
Landbay E	SS-250A	INORG	Copper	7440-50-8	D	4.14E+01	1.31E+02	3.2E-01	3.5E+05	EqP	1.2E-04	8.4E+00	EqP	**4.9E+00**
Landbay E	SS-250A	INORG	Lead	7439-92-1	B2	1.12E+01						3.5E+02	EqP	3.2E-02
Landbay E	SS-250A	INORG	Mercury	7439-97-6	D	6.24E-01	7.10E-02	**8.8E+00**		NA		3.7E-01	EqP	**1.7E+00**
Landbay E	SS-250A	INORG	Nickel	7440-02-0	A	4.84E+01	7.30E+01	6.6E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay E	SS-250A	INORG	Thallium	7440-28-0	ID	2.76E+00	4.50E+00	6.1E-01				1.1E+00	EqP	**2.4E+00**
Landbay E	SS-250A	INORG	Zinc	7440-66-6	ID	6.49E+01	1.02E+02	6.4E-01	5.5E+06	EqP	1.2E-05	1.9E+02	EqP	3.4E-01
Landbay E	SS-255A	INORG	Perchlorate	14797-73-0	NC	3.20E-02			3.4E+03	LT	9.3E-06	7.7E+02	LT	4.1E-05
Landbay E	TP 221-01	INORG	Arsenic	7440-38-2	A	7.00E-01	9.90E+00	7.1E-02	1.1E+03	EqP	6.7E-04	8.6E+01	EqP	8.2E-03
Landbay E	TP 221-01	INORG	Chromium III	16065-83-1	D	1.11E+02	2.61E+02	4.2E-01	2.1E+10	EqP	5.2E-09	3.4E+06	EqP	3.3E-05
Landbay E	TP 221-01	INORG	Chromium VI	18540-29-9	A	3.34E+00	4.97E+00	6.7E-01	6.6E+01	LT	5.0E-02	4.4E+00	LT	7.6E-01
Landbay E	TP 221-01	INORG	Copper	7440-50-8	D	1.12E+02	1.31E+02	8.5E-01	3.5E+05	EqP	3.2E-04	8.4E+00	EqP	**1.3E+01**
Landbay E	TP 221-01	INORG	Lead	7439-92-1	B2	8.00E+00						3.5E+02	EqP	2.3E-02
Landbay E	TP 221-01	INORG	Nickel	7440-02-0	A	6.80E+01	7.30E+01	9.3E-01	1.2E+05	EqP	5.5E-04	3.4E+01	EqP	**2.0E+00**
Landbay E	TP 221-01	INORG	Zinc	7440-66-6	ID	2.94E+02	1.02E+02	**2.9E+00**	5.5E+06	EqP	5.4E-05	1.9E+02	EqP	**1.5E+00**
Landbay E	TP 221-03	INORG	Arsenic	7440-38-2	A	1.10E+00	9.90E+00	1.1E-01	1.1E+03	EqP	1.0E-03	8.6E+01	EqP	1.3E-02
Landbay E	TP 221-03	INORG	Chromium III	16065-83-1	D	1.18E+02	2.61E+02	4.5E-01	2.1E+10	EqP	5.5E-09	3.4E+06	EqP	3.5E-05
Landbay E	TP 221-03	INORG	Chromium VI	18540-29-9	A	3.39E+00	4.97E+00	6.8E-01	6.6E+01	LT	5.1E-02	4.4E+00	LT	7.7E-01
Landbay E	TP 221-03	INORG	Copper	7440-50-8	D	5.50E+01	1.31E+02	4.2E-01	3.5E+05	EqP	1.6E-04	8.4E+00	EqP	**6.5E+00**
Landbay E	TP 221-03	INORG	Nickel	7440-02-0	A	6.50E+01	7.30E+01	8.9E-01	1.2E+05	EqP	5.2E-04	3.4E+01	EqP	**1.9E+00**
Landbay E	TP 221-03	INORG	Zinc	7440-66-6	ID	7.20E+01	1.02E+02	7.1E-01	5.5E+06	EqP	1.3E-05	1.9E+02	EqP	3.8E-01
Landbay E	TP 223-01	INORG	Arsenic	7440-38-2	A	1.80E+00	9.90E+00	1.8E-01	1.1E+03	EqP	1.7E-03	8.6E+01	EqP	2.1E-02
Landbay E	TP 223-01	INORG	Chromium III	16065-83-1	D	1.93E+02	2.61E+02	7.4E-01	2.1E+10	EqP	9.1E-09	3.4E+06	EqP	5.7E-05
Landbay E	TP 223-01	INORG	Chromium VI	18540-29-9	A	3.91E+00	4.97E+00	7.9E-01	6.6E+01	LT	5.9E-02	4.4E+00	LT	8.9E-01
Landbay E	TP 223-01	INORG	Copper	7440-50-8	D	2.10E+01	1.31E+02	1.6E-01	3.5E+05	EqP	6.0E-05	8.4E+00	EqP	**2.5E+00**
Landbay E	TP 223-01	INORG	Lead	7439-92-1	B2	2.80E+01						3.5E+02	EqP	8.0E-02
Landbay E	TP 223-01	INORG	Nickel	7440-02-0	A	2.80E+01	7.30E+01	3.8E-01	1.2E+05	EqP	2.3E-04	3.4E+01	EqP	8.3E-01
Landbay E	TP 223-01	INORG	Zinc	7440-66-6	ID	4.50E+01	1.02E+02	4.4E-01	5.5E+06	EqP	8.2E-06	1.9E+02	EqP	2.4E-01
Landbay E	TP 223-03	INORG	Chromium III	16065-83-1	D	5.11E+01	2.61E+02	2.0E-01	2.1E+10	EqP	2.4E-09	3.4E+06	EqP	1.5E-05
Landbay E	TP 223-03	INORG	Chromium VI	18540-29-9	A	2.94E+00	4.97E+00	5.9E-01	6.6E+01	LT	4.4E-02	4.4E+00	LT	6.7E-01
Landbay E	TP 223-03	INORG	Copper	7440-50-8	D	1.40E+01	1.31E+02	1.1E-01	3.5E+05	EqP	4.0E-05	8.4E+00	EqP	**1.7E+00**
Landbay E	TP 223-03	INORG	Lead	7439-92-1	B2	9.60E+00						3.5E+02	EqP	2.7E-02
Landbay E	TP 223-03	INORG	Nickel	7440-02-0	A	1.60E+01	7.30E+01	2.2E-01	1.2E+05	EqP	1.3E-04	3.4E+01	EqP	4.7E-01
Landbay E	TP 223-03	INORG	Zinc	7440-66-6	ID	3.40E+01	1.02E+02	3.3E-01	5.5E+06	EqP	6.2E-06	1.9E+02	EqP	1.8E-01
Landbay E	TP 223-04	INORG	Arsenic	7440-38-2	A	6.00E-01	9.90E+00	6.1E-02	1.1E+03	EqP	5.7E-04	8.6E+01	EqP	7.0E-03
Landbay E	TP 223-04	INORG	Chromium III	16065-83-1	D	7.89E+01	2.61E+02	3.0E-01	2.1E+10	EqP	3.7E-09	3.4E+06	EqP	2.3E-05
Landbay E	TP 223-04	INORG	Chromium VI	18540-29-9	A	3.13E+00	4.97E+00	6.3E-01	6.6E+01	LT	4.7E-02	4.4E+00	LT	7.1E-01
Landbay E	TP 223-04	INORG	Copper	7440-50-8	D	2.00E+01	1.31E+02	1.5E-01	3.5E+05	EqP	5.8E-05	8.4E+00	EqP	**2.4E+00**
Landbay E	TP 223-04	INORG	Lead	7439-92-1	B2	7.40E+00						3.5E+02	EqP	2.1E-02
Landbay E	TP 223-04	INORG	Nickel	7440-02-0	A	4.90E+01	7.30E+01	6.7E-01	1.2E+05	EqP	3.9E-04	3.4E+01	EqP	**1.4E+00**
Landbay E	TP 223-04	INORG	Zinc	7440-66-6	ID	3.70E+01	1.02E+02	3.6E-01	5.5E+06	EqP	6.8E-06	1.9E+02	EqP	1.9E-01

Notes:

1. Landbay Use Designation:
   - Landbay A - industrial/commercial use
   - Landbay B - mixed use
   - Landbay C - industrial/commercial use
   - Landbay D - residential use
   - Landbay E - residential use
2. Only constituents detected at each location are shown.
3. Only results from the deepest sample at each location are included.
4. Ratios shaded in gray and in bold indicate a concentration greater than background concentration or greater than criteria.
5. Criteria based on a target groundwater end point calculated from the lower of the nonpotable criteria (residential vapor intrusion RBC[12], maintenance worker contact RBC[12], and construction worker contactt RBC[12]).
6. Criteria based on a target groundwater end point calculated from the lower of the surface water criteria[11] and recreator surface water contact risk-based criteria (RBC)[12].
7. The concentrations for the methylphenol isomers (2, 3, & 4) were summed to methylphenol (total).
8. The concentrations for all polychlorinated biphenyls (PCBs) Aroclors were summed to PCBs (total).
9. The concentrations for the xylene isomers (m/p and o) were summed to xylenes (total).
10. The concentrations for the 1,3-dichloropropene isomers (cis and trans) were summed to 1,3-dichloropropene (total).
11. Surface water criteria are chosen based on the following hierarchy: 1) Chronic Virginia AWQS (Ambient Water Quality Standards), 2) Acute Virginia AWQS, 3) USEPA Region 3 AWQS and 4) USEPA Region 5 AWQS.
12. RBC are the lower of the RBC calculated at a target risk of 10^{-5} or target HQ of 1.
13. USEPA default diluation attenuation factor (DAF) of 20 is assumed based on a source contamination area of a half acre.
14. Basis of Soil MtGW Screening Criteria: equilibrium partitioning (EqP) or leach test (LT)
    - EqP - Equilibrium partitioning
    - LT - Leach test
    - NA - Not applicable - target groundwater concentration times DAF is greater than constituent's solubility.

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay A	BW 100-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	5/18/2005	2.00E-01	FM	1.0E-02
Landbay A	BW 33-01D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	5/10/2006	1.20E-01	RSL-C	8.3E-03
Landbay A	BW 33-01D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.80E-02	11/21/2005	7.00E-02	FM	8.3E-01
Landbay A	BW 33-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.50E-02	11/21/2005	5.00E-03	FM	**9.0E+00**
Landbay A	BW 33-01D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.40E-02	5/10/2006	5.00E-03	FM	**8.8E+00**
Landbay A	BW 33-01D	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	5/10/2006	2.00E-03	FM	5.0E-01
Landbay A	BW 33-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.30E-02	11/21/2005	1.50E-02	IHA	**2.9E+00**
Landbay A	BW 33-01S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.90E-02	11/21/2005	7.00E-02	FM	4.1E-01
Landbay A	BW 33-01S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.70E-02	11/21/2005	5.00E-03	FM	**5.4E+00**
Landbay A	BW 33-01S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.20E-02	5/10/2006	5.00E-03	FM	**4.4E+00**
Landbay A	BW 33-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.40E-01	5/10/2006	1.50E-02	IHA	**1.6E+01**
Landbay A	BW 34-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	9/12/2011	1.20E-01	RSL-C	3.3E-02
Landbay A	BW 34-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	9.00E-03	9/12/2011	5.00E-03	FM	**1.8E+00**
Landbay A	BW 34-01	Shallow	Inside	VOC	Tetrahydrofuran	109-99-9	SC	5.40E-02	8/19/2008	1.40E+01	RSL-NC	3.9E-03
Landbay A	BW 34-01	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.20E-02	8/19/2008	4.70E+02	RSL-NC	2.6E-05
Landbay A	BW 34-01	Shallow	Inside	INORG	Barium	7440-39-3	NC	7.30E-03	8/19/2008	2.00E+00	FM	3.7E-03
Landbay A	BW 34-01	Shallow	Inside	INORG	Boron	7440-42-8	ID	3.33E-01	3/25/2010	3.10E+00	RSL-NC	1.1E-01
Landbay A	BW 34-01	Shallow	Inside	INORG	Copper	7440-50-8	D	3.00E-03	8/19/2008	1.30E+00	FM	2.3E-03
Landbay A	BW 34-01	Shallow	Inside	INORG	Lead	7439-92-1	B2	1.09E-02	8/19/2008	1.50E-02	FM	7.3E-01
Landbay A	BW 34-01	Shallow	Inside	INORG	Manganese	7439-96-5	D	8.50E-02	3/25/2010	3.80E-01	RSL-NC	2.2E-01
Landbay A	BW 34-01	Shallow	Inside	INORG	Mercury	7439-97-6	D	5.10E-05	8/5/2009	2.00E-03	FM	2.6E-02
Landbay A	BW 34-01	Shallow	Inside	INORG	Nickel	7440-02-0	A	6.80E-03	8/19/2008	3.10E-01	RSL-NC	2.2E-02
Landbay A	BW 34-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	6.40E+00	9/12/2011	1.50E-02	IHA	**4.3E+02**
Landbay A	BW 34-01	Shallow	Inside	INORG	Strontium	7440-24-6		1.55E-01	8/5/2009	9.40E+00	RSL-NC	1.6E-02
Landbay A	BW 34-01	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	2.64E-02	8/19/2008	7.90E-02	RSL-NC	3.3E-01
Landbay A	BW 34-01	Shallow	Inside	INORG	Zinc	7440-66-6	ID	2.17E-02	8/19/2008	4.70E+00	RSL-NC	4.6E-03
Landbay A	BW 39-01D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.00E-04	11/22/2005	7.00E-03	FM	1.3E-01
Landbay A	BW 39-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-03	11/22/2005	5.00E-03	FM	6.0E-01
Landbay A	BW 39-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	6.90E-01	11/22/2005	1.50E-02	IHA	**4.6E+01**
Landbay A	BW CG-01D	Shallow	Inside	VOC	Acetone	67-64-1	ID	1.30E-02	8/11/2009	1.40E+01	RSL-NC	9.3E-04
Landbay A	BW CG-01D	Shallow	Inside	VOC	Benzene	71-43-2	A	2.00E-03	9/9/2011	5.00E-03	FM	4.0E-01
Landbay A	BW CG-01D	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	1.00E-03	8/11/2009	1.00E-01	FM	1.0E-02
Landbay A	BW CG-01D	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	5.00E-03	8/11/2009			
Landbay A	BW CG-01D	Shallow	Inside	VOC	Dichlorodifluoromethane	75-71-8		1.60E-02	8/11/2009	3.10E+00	RSL-NC	5.2E-03
Landbay A	BW CG-01D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.55E-02	9/9/2011	1.20E-01	RSL-C	6.3E-01
Landbay A	BW CG-01D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	9/9/2011	7.00E-03	FM	7.1E-01
Landbay A	BW CG-01D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	3/31/2010	7.00E-02	FM	7.1E-02
Landbay A	BW CG-01D	Shallow	Inside	VOC	1,4-Dioxane	123-91-1	LC	9.00E-03	9/9/2011	6.70E-03	RSL-C	**1.3E+00**
Landbay A	BW CG-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.90E-02	3/31/2010	5.00E-03	FM	**9.8E+00**
Landbay A	BW CG-01D	Shallow	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.30E-02	8/11/2009	1.40E+01	RSL-NC	9.3E-04
Landbay A	BW CG-01D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	9/9/2011	5.00E-03	FM	2.0E-01
Landbay A	BW CG-01D	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		6.10E-01	8/11/2009	4.70E+02	RSL-NC	1.3E-03
Landbay A	BW CG-01D	Shallow	Inside	SVOC	1-Nitronaphthalene	86-57-7		2.20E-04	11/10/2010			
Landbay A	BW CG-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.60E+01	3/31/2010	1.50E-02	IHA	**1.1E+03**
Landbay A	BW CG-01D	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	7.30E-02	9/9/2011	6.10E-03	RSL-C	**1.2E+01**
Landbay A	BW CG-01D	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	3.70E-02	11/10/2010	7.80E-01	RSL-NC	4.7E-02
Landbay A	BW CG-01S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	11/17/2006	1.20E-01	RSL-C	3.3E-02
Landbay A	BW CG-01S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	11/17/2006	7.00E-03	FM	2.9E-01
Landbay A	BW CG-01S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	9.00E-03	11/17/2006	7.00E-02	FM	1.3E-01
Landbay A	BW CG-01S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.90E-02	11/17/2006	5.00E-03	FM	**9.8E+00**
Landbay A	BW CG-01S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.20E-01	11/17/2006	2.00E-01	FM	**1.1E+00**
Landbay A	BW CG-01S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	11/17/2006	5.00E-03	FM	6.0E-01
Landbay A	BW CG-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	6.80E+00	11/17/2006	1.50E-02	IHA	**4.5E+02**
Landbay A	BW CG-01S	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	5.30E-03	5/11/2006	7.80E-01	RSL-NC	6.8E-03
Landbay A	BW CM-01D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	8.00E-03	6/30/2005	1.20E-01	RSL-C	6.7E-02
Landbay A	BW CM-01D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.00E-03	6/30/2005	7.00E-03	FM	**1.3E+00**
Landbay A	BW CM-01D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-02	6/30/2005	7.00E-02	FM	1.4E-01
Landbay A	BW CM-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	6.40E-02	6/30/2005	5.00E-03	FM	**1.3E+01**
Landbay A	BW CM-01D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.00E-03	6/30/2005	2.00E-01	FM	3.0E-02
Landbay A	BW CM-01D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	6/30/2005	5.00E-03	FM	2.0E-01
Landbay A	BW CM-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.15E+01	6/30/2005	1.50E-02	IHA	**2.1E+03**
Landbay A	BW CM-01S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	4/3/2012	1.20E-01	RSL-C	2.5E-02
Landbay A	BW CM-01S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	4/3/2012	7.00E-03	FM	4.3E-01
Landbay A	BW CM-01S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	4/3/2012	7.00E-02	FM	7.1E-02
Landbay A	BW CM-01S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.40E-02	4/3/2012	5.00E-03	FM	**8.8E+00**
Landbay A	BW CM-01S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	4/3/2012	2.00E-01	FM	5.0E-03
Landbay A	BW CM-01S	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		8.00E-03	3/31/2010	4.70E+02	RSL-NC	1.7E-05
Landbay A	BW CM-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	6.90E+00	4/3/2012	1.50E-02	IHA	**4.6E+02**
Landbay A	BW CM-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	6/30/2005	5.00E-03	FM	4.0E-01
Landbay A	BW CM-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.32E+00	6/30/2005	1.50E-02	IHA	**8.8E+01**
Landbay A	BW CM-03	Deep	Inside	INORG	Barium	7440-39-3	NC	5.70E-03	8/20/2008	2.00E+00	FM	2.9E-03
Landbay A	BW CM-03	Deep	Inside	INORG	Boron	7440-42-8	ID	7.86E-02	8/20/2008	3.10E+00	RSL-NC	2.5E-02
Landbay A	BW CM-03	Deep	Inside	INORG	Copper	7440-50-8	D	5.70E-03	10/14/2009	1.30E+00	FM	4.4E-03
Landbay A	BW CM-03	Deep	Inside	INORG	Manganese	7439-96-5	D	2.74E-02	8/20/2008	3.80E-01	RSL-NC	7.2E-02
Landbay A	BW CM-03	Deep	Inside	INORG	Nickel	7440-02-0	A	1.80E-03	10/14/2009	3.10E-01	RSL-NC	5.8E-03
Landbay A	BW CM-03	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	5.80E-02	9/12/2011	1.50E-02	IHA	**3.9E+00**
Landbay A	BW CM-03	Deep	Inside	INORG	Strontium	7440-24-6		1.03E-01	3/24/2010	9.40E+00	RSL-NC	1.1E-02
Landbay A	BW CM-03	Deep	Inside	INORG	Vanadium	7440-62-2	ID	5.90E-03	10/14/2009	7.90E-02	RSL-NC	7.5E-02
Landbay A	BW CM-03	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.70E-04	3/24/2010	6.10E-03	RSL-C	2.8E-02
Landbay A	BW TTU-02D	Shallow	Inside	VOC	Benzene	71-43-2	A	1.00E-03	11/9/2010	5.00E-03	FM	2.0E-01
Landbay A	BW TTU-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	11/9/2010	1.20E-01	RSL-C	3.3E-02
Landbay A	BW TTU-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	11/9/2010	7.00E-03	FM	2.9E-01
Landbay A	BW TTU-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	7.00E-03	11/9/2010	7.00E-02	FM	1.0E-01
Landbay A	BW TTU-02D	Shallow	Inside	VOC	1,4-Dioxane	123-91-1	LC	4.30E-04	9/13/2011	6.70E-03	RSL-C	6.4E-02
Landbay A	BW TTU-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	7.60E-02	11/9/2010	5.00E-03	FM	**1.5E+01**
Landbay A	BW TTU-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.70E-02	11/9/2010	2.00E-01	FM	1.9E-01
Landbay A	BW TTU-02D	Shallow	Inside	PCB	PCBs (total)	1336-36-3	B2	4.95E-04	8/8/2008	5.00E-04	FM	9.9E-01
Landbay A	BW TTU-02D	Shallow	Inside	INORG	Barium	7440-39-3	NC	1.20E-03	8/8/2008	2.00E+00	FM	6.0E-04
Landbay A	BW TTU-02D	Shallow	Inside	INORG	Boron	7440-42-8	ID	7.21E-01	8/8/2008	3.10E+00	RSL-NC	2.3E-01
Landbay A	BW TTU-02D	Shallow	Inside	INORG	Copper	7440-50-8	D	3.80E-03	8/8/2008	1.30E+00	FM	2.9E-03
Landbay A	BW TTU-02D	Shallow	Inside	INORG	Manganese	7439-96-5	D	7.20E-02	9/13/2011	3.80E-01	RSL-NC	1.9E-01
Landbay A	BW TTU-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.90E+00	11/9/2010	1.50E-02	IHA	**3.3E+02**
Landbay A	BW TTU-02D	Shallow	Inside	INORG	Strontium	7440-24-6		1.05E-01	8/8/2008	9.40E+00	RSL-NC	1.1E-02
Landbay A	BW TTU-02D	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	3.44E-02	8/8/2008	7.90E-02	RSL-NC	4.4E-01
Landbay A	BW TTU-02D	Shallow	Inside	INORG	Zinc	7440-66-6	ID	1.12E-02	5/8/2008	4.70E+00	RSL-NC	2.4E-03
Landbay A	BW TTU-02D	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	6.90E-04	6/15/2011	6.10E-03	RSL-C	1.1E-01
Landbay A	BW TTU-02D	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	4.70E-02	6/15/2011	7.80E-01	RSL-NC	6.0E-02
Landbay A	BW TTU-02S	Shallow	Inside	VOC	Benzene	71-43-2	A	2.00E-03	11/9/2010	5.00E-03	FM	4.0E-01
Landbay A	BW TTU-02S	Shallow	Inside	SVOC	1-Nitronaphthalene	86-57-7		3.70E-04	11/9/2010			
Landbay A	BW TTU-02S	Shallow	Inside	EXPLOSIVE	2-Nitrotoluene	88-72-2	LC	4.70E-03	6/15/2011	3.10E-03	RSL-C	**1.5E+00**
Landbay A	BW TTU-03D	Shallow	Inside	VOC	Benzene	71-43-2	A	1.00E-03	4/4/2012	5.00E-03	FM	2.0E-01
Landbay A	BW TTU-03D	Shallow	Inside	VOC	Dichlorodifluoromethane	75-71-8		3.00E-03	8/13/2009	3.10E+00	RSL-NC	9.7E-04
Landbay A	BW TTU-03D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	4/4/2012	1.20E-01	RSL-C	3.3E-02
Landbay A	BW TTU-03D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	4/4/2012	7.00E-03	FM	4.3E-01
Landbay A	BW TTU-03D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-01	9/13/2011	7.00E-02	FM	**4.3E+00**
Landbay A	BW TTU-03D	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	4.00E-03	8/13/2009	1.00E-01	FM	4.0E-02
Landbay A	BW TTU-03D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	7.70E-01	4/4/2012	5.00E-03	FM	**1.5E+02**
Landbay A	BW TTU-03D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	4/4/2012	2.00E-01	FM	1.0E-02
Landbay A	BW TTU-03D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.70E-01	4/4/2012	5.00E-03	FM	**3.4E+01**
Landbay A	BW TTU-03D	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.55E-01	8/13/2009	4.70E+02	RSL-NC	3.3E-04
Landbay A	BW TTU-03D	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	1.10E-02	9/13/2011	2.00E-03	FM	**5.5E+00**
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Barium	7440-39-3	NC	2.65E-02	5/30/2008	2.00E+00	FM	1.3E-02
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Boron	7440-42-8	ID	3.35E-01	5/30/2008	3.10E+00	RSL-NC	1.1E-01
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Cobalt	7440-48-4	LC	5.60E-03	9/13/2011	4.70E-03	RSL-NC	**1.2E+00**
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Copper	7440-50-8	D	4.60E-03	5/30/2008	1.30E+00	FM	3.5E-03
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Iron	7439-89-6	D	5.83E-01	5/30/2008	1.10E+01	RSL-NC	5.3E-02
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Manganese	7439-96-5	D	1.51E+00	9/13/2011	3.80E-01	RSL-NC	**4.0E+00**
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Nickel	7440-02-0	A	8.50E-03	5/30/2008	3.10E-01	RSL-NC	2.7E-02
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.95E-01	4/4/2012	1.50E-02	IHA	**2.0E+01**
Landbay A	BW TTU-03D	Shallow	Inside	INORG	Strontium	7440-24-6		1.93E-01	5/30/2008	9.40E+00	RSL-NC	2.1E-02
Landbay A	BW TTU-03D	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	3.70E-03	8/13/2009	7.80E-01	RSL-NC	4.7E-03
Landbay A	BW TTU-03S	Shallow	Inside	VOC	2-Butanone	78-93-3	ID	3.15E-02	6/9/2008	9.40E+00	RSL-NC	3.4E-03
Landbay A	BW TTU-03S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.90E-01	6/9/2008	7.00E-02	FM	**5.6E+00**
Landbay A	BW TTU-03S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.10E-01	6/9/2008	5.00E-03	FM	**6.2E+01**
Landbay A	BW TTU-03S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.25E-01	6/9/2008	5.00E-03	FM	**4.5E+01**
Landbay A	BW TTU-03S	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	1.85E-02	6/9/2008	2.00E-03	FM	**9.3E+00**
Landbay A	BW TTU-03S	Shallow	Inside	SVOC	Methylphenol (total)	1319-77-3		9.50E-03	6/9/2008	1.60E+00	RSL-NC	5.9E-03
Landbay A	BW TTU-03S	Shallow	Inside	SVOC	1-Nitronaphthalene	86-57-7		2.30E-04	6/9/2008			
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Barium	7440-39-3	NC	2.73E-02	6/9/2008	2.00E+00	FM	1.4E-02
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Boron	7440-42-8	ID	3.11E-01	6/9/2008	3.10E+00	RSL-NC	1.0E-01
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Cobalt	7440-48-4	LC	1.08E-02	6/9/2008	4.70E-03	RSL-NC	**2.3E+00**

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Iron	7439-89-6	D	2.91E+00	6/9/2008	1.10E+01	RSL-NC	2.6E-01
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Manganese	7439-96-5	D	6.70E+00	6/9/2008	3.80E-01	RSL-NC	**1.8E+01**
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Nickel	7440-02-0	A	2.10E-02	6/9/2008	3.10E-01	RSL-NC	6.8E-02
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.00E-03	6/9/2008	1.50E-02	IHA	1.3E-01
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Strontium	7440-24-6		3.15E-01	6/9/2008	9.40E+00	RSL-NC	3.4E-02
Landbay A	BW TTU-03S	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	3.00E-03	6/9/2008	7.90E-02	RSL-NC	3.8E-02
Landbay A	BW TTU-05	Shallow	Inside	VOC	Chloroform	67-66-3	B2	3.00E-03	3/31/2010	8.00E-02	FM	3.8E-02
Landbay A	BW TTU-05	Shallow	Inside	VOC	Tetrahydrofuran	109-99-9	SC	5.00E-03	11/9/2010	1.40E+01	RSL-NC	3.6E-04
Landbay A	BW TTU-05	Shallow	Inside	SVOC	1-Nitronaphthalene	86-57-7		1.60E-04	11/9/2010			
Landbay A	BW TTU-05	Shallow	Inside	INORG	Barium	7440-39-3	NC	4.58E-02	8/8/2008	2.00E+00	FM	2.3E-02
Landbay A	BW TTU-05	Shallow	Inside	INORG	Boron	7440-42-8	ID	1.45E-01	8/8/2008	3.10E+00	RSL-NC	4.7E-02
Landbay A	BW TTU-05	Shallow	Inside	INORG	Iron	7439-89-6	D	4.14E+00	8/8/2008	1.10E+01	RSL-NC	3.8E-01
Landbay A	BW TTU-05	Shallow	Inside	INORG	Manganese	7439-96-5	D	8.15E-02	8/8/2008	3.80E-01	RSL-NC	2.1E-01
Landbay A	BW TTU-05	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.70E+00	6/14/2011	1.50E-02	IHA	**2.5E+02**
Landbay A	BW TTU-05	Shallow	Inside	INORG	Strontium	7440-24-6		1.69E-01	8/8/2008	9.40E+00	RSL-NC	1.8E-02
Landbay A	BW TTU-05	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	1.57E-02	5/8/2008	7.90E-02	RSL-NC	2.0E-01
Landbay A	BW TTU-05	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	4.38E-04	6/14/2011	6.10E-03	RSL-C	7.2E-02
Landbay A	DW 106-01	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	3/23/2010	7.00E-02	FM	1.4E-02
Landbay A	DW 106-01	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	6/23/2008	5.00E-03	FM	4.0E-01
Landbay A	DW 106-01	Deep	Inside	VOC	Toluene	108-88-3	ID	5.75E-04	10/9/2009	1.00E+00	FM	5.8E-04
Landbay A	DW 106-01	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	10/9/2009	5.00E-03	FM	6.0E-01
Landbay A	DW 106-01	Deep	Inside	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	SC	2.00E-03	3/23/2010	9.60E-03	RSL-C	2.1E-01
Landbay A	DW 106-01	Deep	Inside	INORG	Barium	7440-39-3	NC	7.10E-03	6/23/2008	2.00E+00	FM	3.6E-03
Landbay A	DW 106-01	Deep	Inside	INORG	Boron	7440-42-8	ID	1.99E+00	10/9/2009	3.10E+00	RSL-NC	6.4E-01
Landbay A	DW 106-01	Deep	Inside	INORG	Copper	7440-50-8	D	3.30E-03	6/23/2008	1.30E+00	FM	2.5E-03
Landbay A	DW 106-01	Deep	Inside	INORG	Iron	7439-89-6	D	5.13E-01	6/23/2008	1.10E+01	RSL-NC	4.7E-02
Landbay A	DW 106-01	Deep	Inside	INORG	Manganese	7439-96-5	D	5.00E-02	10/9/2009	3.80E-01	RSL-NC	1.3E-01
Landbay A	DW 106-01	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.40E-04	6/23/2008	1.50E-02	IHA	1.6E-02
Landbay A	DW 106-01	Deep	Inside	INORG	Strontium	7440-24-6		3.47E-01	6/23/2008	9.40E+00	RSL-NC	3.7E-02
Landbay A	DW 106-01	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.50E-04	10/9/2009	6.10E-03	RSL-C	2.5E-02
Landbay A	DW 52-01	Deep	Inside	VOC	Toluene	108-88-3	ID	3.30E-02	11/4/2008	1.00E+00	FM	3.3E-02
Landbay A	DW 52-01	Deep	Inside	INORG	Barium	7440-39-3	NC	2.60E-02	3/26/2010	2.00E+00	FM	1.3E-02
Landbay A	DW 52-01	Deep	Inside	INORG	Boron	7440-42-8	ID	2.25E+00	10/5/2009	3.10E+00	RSL-NC	7.3E-01
Landbay A	DW 52-01	Deep	Inside	INORG	Copper	7440-50-8	D	8.10E-03	10/5/2009	1.30E+00	FM	6.2E-03
Landbay A	DW 52-01	Deep	Inside	INORG	Iron	7439-89-6	D	1.80E+00	10/5/2009	1.10E+01	RSL-NC	1.6E-01
Landbay A	DW 52-01	Deep	Inside	INORG	Manganese	7439-96-5	D	1.93E-01	10/5/2009	3.80E-01	RSL-NC	5.1E-01
Landbay A	DW 52-01	Deep	Inside	INORG	Strontium	7440-24-6		1.90E+00	3/26/2010	9.40E+00	RSL-NC	2.0E-01
Landbay A	DW CM-01	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		5.00E-03	6/24/2008	4.70E+02	RSL-NC	1.1E-05
Landbay A	DW CM-01	Deep	Inside	INORG	Barium	7440-39-3	NC	7.80E-04	10/9/2009	2.00E+00	FM	3.9E-04
Landbay A	DW CM-01	Deep	Inside	INORG	Boron	7440-42-8	ID	5.36E-02	3/24/2010	3.10E+00	RSL-NC	1.7E-02
Landbay A	DW CM-01	Deep	Inside	INORG	Manganese	7439-96-5	D	2.30E-03	3/24/2010	3.80E-01	RSL-NC	6.1E-03
Landbay A	DW CM-01	Deep	Inside	INORG	Mercury	7439-97-6	D	8.30E-05	10/9/2009	2.00E-03	FM	4.2E-02
Landbay A	DW CM-01	Deep	Inside	INORG	Nickel	7440-02-0	A	3.10E-03	10/9/2009	3.10E-01	RSL-NC	1.0E-02
Landbay A	DW CM-01	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	5.20E-02	4/3/2012	1.50E-02	IHA	**3.5E+00**
Landbay A	DW CM-01	Deep	Inside	INORG	Strontium	7440-24-6		1.05E-01	3/24/2010	9.40E+00	RSL-NC	1.1E-02
Landbay A	DW CM-01	Deep	Inside	INORG	Vanadium	7440-62-2	ID	5.30E-03	3/24/2010	7.90E-02	RSL-NC	6.7E-02
Landbay A	DW CM-01	Deep	Inside	INORG	Zinc	7440-66-6	ID	8.30E-03	10/9/2009	4.70E+00	RSL-NC	1.8E-03
Landbay A	DW CM-01	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.20E-04	3/24/2010	6.10E-03	RSL-C	3.6E-02
Landbay A	DW-23	Deep	Inside	WQ	Chloride	16887-00-6		8.60E+00	2/20/2007			
Landbay A	DW-23	Deep	Inside	WQ	Sulfate	14808-79-8		6.73E+01	8/18/2004			
Landbay A	DW-23	Deep	Inside	VOC	Acetone	67-64-1	ID	8.00E-03	10/14/2009	1.40E+01	RSL-NC	5.7E-04
Landbay A	DW-23	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		5.00E-03	3/17/2010	3.10E+00	RSL-NC	1.6E-03
Landbay A	DW-23	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.50E-02	8/31/2011	1.20E-01	RSL-C	1.3E-01
Landbay A	DW-23	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.20E-02	3/17/2010	7.00E-03	FM	**7.4E+00**
Landbay A	DW-23	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03	8/31/2011	5.00E-03	FM	8.0E-01
Landbay A	DW-23	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.80E-02	3/17/2010	2.00E-01	FM	3.9E-01
Landbay A	DW-23	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.00E-01	3/17/2010	4.70E+02	RSL-NC	6.4E-04
Landbay A	DW-23	Deep	Inside	SVOC	1-Nitronaphthalene	86-57-7		6.10E-04	3/17/2010			
Landbay A	DW-23	Deep	Inside	INORG	Nitrate	14797-55-8		5.20E-01	8/18/2004	1.00E+01	FM	5.2E-02
Landbay A	DW-23	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.50E-02	10/14/2009	1.50E-02	IHA	**2.3E+00**
Landbay A	DW-23	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	6.80E-04	10/14/2009	6.10E-03	RSL-C	1.1E-01
Landbay A	DW-3	Deep	Inside	WQ	Chloride	16887-00-6		1.72E+01	2/20/2007			
Landbay A	DW-3	Deep	Inside	VOC	Benzene	71-43-2	A	5.00E-03	3/31/2010	5.00E-03	FM	1.0E+00
Landbay A	DW-3	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.40E-02	8/31/2011	1.20E-01	RSL-C	1.2E-01
Landbay A	DW-3	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.00E-03	3/31/2010	7.00E-03	FM	**1.3E+00**
Landbay A	DW-3	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.80E-02	3/31/2010	7.00E-02	FM	**1.3E+00**
Landbay A	DW-3	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-02	8/31/2011	5.00E-03	FM	**2.0E+00**
Landbay A	DW-3	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.20E-02	10/22/2009	1.40E+01	RSL-NC	8.6E-04
Landbay A	DW-3	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.80E-02	8/31/2011	5.00E-03	FM	**3.6E+00**
Landbay A	DW-3	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	5.00E-03	3/31/2010	2.00E-03	FM	**2.5E+00**
Landbay A	DW-3	Deep	Inside	INORG	Barium	7440-39-3	NC	2.13E-02	8/17/2006	2.00E+00	FM	1.1E-02
Landbay A	DW-3	Deep	Inside	INORG	Strontium	7440-24-6		3.71E-01	8/17/2006	9.40E+00	RSL-NC	3.9E-02
Landbay A	DW-30D	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-02	10/19/2009	1.20E-01	RSL-C	1.7E-01
Landbay A	DW-30D	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.70E-01	10/19/2009	7.00E-03	FM	**2.4E+01**
Landbay A	DW-30D	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	3/30/2010	2.00E-01	FM	2.0E-02
Landbay A	DW-30D	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		9.60E-03	6/3/2008	4.70E+02	RSL-NC	2.0E-05
Landbay A	DW-30D	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	3/30/2010	2.00E-03	FM	5.0E-01
Landbay A	DW-30D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.30E-02	9/2/2011	1.50E-02	IHA	**1.5E+00**
Landbay A	DW-30I	Deep	Inside	VOC	Benzene	71-43-2	A	3.00E-03	10/16/2009	5.00E-03	FM	6.0E-01
Landbay A	DW-30I	Deep	Inside	VOC	Chloroethane	75-00-3	LC	5.00E-03	3/30/2010			
Landbay A	DW-30I	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.80E-02	3/30/2010	1.20E-01	RSL-C	4.8E-01
Landbay A	DW-30I	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	2.00E-03	10/16/2009	5.00E-03	FM	4.0E-01
Landbay A	DW-30I	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.60E-01	10/16/2009	7.00E-03	FM	**3.7E+01**
Landbay A	DW-30I	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	3/30/2010	5.00E-03	FM	4.0E-01
Landbay A	DW-30I	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	7.00E-03	10/16/2009	1.40E+01	RSL-NC	5.0E-04
Landbay A	DW-30I	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	3/30/2010	2.00E-01	FM	2.5E-02
Landbay A	DW-30I	Deep	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	1.00E-03	3/30/2010	5.00E-03	FM	2.0E-01
Landbay A	DW-30I	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	3/30/2010	5.00E-03	FM	4.0E-01
Landbay A	DW-30I	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.30E-02	3/30/2010	4.70E+02	RSL-NC	2.8E-05
Landbay A	DW-30I	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	3.80E-02	3/30/2010	2.00E-03	FM	**1.9E+01**
Landbay A	DW-30I	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.10E-02	3/30/2010	1.50E-02	IHA	7.3E-01
Landbay A	DW-30S	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.00E-03	9/8/2011	7.00E-03	FM	**1.3E+00**
Landbay A	DW-30S	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	3/29/2010	2.00E-01	FM	2.0E-02
Landbay A	DW-30S	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.60E-02	5/22/2008	4.70E+02	RSL-NC	3.4E-05
Landbay A	DW-30S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.80E-01	10/16/2009	1.50E-02	IHA	**1.2E+01**
Landbay A	DW-32I	Deep	Inside	VOC	Benzene	71-43-2	A	4.60E-02	3/30/2010	5.00E-03	FM	**9.2E+00**
Landbay A	DW-32I	Deep	Inside	VOC	Chloroethane	75-00-3	LC	2.80E-02	3/30/2010			
Landbay A	DW-32I	Deep	Inside	VOC	Chloroform	67-66-3	B2	2.70E-02	3/30/2010	8.00E-02	FM	3.4E-01
Landbay A	DW-32I	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		8.00E-03	3/30/2010	3.10E+00	RSL-NC	2.6E-03
Landbay A	DW-32I	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.30E-01	3/30/2010	1.20E-01	RSL-C	**6.1E+00**
Landbay A	DW-32I	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	7.35E-02	3/30/2010	5.00E-03	FM	**1.5E+01**
Landbay A	DW-32I	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.05E+01	3/30/2010	7.00E-03	FM	**1.5E+03**
Landbay A	DW-32I	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	3/30/2010	7.00E-02	FM	7.1E-02
Landbay A	DW-32I	Deep	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.95E-02	3/30/2010	1.00E-01	FM	2.0E-01
Landbay A	DW-32I	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	1.55E+00	3/30/2010	6.70E-03	RSL-C	**2.3E+02**
Landbay A	DW-32I	Deep	Inside	VOC	Methyl tert-butyl ether	1634-04-4	C	9.50E-04	3/30/2010	3.70E-01	RSL-C	2.6E-03
Landbay A	DW-32I	Deep	Inside	VOC	Methylene Chloride	75-09-2	LC	7.00E-03	3/30/2010	5.00E-03	FM	**1.4E+00**
Landbay A	DW-32I	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.60E-02	3/30/2010	5.00E-03	FM	**3.2E+00**
Landbay A	DW-32I	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	6.35E-02	3/30/2010	1.40E+01	RSL-NC	4.5E-03
Landbay A	DW-32I	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.15E-01	3/30/2010	2.00E-01	FM	**2.6E+00**
Landbay A	DW-32I	Deep	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	6.05E-02	3/30/2010	5.00E-03	FM	**1.2E+01**
Landbay A	DW-32I	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	5.10E-02	3/30/2010	5.00E-03	FM	**1.0E+01**
Landbay A	DW-32I	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.30E-01	3/30/2010	4.70E+02	RSL-NC	9.1E-04
Landbay A	DW-32I	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.40E-01	3/30/2010	2.00E-03	FM	**1.2E+02**
Landbay A	DW-32I	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.50E-04	6/3/2008	1.50E-02	IHA	2.3E-02
Landbay A	DW-32I	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	7.80E-04	6/3/2008	6.10E-03	RSL-C	1.3E-01
Landbay A	DW-33I	Deep	Inside	WQ	Chloride	16887-00-6		7.10E+00	2/15/2007			
Landbay A	DW-33I	Deep	Inside	VOC	Acetone	67-64-1	ID	7.00E-03	5/8/2006	1.40E+01	RSL-NC	5.0E-04
Landbay A	DW-33I	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	11/22/2005	1.20E-01	RSL-C	4.2E-02
Landbay A	DW-33I	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.70E-02	11/22/2005	7.00E-03	FM	**2.4E+00**
Landbay A	DW-33I	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.20E-02	11/22/2005	2.00E-01	FM	2.6E-01
Landbay A	DW-33I	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	7.30E-01	5/8/2006	1.50E-02	IHA	**4.9E+01**
Landbay A	DW-72B	Deep	Inside	WQ	Chloride	16887-00-6		3.07E+01	8/10/2010			
Landbay A	DW-72B	Deep	Inside	WQ	Sulfate	14808-79-8		2.00E+02	2/3/2011			
Landbay A	DW-72B	Deep	Inside	VOC	Benzene	71-43-2	A	1.50E-02	6/16/2010	5.00E-03	FM	**3.0E+00**
Landbay A	DW-72B	Deep	Inside	VOC	Carbon Tetrachloride	56-23-5	LC	1.00E-03	6/16/2010	5.00E-03	FM	2.0E-01
Landbay A	DW-72B	Deep	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	6/9/2011			
Landbay A	DW-72B	Deep	Inside	VOC	Chloroform	67-66-3	B2	8.00E-04	6/16/2010	8.00E-02	FM	1.0E-02
Landbay A	DW-72B	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		9.00E-03	6/9/2011	3.10E+00	RSL-NC	2.9E-03
Landbay A	DW-72B	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-01	6/16/2010	1.20E-01	RSL-C	**1.7E+00**
Landbay A	DW-72B	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	8.00E-03	6/9/2011	5.00E-03	FM	**1.6E+00**

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay A	DW-72B	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.80E-01	6/16/2010	7.00E-03	FM	**4.0E+01**
Landbay A	DW-72B	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	8/10/2010	7.00E-02	FM	1.4E-02
Landbay A	DW-72B	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	1.90E-01	6/9/2011	6.70E-03	RSL-C	**2.8E+01**
Landbay A	DW-72B	Deep	Inside	VOC	Methyl tert-butyl ether	1634-04-4	C	1.00E-03	6/16/2010	3.70E-01	RSL-C	2.7E-03
Landbay A	DW-72B	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-03	6/9/2011	5.00E-03	FM	2.0E-01
Landbay A	DW-72B	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	2.30E-02	6/16/2010	1.40E+01	RSL-NC	1.6E-03
Landbay A	DW-72B	Deep	Inside	VOC	Toluene	108-88-3	ID	1.00E-03	6/16/2010	1.00E+00	FM	1.0E-03
Landbay A	DW-72B	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-03	6/16/2010	2.00E-01	FM	4.5E-02
Landbay A	DW-72B	Deep	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	5.00E-03	6/16/2010	5.00E-03	FM	1.0E+00
Landbay A	DW-72B	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	8/10/2010	5.00E-03	FM	1.0E+00
Landbay A	DW-72B	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.50E-01	6/9/2011	4.70E+02	RSL-NC	3.2E-04
Landbay A	DW-72B	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.80E-01	8/10/2010	2.00E-03	FM	**1.4E+02**
Landbay A	DW-72B	Deep	Inside	SVOC	1,3-Dinitrobenzene	99-65-0	D	3.60E-03	6/16/2010	1.60E-03	RSL-NC	**2.3E+00**
Landbay A	DW-72B	Deep	Inside	INORG	Iron	7439-89-6	D	1.63E+00	4/7/2010	1.10E+01	RSL-NC	1.5E-01
Landbay A	DW-72B	Deep	Inside	INORG	Manganese	7439-96-5	D	1.30E+00	10/13/2009	3.80E-01	RSL-NC	**3.4E+00**
Landbay A	DW-72B	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		1.40E+01	6/16/2010			
Landbay A	DW-72B	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	4.40E-04	2/3/2010	6.10E-03	RSL-C	7.2E-02
Landbay A	DW-72B-122-162	Deep	Inside	VOC	Benzene	71-43-2	A	8.00E-03	7/14/2009	5.00E-03	FM	**1.6E+00**
Landbay A	DW-72B-122-162	Deep	Inside	VOC	Chloroethane	75-00-3	LC	3.00E-03	7/14/2009			
Landbay A	DW-72B-122-162	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		2.00E-02	7/14/2009	3.10E+00	RSL-NC	6.5E-03
Landbay A	DW-72B-122-162	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.20E-01	7/14/2009	1.20E-01	RSL-C	1.0E+00
Landbay A	DW-72B-122-162	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	5.00E-03	7/14/2009	5.00E-03	FM	1.0E+00
Landbay A	DW-72B-122-162	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.60E-01	7/14/2009	7.00E-03	FM	**2.3E+01**
Landbay A	DW-72B-122-162	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	7/14/2009	7.00E-02	FM	1.4E-02
Landbay A	DW-72B-122-162	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	1.40E-01	7/14/2009	6.70E-03	RSL-C	**2.1E+01**
Landbay A	DW-72B-122-162	Deep	Inside	VOC	Methyl tert-butyl ether	1634-04-4	C	5.00E-04	7/14/2009	3.70E-01	RSL-C	1.4E-03
Landbay A	DW-72B-122-162	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.00E-04	7/14/2009	5.00E-03	FM	1.6E-01
Landbay A	DW-72B-122-162	Deep	Inside	VOC	Toluene	108-88-3	ID	1.00E-03	7/14/2009	1.00E+00	FM	1.0E-03
Landbay A	DW-72B-122-162	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	7/14/2009	2.00E-01	FM	1.5E-02
Landbay A	DW-72B-122-162	Deep	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	2.00E-03	7/14/2009	5.00E-03	FM	4.0E-01
Landbay A	DW-72B-122-162	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	7/14/2009	5.00E-03	FM	8.0E-01
Landbay A	DW-72B-122-162	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.40E-01	7/14/2009	4.70E+02	RSL-NC	3.0E-04
Landbay A	DW-72B-122-162	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.30E-01	7/14/2009	2.00E-03	FM	**6.5E+01**
Landbay A	DW-72B-195-235	Deep	Inside	VOC	Benzene	71-43-2	A	6.00E-03	7/14/2009	5.00E-03	FM	**1.2E+00**
Landbay A	DW-72B-195-235	Deep	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	7/14/2009			
Landbay A	DW-72B-195-235	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		1.10E-02	7/14/2009	3.10E+00	RSL-NC	3.5E-03
Landbay A	DW-72B-195-235	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.10E-01	7/14/2009	1.20E-01	RSL-C	9.2E-01
Landbay A	DW-72B-195-235	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	4.00E-03	7/14/2009	5.00E-03	FM	8.0E-01
Landbay A	DW-72B-195-235	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.40E-01	7/14/2009	7.00E-03	FM	**2.0E+01**
Landbay A	DW-72B-195-235	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	7/14/2009	7.00E-02	FM	1.4E-02
Landbay A	DW-72B-195-235	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	1.20E-01	7/14/2009	6.70E-03	RSL-C	**1.8E+01**
Landbay A	DW-72B-195-235	Deep	Inside	VOC	Methyl tert-butyl ether	1634-04-4	C	8.00E-04	7/14/2009	3.70E-01	RSL-C	2.2E-03
Landbay A	DW-72B-195-235	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.60E-02	7/14/2009	1.40E+01	RSL-NC	1.1E-03
Landbay A	DW-72B-195-235	Deep	Inside	VOC	Toluene	108-88-3	ID	8.00E-04	7/14/2009	1.00E+00	FM	8.0E-04
Landbay A	DW-72B-195-235	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	7/14/2009	2.00E-01	FM	1.0E-02
Landbay A	DW-72B-195-235	Deep	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	8.00E-04	7/14/2009	5.00E-03	FM	1.6E-01
Landbay A	DW-72B-195-235	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	7/14/2009	5.00E-03	FM	6.0E-01
Landbay A	DW-72B-195-235	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.50E-02	7/14/2009	4.70E+02	RSL-NC	5.3E-05
Landbay A	DW-72B-195-235	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.40E-01	7/14/2009	2.00E-03	FM	**7.0E+01**
Landbay A	DW-72B-223	Deep	Inside	VOC	Benzene	71-43-2	A	7.00E-03	7/14/2009	5.00E-03	FM	**1.4E+00**
Landbay A	DW-72B-223	Deep	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	7/14/2009			
Landbay A	DW-72B-223	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		1.30E-02	7/14/2009	3.10E+00	RSL-NC	4.2E-03
Landbay A	DW-72B-223	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.10E-01	7/14/2009	1.20E-01	RSL-C	9.2E-01
Landbay A	DW-72B-223	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	4.00E-03	7/14/2009	5.00E-03	FM	8.0E-01
Landbay A	DW-72B-223	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.50E-01	7/14/2009	7.00E-03	FM	**2.1E+01**
Landbay A	DW-72B-223	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	7/14/2009	7.00E-02	FM	1.4E-02
Landbay A	DW-72B-223	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	1.30E-01	7/14/2009	6.70E-03	RSL-C	**1.9E+01**
Landbay A	DW-72B-223	Deep	Inside	VOC	Methyl tert-butyl ether	1634-04-4	C	9.00E-04	7/14/2009	3.70E-01	RSL-C	2.4E-03
Landbay A	DW-72B-223	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.80E-02	7/14/2009	1.40E+01	RSL-NC	1.3E-03
Landbay A	DW-72B-223	Deep	Inside	VOC	Toluene	108-88-3	ID	7.00E-04	7/14/2009	1.00E+00	FM	7.0E-04
Landbay A	DW-72B-223	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	7/14/2009	2.00E-01	FM	1.0E-02
Landbay A	DW-72B-223	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	7/14/2009	5.00E-03	FM	8.0E-01
Landbay A	DW-72B-223	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.30E-02	7/14/2009	4.70E+02	RSL-NC	2.8E-05
Landbay A	DW-72B-223	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.50E-01	7/14/2009	2.00E-03	FM	**7.5E+01**
Landbay A	DW-72B-49-89	Deep	Inside	VOC	Benzene	71-43-2	A	1.00E-03	7/14/2009	5.00E-03	FM	2.0E-01
Landbay A	DW-72B-49-89	Deep	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	7/14/2009			
Landbay A	DW-72B-49-89	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.10E-02	7/14/2009	1.20E-01	RSL-C	3.4E-01
Landbay A	DW-72B-49-89	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	1.00E-03	7/14/2009	5.00E-03	FM	2.0E-01
Landbay A	DW-72B-49-89	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	6.30E-02	7/14/2009	7.00E-03	FM	**9.0E+00**
Landbay A	DW-72B-49-89	Deep	Inside	VOC	Methyl tert-butyl ether	1634-04-4	C	9.00E-04	7/14/2009	3.70E-01	RSL-C	2.4E-03
Landbay A	DW-72B-49-89	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	6.00E-03	7/14/2009	1.40E+01	RSL-NC	4.3E-04
Landbay A	DW-72B-49-89	Deep	Inside	VOC	Toluene	108-88-3	ID	3.00E-03	7/14/2009	1.00E+00	FM	3.0E-03
Landbay A	DW-72B-49-89	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	7/14/2009	2.00E-01	FM	1.0E-02
Landbay A	DW-72B-49-89	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	7/14/2009	5.00E-03	FM	2.0E-01
Landbay A	DW-72B-49-89	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.00E-03	7/14/2009	4.70E+02	RSL-NC	6.4E-06
Landbay A	DW-72B-49-89	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	4.70E-02	7/14/2009	2.00E-03	FM	**2.4E+01**
Landbay A	DW-72B-49-89	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.60E-03	7/14/2009	1.50E-02	IHA	2.4E-01
Landbay A	DW-72B-75-115	Deep	Inside	VOC	Benzene	71-43-2	A	6.00E-03	7/14/2009	5.00E-03	FM	**1.2E+00**
Landbay A	DW-72B-75-115	Deep	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	7/14/2009			
Landbay A	DW-72B-75-115	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		6.00E-03	7/14/2009	3.10E+00	RSL-NC	1.9E-03
Landbay A	DW-72B-75-115	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	9.50E-02	7/14/2009	1.20E-01	RSL-C	7.9E-01
Landbay A	DW-72B-75-115	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	4.00E-03	7/14/2009	5.00E-03	FM	8.0E-01
Landbay A	DW-72B-75-115	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-01	7/14/2009	7.00E-03	FM	**1.6E+01**
Landbay A	DW-72B-75-115	Deep	Inside	VOC	Methyl tert-butyl ether	1634-04-4	C	1.00E-03	7/14/2009	3.70E-01	RSL-C	2.7E-03
Landbay A	DW-72B-75-115	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.00E-04	7/14/2009	5.00E-03	FM	1.6E-01
Landbay A	DW-72B-75-115	Deep	Inside	VOC	Toluene	108-88-3	ID	4.00E-03	7/14/2009	1.00E+00	FM	4.0E-03
Landbay A	DW-72B-75-115	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	7/14/2009	2.00E-01	FM	1.5E-02
Landbay A	DW-72B-75-115	Deep	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	2.00E-03	7/14/2009	5.00E-03	FM	4.0E-01
Landbay A	DW-72B-75-115	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	7/14/2009	5.00E-03	FM	6.0E-01
Landbay A	DW-72B-75-115	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.80E-02	7/14/2009	4.70E+02	RSL-NC	1.0E-04
Landbay A	DW-72B-75-115	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.30E-01	7/14/2009	2.00E-03	FM	**6.5E+01**
Landbay A	DW-72B-75-115	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.50E-04	7/14/2009	6.10E-03	RSL-C	4.1E-02
Landbay A	GP 105-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03	8/1/2002	5.00E-03	FM	8.0E-01
Landbay A	GP 105-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	7.56E-01	8/1/2002	1.50E-02	IHA	**5.0E+01**
Landbay A	GP TTF-04	Shallow	Inside	VOC	Benzene	71-43-2	A	1.00E-03	8/7/2002	5.00E-03	FM	2.0E-01
Landbay A	GP TTF-04	Shallow	Inside	VOC	Cumene	98-82-8	D	2.00E-03	8/7/2002	1.60E+00	RSL-NC	1.3E-03
Landbay A	GP TTF-04	Shallow	Inside	VOC	Ethyl Benzene	100-41-4	D	1.40E-01	8/7/2002	7.00E-01	FM	2.0E-01
Landbay A	GP TTF-04	Shallow	Inside	VOC	Toluene	108-88-3	ID	1.00E-03	8/7/2002	1.00E+00	FM	1.0E-03
Landbay A	GP TTF-04	Shallow	Inside	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	1.10E-02	8/7/2002			
Landbay A	GP TTF-04	Shallow	Inside	VOC	Xylenes (total)	1330-20-7	ID	1.10E+00	8/7/2002	1.00E+01	FM	1.1E-01
Landbay A	GP TTF-04	Shallow	Inside	INORG	Antimony	7440-36-0	ID	2.20E-01	8/7/2002	6.00E-03	FM	**3.7E+01**
Landbay A	GP TTF-04	Shallow	Inside	INORG	Arsenic	7440-38-2	A	1.20E-02	8/7/2002	1.00E-02	FM	**1.2E+00**
Landbay A	GP TTF-04	Shallow	Inside	INORG	Cadmium	7440-43-9	B1	7.20E-02	8/7/2002	5.00E-03	FM	**1.4E+01**
Landbay A	GP TTF-04	Shallow	Inside	INORG	Chromium (total)	7440-47-3		1.10E-01	8/7/2002	1.00E-01	FM	**1.1E+00**
Landbay A	GP TTF-04	Shallow	Inside	INORG	Copper	7440-50-8	D	3.70E-01	8/7/2002	1.30E+00	FM	2.8E-01
Landbay A	GP TTF-04	Shallow	Inside	INORG	Lead	7439-92-1	B2	4.80E-01	8/7/2002	1.50E-02	FM	**3.2E+01**
Landbay A	GP TTF-04	Shallow	Inside	INORG	Mercury	7439-97-6	D	3.00E-03	8/7/2002	2.00E-03	FM	**1.5E+00**
Landbay A	GP TTF-04	Shallow	Inside	INORG	Nickel	7440-02-0	A	1.00E-01	8/7/2002	3.10E-01	RSL-NC	3.2E-01
Landbay A	GP TTF-04	Shallow	Inside	INORG	Silver	7440-22-4	D	4.30E-02	8/7/2002	7.80E-02	RSL-NC	5.5E-01
Landbay A	GP TTF-04	Shallow	Inside	INORG	Zinc	7440-66-6	ID	4.90E+00	8/7/2002	4.70E+00	RSL-NC	1.0E+00
Landbay A	SW 100-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.00E-02	11/5/2002	1.50E-02	IHA	**1.3E+00**
Landbay A	SW 105-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	5.00E-03	9/9/2011	5.00E-03	FM	1.0E+00
Landbay A	SW 105-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	7.00E-01	9/9/2011	1.50E-02	IHA	**4.7E+01**
Landbay A	SW 105-02D	Shallow	Inside	VOC	Acetone	67-64-1	ID	8.00E-03	5/5/2004	1.40E+01	RSL-NC	5.7E-04
Landbay A	SW 105-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	5/5/2004	1.20E-01	RSL-C	3.3E-02
Landbay A	SW 105-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	5/5/2004	2.00E-01	FM	2.5E-02
Landbay A	SW 105-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.28E-02	5/5/2004	1.50E-02	IHA	8.5E-01
Landbay A	SW 105-02S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	5/5/2004	7.00E-03	FM	5.7E-01
Landbay A	SW 105-02S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.60E-02	5/5/2004	2.00E-01	FM	8.0E-02
Landbay A	SW 105-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	8.20E-03	5/5/2004	1.50E-02	IHA	5.5E-01
Landbay A	SW 105-03D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	9/12/2011	1.20E-01	RSL-C	1.7E-02
Landbay A	SW 105-03D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	4/3/2012	7.00E-03	FM	4.3E-01
Landbay A	SW 105-03D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	6.00E-03	4/3/2012	7.00E-02	FM	8.6E-02
Landbay A	SW 105-03D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.20E-02	4/3/2012	5.00E-03	FM	**8.4E+00**
Landbay A	SW 105-03D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	4/3/2012	2.00E-01	FM	1.0E-02
Landbay A	SW 105-03D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	9/12/2011	5.00E-03	FM	2.0E-01
Landbay A	SW 105-03D	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.00E-01	8/12/2009	4.70E+02	RSL-NC	2.1E-04
Landbay A	SW 105-03D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.80E+01	9/12/2011	1.50E-02	IHA	**1.9E+03**
Landbay A	SW 105-03D	Shallow	Inside	EXPLOSIVE	2-Amino-4,6-dinitrotoluene	35572-78-2		2.40E-04	10/4/2007	3.10E-02	RSL-NC	7.7E-03
Landbay A	SW 105-03S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	7.58E-02	3/2/2005	1.50E-02	IHA	**5.1E+00**
Landbay A	SW 106-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.09E-02	5/19/2003	1.50E-02	IHA	7.3E-01

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay A	SW 107-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.80E-02	11/5/2002	1.50E-02	IHA	**3.9E+00**
Landbay A	SW 107-02	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	6/5/2008	1.20E-01	RSL-C	8.3E-03
Landbay A	SW 107-02	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.35E-03	6/5/2008	5.00E-03	FM	8.7E-01
Landbay A	SW 107-02	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.10E-03	6/5/2008	2.00E-01	FM	5.5E-03
Landbay A	SW 107-02	Shallow	Inside	INORG	Barium	7440-39-3	NC	3.66E-02	6/5/2008	2.00E+00	FM	1.8E-02
Landbay A	SW 107-02	Shallow	Inside	INORG	Boron	7440-42-8	ID	4.57E-02	6/5/2008	3.10E+00	RSL-NC	1.5E-02
Landbay A	SW 107-02	Shallow	Inside	INORG	Copper	7440-50-8	D	1.75E-02	6/5/2008	1.30E+00	FM	1.3E-02
Landbay A	SW 107-02	Shallow	Inside	INORG	Iron	7439-89-6	D	4.50E-02	6/5/2008	1.10E+01	RSL-NC	4.1E-03
Landbay A	SW 107-02	Shallow	Inside	INORG	Manganese	7439-96-5	D	1.60E-02	6/5/2008	3.80E-01	RSL-NC	4.2E-02
Landbay A	SW 107-02	Shallow	Inside	INORG	Nickel	7440-02-0	A	6.55E-03	6/5/2008	3.10E-01	RSL-NC	2.1E-02
Landbay A	SW 107-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.85E-02	6/5/2008	1.50E-02	IHA	**1.2E+00**
Landbay A	SW 107-02	Shallow	Inside	INORG	Silver	7440-22-4	D	1.70E-03	6/5/2008	7.80E-02	RSL-NC	2.2E-02
Landbay A	SW 107-02	Shallow	Inside	INORG	Strontium	7440-24-6		6.80E-02	6/5/2008	9.40E+00	RSL-NC	7.2E-03
Landbay A	SW 107-02	Shallow	Inside	INORG	Zinc	7440-66-6	ID	7.10E-02	6/5/2008	4.70E+00	RSL-NC	1.5E-02
Landbay A	SW CM-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.60E-03	11/5/2004	1.50E-02	IHA	3.7E-01
Landbay A	SW CM-03	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03	11/29/2005	5.00E-03	FM	8.0E-01
Landbay A	SW CM-05	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	4/4/2012	2.00E-01	FM	5.0E-03
Landbay A	SW CM-05	Shallow	Inside	INORG	Barium	7440-39-3	NC	2.30E-02	5/30/2008	2.00E+00	FM	1.2E-02
Landbay A	SW CM-05	Shallow	Inside	INORG	Cobalt	7440-48-4	LC	1.20E-03	9/13/2011	4.70E-03	RSL-NC	2.6E-01
Landbay A	SW CM-05	Shallow	Inside	INORG	Copper	7440-50-8	D	7.90E-03	5/30/2008	1.30E+00	FM	6.1E-03
Landbay A	SW CM-05	Shallow	Inside	INORG	Manganese	7439-96-5	D	1.15E-01	4/4/2012	3.80E-01	RSL-NC	3.0E-01
Landbay A	SW CM-05	Shallow	Inside	INORG	Mercury	7439-97-6	D	9.20E-05	5/30/2008	2.00E-03	FM	4.6E-02
Landbay A	SW CM-05	Shallow	Inside	INORG	Nickel	7440-02-0	A	5.70E-03	5/30/2008	3.10E-01	RSL-NC	1.8E-02
Landbay A	SW CM-05	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.00E-04	9/13/2011	1.50E-02	IHA	2.0E-02
Landbay A	SW CM-05	Shallow	Inside	INORG	Strontium	7440-24-6		2.06E-02	5/30/2008	9.40E+00	RSL-NC	2.2E-03
Landbay A	SW CM-06	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-03	5/17/2006	5.00E-03	FM	6.0E-01
Landbay A	SW CM-06	Shallow	Inside	INORG	Barium	7440-39-3	NC	3.00E-03	6/6/2008	2.00E+00	FM	1.5E-03
Landbay A	SW CM-06	Shallow	Inside	INORG	Boron	7440-42-8	ID	1.90E-01	6/6/2008	3.10E+00	RSL-NC	6.1E-02
Landbay A	SW CM-06	Shallow	Inside	INORG	Cobalt	7440-48-4	LC	3.90E-03	6/6/2008	4.70E-03	RSL-NC	8.3E-01
Landbay A	SW CM-06	Shallow	Inside	INORG	Copper	7440-50-8	D	2.90E-03	6/6/2008	1.30E+00	FM	2.2E-03
Landbay A	SW CM-06	Shallow	Inside	INORG	Iron	7439-89-6	D	5.87E-02	6/6/2008	1.10E+01	RSL-NC	5.3E-03
Landbay A	SW CM-06	Shallow	Inside	INORG	Manganese	7439-96-5	D	2.40E-03	6/6/2008	3.80E-01	RSL-NC	6.3E-03
Landbay A	SW CM-06	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	7.00E-01	5/17/2006	1.50E-02	IHA	**4.7E+01**
Landbay A	SW CM-06	Shallow	Inside	INORG	Strontium	7440-24-6		1.31E-01	6/6/2008	9.40E+00	RSL-NC	1.4E-02
Landbay A	SW CM-06	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	2.55E-02	6/6/2008	7.90E-02	RSL-NC	3.2E-01
Landbay A	SW CM-07	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	6.10E+00	2/3/2004	1.50E-02	IHA	**4.1E+02**
Landbay A	SW CM-08D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	5/5/2004	1.20E-01	RSL-C	1.7E-02
Landbay A	SW CM-08D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	5/5/2004	7.00E-02	FM	2.9E-02
Landbay A	SW CM-08D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	7.00E-03	5/5/2004	5.00E-03	FM	**1.4E+00**
Landbay A	SW CM-08D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	5/5/2004	2.00E-01	FM	5.0E-03
Landbay A	SW CM-08D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.31E+01	5/5/2004	1.50E-02	IHA	**8.7E+02**
Landbay A	SW CM-08S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	9.00E-04	5/5/2004	5.00E-03	FM	1.8E-01
Landbay A	SW CM-08S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.64E-01	8/19/2004	1.50E-02	IHA	**6.4E+01**
Landbay A	SW CM-09D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.60E-03	5/5/2004	1.50E-02	IHA	3.7E-01
Landbay A	SW CM-09S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.80E-02	5/5/2004	1.50E-02	IHA	**2.5E+00**
Landbay A	SW CM-10	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.15E-02	5/5/2004	1.50E-02	IHA	**6.1E+00**
Landbay A	SW TTU-03	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.20E+00	11/10/2010	1.50E-02	IHA	**8.0E+01**
Landbay A	SW TTU-03	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.40E-04	3/31/2010	6.10E-03	RSL-C	3.9E-02
Landbay A	SW TTU-03	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	4.60E-02	3/31/2010	7.80E-01	RSL-NC	5.9E-02
Landbay A	SW TTU-05	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	6/14/2011	1.20E-01	RSL-C	4.2E-02
Landbay A	SW TTU-05	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-02	6/14/2011	7.00E-03	FM	**5.7E+00**
Landbay A	SW TTU-05	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	6.00E-03	6/14/2011	7.00E-02	FM	8.6E-02
Landbay A	SW TTU-05	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.10E-02	6/14/2011	5.00E-03	FM	**1.6E+01**
Landbay A	SW TTU-05	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.10E-02	6/14/2011	2.00E-01	FM	3.6E-01
Landbay A	SW TTU-05	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	7.00E-03	6/14/2011	5.00E-03	FM	**1.4E+00**
Landbay A	SW TTU-05	Shallow	Inside	INORG	Aluminum	7429-90-5	ID	6.04E+01	11/16/2006	1.60E+01	RSL-NC	**3.8E+00**
Landbay A	SW TTU-05	Shallow	Inside	INORG	Barium	7440-39-3	NC	1.77E-01	11/16/2006	2.00E+00	FM	8.9E-02
Landbay A	SW TTU-05	Shallow	Inside	INORG	Bismuth	7440-69-9		2.90E-02	8/17/2006			
Landbay A	SW TTU-05	Shallow	Inside	INORG	Boron	7440-42-8	ID	7.93E-02	8/11/2008	3.10E+00	RSL-NC	2.6E-02
Landbay A	SW TTU-05	Shallow	Inside	INORG	Chromium (total)	7440-47-3		2.17E-01	11/16/2006	1.00E-01	FM	**2.2E+00**
Landbay A	SW TTU-05	Shallow	Inside	INORG	Cobalt	7440-48-4	LC	4.10E-03	10/4/2011	4.70E-03	RSL-NC	8.7E-01
Landbay A	SW TTU-05	Shallow	Inside	INORG	Copper	7440-50-8	D	1.80E-01	11/16/2006	1.30E+00	FM	1.4E-01
Landbay A	SW TTU-05	Shallow	Inside	INORG	Iron	7439-89-6	D	7.26E-01	8/11/2008	1.10E+01	RSL-NC	6.6E-02
Landbay A	SW TTU-05	Shallow	Inside	INORG	Lead	7439-92-1	B2	9.10E-03	11/16/2006	1.50E-02	FM	6.1E-01
Landbay A	SW TTU-05	Shallow	Inside	INORG	Manganese	7439-96-5	D	4.79E-01	10/4/2011	3.80E-01	RSL-NC	**1.3E+00**
Landbay A	SW TTU-05	Shallow	Inside	INORG	Nickel	7440-02-0	A	1.87E-02	5/14/2008	3.10E-01	RSL-NC	6.0E-02
Landbay A	SW TTU-05	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.20E-03	6/14/2011	1.50E-02	IHA	8.0E-02
Landbay A	SW TTU-05	Shallow	Inside	INORG	Strontium	7440-24-6		3.12E-01	8/17/2006	9.40E+00	RSL-NC	3.3E-02
Landbay A	SW TTU-05	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	3.60E-03	8/11/2008	7.90E-02	RSL-NC	4.6E-02
Landbay A	SW TTU-05	Shallow	Inside	INORG	Zinc	7440-66-6	ID	5.47E-02	8/11/2008	4.70E+00	RSL-NC	1.2E-02
Landbay A	TP 107-01	Shallow	Inside	INORG	Copper	7440-50-8	D	1.11E-02	10/28/2004	1.30E+00	FM	8.5E-03
Landbay A	TP 107-01	Shallow	Inside	INORG	Mercury	7439-97-6	D	5.00E-05	10/28/2004	2.00E-03	FM	2.5E-02
Landbay A	TP 107-01	Shallow	Inside	INORG	Nickel	7440-02-0	A	7.00E-03	10/28/2004	3.10E-01	RSL-NC	2.3E-02
Landbay A	TP 107-01	Shallow	Inside	INORG	Zinc	7440-66-6	ID	1.94E-02	10/28/2004	4.70E+00	RSL-NC	4.1E-03
Landbay B	BW 116-01	Shallow	Inside	INORG	Barium	7440-39-3	NC	3.90E-03	8/5/2009	2.00E+00	FM	2.0E-03
Landbay B	BW 116-01	Shallow	Inside	INORG	Boron	7440-42-8	ID	7.00E-02	8/5/2009	3.10E+00	RSL-NC	2.3E-02
Landbay B	BW 116-01	Shallow	Inside	INORG	Manganese	7439-96-5	D	6.40E-04	8/30/2011	3.80E-01	RSL-NC	1.7E-03
Landbay B	BW 116-01	Shallow	Inside	INORG	Nickel	7440-02-0	A	2.20E-03	8/5/2009	3.10E-01	RSL-NC	7.1E-03
Landbay B	BW 116-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.30E-02	8/30/2011	1.50E-02	IHA	**2.9E+00**
Landbay B	BW 116-01	Shallow	Inside	INORG	Strontium	7440-24-6		1.11E-01	8/5/2009	9.40E+00	RSL-NC	1.2E-02
Landbay B	BW 116-01	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	2.22E-02	8/5/2009	7.90E-02	RSL-NC	2.8E-01
Landbay B	BW 116-01	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.30E-02	3/23/2010	6.10E-03	RSL-C	**2.1E+00**
Landbay B	BW 116-01	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	5.60E-02	8/13/2008	7.80E-01	RSL-NC	7.2E-02
Landbay B	BW 119-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	3/23/2010	7.00E-03	FM	2.9E-01
Landbay B	BW 119-01	Shallow	Inside	INORG	Barium	7440-39-3	NC	2.80E-02	7/30/2009	2.00E+00	FM	1.4E-02
Landbay B	BW 119-01	Shallow	Inside	INORG	Boron	7440-42-8	ID	6.17E-02	7/30/2009	3.10E+00	RSL-NC	2.0E-02
Landbay B	BW 119-01	Shallow	Inside	INORG	Chromium (total)	7440-47-3		3.70E-03	3/23/2010	1.00E-01	FM	3.7E-02
Landbay B	BW 119-01	Shallow	Inside	INORG	Manganese	7439-96-5	D	2.30E-03	8/30/2011	3.80E-01	RSL-NC	6.1E-03
Landbay B	BW 119-01	Shallow	Inside	INORG	Nickel	7440-02-0	A	3.10E-03	3/23/2010	3.10E-01	RSL-NC	1.0E-02
Landbay B	BW 119-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.30E-01	8/30/2011	1.50E-02	IHA	**6.2E+01**
Landbay B	BW 119-01	Shallow	Inside	INORG	Strontium	7440-24-6		1.73E-01	7/30/2009	9.40E+00	RSL-NC	1.8E-02
Landbay B	BW 119-01	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	2.60E-02	7/30/2009	7.90E-02	RSL-NC	3.3E-01
Landbay B	BW 119-01	Shallow	Inside	INORG	Zinc	7440-66-6	ID	1.19E-02	3/23/2010	4.70E+00	RSL-NC	2.5E-03
Landbay B	BW 119-01	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.00E-02	3/23/2010	6.10E-03	RSL-C	**3.3E+00**
Landbay B	BW 119-01	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.20E-03	11/10/2010	7.80E-01	RSL-NC	1.5E-03
Landbay B	BW 45-03D	Shallow	Inside	VOC	Acetone	67-64-1	ID	1.60E-02	5/16/2006	1.40E+01	RSL-NC	1.1E-03
Landbay B	BW 45-03D	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	5/16/2006			
Landbay B	BW 45-03D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	11/29/2005	1.20E-01	RSL-C	2.5E-02
Landbay B	BW 45-03D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	11/29/2005	7.00E-03	FM	1.0E+00
Landbay B	BW 45-03D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.10E-01	5/16/2006	7.00E-02	FM	**1.6E+00**
Landbay B	BW 45-03D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.10E-01	11/29/2005	5.00E-03	FM	**4.2E+01**
Landbay B	BW 45-03D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.10E-02	5/16/2006	2.00E-01	FM	2.1E-01
Landbay B	BW 45-03D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.70E-02	11/29/2005	5.00E-03	FM	**3.4E+00**
Landbay B	BW 45-03D	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	3.10E-02	5/16/2006	2.00E-03	FM	**1.6E+01**
Landbay B	BW 45-03D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.80E-04	11/29/2005	1.50E-02	IHA	2.5E-02
Landbay B	BW 45-03S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	9/7/2011	1.20E-01	RSL-C	1.7E-02
Landbay B	BW 45-03S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	9/7/2011	7.00E-03	FM	1.4E-01
Landbay B	BW 45-03S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.50E-01	9/7/2011	7.00E-02	FM	**2.1E+00**
Landbay B	BW 45-03S	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	9.00E-04	8/12/2009	1.00E-01	FM	9.0E-03
Landbay B	BW 45-03S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.50E-01	3/17/2010	5.00E-03	FM	**5.0E+01**
Landbay B	BW 45-03S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.20E-02	3/17/2010	5.00E-03	FM	**6.4E+00**
Landbay B	BW 45-03S	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.20E-02	3/17/2010	4.70E+02	RSL-NC	4.7E-05
Landbay B	BW 45-03S	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	5.00E-03	9/7/2011	2.00E-03	FM	**2.5E+00**
Landbay B	BW 45-03S	Shallow	Inside	INORG	Barium	7440-39-3	NC	5.00E-03	5/29/2008	2.00E+00	FM	2.5E-03
Landbay B	BW 45-03S	Shallow	Inside	INORG	Iron	7439-89-6	D	1.49E-01	5/29/2008	1.10E+01	RSL-NC	1.4E-02
Landbay B	BW 45-03S	Shallow	Inside	INORG	Manganese	7439-96-5	D	2.36E-01	9/7/2011	3.80E-01	RSL-NC	6.2E-01
Landbay B	BW 45-03S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.30E-02	3/17/2010	1.50E-02	IHA	**2.2E+00**
Landbay B	BW 45-03S	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	2.53E-02	5/29/2008	7.90E-02	RSL-NC	3.2E-01
Landbay B	BW 45-06D	Shallow	Inside	VOC	Acetone	67-64-1	ID	1.40E-02	11/29/2005	1.40E+01	RSL-NC	1.0E-03
Landbay B	BW 45-06D	Shallow	Inside	VOC	2-Butanone	78-93-3	ID	7.00E-03	11/29/2005	9.40E+00	RSL-NC	7.4E-04
Landbay B	BW 45-06D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03	11/29/2005	5.00E-03	FM	8.0E-01
Landbay B	BW 45-06D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.40E-04	11/29/2005	1.50E-02	IHA	3.6E-02
Landbay B	BW 45-06S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	11/29/2005	7.00E-03	FM	7.1E-01
Landbay B	BW 45-06S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-02	11/29/2005	5.00E-03	FM	**2.0E+00**
Landbay B	BW 45-06S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	11/29/2005	2.00E-01	FM	1.0E-02
Landbay B	BW 45-06S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.10E+00	11/29/2005	1.50E-02	IHA	**7.3E+01**
Landbay B	BW 70-01D	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	6/29/2005	1.20E-01	RSL-C	1.7E-02
Landbay B	BW 70-01D	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	6/29/2005	7.00E-03	FM	1.0E+00
Landbay B	BW 70-01D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.50E-03	6/29/2005	1.50E-02	IHA	2.3E-01
Landbay B	BW 73-01D	Shallow	Inside	VOC	Acetone	67-64-1	ID	3.30E-02	6/30/2005	1.40E+01	RSL-NC	2.4E-03
Landbay B	BW 73-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.23E-02	6/30/2005	1.50E-02	IHA	8.2E-01

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay B	BW 73-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	8.20E-03	9/14/2011	1.50E-02	IHA	5.5E-01
Landbay B	BW 78-01S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.00E-02	6/5/2008	1.50E-02	IHA	**1.3E+00**
Landbay B	BW 78-02D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.40E+01	5/10/2006	1.50E-02	IHA	**9.3E+02**
Landbay B	BW 78-02S	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	2.50E-04	3/31/2010	1.60E-03	RSL-NC	1.6E-01
Landbay B	BW 78-02S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	7.90E-03	3/31/2010	1.50E-02	IHA	5.3E-01
Landbay B	BW 78-03	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.70E-01	2/14/2006	1.50E-02	IHA	**1.1E+01**
Landbay B	BW 78-04S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.01E-02	3/3/2005	1.50E-02	IHA	6.7E-01
Landbay B	BW 78-06S	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	11/16/2006	2.00E-01	FM	1.5E-02
Landbay B	BW 78-06S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	6.20E-04	8/14/2006	1.50E-02	IHA	4.1E-02
Landbay B	BW 78-07D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.02E-01	3/3/2005	1.50E-02	IHA	**6.8E+00**
Landbay B	BW 78-07S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	6.80E-02	3/3/2005	1.50E-02	IHA	**4.5E+00**
Landbay B	BW 78-08S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.77E-02	3/3/2005	1.50E-02	IHA	**1.2E+00**
Landbay B	BW 78-10D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.43E+02	5/17/2005	1.50E-02	IHA	**9.5E+03**
Landbay B	BW 78-10S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.90E-01	3/30/2010	1.50E-02	IHA	**1.9E+01**
Landbay B	BW 78-11D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.80E-02	3/31/2010	1.50E-02	IHA	**2.5E+00**
Landbay B	BW 78-11S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	7.70E+01	5/11/2006	1.50E-02	IHA	**5.1E+03**
Landbay B	BW 78-12D	Deep	Inside	VOC	Acetone	67-64-1	ID	2.50E-02	10/13/2009	1.40E+01	RSL-NC	1.8E-03
Landbay B	BW 78-12D	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		1.20E-02	6/5/2008	3.10E+00	RSL-NC	3.9E-03
Landbay B	BW 78-12D	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-03	6/5/2008	7.00E-03	FM	1.6E-01
Landbay B	BW 78-12D	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		7.20E-01	10/13/2009	4.70E+02	RSL-NC	1.5E-03
Landbay B	BW 78-12D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.20E+01	10/13/2009	1.50E-02	IHA	**2.1E+03**
Landbay B	BW 78-12S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	9.59E+01	3/3/2005	1.50E-02	IHA	**6.4E+03**
Landbay B	BW 79-01D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	6/30/2005	1.20E-01	RSL-C	3.3E-02
Landbay B	BW 79-01D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	6/30/2005	7.00E-03	FM	4.3E-01
Landbay B	BW 79-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-03	6/30/2005	5.00E-03	FM	6.0E-01
Landbay B	BW 79-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	8.60E-03	6/30/2005	1.50E-02	IHA	5.7E-01
Landbay B	BW 79-01S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	6/30/2005	1.20E-01	RSL-C	1.7E-02
Landbay B	BW 79-01S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	6/30/2005	7.00E-03	FM	2.9E-01
Landbay B	BW 79-01S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	6/30/2005	5.00E-03	FM	4.0E-01
Landbay B	BW 79-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.57E-01	6/30/2005	1.50E-02	IHA	**1.0E+01**
Landbay B	BW 79-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.20E-02	11/22/2005	1.20E-01	RSL-C	1.0E-01
Landbay B	BW 79-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.00E-03	11/22/2005	7.00E-03	FM	**1.3E+00**
Landbay B	BW 79-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.60E-02	11/22/2005	2.00E-01	FM	3.3E-01
Landbay B	BW 79-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.30E-02	11/22/2005	1.50E-02	IHA	**2.9E+00**
Landbay B	BW 79-02S	Shallow	Inside	VOC	Acetone	67-64-1	ID	2.00E-02	11/22/2005	1.40E+01	RSL-NC	1.4E-03
Landbay B	BW 79-02S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.20E-02	9/7/2011	1.20E-01	RSL-C	1.8E-01
Landbay B	BW 79-02S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.20E-01	9/7/2011	7.00E-03	FM	**1.7E+01**
Landbay B	BW 79-02S	Shallow	Inside	VOC	1,4-Dioxane	123-91-1	LC	2.60E-03	9/7/2011	6.70E-03	RSL-C	3.9E-01
Landbay B	BW 79-02S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.20E-01	9/7/2011	2.00E-01	FM	**2.1E+00**
Landbay B	BW 79-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.10E-02	9/7/2011	1.50E-02	IHA	7.3E-01
Landbay B	BW 86-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	3/22/2010	1.20E-01	RSL-C	1.7E-02
Landbay B	BW 86-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	8/12/2008	7.00E-03	FM	5.7E-01
Landbay B	BW 86-01	Shallow	Inside	INORG	Barium	7440-39-3	NC	1.46E-02	7/30/2009	2.00E+00	FM	7.3E-03
Landbay B	BW 86-01	Shallow	Inside	INORG	Boron	7440-42-8	ID	6.66E-01	7/30/2009	3.10E+00	RSL-NC	2.1E-01
Landbay B	BW 86-01	Shallow	Inside	INORG	Copper	7440-50-8	D	2.08E-03	7/30/2009	1.30E+00	FM	1.6E-03
Landbay B	BW 86-01	Shallow	Inside	INORG	Iron	7439-89-6	D	4.04E-01	3/22/2010	1.10E+01	RSL-NC	3.7E-02
Landbay B	BW 86-01	Shallow	Inside	INORG	Manganese	7439-96-5	D	1.62E-01	3/22/2010	3.80E-01	RSL-NC	4.3E-01
Landbay B	BW 86-01	Shallow	Inside	INORG	Nickel	7440-02-0	A	7.05E-03	7/30/2009	3.10E-01	RSL-NC	2.3E-02
Landbay B	BW 86-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	8.30E-04	7/30/2009	1.50E-02	IHA	5.5E-02
Landbay B	BW 86-01	Shallow	Inside	INORG	Strontium	7440-24-6		3.65E-01	7/30/2009	9.40E+00	RSL-NC	3.9E-02
Landbay B	DW 76-01	Deep	Inside	VOC	Acetone	67-64-1	ID	2.80E-02	3/26/2010	1.40E+01	RSL-NC	2.0E-03
Landbay B	DW 76-01	Deep	Inside	VOC	Chloroethane	75-00-3	LC	4.00E-03	10/13/2009			
Landbay B	DW 76-01	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		2.00E-03	11/10/2010	3.10E+00	RSL-NC	6.5E-04
Landbay B	DW 76-01	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.20E-02	10/13/2009	1.20E-01	RSL-C	2.7E-01
Landbay B	DW 76-01	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	2.00E-03	10/13/2009	5.00E-03	FM	4.0E-01
Landbay B	DW 76-01	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E+00	3/26/2010	7.00E-03	FM	**1.6E+02**
Landbay B	DW 76-01	Deep	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.00E-03	11/10/2010	1.00E-01	FM	1.0E-02
Landbay B	DW 76-01	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	2.40E-02	9/12/2011	6.70E-03	RSL-C	**3.6E+00**
Landbay B	DW 76-01	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	9/12/2011	5.00E-03	FM	4.0E-01
Landbay B	DW 76-01	Deep	Inside	VOC	Toluene	108-88-3	ID	1.00E-03	11/25/2008	1.00E+00	FM	1.0E-03
Landbay B	DW 76-01	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.10E-01	3/26/2010	2.00E-01	FM	1.1E+00
Landbay B	DW 76-01	Deep	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	8.00E-04	10/13/2009	5.00E-03	FM	1.6E-01
Landbay B	DW 76-01	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	10/13/2009	5.00E-03	FM	2.0E-01
Landbay B	DW 76-01	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.10E+00	11/10/2010	4.70E+02	RSL-NC	2.3E-03
Landbay B	DW 76-01	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	3.00E-03	10/13/2009	2.00E-03	FM	**1.5E+00**
Landbay B	DW 76-01	Deep	Inside	INORG	Barium	7440-39-3	NC	3.15E-02	10/13/2009	2.00E+00	FM	1.6E-02
Landbay B	DW 76-01	Deep	Inside	INORG	Boron	7440-42-8	ID	3.43E-02	3/26/2010	3.10E+00	RSL-NC	1.1E-02
Landbay B	DW 76-01	Deep	Inside	INORG	Chromium (total)	7440-47-3		2.91E-02	10/13/2009	1.00E-01	FM	2.9E-01
Landbay B	DW 76-01	Deep	Inside	INORG	Copper	7440-50-8	D	3.60E-03	10/13/2009	1.30E+00	FM	2.8E-03
Landbay B	DW 76-01	Deep	Inside	INORG	Manganese	7439-96-5	D	1.40E-02	10/13/2009	3.80E-01	RSL-NC	3.7E-02
Landbay B	DW 76-01	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.20E+00	10/13/2009	1.50E-02	IHA	**1.5E+02**
Landbay B	DW 76-01	Deep	Inside	INORG	Strontium	7440-24-6		1.19E-01	10/13/2009	9.40E+00	RSL-NC	1.3E-02
Landbay B	DW 76-01	Deep	Inside	INORG	Vanadium	7440-62-2	ID	1.20E-02	10/13/2009	7.90E-02	RSL-NC	1.5E-01
Landbay B	DW 85-01	Deep	Inside	VOC	Acetone	67-64-1	ID	8.00E-03	8/14/2008	1.40E+01	RSL-NC	5.7E-04
Landbay B	DW 85-01	Deep	Inside	VOC	Toluene	108-88-3	ID	1.00E-03	8/14/2008	1.00E+00	FM	1.0E-03
Landbay B	DW 85-01	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		7.00E-03	3/22/2010	4.70E+02	RSL-NC	1.5E-05
Landbay B	DW 85-01	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	1.20E-03	8/14/2008	1.60E-03	RSL-NC	7.5E-01
Landbay B	DW 85-01	Deep	Inside	INORG	Arsenic	7440-38-2	A	8.00E-03	10/9/2009	1.00E-02	FM	8.0E-01
Landbay B	DW 85-01	Deep	Inside	INORG	Barium	7440-39-3	NC	3.72E-02	3/22/2010	2.00E+00	FM	1.9E-02
Landbay B	DW 85-01	Deep	Inside	INORG	Boron	7440-42-8	ID	5.28E-02	10/9/2009	3.10E+00	RSL-NC	1.7E-02
Landbay B	DW 85-01	Deep	Inside	INORG	Chromium (total)	7440-47-3		7.20E-03	10/9/2009	1.00E-01	FM	7.2E-02
Landbay B	DW 85-01	Deep	Inside	INORG	Manganese	7439-96-5	D	7.70E-02	8/30/2011	3.80E-01	RSL-NC	2.0E-01
Landbay B	DW 85-01	Deep	Inside	INORG	Nickel	7440-02-0	A	5.90E-03	3/22/2010	3.10E-01	RSL-NC	1.9E-02
Landbay B	DW 85-01	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.10E-02	10/9/2009	1.50E-02	IHA	**1.4E+00**
Landbay B	DW 85-01	Deep	Inside	INORG	Strontium	7440-24-6		9.21E-02	10/9/2009	9.40E+00	RSL-NC	9.8E-03
Landbay B	DW 85-01	Deep	Inside	INORG	Vanadium	7440-62-2	ID	9.00E-03	10/9/2009	7.90E-02	RSL-NC	1.1E-01
Landbay B	DW 85-01	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	7.60E-04	3/22/2010	6.10E-03	RSL-C	1.2E-01
Landbay B	DW 85-01	Deep	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	8.00E-03	8/14/2008	7.80E-01	RSL-NC	1.0E-02
Landbay B	DW-13	Deep	Inside	WQ	Chloride	16887-00-6		1.59E+01	2/27/2012			
Landbay B	DW-13	Deep	Inside	WQ	Sulfate	14808-79-8		2.95E+02	4/7/2010			
Landbay B	DW-13	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		4.00E-03	2/3/2011	3.10E+00	RSL-NC	1.3E-03
Landbay B	DW-13	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.40E-02	12/14/2011	1.20E-01	RSL-C	3.7E-01
Landbay B	DW-13	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.60E-01	6/16/2010	7.00E-03	FM	**3.7E+01**
Landbay B	DW-13	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	9.25E-02	4/7/2010	6.70E-03	RSL-C	**1.4E+01**
Landbay B	DW-13	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.90E-02	3/1/2010	5.00E-03	FM	**9.8E+00**
Landbay B	DW-13	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.10E-02	12/6/2010	1.40E+01	RSL-NC	7.9E-04
Landbay B	DW-13	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.10E-02	10/7/2010	2.00E-01	FM	4.6E-01
Landbay B	DW-13	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	2/27/2012	5.00E-03	FM	6.0E-01
Landbay B	DW-13	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.70E-01	2/3/2011	4.70E+02	RSL-NC	3.6E-04
Landbay B	DW-13	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	9.00E-03	10/7/2010	2.00E-03	FM	**4.5E+00**
Landbay B	DW-13	Deep	Inside	SVOC	1,3-Dinitrobenzene	99-65-0	D	4.20E-03	6/16/2010	1.60E-03	RSL-NC	**2.6E+00**
Landbay B	DW-13	Deep	Inside	INORG	Bromide	24959-67-9		2.20E+00	12/16/2009			
Landbay B	DW-13	Deep	Inside	INORG	Fluoride	16984-48-8		4.70E-01	2/3/2011	4.00E+00	FM	1.2E-01
Landbay B	DW-13	Deep	Inside	INORG	Iron	7439-89-6	D	4.92E-02	9/14/2011	1.10E+01	RSL-NC	4.5E-03
Landbay B	DW-13	Deep	Inside	INORG	Manganese	7439-96-5	D	1.75E-01	10/7/2010	3.80E-01	RSL-NC	4.6E-01
Landbay B	DW-13	Deep	Inside	INORG	Nitrate	14797-55-8		3.70E-01	8/16/2006	1.00E+01	FM	3.7E-02
Landbay B	DW-13	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	6.90E+00	12/14/2011	1.50E-02	IHA	**4.6E+02**
Landbay B	DW-13	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		5.15E+00	4/7/2010			
Landbay B	DW-13	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.75E-04	10/7/2010	6.10E-03	RSL-C	2.9E-02
Landbay B	DW-13 EFF	Deep	Inside	VOC	Acetate	71-50-1		3.14E+02	10/22/2002			
Landbay B	DW-13 EFF	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	4.44E+00	10/22/2002	1.50E-02	IHA	**3.0E+02**
Landbay B	DW-13-120-160	Deep	Inside	VOC	Acetone	67-64-1	ID	1.00E-02	7/1/2009	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-13-120-160	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-02	7/1/2009	1.20E-01	RSL-C	2.5E-01
Landbay B	DW-13-120-160	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.80E-01	7/1/2009	7.00E-03	FM	**4.0E+01**
Landbay B	DW-13-120-160	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-01	7/1/2009	5.00E-03	FM	**2.2E+01**
Landbay B	DW-13-120-160	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.90E-01	7/1/2009	2.00E-01	FM	9.5E-01
Landbay B	DW-13-120-160	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	7/1/2009	5.00E-03	FM	8.0E-01
Landbay B	DW-13-120-160	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.30E-01	7/1/2009	4.70E+02	RSL-NC	4.9E-04
Landbay B	DW-13-120-160	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/1/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-13-120-160	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	7.40E+00	7/1/2009	1.50E-02	IHA	**4.9E+02**
Landbay B	DW-13-120-160	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.10E-04	7/1/2009	6.10E-03	RSL-C	3.4E-02
Landbay B	DW-13-150-190	Deep	Inside	VOC	Acetone	67-64-1	ID	1.00E-02	7/1/2009	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-13-150-190	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.90E-02	7/1/2009	1.20E-01	RSL-C	2.4E-01
Landbay B	DW-13-150-190	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-01	7/1/2009	7.00E-03	FM	**4.3E+01**
Landbay B	DW-13-150-190	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	7.30E-02	7/1/2009	5.00E-03	FM	**1.5E+01**
Landbay B	DW-13-150-190	Deep	Inside	VOC	Toluene	108-88-3	ID	9.00E-04	7/1/2009	1.00E+00	FM	9.0E-04
Landbay B	DW-13-150-190	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.70E-01	7/1/2009	2.00E-01	FM	8.5E-01
Landbay B	DW-13-150-190	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	7/1/2009	5.00E-03	FM	4.0E-01
Landbay B	DW-13-150-190	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.60E-01	7/1/2009	4.70E+02	RSL-NC	5.5E-04
Landbay B	DW-13-150-190	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.20E+01	7/1/2009	1.50E-02	IHA	**8.0E+02**
Landbay B	DW-13-190-230	Deep	Inside	VOC	Acetone	67-64-1	ID	7.00E-03	7/1/2009	1.40E+01	RSL-NC	5.0E-04

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay B	DW-13-190-230	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.80E-02	7/1/2009	1.20E-01	RSL-C	2.3E-01
Landbay B	DW-13-190-230	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.50E-01	7/1/2009	7.00E-03	FM	**3.6E+01**
Landbay B	DW-13-190-230	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.20E-02	7/1/2009	5.00E-03	FM	**1.6E+01**
Landbay B	DW-13-190-230	Deep	Inside	VOC	Toluene	108-88-3	ID	1.00E-03	7/1/2009	1.00E+00	FM	1.0E-03
Landbay B	DW-13-190-230	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.60E-01	7/1/2009	2.00E-01	FM	8.0E-01
Landbay B	DW-13-190-230	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	7/1/2009	5.00E-03	FM	4.0E-01
Landbay B	DW-13-190-230	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.20E-01	7/1/2009	4.70E+02	RSL-NC	4.7E-04
Landbay B	DW-13-190-230	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/1/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-13-190-230	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	8.20E+00	7/1/2009	1.50E-02	IHA	**5.5E+02**
Landbay B	DW-13-245	Deep	Inside	VOC	Acetone	67-64-1	ID	1.20E-02	7/1/2009	1.40E+01	RSL-NC	8.6E-04
Landbay B	DW-13-245	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.50E-02	7/1/2009	1.20E-01	RSL-C	2.9E-01
Landbay B	DW-13-245	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	1.00E-03	7/1/2009	5.00E-03	FM	2.0E-01
Landbay B	DW-13-245	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.50E-01	7/1/2009	7.00E-03	FM	**5.0E+01**
Landbay B	DW-13-245	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-01	7/1/2009	5.00E-03	FM	**2.0E+01**
Landbay B	DW-13-245	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.30E-01	7/1/2009	2.00E-01	FM	**1.2E+00**
Landbay B	DW-13-245	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	7/1/2009	5.00E-03	FM	6.0E-01
Landbay B	DW-13-245	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.90E-01	7/1/2009	4.70E+02	RSL-NC	6.2E-04
Landbay B	DW-13-245	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/1/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-13-245	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	9.60E+00	7/1/2009	1.50E-02	IHA	**6.4E+02**
Landbay B	DW-13-296	Deep	Inside	VOC	Acetone	67-64-1	ID	1.10E-02	7/1/2009	1.40E+01	RSL-NC	7.9E-04
Landbay B	DW-13-296	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.40E-02	7/1/2009	1.20E-01	RSL-C	2.8E-01
Landbay B	DW-13-296	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	1.00E-03	7/1/2009	5.00E-03	FM	2.0E-01
Landbay B	DW-13-296	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.35E-01	7/1/2009	7.00E-03	FM	**4.8E+01**
Landbay B	DW-13-296	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	9.70E-02	7/1/2009	5.00E-03	FM	**1.9E+01**
Landbay B	DW-13-296	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.20E-01	7/1/2009	2.00E-01	FM	**1.1E+00**
Landbay B	DW-13-296	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	2.50E-03	7/1/2009	5.00E-03	FM	5.0E-01
Landbay B	DW-13-296	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.75E-01	7/1/2009	4.70E+02	RSL-NC	5.9E-04
Landbay B	DW-13-296	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/1/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-13-296	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	9.85E+00	7/1/2009	1.50E-02	IHA	**6.6E+02**
Landbay B	DW-13-296	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.80E-04	7/1/2009	6.10E-03	RSL-C	4.6E-02
Landbay B	DW-13-32-72	Deep	Inside	VOC	Acetone	67-64-1	ID	1.00E-02	7/2/2009	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-13-32-72	Deep	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	7/2/2009			
Landbay B	DW-13-32-72	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.10E-02	7/2/2009	1.20E-01	RSL-C	2.6E-01
Landbay B	DW-13-32-72	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.40E-01	7/2/2009	7.00E-03	FM	**3.4E+01**
Landbay B	DW-13-32-72	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	6.60E-02	7/2/2009	5.00E-03	FM	**1.3E+01**
Landbay B	DW-13-32-72	Deep	Inside	VOC	Toluene	108-88-3	ID	1.90E-02	7/2/2009	1.00E+00	FM	1.9E-02
Landbay B	DW-13-32-72	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.40E-01	7/2/2009	2.00E-01	FM	7.0E-01
Landbay B	DW-13-32-72	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	7/2/2009	5.00E-03	FM	8.0E-01
Landbay B	DW-13-32-72	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.50E-01	7/2/2009	4.70E+02	RSL-NC	3.2E-04
Landbay B	DW-13-32-72	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/2/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-13-32-72	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	8.20E+00	7/2/2009	1.50E-02	IHA	**5.5E+02**
Landbay B	DW-13-32-72	Deep	Inside	EXPLOSIVE	2-Amino-4,6-dinitrotoluene	35572-78-2		2.40E-04	7/2/2009	3.10E-02	RSL-NC	7.7E-03
Landbay B	DW-13-32-72	Deep	Inside	EXPLOSIVE	4-Amino-2,6-dinitrotoluene	19406-51-0		3.50E-04	7/2/2009	3.10E-02	RSL-NC	1.1E-02
Landbay B	DW-13-32-72	Deep	Inside	EXPLOSIVE	3-Nitrotoluene	99-08-1	ID	6.00E-04	7/2/2009	1.60E-03	RSL-NC	3.8E-01
Landbay B	DW-13-32-72	Deep	Inside	EXPLOSIVE	2,4,6-Trinitrophenylmethylnitramine	479-45-8	ID	6.90E-03	7/2/2009	6.30E-02	RSL-NC	1.1E-01
Landbay B	DW-13-75-115	Deep	Inside	VOC	Acetone	67-64-1	ID	9.00E-03	7/2/2009	1.40E+01	RSL-NC	6.4E-04
Landbay B	DW-13-75-115	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.40E-02	7/2/2009	1.20E-01	RSL-C	2.8E-01
Landbay B	DW-13-75-115	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.70E-01	7/2/2009	7.00E-03	FM	**3.9E+01**
Landbay B	DW-13-75-115	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	7.70E-02	7/2/2009	5.00E-03	FM	**1.5E+01**
Landbay B	DW-13-75-115	Deep	Inside	VOC	Toluene	108-88-3	ID	7.00E-03	7/2/2009	1.00E+00	FM	7.0E-03
Landbay B	DW-13-75-115	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.60E-01	7/2/2009	2.00E-01	FM	8.0E-01
Landbay B	DW-13-75-115	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	7/2/2009	5.00E-03	FM	8.0E-01
Landbay B	DW-13-75-115	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.80E-01	7/2/2009	4.70E+02	RSL-NC	3.8E-04
Landbay B	DW-13-75-115	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/2/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-13-75-115	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	7.80E+00	7/2/2009	1.50E-02	IHA	**5.2E+02**
Landbay B	DW-13-75-115	Deep	Inside	EXPLOSIVE	2,4,6-Trinitrophenylmethylnitramine	479-45-8	ID	3.20E-03	7/2/2009	6.30E-02	RSL-NC	5.1E-02
Landbay B	DW-15	Deep	Inside	WQ	Chloride	16887-00-6		1.11E+01	2/20/2007			
Landbay B	DW-15	Deep	Inside	WQ	Sulfate	14808-79-8		1.24E+02	8/18/2004			
Landbay B	DW-15	Deep	Inside	VOC	Chlorobenzene	108-90-7	D	7.00E-03	3/17/2010	1.00E-01	FM	7.0E-02
Landbay B	DW-15	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.00E-03	8/30/2011	1.20E-01	RSL-C	5.8E-02
Landbay B	DW-15	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.50E-03	3/17/2010	7.00E-03	FM	**1.1E+00**
Landbay B	DW-15	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.50E-03	3/17/2010	7.00E-02	FM	2.1E-02
Landbay B	DW-15	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	3/17/2010	5.00E-03	FM	8.0E-01
Landbay B	DW-15	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	8.00E-03	8/30/2011	2.00E-03	FM	**4.0E+00**
Landbay B	DW-15	Deep	Inside	SVOC	1-Nitronaphthalene	86-57-7		3.80E-04	3/17/2010			
Landbay B	DW-15	Deep	Inside	INORG	Nitrate	14797-55-8		6.00E-01	8/18/2004	1.00E+01	FM	6.0E-02
Landbay B	DW-15	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.00E-04	10/14/2009	1.50E-02	IHA	2.0E-02
Landbay B	DW-15	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.55E-04	3/17/2010	6.10E-03	RSL-C	2.5E-02
Landbay B	DW-16	Deep	Inside	WQ	Chloride	16887-00-6		1.26E+01	2/19/2007			
Landbay B	DW-16	Deep	Inside	WQ	Sulfate	14808-79-8		8.49E+01	8/19/2004			
Landbay B	DW-16	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		2.30E-03	5/13/2008	3.10E+00	RSL-NC	7.4E-04
Landbay B	DW-16	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.30E-02	12/12/2011	1.20E-01	RSL-C	2.8E-01
Landbay B	DW-16	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-02	3/17/2010	7.00E-03	FM	**5.7E+00**
Landbay B	DW-16	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.20E-02	5/13/2008	4.70E+02	RSL-NC	4.7E-05
Landbay B	DW-16	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	4.00E-03	12/12/2011	2.00E-03	FM	**2.0E+00**
Landbay B	DW-16	Deep	Inside	INORG	Nitrate	14797-55-8		6.40E-01	8/19/2004	1.00E+01	FM	6.4E-02
Landbay B	DW-16	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	4.60E-02	3/17/2010	1.50E-02	IHA	**3.1E+00**
Landbay B	DW-16	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.10E-03	3/17/2010	6.10E-03	RSL-C	1.8E-01
Landbay B	DW-16	Deep	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	5.40E-03	5/13/2008	7.80E-01	RSL-NC	6.9E-03
Landbay B	DW-16-Diabase	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.00E-03	8/25/2009	1.20E-01	RSL-C	5.8E-02
Landbay B	DW-16-Diabase	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.10E-02	8/25/2009	7.00E-03	FM	**3.0E+00**
Landbay B	DW-16-Diabase	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	8/25/2009	2.00E-01	FM	5.0E-03
Landbay B	DW-16-Diabase	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.00E-03	8/25/2009	4.70E+02	RSL-NC	8.5E-06
Landbay B	DW-16-Diabase	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.10E-01	8/25/2009	1.50E-02	IHA	**2.1E+01**
Landbay B	DW-16-Diabase	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	4.50E-03	8/25/2009	6.10E-03	RSL-C	7.4E-01
Landbay B	DW-16-Diabase	Deep	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	6.70E-04	8/25/2009	7.80E-01	RSL-NC	8.6E-04
Landbay B	DW-16-Metased	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.00E-03	8/26/2009	1.20E-01	RSL-C	5.8E-02
Landbay B	DW-16-Metased	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.50E-02	8/26/2009	7.00E-03	FM	**3.6E+00**
Landbay B	DW-16-Metased	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.00E-04	8/26/2009	5.00E-03	FM	1.6E-01
Landbay B	DW-16-Metased	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-04	8/26/2009	2.00E-01	FM	4.5E-03
Landbay B	DW-16-Metased	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.10E-02	8/26/2009	4.70E+02	RSL-NC	6.6E-05
Landbay B	DW-16-Metased	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.20E-01	8/26/2009	1.50E-02	IHA	**2.1E+01**
Landbay B	DW-16-Metased	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	4.20E-03	8/26/2009	6.10E-03	RSL-C	6.9E-01
Landbay B	DW-21	Deep	Inside	WQ	Chloride	16887-00-6		7.50E+00	2/16/2007			
Landbay B	DW-21	Deep	Inside	WQ	Sulfate	14808-79-8		4.47E+02	8/18/2004			
Landbay B	DW-21	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.00E-03	4/1/2010	1.20E-01	RSL-C	5.0E-02
Landbay B	DW-21	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.50E-02	4/1/2010	7.00E-03	FM	**5.0E+00**
Landbay B	DW-21	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	5.00E-03	4/1/2010	5.00E-03	FM	1.0E+00
Landbay B	DW-21	Deep	Inside	VOC	Toluene	108-88-3	ID	8.50E-04	8/27/2009	1.00E+00	FM	8.5E-04
Landbay B	DW-21	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	4/1/2010	2.00E-01	FM	1.0E-02
Landbay B	DW-21	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	8/27/2009	5.00E-03	FM	6.0E-01
Landbay B	DW-21	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.10E-01	4/1/2010	4.70E+02	RSL-NC	2.3E-04
Landbay B	DW-21	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	8/27/2009	2.00E-03	FM	1.0E+00
Landbay B	DW-21	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.60E-01	5/14/2008	1.50E-02	IHA	**1.7E+01**
Landbay B	DW-21	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.70E-03	5/14/2008	6.10E-03	RSL-C	4.4E-01
Landbay B	DW-21-Diabase	Deep	Inside	VOC	Acetone	67-64-1	ID	1.90E-02	8/27/2009	1.40E+01	RSL-NC	1.4E-03
Landbay B	DW-21-Diabase	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	8/27/2009	1.20E-01	RSL-C	8.3E-03
Landbay B	DW-21-Diabase	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	8/27/2009	7.00E-03	FM	2.9E-01
Landbay B	DW-21-Diabase	Deep	Inside	VOC	Methyl Acetate	79-20-9		5.40E-02	8/27/2009	1.60E+01	RSL-NC	3.4E-03
Landbay B	DW-21-Diabase	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	8/27/2009	5.00E-03	FM	4.0E-01
Landbay B	DW-21-Diabase	Deep	Inside	VOC	Toluene	108-88-3	ID	2.70E-02	8/27/2009	1.00E+00	FM	2.7E-02
Landbay B	DW-21-Diabase	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.90E-01	8/27/2009	1.50E-02	IHA	**1.3E+01**
Landbay B	DW-21-Diabase	Deep	Inside	EXPLOSIVE	4-Amino-2,6-dinitrotoluene	19406-51-0		1.10E-03	8/27/2009	3.10E-02	RSL-NC	3.5E-02
Landbay B	DW-21-Diabase	Deep	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	8.90E-04	8/27/2009	7.80E-01	RSL-NC	1.1E-03
Landbay B	DW-21-Diabase	Deep	Inside	EXPLOSIVE	2,4,6-Trinitrophenylmethylnitramine	479-45-8	ID	4.70E-04	8/27/2009	6.30E-02	RSL-NC	7.5E-03
Landbay B	DW-22	Deep	Inside	WQ	Chloride	16887-00-6		1.63E+01	6/16/2010			
Landbay B	DW-22	Deep	Inside	WQ	Sulfate	14808-79-8		2.52E+02	2/3/2010			
Landbay B	DW-22	Deep	Inside	VOC	Acetic acid	64-19-7		5.40E+01	9/13/2011			
Landbay B	DW-22	Deep	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	12/13/2011			
Landbay B	DW-22	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.60E-02	12/13/2011	1.20E-01	RSL-C	6.3E-01
Landbay B	DW-22	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.90E-01	2/3/2010	7.00E-03	FM	**2.7E+01**
Landbay B	DW-22	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.00E-02	12/6/2010	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-22	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.10E-02	2/3/2010	2.00E-01	FM	5.5E-02
Landbay B	DW-22	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.30E-02	9/28/2009	4.70E+02	RSL-NC	4.9E-05
Landbay B	DW-22	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	4.50E-02	6/16/2010	2.00E-03	FM	**2.3E+01**
Landbay B	DW-22	Deep	Inside	SVOC	1,3-Dinitrobenzene	99-65-0	D	3.60E-03	2/3/2011	1.60E-03	RSL-NC	**2.3E+00**
Landbay B	DW-22	Deep	Inside	SVOC	Propionic Acid	79-09-4		1.00E+01	9/13/2011			
Landbay B	DW-22	Deep	Inside	INORG	Bromide	24959-67-9		1.81E+01	10/13/2009			
Landbay B	DW-22	Deep	Inside	INORG	Fluoride	16984-48-8		5.90E-01	2/3/2011	4.00E+00	FM	1.5E-01
Landbay B	DW-22	Deep	Inside	INORG	Iron	7439-89-6	D	3.24E-01	9/13/2011	1.10E+01	RSL-NC	2.9E-02
Landbay B	DW-22	Deep	Inside	INORG	Manganese	7439-96-5	D	2.24E+00	9/13/2011	3.80E-01	RSL-NC	**5.9E+00**

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay B	DW-22	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.30E-02	4/6/2010	1.50E-02	IHA	**1.5E+00**
Landbay B	DW-22	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		6.20E+00	12/13/2011			
Landbay B	DW-24	Deep	Inside	WQ	Chloride	16887-00-6		5.00E+00	9/29/2009			
Landbay B	DW-24	Deep	Inside	WQ	Sulfate	14808-79-8		2.73E+01	9/29/2009			
Landbay B	DW-24	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		4.00E-03	9/29/2009	3.10E+00	RSL-NC	1.3E-03
Landbay B	DW-24	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.50E-02	9/9/2011	1.20E-01	RSL-C	3.8E-01
Landbay B	DW-24	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.10E-02	4/6/2010	7.00E-03	FM	**1.3E+01**
Landbay B	DW-24	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.50E-03	4/6/2010	7.00E-02	FM	5.0E-02
Landbay B	DW-24	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	9.70E-01	4/6/2010	5.00E-03	FM	**1.9E+02**
Landbay B	DW-24	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.50E-03	4/6/2010	2.00E-01	FM	1.3E-02
Landbay B	DW-24	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	4/6/2010	5.00E-03	FM	4.0E-01
Landbay B	DW-24	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.55E-01	4/6/2010	4.70E+02	RSL-NC	5.4E-04
Landbay B	DW-24	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	9.50E-03	9/9/2011	2.00E-03	FM	**4.8E+00**
Landbay B	DW-24	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.10E-01	4/6/2010	1.50E-02	IHA	**2.1E+01**
Landbay B	DW-24	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		1.20E+00	9/29/2009			
Landbay B	DW-25	Deep	Inside	VOC	Acetone	67-64-1	ID	1.20E-02	3/19/2010	1.40E+01	RSL-NC	8.6E-04
Landbay B	DW-25	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.10E-02	9/12/2011	1.20E-01	RSL-C	4.3E-01
Landbay B	DW-25	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.20E-02	10/15/2009	7.00E-03	FM	**1.7E+00**
Landbay B	DW-25	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	3/19/2010	7.00E-02	FM	1.4E-02
Landbay B	DW-25	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03	3/19/2010	5.00E-03	FM	8.0E-01
Landbay B	DW-25	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	9/12/2011	2.00E-01	FM	1.5E-02
Landbay B	DW-25	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		5.80E-01	6/2/2008	4.70E+02	RSL-NC	1.2E-03
Landbay B	DW-25	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	6.00E-03	9/12/2011	2.00E-03	FM	**3.0E+00**
Landbay B	DW-25	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	4.80E-02	3/19/2010	1.50E-02	IHA	**3.2E+00**
Landbay B	DW-26D	Deep	Inside	WQ	Chloride	16887-00-6		3.20E+00	4/6/2010			
Landbay B	DW-26D	Deep	Inside	WQ	Sulfate	14808-79-8		3.67E+01	4/6/2010			
Landbay B	DW-26D	Deep	Inside	VOC	Acetone	67-64-1	ID	1.10E-02	4/6/2010	1.40E+01	RSL-NC	7.9E-04
Landbay B	DW-26D	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		1.70E-02	9/28/2009	3.10E+00	RSL-NC	5.5E-03
Landbay B	DW-26D	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.60E-02	9/8/2011	1.20E-01	RSL-C	3.0E-01
Landbay B	DW-26D	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.40E-02	9/8/2011	7.00E-03	FM	**4.9E+00**
Landbay B	DW-26D	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.80E-02	4/6/2010	5.00E-03	FM	**7.6E+00**
Landbay B	DW-26D	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	7.00E-03	9/28/2009	1.40E+01	RSL-NC	5.0E-04
Landbay B	DW-26D	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	9/8/2011	2.00E-01	FM	5.0E-03
Landbay B	DW-26D	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.05E+00	5/15/2008	4.70E+02	RSL-NC	6.5E-03
Landbay B	DW-26D	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.10E-02	9/8/2011	2.00E-03	FM	**5.5E+00**
Landbay B	DW-26D	Deep	Inside	SVOC	1-Nitronaphthalene	86-57-7		7.75E-04	5/15/2008			
Landbay B	DW-26D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.50E-03	4/6/2010	1.50E-02	IHA	1.7E-01
Landbay B	DW-26D	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		2.70E+00	4/6/2010			
Landbay B	DW-26I	Deep	Inside	WQ	Chloride	16887-00-6		4.60E+00	9/28/2009			
Landbay B	DW-26I	Deep	Inside	WQ	Sulfate	14808-79-8		1.99E+01	9/28/2009			
Landbay B	DW-26I	Deep	Inside	VOC	Acetone	67-64-1	ID	2.70E-02	10/13/2009	1.40E+01	RSL-NC	1.9E-03
Landbay B	DW-26I	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.20E-02	9/8/2011	1.20E-01	RSL-C	1.0E-01
Landbay B	DW-26I	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.30E-01	4/6/2010	7.00E-03	FM	**1.9E+01**
Landbay B	DW-26I	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	11/11/2010	7.00E-02	FM	2.9E-02
Landbay B	DW-26I	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.40E+00	4/6/2010	5.00E-03	FM	**2.8E+02**
Landbay B	DW-26I	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	11/11/2010	2.00E-01	FM	2.5E-02
Landbay B	DW-26I	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	11/11/2010	5.00E-03	FM	2.0E-01
Landbay B	DW-26I	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.50E+00	10/13/2009	4.70E+02	RSL-NC	3.2E-03
Landbay B	DW-26I	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	4.00E-03	9/8/2011	2.00E-03	FM	**2.0E+00**
Landbay B	DW-26I	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	4.80E-01	4/6/2010	1.50E-02	IHA	**3.2E+01**
Landbay B	DW-26I	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		6.30E-01	10/13/2009			
Landbay B	DW-26S	Deep	Inside	WQ	Chloride	16887-00-6		4.50E+00	9/28/2009			
Landbay B	DW-26S	Deep	Inside	WQ	Sulfate	14808-79-8		2.20E+01	9/28/2009			
Landbay B	DW-26S	Deep	Inside	VOC	Acetone	67-64-1	ID	1.00E-02	10/13/2009	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-26S	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	10/13/2009	7.00E-03	FM	2.9E-01
Landbay B	DW-26S	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	4/7/2010	5.00E-03	FM	4.0E-01
Landbay B	DW-26S	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.80E-01	10/13/2009	4.70E+02	RSL-NC	6.0E-04
Landbay B	DW-26S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	8.30E-04	10/13/2009	1.50E-02	IHA	5.5E-02
Landbay B	DW-26S	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		7.00E-02	10/13/2009			
Landbay B	DW-28D	Deep	Inside	WQ	Chloride	16887-00-6		2.15E+01	2/16/2007			
Landbay B	DW-28D	Deep	Inside	WQ	Sulfate	14808-79-8		1.14E+02	2/15/2006			
Landbay B	DW-28D	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		3.00E-03	3/29/2010	3.10E+00	RSL-NC	9.7E-04
Landbay B	DW-28D	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.50E-02	9/8/2011	1.20E-01	RSL-C	2.9E-01
Landbay B	DW-28D	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.70E-02	3/29/2010	7.00E-03	FM	**1.4E+01**
Landbay B	DW-28D	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.10E-02	9/23/2009	5.00E-03	FM	**4.2E+00**
Landbay B	DW-28D	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-02	9/8/2011	2.00E-01	FM	5.0E-02
Landbay B	DW-28D	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	3/29/2010	5.00E-03	FM	2.0E-01
Landbay B	DW-28D	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.10E-01	9/23/2009	4.70E+02	RSL-NC	2.3E-04
Landbay B	DW-28D	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.20E-02	9/8/2011	2.00E-03	FM	**6.0E+00**
Landbay B	DW-28D	Deep	Inside	INORG	Nitrate	14797-55-8		4.30E-01	2/28/2006	1.00E+01	FM	4.3E-02
Landbay B	DW-28D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.20E+00	9/23/2009	1.50E-02	IHA	**2.1E+02**
Landbay B	DW-28D	Deep	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	2.40E-03	5/12/2008	7.80E-01	RSL-NC	3.1E-03
Landbay B	DW-28DD	Deep	Inside	WQ	Chloride	16887-00-6		1.47E+01	12/14/2011			
Landbay B	DW-28DD	Deep	Inside	WQ	Sulfate	14808-79-8		3.47E+01	9/13/2011			
Landbay B	DW-28DD	Deep	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	12/14/2011			
Landbay B	DW-28DD	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.00E-02	6/9/2011	1.20E-01	RSL-C	5.8E-01
Landbay B	DW-28DD	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.80E-01	3/29/2010	7.00E-03	FM	**2.6E+01**
Landbay B	DW-28DD	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	9.00E-03	3/29/2010	5.00E-03	FM	**1.8E+00**
Landbay B	DW-28DD	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.90E-02	3/29/2010	2.00E-01	FM	1.5E-01
Landbay B	DW-28DD	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		6.30E-02	3/29/2010	4.70E+02	RSL-NC	1.3E-04
Landbay B	DW-28DD	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.70E-02	10/7/2010	2.00E-03	FM	**1.4E+01**
Landbay B	DW-28DD	Deep	Inside	INORG	Bromide	24959-67-9		6.05E+00	10/20/2009			
Landbay B	DW-28DD	Deep	Inside	INORG	Iron	7439-89-6	D	2.52E-01	9/13/2011	1.10E+01	RSL-NC	2.3E-02
Landbay B	DW-28DD	Deep	Inside	INORG	Manganese	7439-96-5	D	1.95E+00	9/13/2011	3.80E-01	RSL-NC	**5.1E+00**
Landbay B	DW-28DD	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	5.80E-03	3/29/2010	1.50E-02	IHA	3.9E-01
Landbay B	DW-28DD	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		4.00E+00	9/13/2011			
Landbay B	DW-28I	Deep	Inside	WQ	Chloride	16887-00-6		1.95E+01	2/16/2007			
Landbay B	DW-28I	Deep	Inside	WQ	Sulfate	14808-79-8		5.95E+01	5/12/2006			
Landbay B	DW-28I	Deep	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	3/29/2010			
Landbay B	DW-28I	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		4.00E-03	11/11/2010	3.10E+00	RSL-NC	1.3E-03
Landbay B	DW-28I	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	8.60E-02	12/14/2011	1.20E-01	RSL-C	7.2E-01
Landbay B	DW-28I	Deep	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	3.00E-03	12/14/2011	5.00E-03	FM	6.0E-01
Landbay B	DW-28I	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E+00	12/14/2011	7.00E-03	FM	**1.6E+02**
Landbay B	DW-28I	Deep	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	2.00E-03	3/29/2010	1.00E-01	FM	2.0E-02
Landbay B	DW-28I	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	5.60E-03	9/6/2011	6.70E-03	RSL-C	8.4E-01
Landbay B	DW-28I	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.20E-01	12/14/2011	5.00E-03	FM	**2.4E+01**
Landbay B	DW-28I	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.40E-01	3/29/2010	2.00E-01	FM	**3.2E+00**
Landbay B	DW-28I	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	9/6/2011	5.00E-03	FM	4.0E-01
Landbay B	DW-28I	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.10E-01	9/29/2009	4.70E+02	RSL-NC	6.6E-04
Landbay B	DW-28I	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-02	11/11/2010	2.00E-03	FM	**5.0E+00**
Landbay B	DW-28I	Deep	Inside	INORG	Nitrate	14797-55-8		1.35E+01	2/28/2006	1.00E+01	FM	**1.4E+00**
Landbay B	DW-28I	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	5.70E+01	3/29/2010	1.50E-02	IHA	**3.8E+03**
Landbay B	DW-28I	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		3.90E-02	5/12/2006			
Landbay B	DW-28S	Deep	Inside	WQ	Chloride	16887-00-6		1.34E+01	2/16/2007			
Landbay B	DW-28S	Deep	Inside	WQ	Sulfate	14808-79-8		2.30E+02	2/15/2006			
Landbay B	DW-28S	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-02	9/23/2009	1.20E-01	RSL-C	3.3E-01
Landbay B	DW-28S	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.20E-02	9/23/2009	7.00E-03	FM	**6.0E+00**
Landbay B	DW-28S	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	9.50E-03	9/8/2011	6.70E-03	RSL-C	**1.4E+00**
Landbay B	DW-28S	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.10E-02	9/23/2009	2.00E-01	FM	5.5E-02
Landbay B	DW-28S	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.00E-03	9/23/2009	4.70E+02	RSL-NC	8.5E-06
Landbay B	DW-28S	Deep	Inside	INORG	Nitrate	14797-55-8		1.30E+00	8/16/2006	1.00E+01	FM	1.3E-01
Landbay B	DW-28S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	7.20E-01	9/23/2009	1.50E-02	IHA	**4.8E+01**
Landbay B	DW-28S	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.20E-03	6/2/2008	6.10E-03	RSL-C	2.0E-01
Landbay B	DW-29D	Deep	Inside	WQ	Chloride	16887-00-6		1.65E+01	9/15/2011			
Landbay B	DW-29D	Deep	Inside	WQ	Sulfate	14808-79-8		2.34E+02	2/3/2010			
Landbay B	DW-29D	Deep	Inside	VOC	Acetic acid	64-19-7		2.60E+01	8/10/2010			
Landbay B	DW-29D	Deep	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	12/13/2011			
Landbay B	DW-29D	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.90E-02	6/8/2011	1.20E-01	RSL-C	6.6E-01
Landbay B	DW-29D	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.90E-01	2/3/2010	7.00E-03	FM	**2.7E+01**
Landbay B	DW-29D	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.00E-02	12/6/2010	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-29D	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.40E-02	2/3/2010	2.00E-01	FM	7.0E-02
Landbay B	DW-29D	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.70E-02	9/25/2009	4.70E+02	RSL-NC	3.6E-05
Landbay B	DW-29D	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	4.40E-02	6/16/2010	2.00E-03	FM	**2.2E+01**
Landbay B	DW-29D	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	6.00E-04	8/10/2010	1.60E-03	RSL-NC	3.8E-01
Landbay B	DW-29D	Deep	Inside	INORG	Bromide	24959-67-9		1.54E+01	10/13/2009			
Landbay B	DW-29D	Deep	Inside	INORG	Fluoride	16984-48-8		6.10E-01	2/3/2011	4.00E+00	FM	1.5E-01
Landbay B	DW-29D	Deep	Inside	INORG	Iron	7439-89-6	D	1.18E-01	9/15/2011	1.10E+01	RSL-NC	1.1E-02
Landbay B	DW-29D	Deep	Inside	INORG	Manganese	7439-96-5	D	1.31E+00	9/15/2011	3.80E-01	RSL-NC	**3.4E+00**
Landbay B	DW-29D	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		5.15E+00	9/15/2011			
Landbay B	DW-29I	Deep	Inside	WQ	Chloride	16887-00-6		1.57E+01	2/3/2011			
Landbay B	DW-29I	Deep	Inside	WQ	Sulfate	14808-79-8		2.01E+02	2/3/2010			

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay B	DW-29I	Deep	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	12/13/2011			
Landbay B	DW-29I	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.90E-02	12/7/2010	1.20E-01	RSL-C	5.8E-01
Landbay B	DW-29I	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.40E-01	6/16/2010	7.00E-03	FM	**2.0E+01**
Landbay B	DW-29I	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.00E-02	12/7/2010	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-29I	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	12/7/2010	2.00E-01	FM	1.5E-02
Landbay B	DW-29I	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.00E-03	12/7/2010	4.70E+02	RSL-NC	4.3E-06
Landbay B	DW-29I	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	3.40E-02	12/7/2010	2.00E-03	FM	**1.7E+01**
Landbay B	DW-29I	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	2.10E-04	9/25/2009	1.60E-03	RSL-NC	1.3E-01
Landbay B	DW-29I	Deep	Inside	SVOC	1,3-Dinitrobenzene	99-65-0	D	3.00E-03	2/3/2011	1.60E-03	RSL-NC	**1.9E+00**
Landbay B	DW-29I	Deep	Inside	INORG	Bromide	24959-67-9		7.40E+00	11/3/2009			
Landbay B	DW-29I	Deep	Inside	INORG	Fluoride	16984-48-8		6.00E-01	2/3/2011	4.00E+00	FM	1.5E-01
Landbay B	DW-29I	Deep	Inside	INORG	Iron	7439-89-6	D	2.40E-01	10/13/2009	1.10E+01	RSL-NC	2.2E-02
Landbay B	DW-29I	Deep	Inside	INORG	Manganese	7439-96-5	D	5.23E-01	4/7/2010	3.80E-01	RSL-NC	**1.4E+00**
Landbay B	DW-29I	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		3.90E+00	2/3/2010			
Landbay B	DW-29S	Deep	Inside	WQ	Chloride	16887-00-6		3.63E+01	2/16/2007			
Landbay B	DW-29S	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.70E-03	5/16/2008	1.20E-01	RSL-C	1.4E-02
Landbay B	DW-29S	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	9/25/2009	7.00E-03	FM	1.0E+00
Landbay B	DW-29S	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.60E-04	5/16/2008	2.00E-01	FM	4.3E-03
Landbay B	DW-29S	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.20E-02	3/31/2010	4.70E+02	RSL-NC	4.7E-05
Landbay B	DW-29S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.60E+02	9/25/2009	1.50E-02	IHA	**1.1E+04**
Landbay B	DW-29S	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.00E-04	3/31/2010	6.10E-03	RSL-C	3.3E-02
Landbay B	DW-35 Zone 1	Deep	Inside	WQ	Chloride	16887-00-6		1.34E+01	12/3/2009			
Landbay B	DW-35 Zone 1	Deep	Inside	WQ	Sulfate	14808-79-8		1.88E+02	9/24/2009			
Landbay B	DW-35 Zone 1	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-02	12/3/2009	1.20E-01	RSL-C	3.3E-01
Landbay B	DW-35 Zone 1	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.50E-02	12/3/2009	7.00E-03	FM	**1.4E+01**
Landbay B	DW-35 Zone 1	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-03	10/27/2009	2.00E-01	FM	4.5E-02
Landbay B	DW-35 Zone 1	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		6.00E-03	9/24/2009	4.70E+02	RSL-NC	1.3E-05
Landbay B	DW-35 Zone 1	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	3.00E-03	12/3/2009	2.00E-03	FM	**1.5E+00**
Landbay B	DW-35 Zone 1	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	7.80E-04	10/27/2009	1.60E-03	RSL-NC	4.9E-01
Landbay B	DW-35 Zone 1	Deep	Inside	INORG	Bromide	24959-67-9		3.80E+00	12/3/2009			
Landbay B	DW-35 Zone 1	Deep	Inside	INORG	Manganese	7439-96-5	D	1.76E+00	9/24/2009	3.80E-01	RSL-NC	**4.6E+00**
Landbay B	DW-35 Zone 1	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		1.70E+00	10/27/2009			
Landbay B	DW-35 Zone 2	Deep	Inside	WQ	Chloride	16887-00-6		1.60E+01	12/3/2009			
Landbay B	DW-35 Zone 2	Deep	Inside	WQ	Sulfate	14808-79-8		2.55E+02	9/24/2009			
Landbay B	DW-35 Zone 2	Deep	Inside	VOC	Acetic acid	64-19-7		3.90E+00	9/24/2009			
Landbay B	DW-35 Zone 2	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.70E-02	12/3/2009	1.20E-01	RSL-C	4.8E-01
Landbay B	DW-35 Zone 2	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.80E-01	10/27/2009	7.00E-03	FM	**2.6E+01**
Landbay B	DW-35 Zone 2	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.20E-02	10/27/2009	2.00E-01	FM	1.1E-01
Landbay B	DW-35 Zone 2	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		9.00E-03	10/27/2009	4.70E+02	RSL-NC	1.9E-05
Landbay B	DW-35 Zone 2	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	4.00E-03	12/3/2009	2.00E-03	FM	**2.0E+00**
Landbay B	DW-35 Zone 2	Deep	Inside	INORG	Bromide	24959-67-9		5.60E+00	10/27/2009			
Landbay B	DW-35 Zone 2	Deep	Inside	INORG	Fluoride	16984-48-8		4.30E-01	12/3/2009	4.00E+00	FM	1.1E-01
Landbay B	DW-35 Zone 2	Deep	Inside	INORG	Manganese	7439-96-5	D	1.78E+00	9/24/2009	3.80E-01	RSL-NC	**4.7E+00**
Landbay B	DW-35 Zone 2	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		2.60E+00	10/27/2009			
Landbay B	DW-35 Zone 3	Deep	Inside	WQ	Chloride	16887-00-6		1.63E+01	12/3/2009			
Landbay B	DW-35 Zone 3	Deep	Inside	WQ	Sulfate	14808-79-8		2.63E+02	9/24/2009			
Landbay B	DW-35 Zone 3	Deep	Inside	VOC	Acetic acid	64-19-7		1.70E+01	9/24/2009			
Landbay B	DW-35 Zone 3	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.90E-02	10/27/2009	1.20E-01	RSL-C	4.9E-01
Landbay B	DW-35 Zone 3	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.80E-01	10/27/2009	7.00E-03	FM	**2.6E+01**
Landbay B	DW-35 Zone 3	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.40E-02	9/24/2009	2.00E-01	FM	2.2E-01
Landbay B	DW-35 Zone 3	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.40E-02	9/24/2009	4.70E+02	RSL-NC	7.2E-05
Landbay B	DW-35 Zone 3	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	7.00E-03	12/3/2009	2.00E-03	FM	**3.5E+00**
Landbay B	DW-35 Zone 3	Deep	Inside	INORG	Bromide	24959-67-9		6.34E+01	10/6/2009			
Landbay B	DW-35 Zone 3	Deep	Inside	INORG	Manganese	7439-96-5	D	1.01E+00	9/24/2009	3.80E-01	RSL-NC	**2.7E+00**
Landbay B	DW-35 Zone 3	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		3.70E+00	10/27/2009			
Landbay B	DW-35 Zone 4	Deep	Inside	WQ	Chloride	16887-00-6		1.79E+01	12/3/2010			
Landbay B	DW-35 Zone 4	Deep	Inside	WQ	Sulfate	14808-79-8		2.91E+02	2/2/2010			
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	Acetic acid	64-19-7		2.30E+01	8/10/2010			
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	2-Butanone	78-93-3	ID	9.00E-03	6/16/2010	9.40E+00	RSL-NC	9.6E-04
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	Carbon Disulfide	75-15-0		1.00E-03	12/3/2010	1.60E+00	RSL-NC	6.3E-04
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.40E-02	12/3/2010	1.20E-01	RSL-C	5.3E-01
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.60E-01	12/3/2009	7.00E-03	FM	**2.3E+01**
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	9.00E-03	12/3/2010	1.40E+01	RSL-NC	6.4E-04
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.10E-02	2/2/2010	2.00E-01	FM	2.1E-01
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.30E-02	12/3/2009	4.70E+02	RSL-NC	7.0E-05
Landbay B	DW-35 Zone 4	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.80E-02	8/10/2010	2.00E-03	FM	**1.4E+01**
Landbay B	DW-35 Zone 4	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	6.50E-04	8/10/2010	1.60E-03	RSL-NC	4.1E-01
Landbay B	DW-35 Zone 4	Deep	Inside	SVOC	1,3-Dinitrobenzene	99-65-0	D	1.90E-03	6/16/2010	1.60E-03	RSL-NC	**1.2E+00**
Landbay B	DW-35 Zone 4	Deep	Inside	SVOC	DL-Lactic Acid	598-82-3		2.00E+01	9/24/2009			
Landbay B	DW-35 Zone 4	Deep	Inside	INORG	Bromide	24959-67-9		6.65E+01	10/6/2009			
Landbay B	DW-35 Zone 4	Deep	Inside	INORG	Fluoride	16984-48-8		6.70E-01	2/2/2011	4.00E+00	FM	1.7E-01
Landbay B	DW-35 Zone 4	Deep	Inside	INORG	Manganese	7439-96-5	D	1.93E+00	10/5/2010	3.80E-01	RSL-NC	**5.1E+00**
Landbay B	DW-35 Zone 4	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.20E-04	4/8/2010	1.50E-02	IHA	1.5E-02
Landbay B	DW-35 Zone 4	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		2.10E+00	10/27/2009			
Landbay B	DW-35 Zone 4	Deep	Inside	EXPLOSIVE	2-Nitrotoluene	88-72-2	LC	3.60E-04	8/10/2010	3.10E-03	RSL-C	1.2E-01
Landbay B	DW-35 Zone 5	Deep	Inside	WQ	Chloride	16887-00-6		2.21E+01	6/16/2010			
Landbay B	DW-35 Zone 5	Deep	Inside	WQ	Sulfate	14808-79-8		2.80E+02	2/2/2010			
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	Acetic acid	64-19-7		1.30E+02	6/16/2010			
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	2-Butanone	78-93-3	ID	1.20E-02	6/16/2010	9.40E+00	RSL-NC	1.3E-03
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	12/13/2011			
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	8.90E-02	9/7/2011	1.20E-01	RSL-C	7.4E-01
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.50E-01	4/8/2010	7.00E-03	FM	**2.1E+01**
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.00E-02	12/3/2010	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.90E-02	4/8/2010	2.00E-01	FM	1.5E-01
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.90E-02	4/8/2010	4.70E+02	RSL-NC	4.0E-05
Landbay B	DW-35 Zone 5	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.90E-02	6/16/2010	2.00E-03	FM	**1.5E+01**
Landbay B	DW-35 Zone 5	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	5.20E-04	8/10/2010	1.60E-03	RSL-NC	3.3E-01
Landbay B	DW-35 Zone 5	Deep	Inside	SVOC	1,3-Dinitrobenzene	99-65-0	D	4.70E-03	6/16/2010	1.60E-03	RSL-NC	**2.9E+00**
Landbay B	DW-35 Zone 5	Deep	Inside	SVOC	Propionic Acid	79-09-4		1.20E+01	6/16/2010			
Landbay B	DW-35 Zone 5	Deep	Inside	INORG	Bromide	24959-67-9		6.17E+01	10/6/2009			
Landbay B	DW-35 Zone 5	Deep	Inside	INORG	Fluoride	16984-48-8		6.60E-01	2/2/2011	4.00E+00	FM	1.7E-01
Landbay B	DW-35 Zone 5	Deep	Inside	INORG	Manganese	7439-96-5	D	1.62E-01	9/24/2009	3.80E-01	RSL-NC	4.3E-01
Landbay B	DW-35 Zone 5	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.20E-04	9/7/2011	1.50E-02	IHA	1.5E-02
Landbay B	DW-35 Zone 5	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		2.30E+00	9/7/2011			
Landbay B	DW-35 Zone 6	Deep	Inside	WQ	Chloride	16887-00-6		1.59E+01	12/3/2009			
Landbay B	DW-35 Zone 6	Deep	Inside	WQ	Sulfate	14808-79-8		2.96E+02	9/24/2009			
Landbay B	DW-35 Zone 6	Deep	Inside	VOC	Acetic acid	64-19-7		2.40E+01	9/24/2009			
Landbay B	DW-35 Zone 6	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.60E-02	10/27/2009	1.20E-01	RSL-C	4.7E-01
Landbay B	DW-35 Zone 6	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.40E-01	10/27/2009	7.00E-03	FM	**3.4E+01**
Landbay B	DW-35 Zone 6	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.50E-02	9/24/2009	2.00E-01	FM	2.3E-01
Landbay B	DW-35 Zone 6	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.20E-02	9/24/2009	4.70E+02	RSL-NC	8.9E-05
Landbay B	DW-35 Zone 6	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	10/27/2009	2.00E-03	FM	1.0E+00
Landbay B	DW-35 Zone 6	Deep	Inside	INORG	Bromide	24959-67-9		7.02E+01	10/6/2009			
Landbay B	DW-35 Zone 6	Deep	Inside	INORG	Fluoride	16984-48-8		4.90E-01	12/3/2009	4.00E+00	FM	1.2E-01
Landbay B	DW-35 Zone 6	Deep	Inside	INORG	Manganese	7439-96-5	D	1.25E+00	9/24/2009	3.80E-01	RSL-NC	**3.3E+00**
Landbay B	DW-35 Zone 6	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		2.30E+00	10/27/2009			
Landbay B	DW-35 Zone 7	Deep	Inside	WQ	Chloride	16887-00-6		1.76E+01	12/3/2009			
Landbay B	DW-35 Zone 7	Deep	Inside	WQ	Sulfate	14808-79-8		2.81E+02	9/24/2009			
Landbay B	DW-35 Zone 7	Deep	Inside	VOC	Acetic acid	64-19-7		4.30E+01	12/3/2009			
Landbay B	DW-35 Zone 7	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-02	12/3/2009	1.20E-01	RSL-C	3.3E-01
Landbay B	DW-35 Zone 7	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.90E-01	12/3/2009	7.00E-03	FM	**2.7E+01**
Landbay B	DW-35 Zone 7	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.80E-02	10/27/2009	2.00E-01	FM	2.4E-01
Landbay B	DW-35 Zone 7	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.00E-02	10/27/2009	4.70E+02	RSL-NC	8.5E-05
Landbay B	DW-35 Zone 7	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	10/27/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-35 Zone 7	Deep	Inside	SVOC	DL-Lactic Acid	598-82-3		1.90E+01	12/3/2009			
Landbay B	DW-35 Zone 7	Deep	Inside	INORG	Bromide	24959-67-9		6.50E+01	10/6/2009			
Landbay B	DW-35 Zone 7	Deep	Inside	INORG	Manganese	7439-96-5	D	3.02E+00	9/24/2009	3.80E-01	RSL-NC	**7.9E+00**
Landbay B	DW-35 Zone 7	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		1.80E+00	10/27/2009			
Landbay B	DW-35 Zone 8	Deep	Inside	WQ	Chloride	16887-00-6		2.23E+01	6/16/2010			
Landbay B	DW-35 Zone 8	Deep	Inside	WQ	Sulfate	14808-79-8		3.01E+02	2/2/2010			
Landbay B	DW-35 Zone 8	Deep	Inside	VOC	Acetic acid	64-19-7		3.00E+01	6/16/2010			
Landbay B	DW-35 Zone 8	Deep	Inside	VOC	2-Butanone	78-93-3	ID	7.00E-03	6/16/2010	9.40E+00	RSL-NC	7.4E-04
Landbay B	DW-35 Zone 8	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	8.50E-02	12/13/2011	1.20E-01	RSL-C	7.1E-01
Landbay B	DW-35 Zone 8	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.30E-01	8/10/2010	7.00E-03	FM	**3.3E+01**
Landbay B	DW-35 Zone 8	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	9.00E-03	12/3/2010	1.40E+01	RSL-NC	6.4E-04
Landbay B	DW-35 Zone 8	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.30E-02	10/5/2010	2.00E-01	FM	4.2E-01
Landbay B	DW-35 Zone 8	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		7.30E-02	12/3/2010	4.70E+02	RSL-NC	1.6E-04
Landbay B	DW-35 Zone 8	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.30E-02	6/16/2010	2.00E-03	FM	**6.5E+00**
Landbay B	DW-35 Zone 8	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	3.30E-04	8/10/2010	1.60E-03	RSL-NC	2.1E-01
Landbay B	DW-35 Zone 8	Deep	Inside	SVOC	1,3-Dinitrobenzene	99-65-0	D	4.10E-03	6/16/2010	1.60E-03	RSL-NC	**2.6E+00**
Landbay B	DW-35 Zone 8	Deep	Inside	SVOC	DL-Lactic Acid	598-82-3		7.20E+01	2/2/2010			

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay B	DW-35 Zone 8	Deep	Inside	SVOC	Propionic Acid	79-09-4		6.80E+00	6/16/2010			
Landbay B	DW-35 Zone 8	Deep	Inside	INORG	Bromide	24959-67-9		7.24E+01	10/6/2009			
Landbay B	DW-35 Zone 8	Deep	Inside	INORG	Fluoride	16984-48-8		4.90E-01	2/2/2011	4.00E+00	FM	1.2E-01
Landbay B	DW-35 Zone 8	Deep	Inside	INORG	Iron	7439-89-6	D	3.44E-02	9/7/2011	1.10E+01	RSL-NC	3.1E-03
Landbay B	DW-35 Zone 8	Deep	Inside	INORG	Manganese	7439-96-5	D	9.78E-01	9/25/2009	3.80E-01	RSL-NC	**2.6E+00**
Landbay B	DW-35 Zone 8	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.20E+00	3/2/2010	1.50E-02	IHA	**1.5E+02**
Landbay B	DW-35 Zone 8	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		1.80E+00	12/3/2010			
Landbay B	DW-35-100-125	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.50E-02	7/9/2009	1.20E-01	RSL-C	3.8E-01
Landbay B	DW-35-100-125	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.70E-02	7/9/2009	7.00E-03	FM	**1.1E+01**
Landbay B	DW-35-100-125	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	9.00E-04	7/9/2009	5.00E-03	FM	1.8E-01
Landbay B	DW-35-100-125	Deep	Inside	VOC	Toluene	108-88-3	ID	1.00E-03	7/9/2009	1.00E+00	FM	1.0E-03
Landbay B	DW-35-100-125	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	7/9/2009	2.00E-01	FM	1.5E-02
Landbay B	DW-35-100-125	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	7/9/2009	5.00E-03	FM	2.0E-01
Landbay B	DW-35-100-125	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.00E-03	7/9/2009	4.70E+02	RSL-NC	4.3E-06
Landbay B	DW-35-100-125	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/9/2009	2.00E-03	FM	1.0E+00
Landbay B	DW-35-100-125	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.40E-02	7/9/2009	1.50E-02	IHA	9.3E-01
Landbay B	DW-35-139-164	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.20E-02	7/10/2009	1.20E-01	RSL-C	4.3E-01
Landbay B	DW-35-139-164	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.30E-01	7/10/2009	7.00E-03	FM	**1.9E+01**
Landbay B	DW-35-139-164	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	6.00E-03	7/10/2009	5.00E-03	FM	**1.2E+00**
Landbay B	DW-35-139-164	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	7/10/2009	2.00E-01	FM	3.5E-02
Landbay B	DW-35-139-164	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		7.00E-03	7/10/2009	4.70E+02	RSL-NC	1.5E-05
Landbay B	DW-35-139-164	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/10/2009	2.00E-03	FM	1.0E+00
Landbay B	DW-35-170-195	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.20E-02	7/10/2009	1.20E-01	RSL-C	5.2E-01
Landbay B	DW-35-170-195	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.50E-01	7/10/2009	7.00E-03	FM	**2.1E+01**
Landbay B	DW-35-170-195	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-03	7/10/2009	5.00E-03	FM	6.0E-01
Landbay B	DW-35-170-195	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	7/10/2009	2.00E-01	FM	3.5E-02
Landbay B	DW-35-170-195	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.00E-03	7/10/2009	4.70E+02	RSL-NC	8.5E-06
Landbay B	DW-35-170-195	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/10/2009	2.00E-03	FM	1.0E+00
Landbay B	DW-35-194-219	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.90E-02	7/10/2009	1.20E-01	RSL-C	4.9E-01
Landbay B	DW-35-194-219	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.50E-01	7/10/2009	7.00E-03	FM	**2.1E+01**
Landbay B	DW-35-194-219	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-03	7/10/2009	5.00E-03	FM	6.0E-01
Landbay B	DW-35-194-219	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	7/10/2009	2.00E-01	FM	2.5E-02
Landbay B	DW-35-194-219	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	7/10/2009	5.00E-03	FM	2.0E-01
Landbay B	DW-35-194-219	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		5.00E-03	7/10/2009	4.70E+02	RSL-NC	1.1E-05
Landbay B	DW-35-194-219	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/10/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-35-219	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.40E-02	7/10/2009	1.20E-01	RSL-C	4.5E-01
Landbay B	DW-35-219	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.40E-01	7/10/2009	7.00E-03	FM	**2.0E+01**
Landbay B	DW-35-219	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	5.50E-03	7/10/2009	5.00E-03	FM	**1.1E+00**
Landbay B	DW-35-219	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	7/10/2009	2.00E-01	FM	1.5E-02
Landbay B	DW-35-219	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	7/10/2009	5.00E-03	FM	4.0E-01
Landbay B	DW-35-219	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.50E-03	7/10/2009	4.70E+02	RSL-NC	5.3E-06
Landbay B	DW-35-219	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/10/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-35-40-70	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.50E-02	7/9/2009	1.20E-01	RSL-C	1.3E-01
Landbay B	DW-35-40-70	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.50E-02	7/9/2009	7.00E-03	FM	**3.6E+00**
Landbay B	DW-35-40-70	Deep	Inside	VOC	Toluene	108-88-3	ID	2.00E-03	7/9/2009	1.00E+00	FM	2.0E-03
Landbay B	DW-35-40-70	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	7/9/2009	5.00E-03	FM	1.0E+00
Landbay B	DW-35-40-70	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.80E-03	7/9/2009	1.50E-02	IHA	2.5E-01
Landbay B	DW-35-70-95	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.10E-02	7/9/2009	1.20E-01	RSL-C	2.6E-01
Landbay B	DW-35-70-95	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-02	7/9/2009	7.00E-03	FM	**7.1E+00**
Landbay B	DW-35-70-95	Deep	Inside	VOC	Toluene	108-88-3	ID	8.00E-04	7/9/2009	1.00E+00	FM	8.0E-04
Landbay B	DW-35-70-95	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	7/9/2009	2.00E-01	FM	1.0E-02
Landbay B	DW-35-70-95	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	7/9/2009	5.00E-03	FM	2.0E-01
Landbay B	DW-35-70-95	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/9/2009	2.00E-03	FM	5.0E-01
Landbay B	DW-35-70-95	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.60E-02	7/9/2009	1.50E-02	IHA	**1.1E+00**
Landbay B	DW-36D	Deep	Inside	WQ	Chloride	16887-00-6		1.91E+01	6/16/2010			
Landbay B	DW-36D	Deep	Inside	WQ	Sulfate	14808-79-8		2.04E+02	6/8/2011			
Landbay B	DW-36D	Deep	Inside	VOC	Acetic acid	64-19-7		1.10E+02	6/16/2010			
Landbay B	DW-36D	Deep	Inside	VOC	2-Butanone	78-93-3	ID	1.00E-02	6/16/2010	9.40E+00	RSL-NC	1.1E-03
Landbay B	DW-36D	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		2.00E-03	6/16/2010	3.10E+00	RSL-NC	6.5E-04
Landbay B	DW-36D	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	9.40E-02	12/13/2011	1.20E-01	RSL-C	7.8E-01
Landbay B	DW-36D	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.30E-01	4/7/2010	7.00E-03	FM	**3.3E+01**
Landbay B	DW-36D	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.00E-02	12/7/2010	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-36D	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.50E-02	4/7/2010	2.00E-01	FM	1.3E-01
Landbay B	DW-36D	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		5.20E-02	10/6/2010	4.70E+02	RSL-NC	1.1E-04
Landbay B	DW-36D	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	6.60E-02	6/16/2010	2.00E-03	FM	**3.3E+01**
Landbay B	DW-36D	Deep	Inside	SVOC	1,3-Dinitrobenzene	99-65-0	D	4.90E-03	6/16/2010	1.60E-03	RSL-NC	**3.1E+00**
Landbay B	DW-36D	Deep	Inside	SVOC	Propionic Acid	79-09-4		8.70E+00	6/16/2010			
Landbay B	DW-36D	Deep	Inside	INORG	Bromide	24959-67-9		6.77E+01	10/6/2009			
Landbay B	DW-36D	Deep	Inside	INORG	Fluoride	16984-48-8		4.80E-01	2/3/2011	4.00E+00	FM	1.2E-01
Landbay B	DW-36D	Deep	Inside	INORG	Iron	7439-89-6	D	8.35E-02	10/13/2009	1.10E+01	RSL-NC	7.6E-03
Landbay B	DW-36D	Deep	Inside	INORG	Manganese	7439-96-5	D	2.52E+00	10/6/2010	3.80E-01	RSL-NC	**6.6E+00**
Landbay B	DW-36D	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		4.70E+00	4/7/2010			
Landbay B	DW-36D	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	3.40E-04	8/10/2010	6.10E-03	RSL-C	5.6E-02
Landbay B	DW-36DD	Deep	Inside	WQ	Chloride	16887-00-6		1.90E+01	6/16/2010			
Landbay B	DW-36DD	Deep	Inside	WQ	Sulfate	14808-79-8		2.12E+02	9/14/2011			
Landbay B	DW-36DD	Deep	Inside	VOC	Acetic acid	64-19-7		1.20E+02	6/16/2010			
Landbay B	DW-36DD	Deep	Inside	VOC	2-Butanone	78-93-3	ID	5.75E-03	6/16/2010	9.40E+00	RSL-NC	6.1E-04
Landbay B	DW-36DD	Deep	Inside	VOC	Carbon Tetrachloride	56-23-5	LC	2.25E-03	6/16/2010	5.00E-03	FM	4.5E-01
Landbay B	DW-36DD	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		1.50E-03	6/16/2010	3.10E+00	RSL-NC	4.8E-04
Landbay B	DW-36DD	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.80E-02	12/13/2011	1.20E-01	RSL-C	5.7E-01
Landbay B	DW-36DD	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.30E-01	4/7/2010	7.00E-03	FM	**3.3E+01**
Landbay B	DW-36DD	Deep	Inside	VOC	Tetrahydrofuran	109-99-9	SC	1.00E-02	12/7/2010	1.40E+01	RSL-NC	7.1E-04
Landbay B	DW-36DD	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.50E-02	10/6/2010	2.00E-01	FM	3.3E-01
Landbay B	DW-36DD	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.00E-01	10/6/2010	4.70E+02	RSL-NC	2.1E-04
Landbay B	DW-36DD	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	6.20E-02	6/16/2010	2.00E-03	FM	**3.1E+01**
Landbay B	DW-36DD	Deep	Inside	SVOC	DL-Lactic Acid	598-82-3		1.35E+02	12/13/2011			
Landbay B	DW-36DD	Deep	Inside	SVOC	Propionic Acid	79-09-4		3.95E+00	6/16/2010			
Landbay B	DW-36DD	Deep	Inside	SVOC	Pyruvic Acid	127-17-3		6.38E-01	12/13/2011			
Landbay B	DW-36DD	Deep	Inside	INORG	Bromide	24959-67-9		6.86E+01	10/6/2009			
Landbay B	DW-36DD	Deep	Inside	INORG	Fluoride	16984-48-8		4.30E-01	2/3/2011	4.00E+00	FM	1.1E-01
Landbay B	DW-36DD	Deep	Inside	INORG	Iron	7439-89-6	D	1.00E+00	10/13/2009	1.10E+01	RSL-NC	9.1E-02
Landbay B	DW-36DD	Deep	Inside	INORG	Manganese	7439-96-5	D	8.53E+00	10/13/2009	3.80E-01	RSL-NC	**2.2E+01**
Landbay B	DW-36DD	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.30E-01	12/13/2011	1.50E-02	IHA	**1.5E+01**
Landbay B	DW-36DD	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		4.40E+00	4/7/2010			
Landbay B	DW-5	Deep	Inside	WQ	Sulfate	14808-79-8		2.86E+01	8/17/2004			
Landbay B	DW-6	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	9/6/2011	1.20E-01	RSL-C	1.7E-02
Landbay B	DW-6	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	7.10E-03	3/19/2010	1.50E-02	IHA	4.7E-01
Landbay B	DW-72A	Deep	Inside	WQ	Chloride	16887-00-6		8.80E+00	2/20/2007			
Landbay B	DW-72A	Deep	Inside	WQ	Sulfate	14808-79-8		4.69E+01	8/16/2006			
Landbay B	DW-72A	Deep	Inside	VOC	Acetone	67-64-1	ID	7.00E-03	10/21/2009	1.40E+01	RSL-NC	5.0E-04
Landbay B	DW-72A	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	10/21/2009	1.20E-01	RSL-C	4.2E-02
Landbay B	DW-72A	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.50E-01	10/21/2009	7.00E-03	FM	**2.1E+01**
Landbay B	DW-72A	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.40E-02	9/1/2011	5.00E-03	FM	**4.8E+00**
Landbay B	DW-72A	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	10/21/2009	2.00E-01	FM	3.5E-02
Landbay B	DW-72A	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	10/21/2009	5.00E-03	FM	2.0E-01
Landbay B	DW-72A	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.50E-01	5/19/2008	4.70E+02	RSL-NC	9.6E-04
Landbay B	DW-72A	Deep	Inside	INORG	Nitrate	14797-55-8		3.70E-01	8/16/2006	1.00E+01	FM	3.7E-02
Landbay B	DW-72A	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.90E-01	9/1/2011	1.50E-02	IHA	**1.3E+01**
Landbay B	DW-72A	Deep	Inside	GEOCHEMICAL	Methane	74-82-8		2.60E+00	5/16/2006			
Landbay B	DW-72A	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	3.70E-04	5/19/2008	6.10E-03	RSL-C	6.1E-02
Landbay B	GP 119-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	8/6/2002	7.00E-02	FM	1.4E-02
Landbay B	GP 42-04	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	7/25/2002	7.00E-03	FM	1.4E-01
Landbay B	GP 42-04	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03	7/25/2002	5.00E-03	FM	8.0E-01
Landbay B	GP 42-04	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.38E-01	7/25/2002	1.50E-02	IHA	**1.6E+01**
Landbay B	GP 70-03	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	3.90E-02	8/6/2002			
Landbay B	GP 70-03	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.30E-02	8/6/2002	1.20E-01	RSL-C	1.1E-01
Landbay B	GP 70-03	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.00E-03	8/6/2002	1.50E-02	IHA	6.0E-01
Landbay B	GP 76-02	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	4.75E-03	8/6/2002			
Landbay B	GP 76-02	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.18E-02	8/6/2002	1.20E-01	RSL-C	1.8E-01
Landbay B	GP 76-02	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.83E-02	8/6/2002	7.00E-03	FM	**5.5E+00**
Landbay B	GP 76-02	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.75E-03	8/6/2002	7.00E-02	FM	2.5E-02
Landbay B	GP 76-02	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.48E-02	8/6/2002	2.00E-01	FM	7.4E-02
Landbay B	GP 76-02	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.25E-03	8/6/2002	5.00E-03	FM	4.5E-01
Landbay B	GP 76-02	Shallow	Inside	VOC	1,2,3-Trichloropropane	96-18-4	LC	4.25E-03	8/6/2002	7.20E-06	RSL-C	**5.9E+02**
Landbay B	GP 76-02	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	1.75E-03	8/6/2002	2.00E-03	FM	8.8E-01
Landbay B	GP 78-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.65E+01	8/6/2002	1.50E-02	IHA	**1.1E+03**
Landbay B	IW-6	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	8.00E-03	9/12/2011	1.20E-01	RSL-C	6.7E-02
Landbay B	IW-6	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-02	9/12/2011	7.00E-03	FM	**2.9E+00**
Landbay B	IW-6	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	6.00E-03	9/12/2011	5.00E-03	FM	**1.2E+00**
Landbay B	IW-6	Deep	Inside	VOC	Toluene	108-88-3	ID	1.00E-02	7/16/2009	1.00E+00	FM	1.0E-02
Landbay B	IW-6	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-02	11/11/2010	2.00E-01	FM	5.0E-02

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay B	IW-6	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.90E-01	11/11/2010	4.70E+02	RSL-NC	4.0E-04
Landbay B	IW-6	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	4.00E-03	11/11/2010	2.00E-03	FM	**2.0E+00**
Landbay B	IW-6	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.30E+02	9/12/2011	1.50E-02	IHA	**1.5E+04**
Landbay B	IW-6	Deep	Inside	EXPLOSIVE	4-Amino-2,6-dinitrotoluene	19406-51-0		1.00E-03	7/16/2009	3.10E-02	RSL-NC	3.2E-02
Landbay B	IW-7	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.40E-02	10/27/2005	1.50E-02	IHA	**1.6E+00**
Landbay B	IW-8	Deep	Inside	VOC	Chloroform	67-66-3	B2	4.00E-03	10/27/2005	8.00E-02	FM	5.0E-02
Landbay B	IW-8	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	10/27/2005	7.00E-03	FM	4.3E-01
Landbay B	IW-8	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	10/27/2005	2.00E-01	FM	1.0E-02
Landbay B	IW-8	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.40E-02	10/27/2005	1.50E-02	IHA	**1.6E+00**
Landbay B	IW-8-110-150	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.60E-02	7/7/2009	1.20E-01	RSL-C	5.5E-01
Landbay B	IW-8-110-150	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-01	7/7/2009	7.00E-03	FM	**1.6E+01**
Landbay B	IW-8-110-150	Deep	Inside	VOC	Toluene	108-88-3	ID	2.00E-03	7/7/2009	1.00E+00	FM	2.0E-03
Landbay B	IW-8-110-150	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-04	7/7/2009	2.00E-01	FM	4.5E-03
Landbay B	IW-8-110-150	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	7/7/2009	5.00E-03	FM	2.0E-01
Landbay B	IW-8-110-150	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/7/2009	2.00E-03	FM	1.0E+00
Landbay B	IW-8-154-194	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.60E-02	7/7/2009	1.20E-01	RSL-C	5.5E-01
Landbay B	IW-8-154-194	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.30E-01	7/7/2009	7.00E-03	FM	**3.3E+01**
Landbay B	IW-8-154-194	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.30E-02	7/7/2009	2.00E-01	FM	1.2E-01
Landbay B	IW-8-154-194	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.00E-02	7/7/2009	4.70E+02	RSL-NC	2.1E-05
Landbay B	IW-8-154-194	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/7/2009	2.00E-03	FM	1.0E+00
Landbay B	IW-8-197-237	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.00E-02	7/7/2009	1.20E-01	RSL-C	5.8E-01
Landbay B	IW-8-197-237	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.40E-01	7/7/2009	7.00E-03	FM	**3.4E+01**
Landbay B	IW-8-197-237	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-03	7/7/2009	2.00E-01	FM	4.5E-02
Landbay B	IW-8-197-237	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	7/7/2009	5.00E-03	FM	2.0E-01
Landbay B	IW-8-197-237	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.00E-03	7/7/2009	4.70E+02	RSL-NC	8.5E-06
Landbay B	IW-8-197-237	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/7/2009	2.00E-03	FM	1.0E+00
Landbay B	IW-8-235-275	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.10E-02	7/8/2009	1.20E-01	RSL-C	5.1E-01
Landbay B	IW-8-235-275	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-01	7/8/2009	7.00E-03	FM	**2.9E+01**
Landbay B	IW-8-235-275	Deep	Inside	VOC	1,4-Dioxane	123-91-1	LC	9.60E-02	7/8/2009	6.70E-03	RSL-C	**1.4E+01**
Landbay B	IW-8-235-275	Deep	Inside	VOC	Toluene	108-88-3	ID	2.00E-03	7/8/2009	1.00E+00	FM	2.0E-03
Landbay B	IW-8-235-275	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	7/8/2009	2.00E-01	FM	2.5E-02
Landbay B	IW-8-235-275	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	7/8/2009	5.00E-03	FM	4.0E-01
Landbay B	IW-8-235-275	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.00E-03	7/8/2009	4.70E+02	RSL-NC	8.5E-06
Landbay B	IW-8-235-275	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/8/2009	2.00E-03	FM	1.0E+00
Landbay B	IW-8-65-105	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.50E-02	7/6/2009	1.20E-01	RSL-C	5.4E-01
Landbay B	IW-8-65-105	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.80E-01	7/6/2009	7.00E-03	FM	**2.6E+01**
Landbay B	IW-8-65-105	Deep	Inside	VOC	Toluene	108-88-3	ID	2.00E-03	7/6/2009	1.00E+00	FM	2.0E-03
Landbay B	IW-8-65-105	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.00E-03	7/6/2009	2.00E-01	FM	4.0E-02
Landbay B	IW-8-65-105	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.20E-02	7/6/2009	5.00E-03	FM	**2.4E+00**
Landbay B	IW-8-65-105	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		5.00E-03	7/6/2009	4.70E+02	RSL-NC	1.1E-05
Landbay B	IW-8-65-105	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	7/6/2009	2.00E-03	FM	5.0E-01
Landbay B	IW-8-65-105	Deep	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	2.10E-04	7/6/2009	1.60E-03	RSL-NC	1.3E-01
Landbay B	IW-8-65-105	Deep	Inside	EXPLOSIVE	2,4,6-Trinitrophenylmethylnitramine	479-45-8	ID	5.20E-04	7/6/2009	6.30E-02	RSL-NC	8.3E-03
Landbay B	SW 115-01D	Shallow	Inside	VOC	Acetone	67-64-1	ID	7.00E-03	10/4/2007	1.40E+01	RSL-NC	5.0E-04
Landbay B	SW 115-01D	Shallow	Inside	VOC	2-Butanone	78-93-3	ID	3.00E-03	10/4/2007	9.40E+00	RSL-NC	3.2E-04
Landbay B	SW 115-01D	Shallow	Inside	VOC	Carbon Disulfide	75-15-0		2.00E-03	10/4/2007	1.60E+00	RSL-NC	1.3E-03
Landbay B	SW 115-01D	Shallow	Inside	VOC	Chloromethane	74-87-3	D	2.00E-03	10/4/2007			
Landbay B	SW 115-01D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	10/4/2007	1.20E-01	RSL-C	1.7E-02
Landbay B	SW 115-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.90E-02	10/4/2007	1.50E-02	IHA	**2.6E+00**
Landbay B	SW 115-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.00E-01	12/12/2011	1.50E-02	IHA	**6.7E+00**
Landbay B	SW 42-02	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	9/13/2011	7.00E-03	FM	4.3E-01
Landbay B	SW 42-02	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-03	9/13/2011	5.00E-03	FM	6.0E-01
Landbay B	SW 42-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	7.10E-01	9/13/2011	1.50E-02	IHA	**4.7E+01**
Landbay B	SW 70-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	9/13/2011	1.20E-01	RSL-C	2.5E-02
Landbay B	SW 70-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	9/13/2011	2.00E-01	FM	1.5E-02
Landbay B	SW 70-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.10E-01	9/13/2011	1.50E-02	IHA	**7.3E+00**
Landbay B	SW 70-01	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	3.60E-03	5/30/2008	6.10E-03	RSL-C	5.9E-01
Landbay B	SW 70-01	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	8.10E-04	3/17/2010	7.80E-01	RSL-NC	1.0E-03
Landbay B	SW 70-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.90E-04	5/18/2006	1.50E-02	IHA	3.9E-02
Landbay B	SW 74-01	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	5/11/2006			
Landbay B	SW 74-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	7.00E-03	5/11/2006	1.20E-01	RSL-C	5.8E-02
Landbay B	SW 74-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.20E-02	5/11/2006	7.00E-02	FM	4.6E-01
Landbay B	SW 74-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-01	3/4/2005	5.00E-03	FM	**6.0E+01**
Landbay B	SW 74-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	5/11/2006	2.00E-01	FM	3.5E-02
Landbay B	SW 74-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	5.10E-02	5/11/2006	5.00E-03	FM	**1.0E+01**
Landbay B	SW 74-01	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	3.00E-03	5/11/2006	2.00E-03	FM	**1.5E+00**
Landbay B	SW 74-01	Shallow	Inside	INORG	Cadmium	7440-43-9	B1	7.10E-04	2/15/2012	5.00E-03	FM	1.4E-01
Landbay B	SW 74-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.55E-02	8/23/2004	1.50E-02	IHA	**3.0E+00**
Landbay B	SW 74-02	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	9/14/2011	1.20E-01	RSL-C	8.3E-03
Landbay B	SW 74-02	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.00E-03	3/18/2010	7.00E-02	FM	1.1E-01
Landbay B	SW 74-02	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.80E-01	3/18/2010	5.00E-03	FM	**5.6E+01**
Landbay B	SW 74-02	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	9/14/2011	2.00E-01	FM	1.0E-02
Landbay B	SW 74-02	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	3/18/2010	5.00E-03	FM	1.0E+00
Landbay B	SW 74-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.90E-01	3/18/2010	1.50E-02	IHA	**2.6E+01**
Landbay B	SW 74-02	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	8.00E-02	3/18/2010	6.10E-03	RSL-C	**1.3E+01**
Landbay B	SW 74-02	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.70E-01	8/19/2009	7.80E-01	RSL-NC	2.2E-01
Landbay B	SW 74-03	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.14E-01	2/2/2004	1.50E-02	IHA	**2.1E+01**
Landbay B	SW 74-03	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	3.20E+00	8/17/2005	6.10E-03	RSL-C	**5.2E+02**
Landbay B	SW 74-03	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.50E-02	5/11/2006	7.80E-01	RSL-NC	1.9E-02
Landbay B	SW 74-04	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	3/4/2005	1.20E-01	RSL-C	8.3E-03
Landbay B	SW 74-04	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.30E-02	11/4/2004	7.00E-02	FM	6.1E-01
Landbay B	SW 74-04	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.40E+00	11/4/2004	5.00E-03	FM	**2.8E+02**
Landbay B	SW 74-04	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.50E-03	5/17/2005	2.00E-01	FM	4.3E-02
Landbay B	SW 74-04	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.70E-02	3/4/2005	5.00E-03	FM	**5.4E+00**
Landbay B	SW 74-04	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.03E+01	3/4/2005	1.50E-02	IHA	**2.0E+03**
Landbay B	SW 74-04	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.90E-03	8/17/2005	6.10E-03	RSL-C	3.1E-01
Landbay B	SW 74-05	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	11/4/2004			
Landbay B	SW 74-05	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.90E-02	8/30/2004	1.20E-01	RSL-C	1.6E-01
Landbay B	SW 74-05	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-02	11/4/2004	7.00E-03	FM	**1.6E+00**
Landbay B	SW 74-05	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.80E-02	8/30/2004	7.00E-02	FM	**1.3E+00**
Landbay B	SW 74-05	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	6.00E-01	8/30/2004	5.00E-03	FM	**1.2E+02**
Landbay B	SW 74-05	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.50E-02	8/30/2004	2.00E-01	FM	7.5E-02
Landbay B	SW 74-05	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.70E-02	5/17/2006	5.00E-03	FM	**7.4E+00**
Landbay B	SW 74-05	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-02	11/4/2004	2.00E-03	FM	**5.0E+00**
Landbay B	SW 74-05	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.04E-01	5/12/2004	1.50E-02	IHA	**1.4E+01**
Landbay B	SW 74-06	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.10E-02	3/18/2010	1.20E-01	RSL-C	9.2E-02
Landbay B	SW 74-06	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	9/14/2011	7.00E-03	FM	2.9E-01
Landbay B	SW 74-06	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.90E-02	3/18/2010	7.00E-02	FM	5.6E-01
Landbay B	SW 74-06	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.60E-01	3/18/2010	5.00E-03	FM	**5.2E+01**
Landbay B	SW 74-06	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	3/18/2010	2.00E-01	FM	1.5E-02
Landbay B	SW 74-06	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.70E-02	3/18/2010	5.00E-03	FM	**9.4E+00**
Landbay B	SW 74-06	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.90E-01	8/18/2009	4.70E+02	RSL-NC	6.2E-04
Landbay B	SW 74-06	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	5.00E-03	3/18/2010	2.00E-03	FM	**2.5E+00**
Landbay B	SW 74-06	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.40E-01	9/14/2011	1.50E-02	IHA	**9.3E+00**
Landbay B	SW 74-06	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	7.40E-04	3/18/2010	6.10E-03	RSL-C	1.2E-01
Landbay B	SW 74-06	Shallow	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	8.80E-04	3/18/2010	7.80E-01	RSL-NC	1.1E-03
Landbay B	SW 74-07	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.90E-01	9/14/2011	7.00E-02	FM	**4.1E+00**
Landbay B	SW 74-07	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.00E-03	8/17/2009	1.00E-01	FM	1.0E-02
Landbay B	SW 74-07	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.80E-01	3/18/2010	5.00E-03	FM	**1.8E+02**
Landbay B	SW 74-07	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.80E-02	9/14/2011	5.00E-03	FM	**7.6E+00**
Landbay B	SW 74-07	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	4.00E-03	9/14/2011	2.00E-03	FM	**2.0E+00**
Landbay B	SW 74-07	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.75E-01	3/18/2010	1.50E-02	IHA	**6.5E+01**
Landbay B	SW 74-07	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	8.10E-03	3/18/2010	6.10E-03	RSL-C	**1.3E+00**
Landbay B	SW 74-09	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.50E-03	11/29/2005	1.50E-02	IHA	2.3E-01
Landbay B	SW 78-01	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	2.47E-02	5/12/2004	1.50E-02	IHA	**1.6E+00**
Landbay B	SW 78-03D	Deep	Inside	VOC	Acetone	67-64-1	ID	7.00E-03	5/5/2004	1.40E+01	RSL-NC	5.0E-04
Landbay B	SW 78-03D	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	3.98E+02	5/18/2005	1.50E-02	IHA	**2.7E+04**
Landbay B	SW 78-03S	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.27E+01	11/4/2004	1.50E-02	IHA	**8.5E+02**
Landbay B	SW 78-04	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	11/4/2004	1.20E-01	RSL-C	2.5E-02
Landbay B	SW 78-04	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-02	11/4/2004	7.00E-02	FM	4.3E-01
Landbay B	SW 78-04	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.80E-01	11/4/2004	5.00E-03	FM	**3.6E+01**
Landbay B	SW 78-04	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	11/4/2004	2.00E-01	FM	1.0E-02
Landbay B	SW 78-04	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	3.40E-02	11/4/2004	5.00E-03	FM	**6.8E+00**
Landbay B	SW 78-04	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	11/4/2004	2.00E-03	FM	1.0E+00
Landbay B	SW 78-04	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	7.76E+00	11/4/2004	1.50E-02	IHA	**5.2E+02**
Landbay C	BW 90-01	Deep	Outside	VOC	Dichlorodifluoromethane	75-71-8		8.00E-03	8/12/2008	3.10E+00	RSL-NC	2.6E-03
Landbay C	BW 90-01	Deep	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.60E-02	8/12/2008	4.70E+02	RSL-NC	3.4E-05
Landbay C	BW 90-01	Deep	Outside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	2.00E-04	3/22/2010	1.60E-03	RSL-NC	1.3E-01
Landbay C	BW 90-01	Deep	Outside	INORG	Aluminum	7429-90-5	ID	8.22E-02	10/14/2009	1.60E+01	RSL-NC	5.1E-03
Landbay C	BW 90-01	Deep	Outside	INORG	Barium	7440-39-3	NC	1.13E-02	3/22/2010	2.00E+00	FM	5.6E-03
Landbay C	BW 90-01	Deep	Outside	INORG	Boron	7440-42-8	ID	3.03E-01	10/14/2009	3.10E+00	RSL-NC	9.8E-02

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay C	BW 90-01	Deep	Outside	INORG	Copper	7440-50-8	D	3.20E-03	10/14/2009	1.30E+00	FM	2.5E-03
Landbay C	BW 90-01	Deep	Outside	INORG	Iron	7439-89-6	D	3.93E-01	3/22/2010	1.10E+01	RSL-NC	3.6E-02
Landbay C	BW 90-01	Deep	Outside	INORG	Manganese	7439-96-5	D	4.47E-01	3/22/2010	3.80E-01	RSL-NC	**1.2E+00**
Landbay C	BW 90-01	Deep	Outside	INORG	Nickel	7440-02-0	A	1.90E-03	10/14/2009	3.10E-01	RSL-NC	6.1E-03
Landbay C	BW 90-01	Deep	Outside	INORG	Perchlorate	14797-73-0	NC	6.30E-03	8/12/2008	1.50E-02	IHA	4.2E-01
Landbay C	BW 90-01	Deep	Outside	INORG	Strontium	7440-24-6		6.04E-02	3/22/2010	9.40E+00	RSL-NC	6.4E-03
Landbay C	BW 90-01	Deep	Outside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.55E-04	3/22/2010	6.10E-03	RSL-C	2.5E-02
Landbay C	BW 93-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	2.13E-02	8/5/2009	2.00E+00	FM	1.1E-02
Landbay C	BW 93-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	7.34E-02	3/22/2010	3.10E+00	RSL-NC	2.4E-02
Landbay C	BW 93-01	Shallow	Outside	INORG	Copper	7440-50-8	D	3.50E-03	3/22/2010	1.30E+00	FM	2.7E-03
Landbay C	BW 93-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	5.70E-04	8/30/2011	3.80E-01	RSL-NC	1.5E-03
Landbay C	BW 93-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.20E-02	3/22/2010	1.50E-02	IHA	8.0E-01
Landbay C	BW 93-01	Shallow	Outside	INORG	Strontium	7440-24-6		8.56E-02	3/22/2010	9.40E+00	RSL-NC	9.1E-03
Landbay C	BW 93-01	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	8.00E-03	3/22/2010	7.90E-02	RSL-NC	1.0E-01
Landbay C	BW NE-01D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	4.20E-04	9/6/2011	1.50E-02	IHA	2.8E-02
Landbay C	BW NE-01S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.00E-04	9/7/2011	1.50E-02	IHA	2.0E-02
Landbay C	DW-10	Deep	Outside	VOC	Dichlorodifluoromethane	75-71-8		4.00E-03	3/18/2010	3.10E+00	RSL-NC	1.3E-03
Landbay C	DW-10	Deep	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		6.00E-03	3/18/2010	4.70E+02	RSL-NC	1.3E-05
Landbay C	DW-10	Deep	Outside	INORG	Perchlorate	14797-73-0	NC	1.30E-02	10/21/2009	1.50E-02	IHA	8.7E-01
Landbay C	DW-31D	Deep	Inside	VOC	Dichlorodifluoromethane	75-71-8		4.40E-03	6/3/2008	3.10E+00	RSL-NC	1.4E-03
Landbay C	DW-31D	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	9/8/2011	1.20E-01	RSL-C	1.7E-02
Landbay C	DW-31D	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	9/8/2011	7.00E-03	FM	7.1E-01
Landbay C	DW-31D	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.30E-03	6/3/2008	4.70E+02	RSL-NC	7.0E-06
Landbay C	DW-31I	Shallow	Inside	VOC	Chloromethane	74-87-3	D	1.00E-03	9/28/2007			
Landbay C	DW-31I	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	9/2/2011	1.20E-01	RSL-C	8.3E-03
Landbay C	DW-31I	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	9/2/2011	7.00E-03	FM	2.9E-01
Landbay C	DW-31I	Shallow	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	5.10E-04	5/21/2008	1.60E-03	RSL-NC	3.2E-01
Landbay C	DW-31I	Shallow	Inside	EXPLOSIVE	2-Amino-4,6-dinitrotoluene	35572-78-2		2.60E-04	9/28/2007	3.10E-02	RSL-NC	8.4E-03
Landbay C	IW-5	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.61E-02	4/8/2004	1.50E-02	IHA	**1.1E+00**
Landbay D	BW 10-01D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	3/2/2005	7.00E-03	FM	2.9E-01
Landbay D	BW 10-01D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	8.00E-03	11/9/2004	5.00E-03	FM	**1.6E+00**
Landbay D	BW 10-01D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.00E-04	11/9/2004	2.00E-01	FM	4.0E-03
Landbay D	BW 10-01D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.96E-01	11/9/2004	1.50E-02	IHA	**1.3E+01**
Landbay D	BW 10-02D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	11/21/2005	1.20E-01	RSL-C	8.3E-03
Landbay D	BW 10-02D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	11/21/2005	7.00E-03	FM	7.1E-01
Landbay D	BW 10-02D	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	11/21/2005	7.00E-02	FM	7.1E-02
Landbay D	BW 10-02D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	5.50E-02	11/21/2005	5.00E-03	FM	**1.1E+01**
Landbay D	BW 10-02D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	11/21/2005	2.00E-01	FM	2.5E-02
Landbay D	BW 10-02D	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	11/21/2005	5.00E-03	FM	6.0E-01
Landbay D	BW 10-02D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.20E+00	5/9/2006	1.50E-02	IHA	**8.0E+01**
Landbay D	BW 10-02S	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	11/21/2005	1.20E-01	RSL-C	1.7E-02
Landbay D	BW 10-02S	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	11/21/2005	7.00E-03	FM	8.6E-01
Landbay D	BW 10-02S	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	11/21/2005	7.00E-02	FM	7.1E-02
Landbay D	BW 10-02S	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	6.20E-02	11/21/2005	5.00E-03	FM	**1.2E+01**
Landbay D	BW 10-02S	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.00E-03	11/21/2005	2.00E-01	FM	3.0E-02
Landbay D	BW 10-02S	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	11/21/2005	5.00E-03	FM	6.0E-01
Landbay D	BW 10-02S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.20E+00	5/9/2006	1.50E-02	IHA	**8.0E+01**
Landbay D	BW 10-03D	Shallow	Outside	VOC	Acetone	67-64-1	ID	3.00E-02	5/9/2006	1.40E+01	RSL-NC	2.1E-03
Landbay D	BW 10-03D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	9.00E-04	5/9/2006	5.00E-03	FM	1.8E-01
Landbay D	BW 10-03D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	5.00E-04	11/17/2006	1.50E-02	IHA	3.3E-02
Landbay D	BW 10-03S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.30E-03	11/17/2006	1.50E-02	IHA	8.7E-02
Landbay D	BW 14-02D	Shallow	Inside	VOC	Benzene	71-43-2	A	2.00E-03	11/17/2006	5.00E-03	FM	4.0E-01
Landbay D	BW 14-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.50E-02	11/17/2006	1.20E-01	RSL-C	2.9E-01
Landbay D	BW 14-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-02	5/9/2006	7.00E-03	FM	**5.7E+00**
Landbay D	BW 14-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.30E-02	11/17/2006	7.00E-02	FM	4.7E-01
Landbay D	BW 14-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.80E-01	5/9/2006	5.00E-03	FM	**5.6E+01**
Landbay D	BW 14-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-02	5/9/2006	2.00E-01	FM	3.5E-01
Landbay D	BW 14-02D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	6.00E-02	11/17/2006	5.00E-03	FM	**1.2E+01**
Landbay D	BW 14-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.40E+01	5/9/2006	1.50E-02	IHA	**9.3E+02**
Landbay D	BW 14-02S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	9/14/2011	1.20E-01	RSL-C	2.5E-02
Landbay D	BW 14-02S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.40E-02	3/29/2010	7.00E-03	FM	**2.0E+00**
Landbay D	BW 14-02S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-02	3/29/2010	7.00E-02	FM	4.3E-01
Landbay D	BW 14-02S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.10E-01	3/29/2010	5.00E-03	FM	**6.2E+01**
Landbay D	BW 14-02S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.40E-02	3/29/2010	2.00E-01	FM	1.7E-01
Landbay D	BW 14-02S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.50E-02	3/29/2010	5.00E-03	FM	**7.0E+00**
Landbay D	BW 14-02S	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		4.30E-02	3/29/2010	4.70E+02	RSL-NC	9.1E-05
Landbay D	BW 14-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.80E+00	9/14/2011	1.50E-02	IHA	**1.9E+02**
Landbay D	BW 16-04D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	3/19/2010	1.20E-01	RSL-C	3.3E-02
Landbay D	BW 16-04D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.80E-02	3/19/2010	7.00E-03	FM	**2.6E+00**
Landbay D	BW 16-04D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.60E-02	9/12/2011	7.00E-02	FM	2.3E-01
Landbay D	BW 16-04D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-01	9/12/2011	5.00E-03	FM	**4.0E+01**
Landbay D	BW 16-04D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.20E-02	3/19/2010	2.00E-01	FM	1.1E-01
Landbay D	BW 16-04D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.70E-02	9/12/2011	5.00E-03	FM	**3.4E+00**
Landbay D	BW 16-04D	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.70E-02	3/19/2010	4.70E+02	RSL-NC	5.7E-05
Landbay D	BW 16-04D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.40E+01	9/12/2011	1.50E-02	IHA	**9.3E+02**
Landbay D	BW 17-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	11/9/2004	1.20E-01	RSL-C	8.3E-03
Landbay D	BW 17-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	11/9/2004	7.00E-03	FM	7.1E-01
Landbay D	BW 17-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	3/2/2005	7.00E-02	FM	2.9E-02
Landbay D	BW 17-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.80E-02	3/2/2005	5.00E-03	FM	**5.6E+00**
Landbay D	BW 17-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	11/9/2004	2.00E-01	FM	3.5E-02
Landbay D	BW 17-02D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	3/2/2005	5.00E-03	FM	6.0E-01
Landbay D	BW 17-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.70E+00	3/2/2005	1.50E-02	IHA	**1.1E+02**
Landbay D	BW 17-02S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	11/9/2004	7.00E-03	FM	5.7E-01
Landbay D	BW 17-02S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	3/2/2005	7.00E-02	FM	2.9E-02
Landbay D	BW 17-02S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.70E-02	3/2/2005	5.00E-03	FM	**5.4E+00**
Landbay D	BW 17-02S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.00E-03	3/2/2005	2.00E-01	FM	3.0E-02
Landbay D	BW 17-02S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	3/2/2005	5.00E-03	FM	6.0E-01
Landbay D	BW 17-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.65E+00	3/2/2005	1.50E-02	IHA	**1.1E+02**
Landbay D	BW 17-03D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	11/21/2005	7.00E-03	FM	2.9E-01
Landbay D	BW 17-03D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	11/21/2005	7.00E-02	FM	7.1E-02
Landbay D	BW 17-03D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.30E-02	11/21/2005	5.00E-03	FM	**6.6E+00**
Landbay D	BW 17-03D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	11/21/2005	2.00E-01	FM	2.0E-02
Landbay D	BW 17-03D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	11/21/2005	5.00E-03	FM	8.0E-01
Landbay D	BW 17-03D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.50E-03	11/21/2005	1.50E-02	IHA	1.0E-01
Landbay D	BW 17-03S	Shallow	Inside	VOC	Chloromethane	74-87-3	D	2.00E-03	10/3/2007			
Landbay D	BW 17-03S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	10/3/2007	1.20E-01	RSL-C	8.3E-03
Landbay D	BW 17-03S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	10/3/2007	7.00E-03	FM	7.1E-01
Landbay D	BW 17-03S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-02	10/3/2007	7.00E-02	FM	1.4E-01
Landbay D	BW 17-03S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.70E-01	10/3/2007	5.00E-03	FM	**3.4E+01**
Landbay D	BW 17-03S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-03	10/3/2007	2.00E-01	FM	4.5E-02
Landbay D	BW 17-03S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.30E-02	10/3/2007	5.00E-03	FM	**2.6E+00**
Landbay D	BW 17-03S	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.40E-02	10/3/2007	4.70E+02	RSL-NC	3.0E-05
Landbay D	BW 17-03S	Shallow	Inside	SVOC	2,6-Dinitrotoluene	606-20-2	B2	2.50E-04	10/3/2007	1.60E-02	RSL-NC	1.6E-02
Landbay D	BW 17-03S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.10E+00	10/3/2007	1.50E-02	IHA	**1.4E+02**
Landbay D	BW 21-02D	Shallow	Outside	VOC	Acetone	67-64-1	ID	8.00E-03	11/9/2004	1.40E+01	RSL-NC	5.7E-04
Landbay D	BW 21-02D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	6.20E-02	3/2/2005	1.20E-01	RSL-C	5.2E-01
Landbay D	BW 21-02D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-02	11/9/2004	7.00E-03	FM	**1.6E+00**
Landbay D	BW 21-02D	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	11/9/2004	7.00E-02	FM	2.9E-02
Landbay D	BW 21-02D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	6.00E-03	11/9/2004	5.00E-03	FM	**1.2E+00**
Landbay D	BW 21-02D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.10E-01	11/9/2004	2.00E-01	FM	5.5E-01
Landbay D	BW 21-02D	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	11/9/2004	5.00E-03	FM	6.0E-01
Landbay D	BW 21-02D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.15E-02	11/9/2004	1.50E-02	IHA	**2.1E+00**
Landbay D	BW 21-02S	Shallow	Outside	VOC	Acetone	67-64-1	ID	2.00E-02	5/9/2006	1.40E+01	RSL-NC	1.4E-03
Landbay D	BW 21-02S	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.80E-02	5/9/2006	1.20E-01	RSL-C	1.5E-01
Landbay D	BW 21-02S	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.70E-02	3/2/2005	7.00E-03	FM	**3.9E+00**
Landbay D	BW 21-02S	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	11/9/2004	7.00E-02	FM	7.1E-02
Landbay D	BW 21-02S	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.50E-02	11/9/2004	5.00E-03	FM	**3.0E+00**
Landbay D	BW 21-02S	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.80E-01	3/2/2005	2.00E-01	FM	9.0E-01
Landbay D	BW 21-02S	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	7.00E-03	11/9/2004	5.00E-03	FM	**1.4E+00**
Landbay D	BW 21-02S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.72E-02	3/2/2005	1.50E-02	IHA	**2.5E+00**
Landbay D	BW 21-03D	Shallow	Outside	VOC	Carbon Disulfide	75-15-0		4.00E-03	2/24/2005	1.60E+00	RSL-NC	2.5E-03
Landbay D	BW 21-03S	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	11/9/2004	1.20E-01	RSL-C	4.2E-02
Landbay D	BW 21-03S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	6.10E-03	11/9/2004	1.50E-02	IHA	4.1E-01
Landbay D	BW 21-04D	Shallow	Inside	VOC	Chloromethane	74-87-3	D	2.00E-03	10/2/2007			
Landbay D	BW 21-04D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-03	9/14/2011	5.00E-03	FM	2.0E-01
Landbay D	BW 21-04D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.80E+00	9/14/2011	1.50E-02	IHA	**1.2E+02**
Landbay D	BW 21-04S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.90E-03	5/23/2008	7.00E-02	FM	7.0E-02
Landbay D	BW 21-04S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.60E-03	5/23/2008	5.00E-03	FM	**1.7E+00**
Landbay D	BW 21-04S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.50E-03	5/23/2008	5.00E-03	FM	7.0E-01
Landbay D	BW 21-04S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.00E-01	5/23/2008	1.50E-02	IHA	**6.7E+00**
Landbay D	BW 21-05D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.10E-02	2/14/2006	1.50E-02	IHA	7.3E-01

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay D	BW 21-05S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	6.50E-02	11/21/2005	1.50E-02	IHA	**4.3E+00**
Landbay D	BW 22-01D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	11/22/2005	1.20E-01	RSL-C	3.3E-02
Landbay D	BW 22-01D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	8.00E-03	11/22/2005	7.00E-03	FM	**1.1E+00**
Landbay D	BW 22-01D	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	11/22/2005	7.00E-02	FM	1.4E-02
Landbay D	BW 22-01D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	11/22/2005	5.00E-03	FM	4.0E-01
Landbay D	BW 22-01D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	11/22/2005	2.00E-01	FM	1.0E-02
Landbay D	BW 22-01D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	7.00E-01	11/22/2005	1.50E-02	IHA	**4.7E+01**
Landbay D	BW 28-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	6/29/2005	1.20E-01	RSL-C	3.3E-02
Landbay D	BW 28-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.30E-02	6/29/2005	7.00E-03	FM	**1.9E+00**
Landbay D	BW 28-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	6.00E-03	6/29/2005	7.00E-02	FM	8.6E-02
Landbay D	BW 28-01	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	5.60E-02	6/29/2005	5.00E-03	FM	**1.1E+01**
Landbay D	BW 28-01	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-03	6/29/2005	2.00E-01	FM	4.5E-02
Landbay D	BW 28-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	6/29/2005	5.00E-03	FM	6.0E-01
Landbay D	BW 28-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.92E+00	6/29/2005	1.50E-02	IHA	**1.9E+02**
Landbay D	BW 28-02D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.50E-02	5/9/2006	1.20E-01	RSL-C	1.3E-01
Landbay D	BW 28-02D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-02	5/9/2006	7.00E-03	FM	**5.7E+00**
Landbay D	BW 28-02D	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.80E-02	6/29/2005	7.00E-02	FM	2.6E-01
Landbay D	BW 28-02D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	9.30E-02	5/9/2006	5.00E-03	FM	**1.9E+01**
Landbay D	BW 28-02D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-02	6/29/2005	2.00E-01	FM	5.0E-02
Landbay D	BW 28-02D	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.80E-02	5/9/2006	5.00E-03	FM	**7.6E+00**
Landbay D	BW 28-02D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.28E+00	6/29/2005	1.50E-02	IHA	**2.2E+02**
Landbay D	BW 28-02S	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	3/16/2010	1.20E-01	RSL-C	3.3E-02
Landbay D	BW 28-02S	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.90E-02	3/16/2010	7.00E-03	FM	**2.7E+00**
Landbay D	BW 28-02S	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.10E-02	9/8/2011	7.00E-02	FM	1.6E-01
Landbay D	BW 28-02S	Shallow	Outside	VOC	1,4-Dioxane	123-91-1	LC	8.00E-02	3/16/2010	6.70E-03	RSL-C	**1.2E+01**
Landbay D	BW 28-02S	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.50E-01	9/8/2011	5.00E-03	FM	**3.0E+01**
Landbay D	BW 28-02S	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.60E-02	9/8/2011	2.00E-01	FM	8.0E-02
Landbay D	BW 28-02S	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	2.20E-02	3/16/2010	5.00E-03	FM	**4.4E+00**
Landbay D	BW 28-02S	Shallow	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.00E-02	3/16/2010	4.70E+02	RSL-NC	6.4E-05
Landbay D	BW 28-02S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	6.00E+00	3/16/2010	1.50E-02	IHA	**4.0E+02**
Landbay D	BW 28-03D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	11/29/2005	1.20E-01	RSL-C	3.3E-02
Landbay D	BW 28-03D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	11/29/2005	7.00E-03	FM	4.3E-01
Landbay D	BW 28-03D	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	11/29/2005	7.00E-02	FM	2.9E-02
Landbay D	BW 28-03D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-02	11/29/2005	5.00E-03	FM	**2.0E+00**
Landbay D	BW 28-03D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	11/29/2005	2.00E-01	FM	1.0E-02
Landbay D	BW 28-03D	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	11/29/2005	5.00E-03	FM	2.0E-01
Landbay D	BW 28-03D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.30E-03	11/29/2005	1.50E-02	IHA	8.7E-02
Landbay D	BW 31-01D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	11/21/2005	1.20E-01	RSL-C	8.3E-03
Landbay D	BW 31-01D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	8.00E-04	11/21/2005	7.00E-03	FM	1.1E-01
Landbay D	BW 31-01D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.30E-02	11/21/2005	7.00E-02	FM	3.3E-01
Landbay D	BW 31-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-01	11/21/2005	5.00E-03	FM	**2.2E+01**
Landbay D	BW 31-01D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-04	11/21/2005	2.00E-01	FM	4.5E-03
Landbay D	BW 31-01D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.70E-02	11/21/2005	5.00E-03	FM	**3.4E+00**
Landbay D	BW 31-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.90E-01	11/21/2005	1.50E-02	IHA	**1.9E+01**
Landbay D	BW 31-01S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	9/6/2011	1.20E-01	RSL-C	8.3E-03
Landbay D	BW 31-01S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.30E-02	9/6/2011	7.00E-02	FM	4.7E-01
Landbay D	BW 31-01S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-01	9/6/2011	5.00E-03	FM	**2.2E+01**
Landbay D	BW 31-01S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.70E-02	9/6/2011	5.00E-03	FM	**9.4E+00**
Landbay D	BW 31-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.50E-02	9/6/2011	1.50E-02	IHA	1.0E+00
Landbay D	BW 31-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.10E-02	5/10/2006	7.00E-02	FM	1.6E-01
Landbay D	BW 31-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.30E-02	5/10/2006	5.00E-03	FM	**4.6E+00**
Landbay D	BW 31-02D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-02	11/15/2006	5.00E-03	FM	**2.0E+00**
Landbay D	BW 31-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.30E-02	5/10/2006	1.50E-02	IHA	**2.9E+00**
Landbay D	BW 31-02S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.60E-02	8/14/2006	7.00E-02	FM	2.3E-01
Landbay D	BW 31-02S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.70E-02	5/10/2006	5.00E-03	FM	**3.4E+00**
Landbay D	BW 31-02S	Shallow	Inside	VOC	Toluene	108-88-3	ID	2.00E-03	8/14/2006	1.00E+00	FM	2.0E-03
Landbay D	BW 31-02S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.50E-02	8/14/2006	5.00E-03	FM	**3.0E+00**
Landbay D	BW 31-02S	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	3.00E-03	8/14/2006	2.00E-03	FM	**1.5E+00**
Landbay D	BW 31-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.60E-03	5/10/2006	1.50E-02	IHA	2.4E-01
Landbay D	BW 32-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	11/9/2004	1.20E-01	RSL-C	8.3E-03
Landbay D	BW 32-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	3/3/2005	7.00E-03	FM	1.4E-01
Landbay D	BW 32-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.40E-02	3/3/2005	7.00E-02	FM	2.0E-01
Landbay D	BW 32-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.30E-01	3/3/2005	5.00E-03	FM	**2.6E+01**
Landbay D	BW 32-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	3/3/2005	2.00E-01	FM	5.0E-03
Landbay D	BW 32-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.40E-02	3/3/2005	5.00E-03	FM	**2.8E+00**
Landbay D	BW 32-01	Shallow	Inside	SVOC	Nitrobenzene	98-95-3	LC	5.70E-04	5/23/2008	3.10E-02	RSL-NC	1.8E-02
Landbay D	BW 32-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	8.07E-01	11/9/2004	1.50E-02	IHA	**5.4E+01**
Landbay D	BW 32-02D	Shallow	Inside	VOC	Benzene	71-43-2	A	2.00E-03	5/10/2006	5.00E-03	FM	4.0E-01
Landbay D	BW 32-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-02	3/2/2005	1.20E-01	RSL-C	4.2E-01
Landbay D	BW 32-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.30E-02	3/2/2005	7.00E-03	FM	**3.3E+00**
Landbay D	BW 32-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.60E-02	5/17/2005	7.00E-02	FM	3.7E-01
Landbay D	BW 32-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.50E-01	11/10/2004	5.00E-03	FM	**3.0E+01**
Landbay D	BW 32-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.30E-02	11/10/2004	2.00E-01	FM	6.5E-02
Landbay D	BW 32-02D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.90E-02	5/10/2006	5.00E-03	FM	**3.8E+00**
Landbay D	BW 32-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.24E+00	11/10/2004	1.50E-02	IHA	**3.5E+02**
Landbay D	BW 32-02S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	5/10/2006	1.20E-01	RSL-C	1.7E-02
Landbay D	BW 32-02S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	5/10/2006	7.00E-03	FM	5.7E-01
Landbay D	BW 32-02S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.20E-02	5/10/2006	7.00E-02	FM	3.1E-01
Landbay D	BW 32-02S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.20E-01	5/10/2006	5.00E-03	FM	**4.4E+01**
Landbay D	BW 32-02S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.00E-03	11/10/2004	2.00E-01	FM	4.0E-02
Landbay D	BW 32-02S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.30E-02	5/10/2006	5.00E-03	FM	**4.6E+00**
Landbay D	BW 32-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.34E+00	3/2/2005	1.50E-02	IHA	**1.6E+02**
Landbay D	BW 5-05D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	8.40E-02	2/24/2005	1.20E-01	RSL-C	7.0E-01
Landbay D	BW 5-05D	Shallow	Inside	VOC	1,2-Dichloroethane	107-06-2	B2	1.00E-03	2/24/2005	5.00E-03	FM	2.0E-01
Landbay D	BW 5-05D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.30E-01	11/8/2004	7.00E-03	FM	**1.9E+01**
Landbay D	BW 5-05D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	9.00E-03	11/8/2004	5.00E-03	FM	**1.8E+00**
Landbay D	BW 5-05D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.00E+00	11/8/2004	2.00E-01	FM	**3.0E+01**
Landbay D	BW 5-05D	Shallow	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	2.00E-03	2/24/2005	5.00E-03	FM	4.0E-01
Landbay D	BW 5-05D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	2/24/2005	5.00E-03	FM	4.0E-01
Landbay D	BW 5-05D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.11E-01	11/8/2004	1.50E-02	IHA	**2.1E+01**
Landbay D	BW 5-05S	Shallow	Inside	VOC	Chloroform	67-66-3	B2	1.00E-03	11/11/2010	8.00E-02	FM	1.3E-02
Landbay D	BW 5-05S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.60E-02	4/2/2012	1.20E-01	RSL-C	3.0E-01
Landbay D	BW 5-05S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-01	11/11/2010	7.00E-03	FM	**1.4E+01**
Landbay D	BW 5-05S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.50E-02	9/7/2011	7.00E-02	FM	2.1E-01
Landbay D	BW 5-05S	Shallow	Inside	VOC	1,4-Dioxane	123-91-1	LC	2.00E-03	9/7/2011	6.70E-03	RSL-C	3.0E-01
Landbay D	BW 5-05S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.70E-01	9/7/2011	5.00E-03	FM	**3.4E+01**
Landbay D	BW 5-05S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.80E+00	11/11/2010	2.00E-01	FM	**1.4E+01**
Landbay D	BW 5-05S	Shallow	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	1.00E-03	11/11/2010	5.00E-03	FM	2.0E-01
Landbay D	BW 5-05S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.10E-02	9/7/2011	5.00E-03	FM	**4.2E+00**
Landbay D	BW 5-05S	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.00E-02	3/29/2010	4.70E+02	RSL-NC	2.1E-05
Landbay D	BW 5-05S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.50E-01	9/7/2011	1.50E-02	IHA	**1.7E+01**
Landbay D	BW 5-06D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	4/2/2012	7.00E-03	FM	2.9E-01
Landbay D	BW 5-06D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.10E-02	11/11/2010	7.00E-02	FM	1.6E-01
Landbay D	BW 5-06D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.30E-01	12/12/2011	5.00E-03	FM	**2.6E+01**
Landbay D	BW 5-06D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	12/12/2011	2.00E-01	FM	1.5E-02
Landbay D	BW 5-06D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.40E-02	12/12/2011	5.00E-03	FM	**2.8E+00**
Landbay D	BW 5-06D	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		6.00E-03	11/11/2010	4.70E+02	RSL-NC	1.3E-05
Landbay D	BW 5-06D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.20E-01	12/12/2011	1.50E-02	IHA	**3.5E+01**
Landbay D	BW 5-06S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	11/8/2004	1.20E-01	RSL-C	2.5E-02
Landbay D	BW 5-06S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	11/8/2004	7.00E-03	FM	4.3E-01
Landbay D	BW 5-06S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	2/25/2005	7.00E-02	FM	5.7E-02
Landbay D	BW 5-06S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.40E-02	2/25/2005	5.00E-03	FM	**6.8E+00**
Landbay D	BW 5-06S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	2/25/2005	2.00E-01	FM	1.5E-02
Landbay D	BW 5-06S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	2/25/2005	5.00E-03	FM	8.0E-01
Landbay D	BW 5-06S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.31E+00	2/25/2005	1.50E-02	IHA	**8.7E+01**
Landbay D	BW 5-07D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	11/8/2004	7.00E-03	FM	2.9E-01
Landbay D	BW 5-07D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	2/25/2005	7.00E-02	FM	2.9E-02
Landbay D	BW 5-07D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.60E-02	2/25/2005	5.00E-03	FM	**3.2E+00**
Landbay D	BW 5-07D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	2/25/2005	2.00E-01	FM	1.0E-02
Landbay D	BW 5-07D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	2/25/2005	5.00E-03	FM	4.0E-01
Landbay D	BW 5-07D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.20E-01	2/25/2005	1.50E-02	IHA	**6.1E+01**
Landbay D	BW 5-07S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	2/25/2005	1.20E-01	RSL-C	2.5E-02
Landbay D	BW 5-07S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	2/25/2005	7.00E-03	FM	4.3E-01
Landbay D	BW 5-07S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	9.00E-04	2/25/2005	7.00E-02	FM	1.3E-02
Landbay D	BW 5-07S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.70E-02	11/8/2004	5.00E-03	FM	**3.4E+00**
Landbay D	BW 5-07S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	2/25/2005	2.00E-01	FM	1.0E-02
Landbay D	BW 5-07S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	2/25/2005	5.00E-03	FM	2.0E-01
Landbay D	BW 5-07S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.77E-01	2/25/2005	1.50E-02	IHA	**3.8E+01**
Landbay D	BW 6-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	3/3/2005	7.00E-03	FM	1.4E-01
Landbay D	BW 6-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	3/3/2005	7.00E-02	FM	4.3E-02
Landbay D	BW 6-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.70E-02	3/3/2005	5.00E-03	FM	**7.4E+00**

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay D	BW 6-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	3/3/2005	2.00E-01	FM	1.5E-02
Landbay D	BW 6-02D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	3/3/2005	5.00E-03	FM	1.0E+00
Landbay D	BW 6-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.40E+00	5/8/2006	1.50E-02	IHA	**1.6E+02**
Landbay D	BW 6-02S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	3/3/2005	7.00E-03	FM	1.4E-01
Landbay D	BW 6-02S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	3/3/2005	7.00E-02	FM	4.3E-02
Landbay D	BW 6-02S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.40E-02	3/3/2005	5.00E-03	FM	**6.8E+00**
Landbay D	BW 6-02S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	3/3/2005	2.00E-01	FM	1.0E-02
Landbay D	BW 6-02S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	3/3/2005	5.00E-03	FM	8.0E-01
Landbay D	BW 6-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.10E+00	5/8/2006	1.50E-02	IHA	**1.4E+02**
Landbay D	BW 6-03D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	11/21/2005	1.20E-01	RSL-C	1.7E-02
Landbay D	BW 6-03D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	11/21/2005	7.00E-03	FM	2.9E-01
Landbay D	BW 6-03D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	11/21/2005	7.00E-02	FM	2.9E-02
Landbay D	BW 6-03D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-02	11/21/2005	5.00E-03	FM	**2.0E+00**
Landbay D	BW 6-03D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	11/21/2005	5.00E-03	FM	6.0E-01
Landbay D	BW 6-03D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.80E-04	11/21/2005	1.50E-02	IHA	1.9E-02
Landbay D	BW 6-03S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	11/21/2005	7.00E-02	FM	5.7E-02
Landbay D	BW 6-03S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.70E-02	11/21/2005	5.00E-03	FM	**5.4E+00**
Landbay D	BW 6-03S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-04	11/21/2005	2.00E-01	FM	4.5E-03
Landbay D	BW 6-03S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	9.00E-03	11/21/2005	5.00E-03	FM	**1.8E+00**
Landbay D	BW 6-03S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.00E-01	5/8/2006	1.50E-02	IHA	**2.7E+01**
Landbay D	BW 68-01	Shallow	Inside	INORG	Aluminum	7429-90-5	ID	8.28E-02	8/6/2009	1.60E+01	RSL-NC	5.2E-03
Landbay D	BW 68-01	Shallow	Inside	INORG	Barium	7440-39-3	NC	7.10E-04	8/6/2009	2.00E+00	FM	3.6E-04
Landbay D	BW 68-01	Shallow	Inside	INORG	Boron	7440-42-8	ID	2.12E+00	8/6/2009	3.10E+00	RSL-NC	6.8E-01
Landbay D	BW 68-01	Shallow	Inside	INORG	Iron	7439-89-6	D	5.58E-02	3/26/2010	1.10E+01	RSL-NC	5.1E-03
Landbay D	BW 68-01	Shallow	Inside	INORG	Manganese	7439-96-5	D	2.40E-03	3/26/2010	3.80E-01	RSL-NC	6.3E-03
Landbay D	BW 68-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.90E-04	3/26/2010	1.50E-02	IHA	2.6E-02
Landbay D	BW 68-01	Shallow	Inside	INORG	Strontium	7440-24-6		2.25E-02	8/6/2009	9.40E+00	RSL-NC	2.4E-03
Landbay D	BW 9-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	11/9/2004	1.20E-01	RSL-C	3.3E-02
Landbay D	BW 9-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.90E-02	11/9/2004	7.00E-03	FM	**2.7E+00**
Landbay D	BW 9-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.20E-02	11/9/2004	7.00E-02	FM	1.7E-01
Landbay D	BW 9-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-01	3/2/2005	5.00E-03	FM	**2.2E+01**
Landbay D	BW 9-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.10E-02	11/9/2004	2.00E-01	FM	1.1E-01
Landbay D	BW 9-02D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	8.00E-03	11/9/2004	5.00E-03	FM	**1.6E+00**
Landbay D	BW 9-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	6.10E+00	5/8/2006	1.50E-02	IHA	**4.1E+02**
Landbay D	DW 68-01	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	10/5/2009	7.00E-03	FM	1.4E-01
Landbay D	DW 68-01	Deep	Inside	VOC	Toluene	108-88-3	ID	1.80E-02	11/4/2008	1.00E+00	FM	1.8E-02
Landbay D	DW 68-01	Deep	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-04	10/5/2009	2.00E-01	FM	4.5E-03
Landbay D	DW 68-01	Deep	Inside	SVOC	N-Nitrosodiphenylamine	86-30-6	B2	6.00E-03	11/4/2008	1.40E-01	RSL-C	4.3E-02
Landbay D	DW 68-01	Deep	Inside	INORG	Barium	7440-39-3	NC	9.00E-03	3/26/2010	2.00E+00	FM	4.5E-03
Landbay D	DW 68-01	Deep	Inside	INORG	Boron	7440-42-8	ID	1.59E+00	3/26/2010	3.10E+00	RSL-NC	5.1E-01
Landbay D	DW 68-01	Deep	Inside	INORG	Copper	7440-50-8	D	1.21E-02	10/5/2009	1.30E+00	FM	9.3E-03
Landbay D	DW 68-01	Deep	Inside	INORG	Iron	7439-89-6	D	4.09E+00	10/5/2009	1.10E+01	RSL-NC	3.7E-01
Landbay D	DW 68-01	Deep	Inside	INORG	Manganese	7439-96-5	D	2.03E-01	9/7/2011	3.80E-01	RSL-NC	5.3E-01
Landbay D	DW 68-01	Deep	Inside	INORG	Strontium	7440-24-6		2.19E+00	3/26/2010	9.40E+00	RSL-NC	2.3E-01
Landbay D	DW-17	Deep	Outside	VOC	Tetrahydrofuran	109-99-9	SC	6.00E-03	10/22/2009	1.40E+01	RSL-NC	4.3E-04
Landbay D	DW-18	Deep	Inside	WQ	Chloride	16887-00-6		9.20E+00	2/19/2007			
Landbay D	DW-18	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	6.00E-03	8/31/2011	1.20E-01	RSL-C	5.0E-02
Landbay D	DW-18	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-02	8/31/2011	7.00E-03	FM	**1.6E+00**
Landbay D	DW-18	Deep	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	6.00E-03	8/31/2011	7.00E-02	FM	8.6E-02
Landbay D	DW-18	Deep	Inside	VOC	Trichloroethene	79-01-6	HC	1.80E-02	8/31/2011	5.00E-03	FM	**3.6E+00**
Landbay D	DW-18I	Shallow	Inside	WQ	Chloride	16887-00-6		4.60E+00	2/19/2007			
Landbay D	DW-18I	Shallow	Inside	VOC	Acetone	67-64-1	ID	3.30E-02	2/19/2007	1.40E+01	RSL-NC	2.4E-03
Landbay D	DW-18I	Shallow	Inside	VOC	Chloromethane	74-87-3	D	1.00E-03	10/1/2007			
Landbay D	DW-18I	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	10/1/2007	1.20E-01	RSL-C	8.3E-03
Landbay D	DW-18I	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	10/1/2007	7.00E-03	FM	4.3E-01
Landbay D	DW-18I	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-02	10/1/2007	7.00E-02	FM	1.4E-01
Landbay D	DW-18I	Shallow	Inside	VOC	4-Methyl-2-pentanone	108-10-1	ID	4.00E-03	10/1/2007	1.30E+00	RSL-NC	3.1E-03
Landbay D	DW-18I	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.30E-01	10/1/2007	5.00E-03	FM	**2.6E+01**
Landbay D	DW-18I	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	10/1/2007	2.00E-01	FM	1.5E-02
Landbay D	DW-18I	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.30E-02	10/1/2007	5.00E-03	FM	**2.6E+00**
Landbay D	DW-18I	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.10E-02	10/1/2007	4.70E+02	RSL-NC	2.3E-05
Landbay D	DW-18I	Shallow	Inside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	2.60E-03	5/21/2008	1.60E-03	RSL-NC	**1.6E+00**
Landbay D	DW-18I	Shallow	Inside	SVOC	2,4-Dinitrotoluene	121-14-2	B2	4.40E-04	10/1/2007	2.20E-03	RSL-C	2.0E-01
Landbay D	DW-18I	Shallow	Inside	SVOC	Phenol	108-95-2	ID	2.00E-03	5/21/2008	4.70E+00	RSL-NC	4.3E-04
Landbay D	DW-18I	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.30E+00	10/1/2007	1.50E-02	IHA	**8.7E+01**
Landbay D	GP 15-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.84E-01	7/30/2002	1.50E-02	IHA	**2.6E+01**
Landbay D	GP 28-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.20E-02	8/23/2002	1.50E-02	IHA	**2.1E+00**
Landbay D	GP 4-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.37E-01	7/30/2002	1.50E-02	IHA	**3.6E+01**
Landbay D	GP 50-01A	Shallow	Inside	INORG	Chromium (total)	7440-47-3		5.00E-03	4/7/2005	1.00E-01	FM	5.0E-02
Landbay D	GP 50-01A	Shallow	Inside	INORG	Copper	7440-50-8	D	1.83E-02	4/7/2005	1.30E+00	FM	1.4E-02
Landbay D	GP 50-01A	Shallow	Inside	INORG	Nickel	7440-02-0	A	6.80E-03	4/7/2005	3.10E-01	RSL-NC	2.2E-02
Landbay D	GP 50-01A	Shallow	Inside	INORG	Zinc	7440-66-6	ID	8.10E-03	4/7/2005	4.70E+00	RSL-NC	1.7E-03
Landbay D	GP 52-02	Shallow	Inside	INORG	Aluminum	7429-90-5	ID	7.10E-02	4/6/2005	1.60E+01	RSL-NC	4.4E-03
Landbay D	GP 52-02	Shallow	Inside	INORG	Barium	7440-39-3	NC	1.20E-02	4/6/2005	2.00E+00	FM	6.0E-03
Landbay D	GP 52-02	Shallow	Inside	INORG	Boron	7440-42-8	ID	1.61E-01	4/6/2005	3.10E+00	RSL-NC	5.2E-02
Landbay D	GP 52-02	Shallow	Inside	INORG	Cadmium	7440-43-9	B1	8.50E-04	4/6/2005	5.00E-03	FM	1.7E-01
Landbay D	GP 52-02	Shallow	Inside	INORG	Strontium	7440-24-6		1.06E-01	4/6/2005	9.40E+00	RSL-NC	1.1E-02
Landbay D	GP 62-03	Shallow	Inside	INORG	Aluminum	7429-90-5	ID	4.77E-01	4/7/2005	1.60E+01	RSL-NC	3.0E-02
Landbay D	GP 62-03	Shallow	Inside	INORG	Barium	7440-39-3	NC	7.20E-03	4/7/2005	2.00E+00	FM	3.6E-03
Landbay D	GP 62-03	Shallow	Inside	INORG	Boron	7440-42-8	ID	6.36E-02	4/7/2005	3.10E+00	RSL-NC	2.1E-02
Landbay D	GP 62-03	Shallow	Inside	INORG	Strontium	7440-24-6		5.22E-02	4/7/2005	9.40E+00	RSL-NC	5.6E-03
Landbay D	GP GS-04	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.32E-02	4/7/2005	1.50E-02	IHA	**2.2E+00**
Landbay D	GP GS-04	Shallow	Inside	INORG	Zinc	7440-66-6	ID	5.60E-03	4/7/2005	4.70E+00	RSL-NC	1.2E-03
Landbay D	IW-2	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	4/22/2004	7.00E-03	FM	1.4E-01
Landbay D	IW-2	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	4.64E-02	4/22/2004	1.50E-02	IHA	**3.1E+00**
Landbay D	IW-4	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	4/22/2004	1.20E-01	RSL-C	3.3E-02
Landbay D	IW-4	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.50E-02	4/22/2004	7.00E-03	FM	**2.1E+00**
Landbay D	IW-4	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	4/22/2004	5.00E-03	FM	4.0E-01
Landbay D	IW-4	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.95E-01	4/22/2004	1.50E-02	IHA	**1.3E+01**
Landbay D	SW 14-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	5/15/2006	1.20E-01	RSL-C	3.3E-02
Landbay D	SW 14-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.50E-02	5/15/2006	7.00E-03	FM	**2.1E+00**
Landbay D	SW 14-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	9.00E-03	5/15/2006	7.00E-02	FM	1.3E-01
Landbay D	SW 14-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-01	5/15/2006	5.00E-03	FM	**2.2E+01**
Landbay D	SW 14-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.50E-02	5/15/2006	2.00E-01	FM	4.8E-01
Landbay D	SW 14-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	5/15/2006	5.00E-03	FM	1.0E+00
Landbay D	SW 14-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	6.20E+00	5/15/2006	1.50E-02	IHA	**4.1E+02**
Landbay D	SW 15-01	Shallow	Inside	VOC	Chloroform	67-66-3	B2	8.00E-04	5/16/2006	8.00E-02	FM	1.0E-02
Landbay D	SW 15-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	5/16/2006	1.20E-01	RSL-C	2.5E-02
Landbay D	SW 15-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	5/16/2006	7.00E-03	FM	1.0E+00
Landbay D	SW 15-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	5/16/2006	7.00E-02	FM	2.9E-02
Landbay D	SW 15-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.90E-02	5/16/2006	5.00E-03	FM	**5.8E+00**
Landbay D	SW 15-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.90E-01	5/16/2006	2.00E-01	FM	9.5E-01
Landbay D	SW 15-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	5/16/2006	5.00E-03	FM	8.0E-01
Landbay D	SW 15-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.57E-01	5/6/2004	1.50E-02	IHA	**1.7E+01**
Landbay D	SW 15-02	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.80E-02	12/13/2011	1.20E-01	RSL-C	2.3E-01
Landbay D	SW 15-02	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-01	12/13/2011	7.00E-03	FM	**1.6E+01**
Landbay D	SW 15-02	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	9/8/2011	7.00E-02	FM	5.7E-02
Landbay D	SW 15-02	Shallow	Inside	VOC	1,4-Dioxane	123-91-1	LC	2.00E-02	9/8/2011	6.70E-03	RSL-C	**3.0E+00**
Landbay D	SW 15-02	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	6.00E-02	9/8/2011	5.00E-03	FM	**1.2E+01**
Landbay D	SW 15-02	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.10E+00	3/29/2010	2.00E-01	FM	**1.1E+01**
Landbay D	SW 15-02	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	9.00E-03	9/8/2011	5.00E-03	FM	**1.8E+00**
Landbay D	SW 15-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.90E-01	3/29/2010	1.50E-02	IHA	**1.9E+01**
Landbay D	SW 16-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	5/4/2004	1.20E-01	RSL-C	4.2E-02
Landbay D	SW 16-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-02	5/4/2004	7.00E-03	FM	**2.9E+00**
Landbay D	SW 16-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	7.00E-03	11/1/2004	7.00E-02	FM	1.0E-01
Landbay D	SW 16-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.60E-02	5/4/2004	5.00E-03	FM	**1.7E+01**
Landbay D	SW 16-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.80E-02	5/4/2004	2.00E-01	FM	1.4E-01
Landbay D	SW 16-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	11/1/2004	5.00E-03	FM	1.0E+00
Landbay D	SW 16-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	6.52E+00	11/1/2004	1.50E-02	IHA	**4.3E+02**
Landbay D	SW 16-02	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	5/17/2006	1.20E-01	RSL-C	2.5E-02
Landbay D	SW 16-02	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.00E-03	5/17/2006	7.00E-03	FM	**1.3E+00**
Landbay D	SW 16-02	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	6.00E-03	5/17/2006	7.00E-02	FM	8.6E-02
Landbay D	SW 16-02	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	6.60E-02	5/17/2006	5.00E-03	FM	**1.3E+01**
Landbay D	SW 16-02	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-02	5/17/2005	2.00E-01	FM	1.5E-01
Landbay D	SW 16-02	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	5/17/2006	5.00E-03	FM	6.0E-01
Landbay D	SW 16-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.00E+00	5/17/2006	1.50E-02	IHA	**3.3E+02**
Landbay D	SW 16-03	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.60E-03	5/4/2004	1.50E-02	IHA	1.7E-01
Landbay D	SW 17-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	5/6/2004	7.00E-03	FM	5.7E-01
Landbay D	SW 17-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	5/17/2005	5.00E-03	FM	4.0E-01
Landbay D	SW 17-01	Shallow	Inside	VOC	Toluene	108-88-3	ID	3.00E-03	5/6/2004	1.00E+00	FM	3.0E-03
Landbay D	SW 17-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.50E+00	5/6/2004	2.00E-01	FM	**7.5E+00**

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay D	SW 17-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.80E-02	2/5/2004	1.50E-02	IHA	**1.2E+00**
Landbay D	SW 21-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	2/24/2005	1.20E-01	RSL-C	8.3E-03
Landbay D	SW 21-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	7.00E-03	2/24/2005	7.00E-02	FM	1.0E-01
Landbay D	SW 21-01	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.30E-02	5/6/2004	5.00E-03	FM	**4.6E+00**
Landbay D	SW 21-01	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.20E-02	8/19/2004	2.00E-01	FM	6.0E-02
Landbay D	SW 21-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	6.00E-03	2/24/2005	5.00E-03	FM	**1.2E+00**
Landbay D	SW 21-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.09E-01	2/24/2005	1.50E-02	IHA	**7.3E+00**
Landbay D	SW 27-02D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	7.00E-03	11/1/2004	1.20E-01	RSL-C	5.8E-02
Landbay D	SW 27-02D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.90E-02	11/1/2004	7.00E-03	FM	**4.1E+00**
Landbay D	SW 27-02D	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.40E-02	8/17/2004	7.00E-02	FM	3.4E-01
Landbay D	SW 27-02D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.80E-01	11/1/2004	5.00E-03	FM	**3.6E+01**
Landbay D	SW 27-02D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.70E-02	11/1/2004	2.00E-01	FM	1.4E-01
Landbay D	SW 27-02D	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	5.80E-02	11/1/2004	5.00E-03	FM	**1.2E+01**
Landbay D	SW 27-02D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	5.30E+00	8/17/2004	1.50E-02	IHA	**3.5E+02**
Landbay D	SW 27-02S	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	8.00E-03	11/1/2004	1.20E-01	RSL-C	6.7E-02
Landbay D	SW 27-02S	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.50E-02	5/4/2004	7.00E-03	FM	**5.0E+00**
Landbay D	SW 27-02S	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.90E-02	8/17/2004	7.00E-02	FM	4.1E-01
Landbay D	SW 27-02S	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.10E-01	11/1/2004	5.00E-03	FM	**4.2E+01**
Landbay D	SW 27-02S	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.90E-02	5/4/2004	2.00E-01	FM	1.5E-01
Landbay D	SW 27-02S	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	6.50E-02	11/1/2004	5.00E-03	FM	**1.3E+01**
Landbay D	SW 27-02S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	5.45E+00	8/17/2004	1.50E-02	IHA	**3.6E+02**
Landbay D	SW 35-01D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	3/1/2005	7.00E-03	FM	1.4E-01
Landbay D	SW 35-01D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	3/1/2005	7.00E-02	FM	4.3E-02
Landbay D	SW 35-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.60E-02	3/1/2005	5.00E-03	FM	**7.2E+00**
Landbay D	SW 35-01D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	3/1/2005	2.00E-01	FM	1.0E-02
Landbay D	SW 35-01D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	3/1/2005	5.00E-03	FM	8.0E-01
Landbay D	SW 35-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.75E-01	3/1/2005	1.50E-02	IHA	**6.5E+01**
Landbay D	SW 35-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.80E-04	9/15/2011	1.50E-02	IHA	1.9E-02
Landbay D	SW 40-51	Shallow	Inside	WQ	Chloride	16887-00-6		1.42E+01	2/14/2007			
Landbay D	SW 40-51	Shallow	Inside	WQ	Sulfate	14808-79-8		8.02E+01	8/24/2004			
Landbay D	SW 40-51	Shallow	Inside	PHYS	Organic Carbon (total)	C-012		6.40E+00	8/24/2004			
Landbay D	SW 40-51	Shallow	Inside	PCB	PCBs (total)	1336-36-3	B2	8.15E-04	5/29/2008	5.00E-04	FM	**1.6E+00**
Landbay D	SW 40-51	Shallow	Inside	INORG	Iron	7439-89-6	D	1.91E-01	1/22/2004	1.10E+01	RSL-NC	1.7E-02
Landbay D	SW 40-51	Shallow	Inside	INORG	Manganese	7439-96-5	D	2.80E-03	1/22/2004	3.80E-01	RSL-NC	7.4E-03
Landbay D	SW 40-51	Shallow	Inside	INORG	Nitrate	14797-55-8		1.30E+00	1/22/2004	1.00E+01	FM	1.3E-01
Landbay D	SW 40-51	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.80E-03	3/17/2010	1.50E-02	IHA	2.5E-01
Landbay D	SW 40-51	Shallow	Inside	EXPLOSIVE	2-Amino-4,6-dinitrotoluene	35572-78-2		5.70E-04	10/2/2007	3.10E-02	RSL-NC	1.8E-02
Landbay D	SW 41-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	5/17/2006	1.20E-01	RSL-C	8.3E-03
Landbay D	SW 41-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	5/17/2006	7.00E-03	FM	4.3E-01
Landbay D	SW 41-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	5/17/2006	7.00E-02	FM	1.4E-02
Landbay D	SW 41-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-02	5/17/2006	5.00E-03	FM	**2.2E+00**
Landbay D	SW 41-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	5/17/2006	2.00E-01	FM	1.5E-02
Landbay D	SW 41-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.60E-01	5/17/2006	1.50E-02	IHA	**6.4E+01**
Landbay D	SW 41-02	Shallow	Inside	VOC	Chloromethane	74-87-3	D	1.00E-03	10/2/2007			
Landbay D	SW 41-02	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	10/2/2007	1.20E-01	RSL-C	1.7E-02
Landbay D	SW 41-02	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	10/2/2007	7.00E-03	FM	8.6E-01
Landbay D	SW 41-02	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	10/2/2007	7.00E-02	FM	4.3E-02
Landbay D	SW 41-02	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	5.50E-02	10/2/2007	5.00E-03	FM	**1.1E+01**
Landbay D	SW 41-02	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.00E-03	10/2/2007	2.00E-01	FM	4.0E-02
Landbay D	SW 41-02	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	10/2/2007	5.00E-03	FM	4.0E-01
Landbay D	SW 41-02	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		8.00E-03	10/2/2007	4.70E+02	RSL-NC	1.7E-05
Landbay D	SW 41-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.40E+00	5/19/2008	1.50E-02	IHA	**2.9E+02**
Landbay D	SW 41-03	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	2/23/2005	1.20E-01	RSL-C	4.2E-02
Landbay D	SW 41-03	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.90E-02	2/23/2005	7.00E-03	FM	**2.7E+00**
Landbay D	SW 41-03	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	7.00E-03	11/1/2004	7.00E-02	FM	1.0E-01
Landbay D	SW 41-03	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	7.20E-02	11/1/2004	5.00E-03	FM	**1.4E+01**
Landbay D	SW 41-03	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-02	2/23/2005	2.00E-01	FM	1.0E-01
Landbay D	SW 41-03	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	5/17/2006	5.00E-03	FM	8.0E-01
Landbay D	SW 41-03	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.90E+00	5/17/2006	1.50E-02	IHA	**3.3E+02**
Landbay D	SW 41-04	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	5/17/2006	1.20E-01	RSL-C	2.5E-02
Landbay D	SW 41-04	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.40E-02	5/17/2006	7.00E-03	FM	**2.0E+00**
Landbay D	SW 41-04	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	7.00E-03	5/17/2006	7.00E-02	FM	1.0E-01
Landbay D	SW 41-04	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.10E-02	5/17/2006	5.00E-03	FM	**1.6E+01**
Landbay D	SW 41-04	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.70E-02	5/17/2006	2.00E-01	FM	8.5E-02
Landbay D	SW 41-04	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	5/17/2006	5.00E-03	FM	1.0E+00
Landbay D	SW 41-04	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.90E+00	5/17/2006	1.50E-02	IHA	**3.3E+02**
Landbay D	SW 41-05	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-03	2/14/2006	5.00E-03	FM	2.0E-01
Landbay D	SW 41-05	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.10E-02	2/14/2006	1.50E-02	IHA	7.3E-01
Landbay D	SW 42-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-03	5/7/2004	5.00E-03	FM	2.0E-01
Landbay D	SW 43-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	5/7/2004	1.20E-01	RSL-C	3.3E-02
Landbay D	SW 43-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.00E-03	5/7/2004	7.00E-03	FM	**1.3E+00**
Landbay D	SW 43-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	5/7/2004	7.00E-02	FM	5.7E-02
Landbay D	SW 43-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.90E-02	5/7/2004	5.00E-03	FM	**7.8E+00**
Landbay D	SW 43-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	5/7/2004	2.00E-01	FM	3.5E-02
Landbay D	SW 43-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	5/7/2004	5.00E-03	FM	4.0E-01
Landbay D	SW 43-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.21E+00	5/13/2005	1.50E-02	IHA	**1.5E+02**
Landbay D	SW 43-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	8/17/2004	1.20E-01	RSL-C	4.2E-02
Landbay D	SW 43-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.60E-02	8/17/2004	7.00E-03	FM	**5.1E+00**
Landbay D	SW 43-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	11/2/2004	7.00E-02	FM	4.3E-02
Landbay D	SW 43-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.80E-02	11/2/2004	5.00E-03	FM	**5.6E+00**
Landbay D	SW 43-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.00E-03	5/4/2004	2.00E-01	FM	4.0E-02
Landbay D	SW 43-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	4.26E+00	8/17/2004	1.50E-02	IHA	**2.8E+02**
Landbay D	SW 43-02S	Shallow	Inside	VOC	Chloroform	67-66-3	B2	1.00E-03	5/4/2004	8.00E-02	FM	1.3E-02
Landbay D	SW 43-02S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	3/2/2005	1.20E-01	RSL-C	1.7E-02
Landbay D	SW 43-02S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.10E-02	5/4/2004	7.00E-03	FM	**4.4E+00**
Landbay D	SW 43-02S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	3/2/2005	7.00E-02	FM	2.9E-02
Landbay D	SW 43-02S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.90E-02	5/4/2004	5.00E-03	FM	**5.8E+00**
Landbay D	SW 43-02S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.00E-03	5/4/2004	2.00E-01	FM	4.0E-02
Landbay D	SW 43-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.86E+00	8/17/2004	1.50E-02	IHA	**2.6E+02**
Landbay D	SW 43-02S	Shallow	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	3.60E-04	6/29/2005	6.10E-03	RSL-C	5.9E-02
Landbay D	SW 45-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	5/3/2004	7.00E-03	FM	5.7E-01
Landbay D	SW 45-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	5/3/2004	7.00E-02	FM	4.3E-02
Landbay D	SW 45-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03	5/3/2004	5.00E-03	FM	8.0E-01
Landbay D	SW 45-02D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	5/3/2004	5.00E-03	FM	8.0E-01
Landbay D	SW 45-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.16E-01	5/3/2004	1.50E-02	IHA	**2.1E+01**
Landbay D	SW 45-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.01E-02	5/3/2004	1.50E-02	IHA	**1.3E+00**
Landbay D	SW 5-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.60E-02	5/15/2006	1.20E-01	RSL-C	2.2E-01
Landbay D	SW 5-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	5/15/2006	7.00E-03	FM	8.6E-01
Landbay D	SW 5-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	5/15/2006	5.00E-03	FM	4.0E-01
Landbay D	SW 5-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.10E-02	5/15/2006	2.00E-01	FM	4.6E-01
Landbay D	SW 5-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	5/15/2006	5.00E-03	FM	2.0E-01
Landbay D	SW 5-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.42E-01	11/4/2002	1.50E-02	IHA	**9.5E+00**
Landbay D	SW 5-02	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	5/6/2004	1.20E-01	RSL-C	3.3E-02
Landbay D	SW 5-02	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	5/6/2004	7.00E-03	FM	2.9E-01
Landbay D	SW 5-02	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	5/6/2004	7.00E-02	FM	2.9E-02
Landbay D	SW 5-02	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.30E-02	5/6/2004	5.00E-03	FM	**4.6E+00**
Landbay D	SW 5-02	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.20E-02	5/6/2004	2.00E-01	FM	1.1E-01
Landbay D	SW 5-02	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	5/6/2004	5.00E-03	FM	4.0E-01
Landbay D	SW 5-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.58E-01	2/4/2004	1.50E-02	IHA	**1.1E+01**
Landbay D	SW 5-03	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.30E-02	5/6/2004	5.00E-03	FM	**2.6E+00**
Landbay D	SW 5-03	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.00E-04	5/6/2004	2.00E-01	FM	4.0E-03
Landbay D	SW 5-03	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.44E-01	5/6/2004	1.50E-02	IHA	**2.3E+01**
Landbay D	SW 5-04	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	1.80E-02	4/4/2012			
Landbay D	SW 5-04	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.10E+00	9/9/2011	1.20E-01	RSL-C	**1.8E+01**
Landbay D	SW 5-04	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.60E+00	9/9/2011	7.00E-03	FM	**8.0E+02**
Landbay D	SW 5-04	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-02	4/4/2012	7.00E-02	FM	1.4E-01
Landbay D	SW 5-04	Shallow	Inside	VOC	1,4-Dioxane	123-91-1	LC	2.35E-03	9/9/2011	6.70E-03	RSL-C	3.5E-01
Landbay D	SW 5-04	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.45E-01	9/9/2011	5.00E-03	FM	**2.9E+01**
Landbay D	SW 5-04	Shallow	Inside	VOC	Toluene	108-88-3	ID	1.50E-01	8/3/2009	1.00E+00	FM	1.5E-01
Landbay D	SW 5-04	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.40E+02	9/9/2011	2.00E-01	FM	**1.7E+03**
Landbay D	SW 5-04	Shallow	Inside	VOC	1,1,2-Trichloroethane	79-00-5	C	4.00E-03	4/4/2012	5.00E-03	FM	8.0E-01
Landbay D	SW 5-04	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.40E-01	9/9/2011	5.00E-03	FM	**4.8E+01**
Landbay D	SW 5-04	Shallow	Inside	PCB	PCBs (total)	1336-36-3	B2	3.35E-03	6/4/2008	5.00E-04	FM	**6.7E+00**
Landbay D	SW 5-04	Shallow	Inside	INORG	Barium	7440-39-3	NC	6.50E-04	3/29/2010	2.00E+00	FM	3.3E-04
Landbay D	SW 5-04	Shallow	Inside	INORG	Boron	7440-42-8	ID	1.74E-01	3/29/2010	3.10E+00	RSL-NC	5.6E-02
Landbay D	SW 5-04	Shallow	Inside	INORG	Chromium (total)	7440-47-3		3.60E-03	3/29/2010	1.00E-01	FM	3.6E-02
Landbay D	SW 5-04	Shallow	Inside	INORG	Manganese	7439-96-5	D	2.00E-02	9/9/2011	3.80E-01	RSL-NC	5.3E-02
Landbay D	SW 5-04	Shallow	Inside	INORG	Nickel	7440-02-0	A	2.00E-03	3/29/2010	3.10E-01	RSL-NC	6.5E-03
Landbay D	SW 5-04	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	7.70E-01	12/12/2011	1.50E-02	IHA	**5.1E+01**
Landbay D	SW 5-04	Shallow	Inside	INORG	Strontium	7440-24-6		8.22E-02	3/29/2010	9.40E+00	RSL-NC	8.7E-03
Landbay D	SW 5-04	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	6.12E-02	3/29/2010	7.90E-02	RSL-NC	7.7E-01

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay D	SW 5-04	Shallow	Inside	EXPLOSIVE	4-Amino-2,6-dinitrotoluene	19406-51-0		2.70E-03	6/4/2008	3.10E-02	RSL-NC	8.7E-02
Landbay D	SW 6-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	5/6/2004	1.20E-01	RSL-C	2.5E-02
Landbay D	SW 6-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.20E-02	8/18/2004	7.00E-03	FM	**1.7E+00**
Landbay D	SW 6-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.10E-02	5/6/2004	5.00E-03	FM	**4.2E+00**
Landbay D	SW 6-01	Shallow	Inside	VOC	Toluene	108-88-3	ID	3.00E-03	8/18/2004	1.00E+00	FM	3.0E-03
Landbay D	SW 6-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E+00	8/18/2004	2.00E-01	FM	**1.0E+01**
Landbay D	SW 6-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	8/18/2004	5.00E-03	FM	1.0E+00
Landbay D	SW 6-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.25E-01	2/23/2005	1.50E-02	IHA	**3.5E+01**
Landbay D	SW 7-01D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	5/16/2006	1.20E-01	RSL-C	4.2E-02
Landbay D	SW 7-01D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.30E-02	5/16/2006	7.00E-03	FM	**3.3E+00**
Landbay D	SW 7-01D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.40E-02	5/16/2006	7.00E-02	FM	2.0E-01
Landbay D	SW 7-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.60E-01	5/16/2006	5.00E-03	FM	**3.2E+01**
Landbay D	SW 7-01D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.20E-02	5/16/2006	2.00E-01	FM	2.1E-01
Landbay D	SW 7-01D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-02	5/16/2006	5.00E-03	FM	**2.0E+00**
Landbay D	SW 7-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.50E+00	5/16/2006	1.50E-02	IHA	**6.3E+02**
Landbay D	SW 7-01S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	5/16/2006	1.20E-01	RSL-C	3.3E-02
Landbay D	SW 7-01S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.90E-02	5/16/2006	7.00E-03	FM	**2.7E+00**
Landbay D	SW 7-01S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.20E-02	5/16/2006	7.00E-02	FM	1.7E-01
Landbay D	SW 7-01S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.50E-01	5/16/2006	5.00E-03	FM	**3.0E+01**
Landbay D	SW 7-01S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.40E-02	5/16/2006	2.00E-01	FM	1.7E-01
Landbay D	SW 7-01S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-02	5/16/2006	5.00E-03	FM	**2.0E+00**
Landbay D	SW 7-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.40E+00	5/16/2006	1.50E-02	IHA	**6.3E+02**
Landbay D	SW 9-01D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	3/1/2005	1.20E-01	RSL-C	8.3E-03
Landbay D	SW 9-01D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	5/12/2004	5.00E-03	FM	4.0E-01
Landbay D	SW 9-01D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	4.80E-03	11/2/2004	1.50E-02	IHA	3.2E-01
Landbay D	SW 9-01S	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-03	5/12/2004	5.00E-03	FM	2.0E-01
Landbay D	SW SB-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	5.66E-02	8/12/2009	2.00E+00	FM	2.8E-02
Landbay D	SW SB-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	1.17E-01	8/12/2009	3.10E+00	RSL-NC	3.8E-02
Landbay D	SW SB-01	Shallow	Outside	INORG	Chromium (total)	7440-47-3		5.13E-02	8/12/2009	1.00E-01	FM	5.1E-01
Landbay D	SW SB-01	Shallow	Outside	INORG	Cobalt	7440-48-4	LC	2.80E-03	3/24/2010	4.70E-03	RSL-NC	6.0E-01
Landbay D	SW SB-01	Shallow	Outside	INORG	Copper	7440-50-8	D	3.10E-03	8/12/2009	1.30E+00	FM	2.4E-03
Landbay D	SW SB-01	Shallow	Outside	INORG	Iron	7439-89-6	D	1.23E+00	3/24/2010	1.10E+01	RSL-NC	1.1E-01
Landbay D	SW SB-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	2.33E+00	3/24/2010	3.80E-01	RSL-NC	**6.1E+00**
Landbay D	SW SB-01	Shallow	Outside	INORG	Nickel	7440-02-0	A	6.00E-03	8/12/2009	3.10E-01	RSL-NC	1.9E-02
Landbay D	SW SB-01	Shallow	Outside	INORG	Strontium	7440-24-6		2.72E-01	8/12/2009	9.40E+00	RSL-NC	2.9E-02
Landbay E	BW 200-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	3/24/2010	1.20E-01	RSL-C	4.2E-02
Landbay E	BW 200-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	9/1/2011	7.00E-03	FM	5.7E-01
Landbay E	BW 200-01	Shallow	Outside	SVOC	Di-n-butylphthalate	84-74-2	D	5.00E-03	7/29/2009	1.60E+00	RSL-NC	3.1E-03
Landbay E	BW 200-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	1.40E-03	7/29/2009	2.00E+00	FM	7.0E-04
Landbay E	BW 200-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	2.83E-01	7/29/2009	3.10E+00	RSL-NC	9.1E-02
Landbay E	BW 200-01	Shallow	Outside	INORG	Iron	7439-89-6	D	2.70E+00	7/29/2009	1.10E+01	RSL-NC	2.5E-01
Landbay E	BW 200-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	6.18E-01	3/24/2010	3.80E-01	RSL-NC	**1.6E+00**
Landbay E	BW 200-01	Shallow	Outside	INORG	Strontium	7440-24-6		8.88E-02	7/29/2009	9.40E+00	RSL-NC	9.4E-03
Landbay E	BW 200-01	Shallow	Outside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.60E-04	3/24/2010	6.10E-03	RSL-C	4.3E-02
Landbay E	BW 212-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.30E-02	3/22/2010	1.20E-01	RSL-C	1.1E-01
Landbay E	BW 212-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.70E-02	3/22/2010	7.00E-03	FM	**2.4E+00**
Landbay E	BW 212-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	3/22/2010	7.00E-02	FM	1.4E-02
Landbay E	BW 212-01	Shallow	Outside	VOC	Toluene	108-88-3	ID	1.00E-03	8/19/2008	1.00E+00	FM	1.0E-03
Landbay E	BW 212-01	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	3/22/2010	2.00E-01	FM	5.0E-03
Landbay E	BW 212-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.10E-02	3/22/2010	5.00E-03	FM	**2.2E+00**
Landbay E	BW 212-01	Shallow	Outside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	4.80E-04	7/28/2009	1.60E-03	RSL-NC	3.0E-01
Landbay E	BW 212-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	1.70E-03	7/28/2009	2.00E+00	FM	8.5E-04
Landbay E	BW 212-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	4.42E-01	3/22/2010	3.10E+00	RSL-NC	1.4E-01
Landbay E	BW 212-01	Shallow	Outside	INORG	Iron	7439-89-6	D	2.46E+00	7/28/2009	1.10E+01	RSL-NC	2.2E-01
Landbay E	BW 212-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	1.48E-01	3/22/2010	3.80E-01	RSL-NC	3.9E-01
Landbay E	BW 212-01	Shallow	Outside	INORG	Strontium	7440-24-6		1.32E-01	3/22/2010	9.40E+00	RSL-NC	1.4E-02
Landbay E	BW 217-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	1.27E-02	3/23/2010	2.00E+00	FM	6.4E-03
Landbay E	BW 217-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	1.16E-02	3/23/2010	3.10E+00	RSL-NC	3.7E-03
Landbay E	BW 217-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	2.40E-03	3/23/2010	3.80E-01	RSL-NC	6.3E-03
Landbay E	BW 217-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.10E-03	8/13/2008	1.50E-02	IHA	2.1E-01
Landbay E	BW 217-01	Shallow	Outside	INORG	Strontium	7440-24-6		9.78E-02	3/23/2010	9.40E+00	RSL-NC	1.0E-02
Landbay E	BW 217-01	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	9.70E-03	3/23/2010	7.90E-02	RSL-NC	1.2E-01
Landbay E	BW 217-01	Shallow	Outside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.40E-04	3/23/2010	6.10E-03	RSL-C	3.9E-02
Landbay E	BW 225-01	Shallow	Outside	VOC	Chloroform	67-66-3	B2	2.00E-03	6/24/2008	8.00E-02	FM	2.5E-02
Landbay E	BW 225-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	8/31/2011	1.20E-01	RSL-C	2.5E-02
Landbay E	BW 225-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.60E-02	8/31/2011	7.00E-03	FM	**2.3E+00**
Landbay E	BW 225-01	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	8/31/2011	2.00E-01	FM	2.5E-02
Landbay E	BW 225-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	8/31/2011	5.00E-03	FM	8.0E-01
Landbay E	BW 225-01	Shallow	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		3.20E-02	6/24/2008	4.70E+02	RSL-NC	6.8E-05
Landbay E	BW 225-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	3.00E-03	6/24/2008	2.00E+00	FM	1.5E-03
Landbay E	BW 225-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	1.70E-01	3/22/2010	3.10E+00	RSL-NC	5.5E-02
Landbay E	BW 225-01	Shallow	Outside	INORG	Copper	7440-50-8	D	5.30E-03	3/22/2010	1.30E+00	FM	4.1E-03
Landbay E	BW 225-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	3.05E-01	7/30/2009	3.80E-01	RSL-NC	8.0E-01
Landbay E	BW 225-01	Shallow	Outside	INORG	Nickel	7440-02-0	A	6.40E-03	7/30/2009	3.10E-01	RSL-NC	2.1E-02
Landbay E	BW 225-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.90E-02	8/31/2011	1.50E-02	IHA	**2.6E+00**
Landbay E	BW 225-01	Shallow	Outside	INORG	Strontium	7440-24-6		1.49E-01	6/24/2008	9.40E+00	RSL-NC	1.6E-02
Landbay E	BW 225-01	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	1.48E-02	7/30/2009	7.90E-02	RSL-NC	1.9E-01
Landbay E	BW 225-01	Shallow	Outside	INORG	Zinc	7440-66-6	ID	1.50E-02	3/22/2010	4.70E+00	RSL-NC	3.2E-03
Landbay E	BW 225-01	Shallow	Outside	EXPLOSIVE	4-Amino-2,6-dinitrotoluene	19406-51-0		1.10E-03	6/24/2008	3.10E-02	RSL-NC	3.5E-02
Landbay E	BW 225-01	Shallow	Outside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	3.80E-04	7/30/2009	6.10E-03	RSL-C	6.2E-02
Landbay E	BW 225-01	Shallow	Outside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	9.30E-04	3/22/2010	7.80E-01	RSL-NC	1.2E-03
Landbay E	BW 237-01D	Shallow	Outside	VOC	Chloromethane	74-87-3	D	3.00E-03	10/3/2007			
Landbay E	BW 237-01D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.20E-02	9/2/2011	1.50E-02	IHA	8.0E-01
Landbay E	BW 28-04D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	6.00E-03	9/8/2011	1.20E-01	RSL-C	5.0E-02
Landbay E	BW 28-04D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.60E-02	9/8/2011	7.00E-03	FM	**5.1E+00**
Landbay E	BW 28-04D	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	6.00E-03	3/16/2010	7.00E-02	FM	8.6E-02
Landbay E	BW 28-04D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.50E-01	3/16/2010	5.00E-03	FM	**3.0E+01**
Landbay E	BW 28-04D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.30E-02	9/8/2011	2.00E-01	FM	3.2E-01
Landbay E	BW 28-04D	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.60E-02	3/16/2010	5.00E-03	FM	**3.2E+00**
Landbay E	BW 28-04D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	4.20E-01	9/8/2011	1.50E-02	IHA	**2.8E+01**
Landbay E	BW 28-04S	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	7.00E-03	5/10/2006	1.20E-01	RSL-C	5.8E-02
Landbay E	BW 28-04S	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-02	11/21/2005	7.00E-03	FM	**4.3E+00**
Landbay E	BW 28-04S	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.20E-01	11/21/2005	7.00E-02	FM	**1.7E+00**
Landbay E	BW 28-04S	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.30E-01	5/10/2006	5.00E-03	FM	**4.6E+01**
Landbay E	BW 28-04S	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.40E-02	11/21/2005	2.00E-01	FM	3.7E-01
Landbay E	BW 28-04S	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.80E-02	5/10/2006	5.00E-03	FM	**7.6E+00**
Landbay E	BW 28-04S	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	3.00E-03	5/10/2006	2.00E-03	FM	**1.5E+00**
Landbay E	BW 28-04S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.10E-01	11/21/2005	1.50E-02	IHA	**7.3E+00**
Landbay E	BW 40-01D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	5.00E-02	11/21/2005	1.50E-02	IHA	**3.3E+00**
Landbay E	BW 40-01S	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	11/21/2005	1.20E-01	RSL-C	1.7E-02
Landbay E	BW 40-01S	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	11/21/2005	7.00E-03	FM	1.0E+00
Landbay E	BW 40-01S	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	11/21/2005	7.00E-02	FM	2.9E-02
Landbay E	BW 40-01S	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.90E-02	11/21/2005	5.00E-03	FM	**3.8E+00**
Landbay E	BW 40-01S	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	11/21/2005	2.00E-01	FM	2.0E-02
Landbay E	BW 40-01S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	9.70E-01	11/21/2005	1.50E-02	IHA	**6.5E+01**
Landbay E	BW 40-02D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	11/29/2005	1.20E-01	RSL-C	3.3E-02
Landbay E	BW 40-02D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	11/29/2005	7.00E-03	FM	1.0E+00
Landbay E	BW 40-02D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	11/29/2005	7.00E-02	FM	2.9E-02
Landbay E	BW 40-02D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.00E-03	11/29/2005	5.00E-03	FM	**1.6E+00**
Landbay E	BW 40-02D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	11/29/2005	2.00E-01	FM	2.0E-02
Landbay E	BW 40-02D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	11/29/2005	5.00E-03	FM	2.0E-01
Landbay E	BW 40-02D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.60E+00	11/29/2005	1.50E-02	IHA	**1.1E+02**
Landbay E	BW 40-02S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	5/10/2006	1.20E-01	RSL-C	1.7E-02
Landbay E	BW 40-02S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	2/16/2006	7.00E-03	FM	7.1E-01
Landbay E	BW 40-02S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	5/10/2006	7.00E-02	FM	2.9E-02
Landbay E	BW 40-02S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.60E-02	2/16/2006	5.00E-03	FM	**3.2E+00**
Landbay E	BW 40-02S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	2/16/2006	2.00E-01	FM	1.5E-02
Landbay E	BW 40-02S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.80E-01	5/10/2006	1.50E-02	IHA	**1.9E+01**
Landbay E	BW 40-03D	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	2.00E-03	11/29/2005	1.00E-01	FM	2.0E-02
Landbay E	BW 40-03D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	11/29/2005	1.20E-01	RSL-C	1.7E-02
Landbay E	BW 40-03D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	11/29/2005	7.00E-03	FM	2.9E-01
Landbay E	BW 40-03D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	11/29/2005	7.00E-02	FM	4.3E-02
Landbay E	BW 40-03D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	11/29/2005	5.00E-03	FM	4.0E-01
Landbay E	BW 40-03D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	11/29/2005	5.00E-03	FM	4.0E-01
Landbay E	BW 40-03D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.10E-03	11/29/2005	1.50E-02	IHA	7.3E-02
Landbay E	BW 40-03S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	8.00E-04	11/29/2005	7.00E-03	FM	1.1E-01
Landbay E	BW 40-03S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	11/29/2005	7.00E-02	FM	5.7E-02
Landbay E	BW 40-03S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-03	11/29/2005	5.00E-03	FM	2.0E-01
Landbay E	BW 40-03S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	11/29/2005	5.00E-03	FM	8.0E-01
Landbay E	BW 40-03S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	7.00E-04	11/29/2005	1.50E-02	IHA	4.7E-02
Landbay E	BW 40-04	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	3/25/2010	1.20E-01	RSL-C	1.7E-02

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay E	BW 40-04	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	3/25/2010	7.00E-03	FM	4.3E-01
Landbay E	BW 40-04	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.30E-01	3/25/2010	7.00E-02	FM	**1.9E+00**
Landbay E	BW 40-04	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	9.00E-04	3/25/2010	1.00E-01	FM	9.0E-03
Landbay E	BW 40-04	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	9.20E-02	3/25/2010	5.00E-03	FM	**1.8E+01**
Landbay E	BW 40-04	Shallow	Inside	VOC	Tetrahydrofuran	109-99-9	SC	6.00E-03	7/31/2009	1.40E+01	RSL-NC	4.3E-04
Landbay E	BW 40-04	Shallow	Inside	VOC	Toluene	108-88-3	ID	4.00E-03	7/31/2009	1.00E+00	FM	4.0E-03
Landbay E	BW 40-04	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	3/25/2010	2.00E-01	FM	1.5E-02
Landbay E	BW 40-04	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.30E-02	3/25/2010	5.00E-03	FM	**8.6E+00**
Landbay E	BW 40-04	Shallow	Inside	INORG	Barium	7440-39-3	NC	3.00E-03	7/31/2009	2.00E+00	FM	1.5E-03
Landbay E	BW 40-04	Shallow	Inside	INORG	Boron	7440-42-8	ID	2.41E-01	7/31/2009	3.10E+00	RSL-NC	7.8E-02
Landbay E	BW 40-04	Shallow	Inside	INORG	Iron	7439-89-6	D	5.40E+00	7/31/2009	1.10E+01	RSL-NC	4.9E-01
Landbay E	BW 40-04	Shallow	Inside	INORG	Manganese	7439-96-5	D	4.34E-01	3/25/2010	3.80E-01	RSL-NC	**1.1E+00**
Landbay E	BW 40-04	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.50E-04	9/7/2011	1.50E-02	IHA	6.3E-02
Landbay E	BW 40-04	Shallow	Inside	INORG	Strontium	7440-24-6		2.32E-01	7/31/2009	9.40E+00	RSL-NC	2.5E-02
Landbay E	BW 40-04	Shallow	Inside	EXPLOSIVE	2-Amino-4,6-dinitrotoluene	35572-78-2		4.40E-04	8/19/2008	3.10E-02	RSL-NC	1.4E-02
Landbay E	BW 45-04D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.40E-02	11/29/2005	1.20E-01	RSL-C	1.2E-01
Landbay E	BW 45-04D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	8.00E-03	11/29/2005	7.00E-03	FM	**1.1E+00**
Landbay E	BW 45-04D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.90E-01	5/16/2006	7.00E-02	FM	**2.7E+00**
Landbay E	BW 45-04D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.30E-01	11/29/2005	5.00E-03	FM	**2.6E+01**
Landbay E	BW 45-04D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	6.00E-03	5/16/2006	2.00E-01	FM	3.0E-02
Landbay E	BW 45-04D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.90E-02	11/29/2005	5.00E-03	FM	**3.8E+00**
Landbay E	BW 45-04D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.80E-03	11/29/2005	1.50E-02	IHA	1.2E-01
Landbay E	BW 45-04S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	11/29/2005	1.20E-01	RSL-C	3.3E-02
Landbay E	BW 45-04S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	8.00E-03	11/29/2005	7.00E-03	FM	**1.1E+00**
Landbay E	BW 45-04S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.40E-02	11/29/2005	7.00E-02	FM	2.0E-01
Landbay E	BW 45-04S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.70E-01	11/29/2005	5.00E-03	FM	**5.4E+01**
Landbay E	BW 45-04S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	11/29/2005	2.00E-01	FM	3.5E-02
Landbay E	BW 45-04S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.10E-02	11/29/2005	5.00E-03	FM	**4.2E+00**
Landbay E	BW 45-04S	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	1.00E-03	11/29/2005	2.00E-03	FM	5.0E-01
Landbay E	BW 45-04S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.40E-02	11/29/2005	1.50E-02	IHA	**1.6E+00**
Landbay E	BW 45-05D	Shallow	Inside	WQ	Chloride	16887-00-6		1.45E+01	2/19/2007			
Landbay E	BW 45-05D	Shallow	Inside	VOC	Carbon Disulfide	75-15-0		1.00E-03	2/19/2007	1.60E+00	RSL-NC	6.3E-04
Landbay E	BW 45-05D	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	2.00E-03	5/16/2006	1.00E-01	FM	2.0E-02
Landbay E	BW 45-05D	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	2/19/2007			
Landbay E	BW 45-05D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.80E-02	2/16/2006	1.20E-01	RSL-C	4.0E-01
Landbay E	BW 45-05D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-02	2/16/2006	7.00E-03	FM	**2.9E+00**
Landbay E	BW 45-05D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.90E-01	2/16/2006	7.00E-02	FM	**2.7E+00**
Landbay E	BW 45-05D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.90E-02	2/19/2007	5.00E-03	FM	**1.8E+01**
Landbay E	BW 45-05D	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	5/16/2006	2.00E-01	FM	1.0E-02
Landbay E	BW 45-05D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.40E-01	5/16/2006	5.00E-03	FM	**2.8E+01**
Landbay E	BW 45-05D	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	1.30E-02	2/19/2007	2.00E-03	FM	**6.5E+00**
Landbay E	BW 45-05D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.10E-03	5/16/2006	1.50E-02	IHA	1.4E-01
Landbay E	BW 45-05S	Shallow	Inside	WQ	Chloride	16887-00-6		8.20E+00	2/20/2007			
Landbay E	BW 45-05S	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	5/16/2006	1.20E-01	RSL-C	3.3E-02
Landbay E	BW 45-05S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	2/20/2007	7.00E-03	FM	1.0E+00
Landbay E	BW 45-05S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	6.50E-02	2/20/2007	7.00E-02	FM	9.3E-01
Landbay E	BW 45-05S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.10E-01	2/16/2006	5.00E-03	FM	**4.2E+01**
Landbay E	BW 45-05S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	8.00E-03	5/16/2006	2.00E-01	FM	4.0E-02
Landbay E	BW 45-05S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.20E-01	5/16/2006	5.00E-03	FM	**2.4E+01**
Landbay E	BW 45-05S	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	2/16/2006	2.00E-03	FM	1.0E+00
Landbay E	BW 45-05S	Shallow	Inside	INORG	Barium	7440-39-3	NC	7.20E-03	5/29/2008	2.00E+00	FM	3.6E-03
Landbay E	BW 45-05S	Shallow	Inside	INORG	Iron	7439-89-6	D	3.13E-01	5/29/2008	1.10E+01	RSL-NC	2.8E-02
Landbay E	BW 45-05S	Shallow	Inside	INORG	Manganese	7439-96-5	D	9.18E-02	5/29/2008	3.80E-01	RSL-NC	2.4E-01
Landbay E	BW 45-05S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.20E-01	2/20/2007	1.50E-02	IHA	**8.0E+00**
Landbay E	BW 45-05S	Shallow	Inside	INORG	Vanadium	7440-62-2	ID	1.27E-02	5/29/2008	7.90E-02	RSL-NC	1.6E-01
Landbay E	BW 46-01D	Shallow	Outside	VOC	Chloroform	67-66-3	B2	2.00E-03	11/29/2005	8.00E-02	FM	2.5E-02
Landbay E	BW 46-01D	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	11/29/2005	1.20E-01	RSL-C	2.5E-02
Landbay E	BW 46-01D	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	11/29/2005	7.00E-03	FM	1.0E+00
Landbay E	BW 46-01D	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	11/29/2005	7.00E-02	FM	2.9E-02
Landbay E	BW 46-01D	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	11/29/2005	5.00E-03	FM	4.0E-01
Landbay E	BW 46-01D	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-03	11/29/2005	2.00E-01	FM	4.5E-02
Landbay E	BW 46-01D	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	11/29/2005	5.00E-03	FM	6.0E-01
Landbay E	BW 46-01D	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.10E-03	11/29/2005	1.50E-02	IHA	1.4E-01
Landbay E	BW 46-01S	Shallow	Outside	VOC	Chloroform	67-66-3	B2	4.00E-03	5/17/2006	8.00E-02	FM	5.0E-02
Landbay E	BW 46-01S	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	5/17/2006	1.20E-01	RSL-C	4.2E-02
Landbay E	BW 46-01S	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-02	11/29/2005	7.00E-03	FM	**7.1E+00**
Landbay E	BW 46-01S	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	5/17/2006	7.00E-02	FM	7.1E-02
Landbay E	BW 46-01S	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.60E-02	5/17/2006	5.00E-03	FM	**5.2E+00**
Landbay E	BW 46-01S	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.50E-02	5/17/2006	2.00E-01	FM	2.3E-01
Landbay E	BW 46-01S	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.20E-02	5/17/2006	5.00E-03	FM	**2.4E+00**
Landbay E	BW 46-01S	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	5.70E-03	11/29/2005	1.50E-02	IHA	3.8E-01
Landbay E	BW 46-02	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	7/31/2009	7.00E-02	FM	4.3E-02
Landbay E	BW 46-02	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	4.00E-03	8/20/2008	5.00E-03	FM	8.0E-01
Landbay E	BW 46-02	Shallow	Outside	VOC	Toluene	108-88-3	ID	1.40E-02	8/20/2008	1.00E+00	FM	1.4E-02
Landbay E	BW 46-02	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	8/20/2008	5.00E-03	FM	4.0E-01
Landbay E	BW 46-02	Shallow	Outside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	1.70E-03	7/31/2009	1.60E-03	RSL-NC	**1.1E+00**
Landbay E	BW 46-02	Shallow	Outside	INORG	Barium	7440-39-3	NC	1.30E-03	7/31/2009	2.00E+00	FM	6.5E-04
Landbay E	BW 46-02	Shallow	Outside	INORG	Boron	7440-42-8	ID	6.70E-01	3/25/2010	3.10E+00	RSL-NC	2.2E-01
Landbay E	BW 46-02	Shallow	Outside	INORG	Chromium (total)	7440-47-3		4.10E-03	7/31/2009	1.00E-01	FM	4.1E-02
Landbay E	BW 46-02	Shallow	Outside	INORG	Iron	7439-89-6	D	2.23E-01	7/31/2009	1.10E+01	RSL-NC	2.0E-02
Landbay E	BW 46-02	Shallow	Outside	INORG	Manganese	7439-96-5	D	9.42E-02	9/7/2011	3.80E-01	RSL-NC	2.5E-01
Landbay E	BW 46-02	Shallow	Outside	INORG	Nickel	7440-02-0	A	3.70E-03	7/31/2009	3.10E-01	RSL-NC	1.2E-02
Landbay E	BW 46-02	Shallow	Outside	INORG	Strontium	7440-24-6		1.48E-01	7/31/2009	9.40E+00	RSL-NC	1.6E-02
Landbay E	BW 46-02	Shallow	Outside	EXPLOSIVE	2-Amino-4,6-dinitrotoluene	35572-78-2		4.20E-04	8/20/2008	3.10E-02	RSL-NC	1.4E-02
Landbay E	BW SB-02	Shallow	Outside	INORG	Barium	7440-39-3	NC	1.37E-02	8/6/2009	2.00E+00	FM	6.9E-03
Landbay E	BW SB-02	Shallow	Outside	INORG	Boron	7440-42-8	ID	3.05E-01	3/26/2010	3.10E+00	RSL-NC	9.8E-02
Landbay E	BW SB-02	Shallow	Outside	INORG	Copper	7440-50-8	D	3.90E-03	8/6/2009	1.30E+00	FM	3.0E-03
Landbay E	BW SB-02	Shallow	Outside	INORG	Iron	7439-89-6	D	5.47E-01	3/26/2010	1.10E+01	RSL-NC	5.0E-02
Landbay E	BW SB-02	Shallow	Outside	INORG	Manganese	7439-96-5	D	2.44E-01	3/26/2010	3.80E-01	RSL-NC	6.4E-01
Landbay E	BW SB-02	Shallow	Outside	INORG	Nickel	7440-02-0	A	1.92E-02	8/6/2009	3.10E-01	RSL-NC	6.2E-02
Landbay E	BW SB-02	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	7.70E-04	3/26/2010	1.50E-02	IHA	5.1E-02
Landbay E	BW SB-02	Shallow	Outside	INORG	Strontium	7440-24-6		5.20E-01	3/26/2010	9.40E+00	RSL-NC	5.5E-02
Landbay E	DW 200-01	Deep	Outside	VOC	Acetone	67-64-1	ID	6.70E-02	10/14/2009	1.40E+01	RSL-NC	4.8E-03
Landbay E	DW 200-01	Deep	Outside	SVOC	Dibenzofuran	132-64-9	D	2.00E-03	6/23/2008	1.60E-02	RSL-NC	1.3E-01
Landbay E	DW 200-01	Deep	Outside	SVOC	Fluorene	86-73-7	D	2.00E-03	6/23/2008	6.30E-01	RSL-NC	3.2E-03
Landbay E	DW 200-01	Deep	Outside	SVOC	2-Methylnaphthalene	91-57-6	ID	3.00E-03	6/23/2008	6.30E-02	RSL-NC	4.8E-02
Landbay E	DW 200-01	Deep	Outside	SVOC	Naphthalene	91-20-3	C	1.20E-02	6/23/2008	3.10E-01	RSL-NC	3.9E-02
Landbay E	DW 200-01	Deep	Outside	SVOC	Phenanthrene	85-01-8	D	2.00E-03	3/23/2010	4.70E-01	RSL-NC	4.3E-03
Landbay E	DW 200-01	Deep	Outside	INORG	Barium	7440-39-3	NC	5.90E-03	6/23/2008	2.00E+00	FM	3.0E-03
Landbay E	DW 200-01	Deep	Outside	INORG	Boron	7440-42-8	ID	2.59E-01	3/23/2010	3.10E+00	RSL-NC	8.4E-02
Landbay E	DW 200-01	Deep	Outside	INORG	Iron	7439-89-6	D	7.71E+00	6/23/2008	1.10E+01	RSL-NC	7.0E-01
Landbay E	DW 200-01	Deep	Outside	INORG	Manganese	7439-96-5	D	2.41E-01	6/23/2008	3.80E-01	RSL-NC	6.3E-01
Landbay E	DW 200-01	Deep	Outside	INORG	Strontium	7440-24-6		2.07E-01	6/23/2008	9.40E+00	RSL-NC	2.2E-02
Landbay E	DW 200-01	Deep	Outside	INORG	Zinc	7440-66-6	ID	4.69E-02	6/23/2008	4.70E+00	RSL-NC	1.0E-02
Landbay E	DW 200-01	Deep	Outside	EXPLOSIVE	2-Amino-4,6-dinitrotoluene	35572-78-2		2.30E-04	6/23/2008	3.10E-02	RSL-NC	7.4E-03
Landbay E	DW 200-01	Deep	Outside	EXPLOSIVE	4-Amino-2,6-dinitrotoluene	19406-51-0		2.40E-03	6/23/2008	3.10E-02	RSL-NC	7.7E-02
Landbay E	DW 213-01	Deep	Outside	INORG	Barium	7440-39-3	NC	1.08E-02	10/8/2009	2.00E+00	FM	5.4E-03
Landbay E	DW 213-01	Deep	Outside	INORG	Boron	7440-42-8	ID	9.23E-02	3/23/2010	3.10E+00	RSL-NC	3.0E-02
Landbay E	DW 213-01	Deep	Outside	INORG	Copper	7440-50-8	D	2.80E-03	3/23/2010	1.30E+00	FM	2.2E-03
Landbay E	DW 213-01	Deep	Outside	INORG	Manganese	7439-96-5	D	6.60E-03	9/9/2011	3.80E-01	RSL-NC	1.7E-02
Landbay E	DW 213-01	Deep	Outside	INORG	Perchlorate	14797-73-0	NC	5.80E-02	10/8/2009	1.50E-02	IHA	**3.9E+00**
Landbay E	DW 213-01	Deep	Outside	INORG	Strontium	7440-24-6		1.38E-01	10/8/2009	9.40E+00	RSL-NC	1.5E-02
Landbay E	DW 213-01	Deep	Outside	INORG	Vanadium	7440-62-2	ID	8.50E-03	10/8/2009	7.90E-02	RSL-NC	1.1E-01
Landbay E	DW 213-01	Deep	Outside	INORG	Zinc	7440-66-6	ID	9.80E-03	10/8/2009	4.70E+00	RSL-NC	2.1E-03
Landbay E	DW SB-01	Deep	Outside	VOC	Xylenes (total)	1330-20-7	ID	6.00E-03	3/24/2010	1.00E+01	FM	6.0E-04
Landbay E	DW SB-01	Deep	Outside	INORG	Barium	7440-39-3	NC	7.80E-03	9/4/2009	2.00E+00	FM	3.9E-03
Landbay E	DW SB-01	Deep	Outside	INORG	Boron	7440-42-8	ID	2.75E-01	9/4/2009	3.10E+00	RSL-NC	8.9E-02
Landbay E	DW SB-01	Deep	Outside	INORG	Iron	7439-89-6	D	2.48E+01	9/4/2009	1.10E+01	RSL-NC	**2.3E+00**
Landbay E	DW SB-01	Deep	Outside	INORG	Manganese	7439-96-5	D	1.95E+00	9/4/2009	3.80E-01	RSL-NC	**5.1E+00**
Landbay E	DW SB-01	Deep	Outside	INORG	Strontium	7440-24-6		7.61E-01	9/4/2009	9.40E+00	RSL-NC	8.1E-02
Landbay E	DW SB-01	Deep	Outside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.10E-04	3/24/2010	6.10E-03	RSL-C	3.4E-02
Landbay E	DW SB-01	Deep	Outside	EXPLOSIVE	2,4,6-Trinitrophenylmethylnitramine	479-45-8	ID	8.00E-04	3/24/2010	6.30E-02	RSL-NC	1.3E-02
Landbay E	DW SB-02	Deep	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	9/1/2011	1.20E-01	RSL-C	3.3E-02
Landbay E	DW SB-02	Deep	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-02	9/1/2011	7.00E-03	FM	**1.6E+00**
Landbay E	DW SB-02	Deep	Outside	VOC	1,4-Dioxane	123-91-1	LC	1.90E-04	9/1/2011	6.70E-03	RSL-C	2.8E-02
Landbay E	DW SB-02	Deep	Outside	VOC	Toluene	108-88-3	ID	1.00E-03	3/23/2010	1.00E+00	FM	1.0E-03
Landbay E	DW SB-02	Deep	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	4/5/2011	5.00E-03	FM	2.0E-01
Landbay E	DW SB-02	Deep	Outside	SVOC	1,2-Dinitrobenzene	528-29-0	ID	6.70E-04	3/23/2010	1.60E-03	RSL-NC	4.2E-01
Landbay E	DW SB-02	Deep	Outside	INORG	Barium	7440-39-3	NC	6.19E-02	3/23/2010	2.00E+00	FM	3.1E-02
Landbay E	DW SB-02	Deep	Outside	INORG	Boron	7440-42-8	ID	2.02E-01	3/23/2010	3.10E+00	RSL-NC	6.5E-02
Landbay E	DW SB-02	Deep	Outside	INORG	Iron	7439-89-6	D	1.79E-01	3/23/2010	1.10E+01	RSL-NC	1.6E-02

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay E	DW SB-02	Deep	Outside	INORG	Manganese	7439-96-5	D	2.86E-02	9/1/2011	3.80E-01	RSL-NC	7.5E-02
Landbay E	DW SB-02	Deep	Outside	INORG	Strontium	7440-24-6		3.41E-01	9/4/2009	9.40E+00	RSL-NC	3.6E-02
Landbay E	DW SB-02	Deep	Outside	INORG	Zinc	7440-66-6	ID	8.50E-01	3/23/2010	4.70E+00	RSL-NC	1.8E-01
Landbay E	DW-12	Deep	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	12/12/2011	1.20E-01	RSL-C	1.7E-02
Landbay E	DW-12	Deep	Outside	VOC	1,1-Dichloroethene	75-35-4	C	8.00E-03	9/1/2011	7.00E-03	FM	**1.1E+00**
Landbay E	DW-12	Deep	Outside	VOC	1,4-Dioxane	123-91-1	LC	1.10E-04	9/1/2011	6.70E-03	RSL-C	1.6E-02
Landbay E	DW-12	Deep	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-03	11/10/2010	5.00E-03	FM	2.0E-01
Landbay E	DW-12	Deep	Outside	SVOC	1,3-Dinitrobenzene	99-65-0	D	2.70E-03	6/16/2010	1.60E-03	RSL-NC	**1.7E+00**
Landbay E	DW-12	Deep	Outside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	4.60E-04	11/24/2009	6.10E-03	RSL-C	7.5E-02
Landbay E	DW-14	Deep	Outside	WQ	Sulfate	14808-79-8		1.97E+02	8/18/2004			
Landbay E	DW-14	Deep	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	3/25/2010	7.00E-03	FM	2.9E-01
Landbay E	DW-14	Deep	Outside	VOC	Ethyl Benzene	100-41-4	D	2.00E-03	3/25/2010	7.00E-01	FM	2.9E-03
Landbay E	DW-14	Deep	Outside	VOC	Tetrahydrofuran	109-99-9	SC	7.90E-01	3/25/2010	1.40E+01	RSL-NC	5.6E-02
Landbay E	DW-14	Deep	Outside	VOC	Toluene	108-88-3	ID	9.00E-04	10/22/2009	1.00E+00	FM	9.0E-04
Landbay E	DW-14	Deep	Outside	VOC	Xylenes (total)	1330-20-7	ID	1.90E-02	10/22/2009	1.00E+01	FM	1.9E-03
Landbay E	DW-19	Deep	Inside	WQ	Sulfate	14808-79-8		5.82E+01	8/19/2004			
Landbay E	DW-19	Deep	Inside	VOC	Chloromethane	74-87-3	D	1.00E-03	9/28/2007			
Landbay E	DW-19	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.10E-03	5/13/2008	7.00E-03	FM	1.6E-01
Landbay E	DW-19	Deep	Inside	VOC	Toluene	108-88-3	ID	7.00E-04	9/28/2007	1.00E+00	FM	7.0E-04
Landbay E	DW-19	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.30E-02	9/28/2007	1.50E-02	IHA	8.7E-01
Landbay E	DW-2	Deep	Outside	WQ	Chloride	16887-00-6		4.30E+00	2/16/2007			
Landbay E	DW-2	Deep	Outside	WQ	Sulfate	14808-79-8		5.16E+01	11/16/2006			
Landbay E	DW-2	Deep	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		5.00E-03	10/21/2009	4.70E+02	RSL-NC	1.1E-05
Landbay E	DW-2	Deep	Outside	SVOC	1-Nitronaphthalene	86-57-7		2.80E-04	9/27/2007			
Landbay E	DW-2	Deep	Outside	INORG	Perchlorate	14797-73-0	NC	9.30E-04	5/15/2008	1.50E-02	IHA	6.2E-02
Landbay E	DW-20	Deep	Inside	WQ	Chloride	16887-00-6		2.04E+01	2/19/2007			
Landbay E	DW-20	Deep	Inside	WQ	Sulfate	14808-79-8		1.98E+02	8/18/2004			
Landbay E	DW-20	Deep	Inside	VOC	Chlorobenzene	108-90-7	D	6.60E-03	5/14/2008	1.00E-01	FM	6.6E-02
Landbay E	DW-20	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	8/30/2011	1.20E-01	RSL-C	3.3E-02
Landbay E	DW-20	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.60E-02	4/1/2010	7.00E-03	FM	**2.3E+00**
Landbay E	DW-20	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-03	4/1/2010	5.00E-03	FM	6.0E-01
Landbay E	DW-20	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		8.40E-02	4/1/2010	4.70E+02	RSL-NC	1.8E-04
Landbay E	DW-20	Deep	Inside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	3.60E-03	4/1/2010	7.80E-01	RSL-NC	4.6E-03
Landbay E	DW-20I	Shallow	Inside	WQ	Chloride	16887-00-6		1.38E+01	2/19/2007			
Landbay E	DW-20I	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	5/8/2006	1.20E-01	RSL-C	2.5E-02
Landbay E	DW-20I	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.40E-02	5/8/2006	7.00E-03	FM	**3.4E+00**
Landbay E	DW-20I	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	5/8/2006	7.00E-02	FM	4.3E-02
Landbay E	DW-20I	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.10E-02	5/8/2006	5.00E-03	FM	**4.2E+00**
Landbay E	DW-20I	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	2/19/2007	2.00E-01	FM	1.0E-02
Landbay E	DW-20I	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	5/8/2006	5.00E-03	FM	4.0E-01
Landbay E	DW-20I	Shallow	Inside	INORG	Chromium (total)	7440-47-3		6.00E-02	8/22/2002	1.00E-01	FM	6.0E-01
Landbay E	DW-20I	Shallow	Inside	INORG	Nickel	7440-02-0	A	6.00E-03	8/22/2002	3.10E-01	RSL-NC	1.9E-02
Landbay E	DW-20I	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.30E-02	5/8/2006	1.50E-02	IHA	**3.5E+00**
Landbay E	DW-27I	Shallow	Inside	WQ	Chloride	16887-00-6		3.98E+01	2/16/2007			
Landbay E	DW-27I	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	4.00E-03	2/16/2007	1.00E-01	FM	4.0E-02
Landbay E	DW-27I	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	8.00E-03	2/16/2007	1.20E-01	RSL-C	6.7E-02
Landbay E	DW-27I	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.40E-02	5/10/2006	7.00E-03	FM	**3.4E+00**
Landbay E	DW-27I	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.20E-02	2/16/2007	7.00E-02	FM	3.1E-01
Landbay E	DW-27I	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.70E-02	5/10/2006	5.00E-03	FM	**3.4E+00**
Landbay E	DW-27I	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	2/16/2007	2.00E-01	FM	5.0E-03
Landbay E	DW-27I	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	6.30E-02	2/16/2007	5.00E-03	FM	**1.3E+01**
Landbay E	DW-27I	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	2/16/2007	2.00E-03	FM	1.0E+00
Landbay E	DW-27I	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	3.40E-02	5/10/2006	1.50E-02	IHA	**2.3E+00**
Landbay E	DW-34	Deep	Inside	WQ	Chloride	16887-00-6		9.20E+00	2/16/2007			
Landbay E	DW-34	Deep	Inside	WQ	Sulfate	14808-79-8		3.56E+02	5/12/2006			
Landbay E	DW-34	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	4/1/2010	1.20E-01	RSL-C	1.7E-02
Landbay E	DW-34	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	10/12/2009	7.00E-03	FM	8.6E-01
Landbay E	DW-34	Deep	Inside	VOC	Toluene	108-88-3	ID	8.00E-04	10/12/2009	1.00E+00	FM	8.0E-04
Landbay E	DW-34	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		7.00E-03	10/12/2009	4.70E+02	RSL-NC	1.5E-05
Landbay E	DW-34	Deep	Inside	INORG	Arsenic	7440-38-2	A	8.10E-03	10/12/2009	1.00E-02	FM	8.1E-01
Landbay E	DW-34	Deep	Inside	INORG	Barium	7440-39-3	NC	4.35E-02	10/12/2009	2.00E+00	FM	2.2E-02
Landbay E	DW-34	Deep	Inside	INORG	Boron	7440-42-8	ID	1.81E-01	4/1/2010	3.10E+00	RSL-NC	5.8E-02
Landbay E	DW-34	Deep	Inside	INORG	Copper	7440-50-8	D	5.70E-03	10/12/2009	1.30E+00	FM	4.4E-03
Landbay E	DW-34	Deep	Inside	INORG	Iron	7439-89-6	D	1.19E+01	4/1/2010	1.10E+01	RSL-NC	**1.1E+00**
Landbay E	DW-34	Deep	Inside	INORG	Manganese	7439-96-5	D	3.86E-01	4/1/2010	3.80E-01	RSL-NC	1.0E+00
Landbay E	DW-34	Deep	Inside	INORG	Perchlorate	14797-73-0	NC	1.80E-02	9/30/2008	1.50E-02	IHA	**1.2E+00**
Landbay E	DW-34	Deep	Inside	INORG	Strontium	7440-24-6		5.26E-01	10/12/2009	9.40E+00	RSL-NC	5.6E-02
Landbay E	DW-34	Deep	Inside	INORG	Zinc	7440-66-6	ID	1.97E-02	4/1/2010	4.70E+00	RSL-NC	4.2E-03
Landbay E	GP 40-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	8/9/2002	1.20E-01	RSL-C	2.5E-02
Landbay E	GP 40-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	9.00E-03	8/9/2002	7.00E-03	FM	**1.3E+00**
Landbay E	GP 40-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.60E-02	8/9/2002	7.00E-02	FM	6.6E-01
Landbay E	GP 40-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	7.60E-01	8/9/2002	5.00E-03	FM	**1.5E+02**
Landbay E	GP 40-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.20E-02	8/9/2002	5.00E-03	FM	**6.4E+00**
Landbay E	GP 40-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.50E+00	8/9/2002	1.50E-02	IHA	**1.0E+02**
Landbay E	GP 40-02	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	8.00E-03	7/30/2002	1.00E-01	FM	8.0E-02
Landbay E	GP 40-02	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-01	7/30/2002	7.00E-02	FM	**2.9E+00**
Landbay E	GP 40-02	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.20E-02	7/30/2002	1.00E-01	FM	1.2E-01
Landbay E	GP 40-02	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	8.90E-02	7/30/2002	5.00E-03	FM	**1.8E+01**
Landbay E	GP 40-02	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	6.00E-02	7/30/2002	5.00E-03	FM	**1.2E+01**
Landbay E	GP 40-02	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	3.10E-02	7/30/2002	2.00E-03	FM	**1.6E+01**
Landbay E	GP 40-02	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	6.60E-02	7/30/2002	1.50E-02	IHA	**4.4E+00**
Landbay E	GP 40-03	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	7/23/2002	1.20E-01	RSL-C	1.7E-02
Landbay E	GP 40-03	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	7/23/2002	7.00E-03	FM	8.6E-01
Landbay E	GP 40-03	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	7/23/2002	7.00E-02	FM	5.7E-02
Landbay E	GP 40-03	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	7/23/2002	5.00E-03	FM	4.0E-01
Landbay E	GP 40-03	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	7/23/2002	5.00E-03	FM	6.0E-01
Landbay E	GP 40-03	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/23/2002	2.00E-03	FM	1.0E+00
Landbay E	GP 40-04	Shallow	Inside	VOC	Chloroform	67-66-3	B2	1.20E-02	7/24/2002	8.00E-02	FM	1.5E-01
Landbay E	GP 40-04	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.20E-02	7/24/2002	7.00E-03	FM	**3.1E+00**
Landbay E	GP 40-04	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.80E-01	7/24/2002	7.00E-02	FM	**1.3E+01**
Landbay E	GP 40-04	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	4.00E-03	7/24/2002	1.00E-01	FM	4.0E-02
Landbay E	GP 40-04	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.80E+00	7/24/2002	5.00E-03	FM	**3.6E+02**
Landbay E	GP 40-04	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.10E-01	7/24/2002	5.00E-03	FM	**6.2E+01**
Landbay E	GP 40-04	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	6.40E-02	7/24/2002	2.00E-03	FM	**3.2E+01**
Landbay E	GP 40-04	Shallow	Inside	SVOC	Naphthalene	91-20-3	C	2.00E-03	7/24/2002	3.10E-01	RSL-NC	6.5E-03
Landbay E	GP 40-04	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	8.50E-01	7/24/2002	1.50E-02	IHA	**5.7E+01**
Landbay E	GP 40-08	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	7/24/2002	1.20E-01	RSL-C	1.7E-02
Landbay E	GP 40-08	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	7/24/2002	7.00E-03	FM	1.0E+00
Landbay E	GP 40-08	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	9.80E-02	7/24/2002	7.00E-02	FM	**1.4E+00**
Landbay E	GP 40-08	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	6.55E-01	7/24/2002	5.00E-03	FM	**1.3E+02**
Landbay E	GP 40-08	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.32E-01	7/24/2002	5.00E-03	FM	**2.6E+01**
Landbay E	GP 40-08	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	1.75E-03	7/24/2002	2.00E-03	FM	8.8E-01
Landbay E	GP 40-08	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	6.40E-02	7/24/2002	1.50E-02	IHA	**4.3E+00**
Landbay E	GP 45-01	Shallow	Inside	VOC	Chloroform	67-66-3	B2	5.00E-03	7/25/2002	8.00E-02	FM	6.3E-02
Landbay E	GP 45-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	7/25/2002	1.20E-01	RSL-C	2.5E-02
Landbay E	GP 45-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.60E-02	7/25/2002	7.00E-03	FM	**3.7E+00**
Landbay E	GP 45-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	7/25/2002	7.00E-02	FM	5.7E-02
Landbay E	GP 45-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.30E-02	7/25/2002	5.00E-03	FM	**2.6E+00**
Landbay E	GP 45-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	7/25/2002	5.00E-03	FM	8.0E-01
Landbay E	GP 45-01	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	2.00E-03	7/25/2002	2.00E-03	FM	1.0E+00
Landbay E	GP 45-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.25E-01	7/25/2002	1.50E-02	IHA	**6.2E+01**
Landbay E	GP 47-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	8/9/2002	1.20E-01	RSL-C	3.3E-02
Landbay E	GP 47-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.30E-02	8/9/2002	7.00E-03	FM	**1.9E+00**
Landbay E	GP 47-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.50E-02	8/9/2002	7.00E-02	FM	3.6E-01
Landbay E	GP 47-01	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	3.40E-01	8/9/2002	5.00E-03	FM	**6.8E+01**
Landbay E	GP 47-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.60E-02	8/9/2002	5.00E-03	FM	**3.2E+00**
Landbay E	GP 47-01	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		1.80E+01	9/25/2002			
Landbay E	GP 47-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.12E+00	8/9/2002	1.50E-02	IHA	**7.5E+01**
Landbay E	GP 47-03	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	7/24/2002	1.20E-01	RSL-C	2.5E-02
Landbay E	GP 47-03	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	7/24/2002	7.00E-03	FM	8.6E-01
Landbay E	GP 47-03	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.00E-03	7/24/2002	7.00E-02	FM	7.1E-02
Landbay E	GP 47-03	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.40E-02	7/24/2002	5.00E-03	FM	**2.8E+00**
Landbay E	GP 47-03	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	2.00E-03	7/24/2002	5.00E-03	FM	4.0E-01
Landbay E	GP 47-03	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.34E+00	7/24/2002	1.50E-02	IHA	**1.6E+02**
Landbay E	GP 47-05	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	7.31E-01	7/22/2002	1.50E-02	IHA	**4.9E+01**
Landbay E	GP 47-07	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	8/9/2002	1.20E-01	RSL-C	3.3E-02
Landbay E	GP 47-07	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.20E-02	8/9/2002	7.00E-03	FM	**1.7E+00**
Landbay E	GP 47-07	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.60E-02	8/9/2002	7.00E-02	FM	3.7E-01
Landbay E	GP 47-07	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	3.60E-01	8/9/2002	5.00E-03	FM	**7.2E+01**
Landbay E	GP 47-07	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	2.80E-02	8/9/2002	5.00E-03	FM	**5.6E+00**
Landbay E	GP 47-07	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.56E+00	8/9/2002	1.50E-02	IHA	**1.0E+02**

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay E	GP 47-08	Shallow	Outside	WQ	Chloride	16887-00-6		4.90E+00	2/22/2007			
Landbay E	GP 47-08	Shallow	Outside	WQ	Sulfate	14808-79-8		2.83E+01	11/3/2004			
Landbay E	GP 47-08	Shallow	Outside	VOC	Bromoform	75-25-2	B2	3.00E-03	3/2/2005	8.00E-02	FM	3.8E-02
Landbay E	GP 47-08	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.00E-03	2/22/2007	7.00E-02	FM	1.1E-01
Landbay E	GP 47-08	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	3/2/2005	5.00E-03	FM	4.0E-01
Landbay E	GP 47-08	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		2.32E+01	8/25/2004			
Landbay E	GP 47-08	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	6.00E-04	2/22/2007	1.50E-02	IHA	4.0E-02
Landbay E	GP 47-09	Shallow	Outside	VOC	Acetone	67-64-1	ID	1.30E-02	5/14/2004	1.40E+01	RSL-NC	9.3E-04
Landbay E	GP 47-09	Shallow	Outside	VOC	2-Butanone	78-93-3	ID	3.00E-03	5/14/2004	9.40E+00	RSL-NC	3.2E-04
Landbay E	GP 47-09	Shallow	Outside	VOC	Carbon Disulfide	75-15-0		4.00E-03	5/14/2004	1.60E+00	RSL-NC	2.5E-03
Landbay E	GP 47-09	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-02	5/14/2004	7.00E-02	FM	2.9E-01
Landbay E	GP 47-09	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	5/14/2004	5.00E-03	FM	2.0E-01
Landbay E	GP 47-09	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.42E-01	5/14/2004	1.50E-02	IHA	**9.5E+00**
Landbay E	GP 47-10	Shallow	Outside	VOC	Acetone	67-64-1	ID	6.00E-03	5/14/2004	1.40E+01	RSL-NC	4.3E-04
Landbay E	GP 47-10	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	5/14/2004	7.00E-02	FM	1.4E-02
Landbay E	GP 47-12	Shallow	Outside	WQ	Chloride	16887-00-6		3.70E+00	2/22/2007			
Landbay E	GP 47-12	Shallow	Outside	WQ	Sulfate	14808-79-8		4.74E+01	2/4/2004			
Landbay E	GP 47-12	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		1.42E+02	10/23/2002			
Landbay E	GP 47-12	Shallow	Outside	INORG	Iron	7439-89-6	D	4.94E+01	2/4/2004	1.10E+01	RSL-NC	**4.5E+00**
Landbay E	GP 47-12	Shallow	Outside	INORG	Manganese	7439-96-5	D	7.40E-01	2/4/2004	3.80E-01	RSL-NC	**1.9E+00**
Landbay E	GP 47-12	Shallow	Outside	INORG	Nitrate	14797-55-8		4.70E-01	2/4/2004	1.00E+01	FM	4.7E-02
Landbay E	GP 47-12	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.00E-04	2/22/2007	1.50E-02	IHA	1.3E-02
Landbay E	GP 47-14	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	6.00E-03	8/9/2002	1.20E-01	RSL-C	5.0E-02
Landbay E	GP 47-14	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.10E-02	8/9/2002	7.00E-03	FM	**3.0E+00**
Landbay E	GP 47-14	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.60E-02	8/9/2002	7.00E-02	FM	3.7E-01
Landbay E	GP 47-14	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.70E-01	8/9/2002	5.00E-03	FM	**3.4E+01**
Landbay E	GP 47-14	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.10E-02	5/14/2004	2.00E-01	FM	5.5E-02
Landbay E	GP 47-14	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-02	8/9/2002	5.00E-03	FM	**2.0E+00**
Landbay E	GP 47-14	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.45E+00	8/9/2002	1.50E-02	IHA	**1.6E+02**
Landbay E	GP 47-19	Shallow	Outside	VOC	Bromoform	75-25-2	B2	3.00E-03	3/2/2005	8.00E-02	FM	3.8E-02
Landbay E	GP 47-19	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	3/2/2005	5.00E-03	FM	4.0E-01
Landbay E	GP 47-21	Shallow	Outside	VOC	Chloroform	67-66-3	B2	3.00E-03	9/26/2002	8.00E-02	FM	3.8E-02
Landbay E	GP 47-21	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	9/26/2002	1.20E-01	RSL-C	2.5E-02
Landbay E	GP 47-21	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.20E-02	9/26/2002	7.00E-03	FM	**1.7E+00**
Landbay E	GP 47-21	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-02	9/26/2002	7.00E-02	FM	1.4E-01
Landbay E	GP 47-21	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	4.50E-02	9/26/2002	5.00E-03	FM	**9.0E+00**
Landbay E	GP 47-21	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	8.00E-03	9/26/2002	5.00E-03	FM	**1.6E+00**
Landbay E	GP 47-22	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.50E-03	9/26/2002	1.20E-01	RSL-C	2.1E-02
Landbay E	GP 47-22	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	9/26/2002	7.00E-03	FM	8.6E-01
Landbay E	GP 47-22	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-02	9/26/2002	7.00E-02	FM	2.9E-01
Landbay E	GP 47-22	Shallow	Outside	VOC	Methyl tert-butyl ether	1634-04-4	C	1.75E-03	9/26/2002	3.70E-01	RSL-C	4.7E-03
Landbay E	GP 47-22	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	6.05E-02	9/26/2002	5.00E-03	FM	**1.2E+01**
Landbay E	GP 47-22	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-02	9/26/2002	5.00E-03	FM	**2.0E+00**
Landbay E	GP PBS-05	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	7/30/2002	5.00E-03	FM	4.0E-01
Landbay E	GP PBS-05	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	7/30/2002	5.00E-03	FM	2.0E-01
Landbay E	IW-1	Deep	Inside	VOC	Acetone	67-64-1	ID	1.80E-02	4/1/2010	1.40E+01	RSL-NC	1.3E-03
Landbay E	IW-1	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	4/1/2010	1.20E-01	RSL-C	2.5E-02
Landbay E	IW-1	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.30E-02	4/1/2010	7.00E-03	FM	**1.9E+00**
Landbay E	IW-1	Deep	Inside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	4/1/2010	5.00E-03	FM	4.0E-01
Landbay E	IW-1	Deep	Inside	VOC	Toluene	108-88-3	ID	7.00E-04	10/12/2009	1.00E+00	FM	7.0E-04
Landbay E	IW-1	Deep	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.00E-03	10/12/2009	4.70E+02	RSL-NC	4.3E-06
Landbay E	IW-1	Deep	Inside	VOC	Vinyl Chloride	75-01-4	A	3.00E-03	4/1/2010	2.00E-03	FM	**1.5E+00**
Landbay E	IW-1	Deep	Inside	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2.50E-03	4/1/2010	6.00E-03	FM	4.2E-01
Landbay E	IW-1	Deep	Inside	INORG	Barium	7440-39-3	NC	3.33E-02	10/12/2009	2.00E+00	FM	1.7E-02
Landbay E	IW-1	Deep	Inside	INORG	Boron	7440-42-8	ID	2.00E-01	4/1/2010	3.10E+00	RSL-NC	6.5E-02
Landbay E	IW-1	Deep	Inside	INORG	Copper	7440-50-8	D	4.50E-03	10/12/2009	1.30E+00	FM	3.5E-03
Landbay E	IW-1	Deep	Inside	INORG	Iron	7439-89-6	D	8.65E+00	4/1/2010	1.10E+01	RSL-NC	7.9E-01
Landbay E	IW-1	Deep	Inside	INORG	Manganese	7439-96-5	D	6.16E-01	4/1/2010	3.80E-01	RSL-NC	**1.6E+00**
Landbay E	IW-1	Deep	Inside	INORG	Nickel	7440-02-0	A	4.30E-03	4/1/2010	3.10E-01	RSL-NC	1.4E-02
Landbay E	IW-1	Deep	Inside	INORG	Strontium	7440-24-6		6.32E-01	10/12/2009	9.40E+00	RSL-NC	6.7E-02
Landbay E	IW-3	Deep	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	3/18/2010	1.20E-01	RSL-C	8.3E-03
Landbay E	IW-3	Deep	Inside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	3/18/2010	7.00E-03	FM	7.1E-01
Landbay E	IW-3	Deep	Inside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	1.80E-04	10/21/2009	6.10E-03	RSL-C	3.0E-02
Landbay E	MPIT 40 A-01	Shallow	Outside	WQ	Sulfate	14808-79-8		3.24E+01	8/26/2004			
Landbay E	MPIT 40 A-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E+00	6/1/2008	7.00E-02	FM	**1.4E+01**
Landbay E	MPIT 40 A-01	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.70E-01	6/1/2008	5.00E-03	FM	**5.4E+01**
Landbay E	MPIT 40 A-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	9.20E-02	6/1/2008	5.00E-03	FM	**1.8E+01**
Landbay E	MPIT 40 A-01	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	9.20E-02	6/1/2008	2.00E-03	FM	**4.6E+01**
Landbay E	MPIT 40 A-01	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		1.32E+01	8/26/2004			
Landbay E	MPIT 40 A-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.15E-01	5/12/2005	1.50E-02	IHA	**7.7E+00**
Landbay E	MPIT 40 A-02	Shallow	Outside	WQ	Chloride	16887-00-6		7.95E+00	2/21/2007			
Landbay E	MPIT 40 A-02	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	2/21/2007	7.00E-03	FM	4.3E-01
Landbay E	MPIT 40 A-02	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.85E-01	2/21/2007	7.00E-02	FM	**8.4E+00**
Landbay E	MPIT 40 A-02	Shallow	Outside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	4.00E-03	2/21/2007	1.00E-01	FM	4.0E-02
Landbay E	MPIT 40 A-02	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.80E-02	2/21/2007	5.00E-03	FM	**3.6E+00**
Landbay E	MPIT 40 A-02	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	6.10E-02	2/21/2007	5.00E-03	FM	**1.2E+01**
Landbay E	MPIT 40 A-02	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	4.50E-02	2/21/2007	2.00E-03	FM	**2.3E+01**
Landbay E	MPIT 40 B-01	Shallow	Inside	WQ	Chloride	16887-00-6		1.79E+01	2/21/2007			
Landbay E	MPIT 40 B-01	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	9.00E-04	2/21/2007	1.00E-01	FM	9.0E-03
Landbay E	MPIT 40 B-01	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	3.00E-03	2/21/2007			
Landbay E	MPIT 40 B-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	2/21/2007	1.20E-01	RSL-C	2.5E-02
Landbay E	MPIT 40 B-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.20E-02	2/21/2007	7.00E-02	FM	3.1E-01
Landbay E	MPIT 40 B-01	Shallow	Inside	VOC	Toluene	108-88-3	ID	2.10E-02	2/21/2007	1.00E+00	FM	2.1E-02
Landbay E	MPIT 40 B-01	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	7.10E-02	2/21/2007	2.00E-03	FM	**3.6E+01**
Landbay E	MPIT 40 B-01	Shallow	Inside	PHYS	Organic Carbon (total)	C-012		3.04E+02	9/1/2004			
Landbay E	MPIT 40 B-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.00E-03	2/21/2007	1.50E-02	IHA	6.7E-02
Landbay E	MPIT 40 B-03	Shallow	Inside	WQ	Chloride	16887-00-6		1.72E+01	2/21/2007			
Landbay E	MPIT 40 B-03	Shallow	Inside	WQ	Sulfate	14808-79-8		4.64E+01	11/3/2004			
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	9.00E-04	11/17/2005	1.00E-01	FM	9.0E-03
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	2.00E-03	11/17/2005			
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	11/17/2005	1.20E-01	RSL-C	4.2E-02
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.40E-02	5/12/2005	7.00E-03	FM	**2.0E+00**
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.30E+00	11/17/2005	7.00E-02	FM	**3.3E+01**
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	2.50E-02	11/17/2005	1.00E-01	FM	2.5E-01
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	7.30E-01	5/12/2005	5.00E-03	FM	**1.5E+02**
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	Toluene	108-88-3	ID	2.20E-02	11/17/2005	1.00E+00	FM	2.2E-02
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	11/17/2005	2.00E-01	FM	3.5E-02
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.80E-01	11/17/2005	5.00E-03	FM	**7.6E+01**
Landbay E	MPIT 40 B-03	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	3.00E-01	11/17/2005	2.00E-03	FM	**1.5E+02**
Landbay E	MPIT 40 B-03	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	9.98E-02	5/12/2005	1.50E-02	IHA	**6.7E+00**
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	Acetone	67-64-1	ID	2.60E-02	11/3/2004	1.40E+01	RSL-NC	1.9E-03
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	2-Butanone	78-93-3	ID	2.00E-02	11/3/2004	9.40E+00	RSL-NC	2.1E-03
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	4.00E-03	11/3/2004			
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	5/12/2005	1.20E-01	RSL-C	4.2E-02
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.80E-02	3/3/2005	7.00E-03	FM	**2.6E+00**
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	7.00E-03	5/12/2005	7.00E-02	FM	1.0E-01
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-02	3/3/2005	5.00E-03	FM	**2.2E+00**
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	Toluene	108-88-3	ID	2.60E-01	11/3/2004	1.00E+00	FM	2.6E-01
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	5/12/2005	2.00E-01	FM	2.0E-02
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-02	5/12/2005	5.00E-03	FM	**2.0E+00**
Landbay E	MPIT 40 C-01	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	9.00E-03	11/3/2004	2.00E-03	FM	**4.5E+00**
Landbay E	MPIT 40 C-01	Shallow	Inside	PHYS	Organic Carbon (total)	C-012		5.37E+02	9/1/2004			
Landbay E	MPIT 40 C-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.63E-02	3/3/2005	1.50E-02	IHA	**1.1E+00**
Landbay E	MPIT 46 A-01	Shallow	Outside	WQ	Sulfate	14808-79-8		4.30E+00	9/29/2003			
Landbay E	MPIT 46 A-01	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		8.30E+00	6/10/2003			
Landbay E	MPIT 46 A-01	Shallow	Outside	INORG	Iron	7439-89-6	D	9.03E+00	9/29/2003	1.10E+01	RSL-NC	8.2E-01
Landbay E	MPIT 46 A-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	1.51E+00	9/29/2003	3.80E-01	RSL-NC	**4.0E+00**
Landbay E	MPIT 46 A-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.80E-02	4/2/2003	1.50E-02	IHA	**1.9E+00**
Landbay E	MPIT 46 B-02	Shallow	Outside	WQ	Chloride	16887-00-6		1.70E+01	2/22/2007			
Landbay E	MPIT 46 B-02	Shallow	Outside	WQ	Sulfate	14808-79-8		4.60E+01	8/25/2004			
Landbay E	MPIT 46 B-02	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	5/12/2005	1.20E-01	RSL-C	2.5E-02
Landbay E	MPIT 46 B-02	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-02	3/2/2005	7.00E-03	FM	**1.4E+00**
Landbay E	MPIT 46 B-02	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	9.80E-02	5/12/2005	7.00E-02	FM	**1.4E+00**
Landbay E	MPIT 46 B-02	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-01	3/2/2005	5.00E-03	FM	**2.2E+01**
Landbay E	MPIT 46 B-02	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	3/2/2005	2.00E-01	FM	2.5E-02
Landbay E	MPIT 46 B-02	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.90E-02	3/2/2005	5.00E-03	FM	**3.8E+00**
Landbay E	MPIT 46 B-02	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	4.00E-03	2/22/2007	2.00E-03	FM	**2.0E+00**
Landbay E	MPIT 46 B-02	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		2.00E+00	8/25/2004			
Landbay E	MPIT 46 B-02	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	4.80E-02	2/22/2007	1.50E-02	IHA	**3.2E+00**
Landbay E	MPIT 46 C-01	Shallow	Outside	WQ	Chloride	16887-00-6		1.77E+01	2/21/2007			
Landbay E	MPIT 46 C-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	2/21/2007	1.20E-01	RSL-C	3.3E-02

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay E	MPIT 46 C-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.30E-02	2/21/2007	7.00E-03	FM	**3.3E+00**
Landbay E	MPIT 46 C-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	2/21/2007	7.00E-02	FM	5.7E-02
Landbay E	MPIT 46 C-01	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-02	2/21/2007	5.00E-03	FM	**2.0E+00**
Landbay E	MPIT 46 C-01	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	2/21/2007	2.00E-01	FM	2.0E-02
Landbay E	MPIT 46 C-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	2.00E-02	2/21/2007	5.00E-03	FM	**4.0E+00**
Landbay E	MPIT 46 C-01	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	4.00E-03	2/21/2007	2.00E-03	FM	**2.0E+00**
Landbay E	MPIT 46 C-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	7.30E-02	2/21/2007	1.50E-02	IHA	**4.9E+00**
Landbay E	MPIT 46 C-02	Shallow	Outside	WQ	Chloride	16887-00-6		1.07E+01	2/22/2007			
Landbay E	MPIT 46 C-02	Shallow	Outside	WQ	Sulfate	14808-79-8		3.25E+01	11/3/2004			
Landbay E	MPIT 46 C-02	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	2/22/2007	1.20E-01	RSL-C	3.3E-02
Landbay E	MPIT 46 C-02	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	2/23/2005	7.00E-03	FM	8.6E-01
Landbay E	MPIT 46 C-02	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.10E-01	5/12/2005	7.00E-02	FM	**1.6E+00**
Landbay E	MPIT 46 C-02	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.20E-01	2/23/2005	5.00E-03	FM	**4.4E+01**
Landbay E	MPIT 46 C-02	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	5/12/2005	2.00E-01	FM	1.5E-02
Landbay E	MPIT 46 C-02	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	5.30E-02	2/23/2005	5.00E-03	FM	**1.1E+01**
Landbay E	MPIT 46 C-02	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	1.30E-02	2/22/2007	2.00E-03	FM	**6.5E+00**
Landbay E	MPIT 46 C-02	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		5.60E+00	8/24/2004			
Landbay E	MPIT 46 C-02	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.18E-01	2/23/2005	1.50E-02	IHA	**1.5E+01**
Landbay E	MPIT 46 C-05	Shallow	Outside	WQ	Sulfate	14808-79-8		5.90E+00	11/3/2004			
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	Acetone	67-64-1	ID	1.00E-02	5/17/2006	1.40E+01	RSL-NC	7.1E-04
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	2-Butanone	78-93-3	ID	1.00E-02	8/24/2004	9.40E+00	RSL-NC	1.1E-03
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	Chloroethane	75-00-3	LC	3.00E-03	11/3/2004			
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	8/24/2004	1.20E-01	RSL-C	2.5E-02
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	6.00E-03	8/24/2004	7.00E-03	FM	8.6E-01
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.60E-01	8/24/2004	7.00E-02	FM	**2.3E+00**
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	8.00E-04	5/17/2006	1.00E-01	FM	8.0E-03
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	5.00E-03	8/24/2004	5.00E-03	FM	1.0E+00
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	Toluene	108-88-3	ID	1.40E-02	11/3/2004	1.00E+00	FM	1.4E-02
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	6.00E-03	8/24/2004	5.00E-03	FM	**1.2E+00**
Landbay E	MPIT 46 C-05	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	3.00E-03	11/3/2004	2.00E-03	FM	**1.5E+00**
Landbay E	MPIT 46 C-05	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		2.57E+01	8/24/2004			
Landbay E	MPIT 46 C-05	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	6.80E-04	5/17/2006	1.50E-02	IHA	4.5E-02
Landbay E	MPIT 46 C-07	Shallow	Outside	WQ	Chloride	16887-00-6		1.13E+01	2/21/2007			
Landbay E	MPIT 46 C-07	Shallow	Outside	WQ	Sulfate	14808-79-8		4.09E+01	8/25/2004			
Landbay E	MPIT 46 C-07	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	9/25/2007	1.20E-01	RSL-C	1.7E-02
Landbay E	MPIT 46 C-07	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	9/25/2007	7.00E-03	FM	2.9E-01
Landbay E	MPIT 46 C-07	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5.40E-02	9/25/2007	7.00E-02	FM	7.7E-01
Landbay E	MPIT 46 C-07	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.10E-01	9/25/2007	5.00E-03	FM	**2.2E+01**
Landbay E	MPIT 46 C-07	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	2.20E-02	9/25/2007	5.00E-03	FM	**4.4E+00**
Landbay E	MPIT 46 C-07	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	3.50E-03	6/1/2008	2.00E-03	FM	**1.8E+00**
Landbay E	MPIT 46 C-07	Shallow	Outside	SVOC	2,6-Dinitrotoluene	606-20-2	B2	1.70E-03	9/25/2007	1.60E-02	RSL-NC	1.1E-01
Landbay E	MPIT 46 C-07	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		8.36E+01	10/23/2002			
Landbay E	MPIT 46 C-07	Shallow	Outside	INORG	Iron	7439-89-6	D	1.54E+02	9/29/2003	1.10E+01	RSL-NC	**1.4E+01**
Landbay E	MPIT 46 C-07	Shallow	Outside	INORG	Manganese	7439-96-5	D	3.44E+00	9/29/2003	3.80E-01	RSL-NC	**9.1E+00**
Landbay E	MPIT 46 C-07	Shallow	Outside	INORG	Nitrate	14797-55-8		8.70E-01	6/10/2003	1.00E+01	FM	8.7E-02
Landbay E	MPIT 46 C-07	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	4.80E-02	6/1/2008	1.50E-02	IHA	**3.2E+00**
Landbay E	MPIT 46 C-08	Shallow	Outside	WQ	Chloride	16887-00-6		9.90E+00	2/22/2007			
Landbay E	MPIT 46 C-08	Shallow	Outside	VOC	Acetone	67-64-1	ID	1.00E-02	5/17/2006	1.40E+01	RSL-NC	7.1E-04
Landbay E	MPIT 46 C-08	Shallow	Outside	VOC	2-Butanone	78-93-3	ID	5.00E-03	5/17/2006	9.40E+00	RSL-NC	5.3E-04
Landbay E	MPIT 46 C-08	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	5/17/2006	1.20E-01	RSL-C	2.5E-02
Landbay E	MPIT 46 C-08	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	11/17/2006	7.00E-03	FM	2.9E-01
Landbay E	MPIT 46 C-08	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	9.00E-02	11/17/2006	7.00E-02	FM	**1.3E+00**
Landbay E	MPIT 46 C-08	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.30E-02	2/22/2007	5.00E-03	FM	**4.6E+00**
Landbay E	MPIT 46 C-08	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	6.00E-03	2/22/2007	5.00E-03	FM	**1.2E+00**
Landbay E	MPIT 46 C-08	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	6.00E-03	5/17/2006	2.00E-03	FM	**3.0E+00**
Landbay E	MPIT 46 C-08	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	9.00E-02	2/22/2007	1.50E-02	IHA	**6.0E+00**
Landbay E	MPIT 46 C-09	Shallow	Outside	WQ	Chloride	16887-00-6		1.11E+01	2/21/2007			
Landbay E	MPIT 46 C-09	Shallow	Outside	VOC	Chloroethane	75-00-3	LC	2.00E-03	5/17/2006			
Landbay E	MPIT 46 C-09	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	2/21/2007	1.20E-01	RSL-C	2.5E-02
Landbay E	MPIT 46 C-09	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	2/21/2007	7.00E-03	FM	4.3E-01
Landbay E	MPIT 46 C-09	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.10E-01	5/12/2005	7.00E-02	FM	**1.6E+00**
Landbay E	MPIT 46 C-09	Shallow	Outside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.00E-03	5/12/2005	1.00E-01	FM	1.0E-02
Landbay E	MPIT 46 C-09	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	4.40E-02	5/12/2005	5.00E-03	FM	**8.8E+00**
Landbay E	MPIT 46 C-09	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	9.30E-02	2/21/2007	5.00E-03	FM	**1.9E+01**
Landbay E	MPIT 46 C-09	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	2.50E-02	5/12/2005	2.00E-03	FM	**1.3E+01**
Landbay E	MPIT 46 C-09	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	8.50E-04	5/17/2006	1.50E-02	IHA	5.7E-02
Landbay E	MPIT 46 D-01	Shallow	Outside	WQ	Chloride	16887-00-6		1.35E+01	2/21/2007			
Landbay E	MPIT 46 D-01	Shallow	Outside	WQ	Sulfate	14808-79-8		1.90E+00	8/26/2004			
Landbay E	MPIT 46 D-01	Shallow	Outside	VOC	Bromoform	75-25-2	B2	3.00E-03	3/2/2005	8.00E-02	FM	3.8E-02
Landbay E	MPIT 46 D-01	Shallow	Outside	VOC	Chloroethane	75-00-3	LC	2.00E-03	3/2/2005			
Landbay E	MPIT 46 D-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	2/21/2007	1.20E-01	RSL-C	2.5E-02
Landbay E	MPIT 46 D-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.50E-02	2/21/2007	7.00E-02	FM	2.1E-01
Landbay E	MPIT 46 D-01	Shallow	Outside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.00E-03	2/21/2007	1.00E-01	FM	1.0E-02
Landbay E	MPIT 46 D-01	Shallow	Outside	VOC	Toluene	108-88-3	ID	6.80E-02	5/12/2005	1.00E+00	FM	6.8E-02
Landbay E	MPIT 46 D-01	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	1.60E-02	2/21/2007	2.00E-03	FM	**8.0E+00**
Landbay E	MPIT 46 D-01	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		6.28E+01	8/26/2004			
Landbay E	MPIT 46 E-01	Shallow	Outside	WQ	Chloride	16887-00-6		5.40E+00	2/21/2007			
Landbay E	MPIT 46 E-01	Shallow	Outside	WQ	Sulfate	14808-79-8		1.70E+00	8/26/2004			
Landbay E	MPIT 46 E-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.00E-03	2/21/2007	7.00E-02	FM	1.1E-01
Landbay E	MPIT 46 E-01	Shallow	Outside	VOC	Toluene	108-88-3	ID	6.10E-02	5/12/2005	1.00E+00	FM	6.1E-02
Landbay E	MPIT 46 E-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	7.00E-03	2/21/2007	5.00E-03	FM	**1.4E+00**
Landbay E	MPIT 46 E-01	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	4.00E-03	2/21/2007	2.00E-03	FM	**2.0E+00**
Landbay E	MPIT 46 E-01	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		2.18E+02	8/26/2004			
Landbay E	MPIT 46 E-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.00E-04	2/21/2007	1.50E-02	IHA	2.0E-02
Landbay E	RW-1	Shallow	Outside	WQ	Chloride	16887-00-6		1.07E+01	2/15/2007			
Landbay E	RW-1	Shallow	Outside	WQ	Sulfate	14808-79-8		4.67E+01	8/25/2004			
Landbay E	RW-1	Shallow	Outside	VOC	Acetate	71-50-1		4.39E+01	9/29/2003			
Landbay E	RW-1	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	9/28/2007	1.20E-01	RSL-C	2.5E-02
Landbay E	RW-1	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	9/28/2007	7.00E-03	FM	5.7E-01
Landbay E	RW-1	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.30E-02	9/28/2007	7.00E-02	FM	6.1E-01
Landbay E	RW-1	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	5.20E-02	2/15/2007	5.00E-03	FM	**1.0E+01**
Landbay E	RW-1	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	2/15/2007	2.00E-01	FM	1.0E-02
Landbay E	RW-1	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.20E-02	2/15/2007	5.00E-03	FM	**6.4E+00**
Landbay E	RW-1	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	5.00E-03	9/28/2007	2.00E-03	FM	**2.5E+00**
Landbay E	RW-1	Shallow	Outside	SVOC	2,6-Dinitrotoluene	606-20-2	B2	1.40E-03	9/28/2007	1.60E-02	RSL-NC	8.8E-02
Landbay E	RW-1	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		3.51E+01	9/29/2003			
Landbay E	RW-1	Shallow	Outside	INORG	Iron	7439-89-6	D	5.52E-01	9/29/2003	1.10E+01	RSL-NC	5.0E-02
Landbay E	RW-1	Shallow	Outside	INORG	Manganese	7439-96-5	D	2.37E+00	9/29/2003	3.80E-01	RSL-NC	**6.2E+00**
Landbay E	RW-1	Shallow	Outside	INORG	Nitrate	14797-55-8		5.60E-01	6/10/2003	1.00E+01	FM	5.6E-02
Landbay E	RW-1	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	6.40E-01	5/28/2008	1.50E-02	IHA	**4.3E+01**
Landbay E	SW 200-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	7/30/2009	1.20E-01	RSL-C	4.2E-02
Landbay E	SW 200-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	7/30/2009	7.00E-03	FM	7.1E-01
Landbay E	SW 200-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	8.00E-03	7/30/2009	5.00E-03	FM	**1.6E+00**
Landbay E	SW 200-02	Shallow	Outside	VOC	Chlorobenzene	108-90-7	D	1.00E-03	7/30/2009	1.00E-01	FM	1.0E-02
Landbay E	SW 200-02	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	9/1/2011	1.20E-01	RSL-C	8.3E-03
Landbay E	SW 200-02	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	9/1/2011	7.00E-03	FM	2.9E-01
Landbay E	SW 200-02	Shallow	Outside	VOC	1,4-Dioxane	123-91-1	LC	5.30E-04	9/1/2011	6.70E-03	RSL-C	7.9E-02
Landbay E	SW 200-02	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	9/1/2011	2.00E-01	FM	5.0E-03
Landbay E	SW 200-02	Shallow	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		6.60E-03	5/31/2008	4.70E+02	RSL-NC	1.4E-05
Landbay E	SW 200-03	Shallow	Outside	INORG	Barium	7440-39-3	NC	1.10E-03	5/28/2008	2.00E+00	FM	5.5E-04
Landbay E	SW 200-03	Shallow	Outside	INORG	Boron	7440-42-8	ID	1.15E-01	5/28/2008	3.10E+00	RSL-NC	3.7E-02
Landbay E	SW 200-03	Shallow	Outside	INORG	Manganese	7439-96-5	D	2.58E-01	5/28/2008	3.80E-01	RSL-NC	6.8E-01
Landbay E	SW 200-03	Shallow	Outside	INORG	Nickel	7440-02-0	A	5.70E-03	5/28/2008	3.10E-01	RSL-NC	1.8E-02
Landbay E	SW 200-03	Shallow	Outside	INORG	Strontium	7440-24-6		5.40E-02	5/28/2008	9.40E+00	RSL-NC	5.7E-03
Landbay E	SW 200-03	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	1.91E-02	5/28/2008	7.90E-02	RSL-NC	2.4E-01
Landbay E	SW 200-03	Shallow	Outside	INORG	Zinc	7440-66-6	ID	1.50E-02	5/28/2008	4.70E+00	RSL-NC	3.2E-03
Landbay E	SW 204-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	5.50E-03	5/28/2008	2.00E+00	FM	2.8E-03
Landbay E	SW 204-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	1.57E-01	5/28/2008	3.10E+00	RSL-NC	5.1E-02
Landbay E	SW 204-01	Shallow	Outside	INORG	Copper	7440-50-8	D	4.10E-03	5/28/2008	1.30E+00	FM	3.2E-03
Landbay E	SW 204-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	1.31E-01	9/1/2011	3.80E-01	RSL-NC	3.4E-01
Landbay E	SW 204-01	Shallow	Outside	INORG	Mercury	7439-97-6	D	9.90E-05	5/28/2008	2.00E-03	FM	5.0E-02
Landbay E	SW 204-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.40E-03	5/13/2004	1.50E-02	IHA	1.6E-01
Landbay E	SW 204-01	Shallow	Outside	INORG	Strontium	7440-24-6		8.08E-02	5/28/2008	9.40E+00	RSL-NC	8.6E-03
Landbay E	SW 204-01	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	3.80E-02	5/28/2008	7.90E-02	RSL-NC	4.8E-01
Landbay E	SW 204-01	Shallow	Outside	INORG	Zinc	7440-66-6	ID	2.42E-02	5/28/2008	4.70E+00	RSL-NC	5.1E-03
Landbay E	SW 212-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	9/13/2011	1.20E-01	RSL-C	2.5E-02
Landbay E	SW 212-01	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	9/13/2011	2.00E-01	FM	2.0E-02
Landbay E	SW 212-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.90E-03	3/19/2010	1.50E-02	IHA	1.9E-01
Landbay E	SW 222-01	Shallow	Outside	VOC	Chloroform	67-66-3	B2	9.00E-04	5/13/2004	8.00E-02	FM	1.1E-02
Landbay E	SW 222-01	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	6.00E-03	5/13/2004	1.20E-01	RSL-C	5.0E-02
Landbay E	SW 222-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.90E-02	5/13/2004	7.00E-03	FM	**4.1E+00**

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay E	SW 222-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	9.00E-04	5/13/2004	7.00E-02	FM	1.3E-02
Landbay E	SW 222-01	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.10E-02	5/13/2004	2.00E-01	FM	1.1E-01
Landbay E	SW 222-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.10E-02	5/13/2004	5.00E-03	FM	**2.2E+00**
Landbay E	SW 222-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	9.00E-03	5/28/2008	2.00E+00	FM	4.5E-03
Landbay E	SW 222-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	1.59E-01	5/28/2008	3.10E+00	RSL-NC	5.1E-02
Landbay E	SW 222-01	Shallow	Outside	INORG	Chromium (total)	7440-47-3		3.20E-03	5/28/2008	1.00E-01	FM	3.2E-02
Landbay E	SW 222-01	Shallow	Outside	INORG	Cobalt	7440-48-4	LC	1.26E-02	5/28/2008	4.70E-03	RSL-NC	**2.7E+00**
Landbay E	SW 222-01	Shallow	Outside	INORG	Iron	7439-89-6	D	9.66E-01	5/28/2008	1.10E+01	RSL-NC	8.8E-02
Landbay E	SW 222-01	Shallow	Outside	INORG	Lead	7439-92-1	B2	1.41E-02	5/28/2008	1.50E-02	FM	9.4E-01
Landbay E	SW 222-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	1.29E+00	5/28/2008	3.80E-01	RSL-NC	**3.4E+00**
Landbay E	SW 222-01	Shallow	Outside	INORG	Nickel	7440-02-0	A	1.53E-02	5/28/2008	3.10E-01	RSL-NC	4.9E-02
Landbay E	SW 222-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	5.10E-02	11/5/2002	1.50E-02	IHA	**3.4E+00**
Landbay E	SW 222-01	Shallow	Outside	INORG	Strontium	7440-24-6		3.35E-01	5/28/2008	9.40E+00	RSL-NC	3.6E-02
Landbay E	SW 222-01	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	1.18E-02	5/28/2008	7.90E-02	RSL-NC	1.5E-01
Landbay E	SW 222-02	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	9/1/2011	7.00E-03	FM	4.3E-01
Landbay E	SW 222-02	Shallow	Outside	VOC	1,4-Dioxane	123-91-1	LC	4.40E-03	9/1/2011	6.70E-03	RSL-C	6.6E-01
Landbay E	SW 222-02	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	9/1/2011	2.00E-01	FM	1.5E-02
Landbay E	SW 222-02	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	9/1/2011	5.00E-03	FM	2.0E-01
Landbay E	SW 222-02	Shallow	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		6.30E-03	5/30/2008	4.70E+02	RSL-NC	1.3E-05
Landbay E	SW 222-02	Shallow	Outside	INORG	Barium	7440-39-3	NC	3.17E-02	5/30/2008	2.00E+00	FM	1.6E-02
Landbay E	SW 222-02	Shallow	Outside	INORG	Boron	7440-42-8	ID	1.02E-01	5/30/2008	3.10E+00	RSL-NC	3.3E-02
Landbay E	SW 222-02	Shallow	Outside	INORG	Manganese	7439-96-5	D	9.90E-03	9/1/2011	3.80E-01	RSL-NC	2.6E-02
Landbay E	SW 222-02	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.30E-02	9/1/2011	1.50E-02	IHA	8.7E-01
Landbay E	SW 222-02	Shallow	Outside	INORG	Strontium	7440-24-6		1.24E-01	5/30/2008	9.40E+00	RSL-NC	1.3E-02
Landbay E	SW 222-02	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	8.70E-03	5/30/2008	7.90E-02	RSL-NC	1.1E-01
Landbay E	SW 222-02	Shallow	Outside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	1.90E-03	5/30/2008	7.80E-01	RSL-NC	2.4E-03
Landbay E	SW 250-01	Shallow	Outside	INORG	Barium	7440-39-3	NC	5.70E-03	5/30/2008	2.00E+00	FM	2.9E-03
Landbay E	SW 250-01	Shallow	Outside	INORG	Boron	7440-42-8	ID	1.80E-01	5/30/2008	3.10E+00	RSL-NC	5.8E-02
Landbay E	SW 250-01	Shallow	Outside	INORG	Cobalt	7440-48-4	LC	3.60E-03	5/30/2008	4.70E-03	RSL-NC	7.7E-01
Landbay E	SW 250-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	4.12E-01	5/30/2008	3.80E-01	RSL-NC	**1.1E+00**
Landbay E	SW 250-01	Shallow	Outside	INORG	Nickel	7440-02-0	A	6.50E-03	5/30/2008	3.10E-01	RSL-NC	2.1E-02
Landbay E	SW 250-01	Shallow	Outside	INORG	Strontium	7440-24-6		1.28E-01	5/30/2008	9.40E+00	RSL-NC	1.4E-02
Landbay E	SW 250-01	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	2.60E-03	5/30/2008	7.90E-02	RSL-NC	3.3E-02
Landbay E	SW 28-40	Shallow	Outside	WQ	Sulfate	14808-79-8		1.68E+01	1/22/2004			
Landbay E	SW 28-40	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	5/17/2006	1.20E-01	RSL-C	8.3E-03
Landbay E	SW 28-40	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	5.00E-03	5/17/2006	5.00E-03	FM	1.0E+00
Landbay E	SW 28-40	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	5/17/2006	2.00E-01	FM	3.5E-02
Landbay E	SW 28-40	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	5/17/2006	5.00E-03	FM	2.0E-01
Landbay E	SW 28-40	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		4.70E+00	1/22/2004			
Landbay E	SW 28-40	Shallow	Outside	INORG	Iron	7439-89-6	D	4.00E+01	1/22/2004	1.10E+01	RSL-NC	**3.6E+00**
Landbay E	SW 28-40	Shallow	Outside	INORG	Manganese	7439-96-5	D	3.92E-01	1/22/2004	3.80E-01	RSL-NC	1.0E+00
Landbay E	SW 28-40	Shallow	Outside	INORG	Nitrate	14797-55-8		5.70E-01	1/22/2004	1.00E+01	FM	5.7E-02
Landbay E	SW 28-40	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.30E-03	5/17/2006	1.50E-02	IHA	8.7E-02
Landbay E	SW 28-41	Shallow	Outside	WQ	Chloride	16887-00-6		4.14E+01	6/10/2003			
Landbay E	SW 28-41	Shallow	Outside	WQ	Sulfate	14808-79-8		4.62E+01	5/12/2006			
Landbay E	SW 28-41	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	3/29/2010	1.20E-01	RSL-C	1.7E-02
Landbay E	SW 28-41	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	9/9/2011	7.00E-03	FM	7.1E-01
Landbay E	SW 28-41	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	6.00E-03	3/29/2010	7.00E-02	FM	8.6E-02
Landbay E	SW 28-41	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	3.10E-02	9/9/2011	5.00E-03	FM	**6.2E+00**
Landbay E	SW 28-41	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.30E-02	3/29/2010	2.00E-01	FM	6.5E-02
Landbay E	SW 28-41	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	4.00E-03	9/9/2011	5.00E-03	FM	8.0E-01
Landbay E	SW 28-41	Shallow	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		1.50E-02	3/29/2010	4.70E+02	RSL-NC	3.2E-05
Landbay E	SW 28-41	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		2.90E+00	1/22/2004			
Landbay E	SW 28-41	Shallow	Outside	INORG	Iron	7439-89-6	D	1.15E+01	9/29/2003	1.10E+01	RSL-NC	1.0E+00
Landbay E	SW 28-41	Shallow	Outside	INORG	Manganese	7439-96-5	D	1.20E+00	9/29/2003	3.80E-01	RSL-NC	**3.2E+00**
Landbay E	SW 28-41	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.10E+00	9/9/2011	1.50E-02	IHA	**7.3E+01**
Landbay E	SW 28-41	Shallow	Outside	GEOCHEMICAL	Methane	74-82-8		1.60E-02	5/12/2006			
Landbay E	SW 28-41	Shallow	Outside	EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	D	3.60E-03	10/3/2007	7.80E-01	RSL-NC	4.6E-03
Landbay E	SW 40-01	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	2.10E-03	5/20/2003	1.00E-01	FM	2.1E-02
Landbay E	SW 40-01	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	1.40E-03	11/6/2002			
Landbay E	SW 40-01	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	5/20/2003	1.20E-01	RSL-C	3.3E-02
Landbay E	SW 40-01	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	7.70E-03	11/6/2002	7.00E-03	FM	**1.1E+00**
Landbay E	SW 40-01	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.49E-02	5/20/2003	7.00E-02	FM	**1.2E+00**
Landbay E	SW 40-01	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.80E-03	5/20/2003	1.00E-01	FM	1.8E-02
Landbay E	SW 40-01	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.50E-01	11/6/2002	5.00E-03	FM	**3.0E+01**
Landbay E	SW 40-01	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.74E-02	5/20/2003	5.00E-03	FM	**5.5E+00**
Landbay E	SW 40-01	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	5.60E-01	11/6/2002	1.50E-02	IHA	**3.7E+01**
Landbay E	SW 40-01A	Shallow	Inside	WQ	Chloride	16887-00-6		5.00E+00	2/14/2007			
Landbay E	SW 40-01A	Shallow	Inside	WQ	Sulfate	14808-79-8		3.12E+01	11/3/2004			
Landbay E	SW 40-01A	Shallow	Inside	VOC	Acetone	67-64-1	ID	8.95E-01	5/18/2005	1.40E+01	RSL-NC	6.4E-02
Landbay E	SW 40-01A	Shallow	Inside	VOC	Benzene	71-43-2	A	5.00E-03	5/18/2005	5.00E-03	FM	1.0E+00
Landbay E	SW 40-01A	Shallow	Inside	VOC	2-Butanone	78-93-3	ID	7.00E-02	3/4/2005	9.40E+00	RSL-NC	7.4E-03
Landbay E	SW 40-01A	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	5.50E-03	5/18/2005	1.00E-01	FM	5.5E-02
Landbay E	SW 40-01A	Shallow	Inside	VOC	Chloroethane	75-00-3	LC	1.00E-03	8/16/2005			
Landbay E	SW 40-01A	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	1.05E-02	5/18/2005	1.20E-01	RSL-C	8.8E-02
Landbay E	SW 40-01A	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	5/18/2005	7.00E-03	FM	2.9E-01
Landbay E	SW 40-01A	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	8.10E-01	8/16/2005	7.00E-02	FM	**1.2E+01**
Landbay E	SW 40-01A	Shallow	Inside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	6.00E-03	8/16/2005	1.00E-01	FM	6.0E-02
Landbay E	SW 40-01A	Shallow	Inside	VOC	Ethyl Benzene	100-41-4	D	1.85E-02	3/4/2005	7.00E-01	FM	2.6E-02
Landbay E	SW 40-01A	Shallow	Inside	VOC	2-Hexanone	591-78-6	ID	1.25E-02	3/4/2005	7.80E-02	RSL-NC	1.6E-01
Landbay E	SW 40-01A	Shallow	Inside	VOC	4-Methyl-2-pentanone	108-10-1	ID	7.75E-03	3/4/2005	1.30E+00	RSL-NC	6.0E-03
Landbay E	SW 40-01A	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.25E+00	3/4/2005	5.00E-03	FM	**2.5E+02**
Landbay E	SW 40-01A	Shallow	Inside	VOC	Toluene	108-88-3	ID	1.50E-02	5/18/2005	1.00E+00	FM	1.5E-02
Landbay E	SW 40-01A	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	7.00E-03	5/18/2005	2.00E-01	FM	3.5E-02
Landbay E	SW 40-01A	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	2.15E-01	3/4/2005	5.00E-03	FM	**4.3E+01**
Landbay E	SW 40-01A	Shallow	Inside	VOC	Vinyl Chloride	75-01-4	A	1.90E-02	5/18/2005	2.00E-03	FM	**9.5E+00**
Landbay E	SW 40-01A	Shallow	Inside	VOC	Xylenes (total)	1330-20-7	ID	1.02E-01	3/4/2005	1.00E+01	FM	1.0E-02
Landbay E	SW 40-01A	Shallow	Inside	PHYS	Organic Carbon (total)	C-012		1.22E+02	8/24/2004			
Landbay E	SW 40-01A	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	8.20E-02	5/18/2005	1.50E-02	IHA	**5.5E+00**
Landbay E	SW 40-06	Shallow	Outside	WQ	Chloride	16887-00-6		2.10E+00	2/15/2007			
Landbay E	SW 40-06	Shallow	Outside	WQ	Sulfate	14808-79-8		1.57E+01	11/3/2004			
Landbay E	SW 40-06	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.00E-03	3/29/2010	7.00E-03	FM	1.4E-01
Landbay E	SW 40-06	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.00E-03	3/29/2010	7.00E-02	FM	1.4E-02
Landbay E	SW 40-06	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	6.00E-03	3/29/2010	5.00E-03	FM	**1.2E+00**
Landbay E	SW 40-06	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	3/29/2010	5.00E-03	FM	2.0E-01
Landbay E	SW 40-06	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		3.50E+00	8/31/2004			
Landbay E	SW 40-06	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	4.90E-03	3/29/2010	1.50E-02	IHA	3.3E-01
Landbay E	SW 40-07	Shallow	Outside	WQ	Sulfate	14808-79-8		5.85E+00	6/10/2003			
Landbay E	SW 40-07	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		9.30E+00	6/10/2003			
Landbay E	SW 40-07	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.56E-01	10/23/2002	1.50E-02	IHA	**2.4E+01**
Landbay E	SW 40-07A	Shallow	Outside	WQ	Chloride	16887-00-6		1.47E+01	2/14/2007			
Landbay E	SW 40-07A	Shallow	Outside	WQ	Sulfate	14808-79-8		4.19E+01	5/16/2006			
Landbay E	SW 40-07A	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	4.50E-03	9/9/2011	7.00E-03	FM	6.4E-01
Landbay E	SW 40-07A	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.85E+00	9/9/2011	7.00E-02	FM	**2.6E+01**
Landbay E	SW 40-07A	Shallow	Outside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.00E-03	7/31/2009	1.00E-01	FM	1.0E-02
Landbay E	SW 40-07A	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	5.00E+00	9/9/2011	5.00E-03	FM	**1.0E+03**
Landbay E	SW 40-07A	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	6.70E-01	9/9/2011	5.00E-03	FM	**1.3E+02**
Landbay E	SW 40-07A	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	2.20E-01	9/9/2011	2.00E-03	FM	**1.1E+02**
Landbay E	SW 40-07A	Shallow	Outside	SVOC	1,3,5-Trinitrobenzene	99-35-4		6.70E-04	10/2/2007	4.70E-01	RSL-NC	1.4E-03
Landbay E	SW 40-07A	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		2.05E+00	9/29/2003			
Landbay E	SW 40-07A	Shallow	Outside	INORG	Iron	7439-89-6	D	2.90E+01	9/29/2003	1.10E+01	RSL-NC	**2.6E+00**
Landbay E	SW 40-07A	Shallow	Outside	INORG	Manganese	7439-96-5	D	6.52E-01	9/29/2003	3.80E-01	RSL-NC	**1.7E+00**
Landbay E	SW 40-07A	Shallow	Outside	INORG	Nitrate	14797-55-8		3.70E-01	5/16/2006	1.00E+01	FM	3.7E-02
Landbay E	SW 40-07A	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	3.15E-01	3/29/2010	1.50E-02	IHA	**2.1E+01**
Landbay E	SW 40-07A	Shallow	Outside	GEOCHEMICAL	Methane	74-82-8		2.40E+00	10/2/2007			
Landbay E	SW 40-50	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.20E-02	3/4/2005	7.00E-02	FM	3.1E-01
Landbay E	SW 40-50	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	4.40E-02	3/4/2005	5.00E-03	FM	**8.8E+00**
Landbay E	SW 40-50	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.20E-02	3/4/2005	5.00E-03	FM	**2.4E+00**
Landbay E	SW 40-50	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.51E+00	5/20/2003	1.50E-02	IHA	**1.0E+02**
Landbay E	SW 40-53	Shallow	Inside	WQ	Chloride	16887-00-6		2.90E+00	6/10/2003			
Landbay E	SW 40-53	Shallow	Inside	WQ	Sulfate	14808-79-8		6.53E+01	1/22/2004			
Landbay E	SW 40-53	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.30E-02	5/10/2004	5.00E-03	FM	**2.6E+00**
Landbay E	SW 40-53	Shallow	Inside	PHYS	Organic Carbon (total)	C-012		6.90E+00	10/23/2002			
Landbay E	SW 40-53	Shallow	Inside	INORG	Iron	7439-89-6	D	1.54E+01	9/29/2003	1.10E+01	RSL-NC	**1.4E+00**
Landbay E	SW 40-53	Shallow	Inside	INORG	Manganese	7439-96-5	D	5.34E-02	9/29/2003	3.80E-01	RSL-NC	1.4E-01
Landbay E	SW 40-53	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	8.70E-02	5/7/2003	1.50E-02	IHA	**5.8E+00**
Landbay E	SW 40-54	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	1.10E-02	2/14/2006	1.50E-02	IHA	7.3E-01
Landbay E	SW 40-55	Shallow	Inside	WQ	Chloride	16887-00-6		1.40E+01	2/14/2007			
Landbay E	SW 40-55	Shallow	Inside	WQ	Sulfate	14808-79-8		8.63E+01	8/31/2004			
Landbay E	SW 40-55	Shallow	Inside	VOC	Chloroform	67-66-3	B2	3.10E-03	5/20/2008	8.00E-02	FM	3.9E-02
Landbay E	SW 40-55	Shallow	Inside	VOC	Chloromethane	74-87-3	D	3.00E-03	10/2/2007			

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay E	SW 40-55	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	2/14/2007	1.20E-01	RSL-C	1.7E-02
Landbay E	SW 40-55	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	2.70E-02	10/2/2007	7.00E-03	FM	**3.9E+00**
Landbay E	SW 40-55	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	2/14/2007	7.00E-02	FM	4.3E-02
Landbay E	SW 40-55	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	3.80E-02	2/14/2007	5.00E-03	FM	**7.6E+00**
Landbay E	SW 40-55	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	9.00E-03	11/16/2006	2.00E-01	FM	4.5E-02
Landbay E	SW 40-55	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	2/14/2007	5.00E-03	FM	2.0E-01
Landbay E	SW 40-55	Shallow	Inside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		8.00E-03	10/2/2007	4.70E+02	RSL-NC	1.7E-05
Landbay E	SW 40-55	Shallow	Inside	PHYS	Organic Carbon (total)	C-012		1.90E+00	8/31/2004			
Landbay E	SW 40-55	Shallow	Inside	INORG	Nitrate	14797-55-8		1.30E+00	11/3/2004	1.00E+01	FM	1.3E-01
Landbay E	SW 40-55	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.70E+01	11/16/2006	1.50E-02	IHA	**1.8E+03**
Landbay E	SW 40-56	Shallow	Outside	WQ	Chloride	16887-00-6		5.30E+00	2/14/2007			
Landbay E	SW 40-56	Shallow	Outside	WQ	Sulfate	14808-79-8		3.72E+01	8/31/2004			
Landbay E	SW 40-56	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	5/18/2005	1.20E-01	RSL-C	2.5E-02
Landbay E	SW 40-56	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	3/4/2005	7.00E-03	FM	7.1E-01
Landbay E	SW 40-56	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.30E-01	5/18/2005	7.00E-02	FM	**6.1E+00**
Landbay E	SW 40-56	Shallow	Outside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	3.00E-03	5/18/2005	1.00E-01	FM	3.0E-02
Landbay E	SW 40-56	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	4.40E-01	3/4/2005	5.00E-03	FM	**8.8E+01**
Landbay E	SW 40-56	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	5/18/2005	2.00E-01	FM	2.0E-02
Landbay E	SW 40-56	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	2.70E-01	5/18/2005	5.00E-03	FM	**5.4E+01**
Landbay E	SW 40-56	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	3.70E-02	5/18/2005	2.00E-03	FM	**1.9E+01**
Landbay E	SW 40-56	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		3.70E+00	8/31/2004			
Landbay E	SW 40-56	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.45E-02	3/4/2005	1.50E-02	IHA	**1.6E+00**
Landbay E	SW 40-57	Shallow	Outside	WQ	Sulfate	14808-79-8		1.39E+02	5/16/2006			
Landbay E	SW 40-57	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	4/1/2010	7.00E-03	FM	4.3E-01
Landbay E	SW 40-57	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.90E-01	9/14/2011	7.00E-02	FM	**5.6E+00**
Landbay E	SW 40-57	Shallow	Outside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	6.00E-03	8/18/2009	1.00E-01	FM	6.0E-02
Landbay E	SW 40-57	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.10E+00	9/14/2011	5.00E-03	FM	**4.2E+02**
Landbay E	SW 40-57	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	4/1/2010	2.00E-01	FM	5.0E-03
Landbay E	SW 40-57	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.20E-01	9/14/2011	5.00E-03	FM	**2.4E+01**
Landbay E	SW 40-57	Shallow	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.10E-02	8/18/2009	4.70E+02	RSL-NC	4.5E-05
Landbay E	SW 40-57	Shallow	Outside	VOC	Vinyl Chloride	75-01-4	A	3.40E-02	4/1/2010	2.00E-03	FM	**1.7E+01**
Landbay E	SW 40-57	Shallow	Outside	INORG	Nitrate	14797-55-8		4.30E-01	5/16/2006	1.00E+01	FM	4.3E-02
Landbay E	SW 40-57	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.30E-02	9/14/2011	1.50E-02	IHA	**1.5E+00**
Landbay E	SW 40-57	Shallow	Outside	GEOCHEMICAL	Methane	74-82-8		3.00E-01	5/16/2006			
Landbay E	SW 40-57	Shallow	Outside	EXPLOSIVE	2-Amino-4,6-dinitrotoluene	35572-78-2		8.10E-04	10/3/2007	3.10E-02	RSL-NC	2.6E-02
Landbay E	SW 40-58	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	4.00E-03	5/16/2006	1.20E-01	RSL-C	3.3E-02
Landbay E	SW 40-58	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.60E-02	5/16/2006	7.00E-03	FM	**2.3E+00**
Landbay E	SW 40-58	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.00E-03	5/16/2006	5.00E-03	FM	4.0E-01
Landbay E	SW 40-58	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-02	5/16/2006	2.00E-01	FM	5.0E-02
Landbay E	SW 40-58	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	5/16/2006	5.00E-03	FM	6.0E-01
Landbay E	SW 40-58	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	7.30E-02	5/16/2006	1.50E-02	IHA	**4.9E+00**
Landbay E	SW 40-59	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	8/15/2006	1.20E-01	RSL-C	1.7E-02
Landbay E	SW 40-59	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	7.00E-03	8/15/2006	7.00E-03	FM	1.0E+00
Landbay E	SW 40-59	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-03	8/15/2006	5.00E-03	FM	2.0E-01
Landbay E	SW 40-59	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	4.00E-03	8/15/2006	2.00E-01	FM	2.0E-02
Landbay E	SW 40-59	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	8/15/2006	5.00E-03	FM	6.0E-01
Landbay E	SW 40-59	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.80E-02	8/15/2006	1.50E-02	IHA	**1.9E+00**
Landbay E	SW 45-01D	Shallow	Inside	VOC	Acetone	67-64-1	ID	1.60E-02	11/4/2004	1.40E+01	RSL-NC	1.1E-03
Landbay E	SW 45-01D	Shallow	Inside	VOC	Benzene	71-43-2	A	9.00E-04	5/3/2004	5.00E-03	FM	1.8E-01
Landbay E	SW 45-01D	Shallow	Inside	VOC	2-Butanone	78-93-3	ID	5.00E-03	11/4/2004	9.40E+00	RSL-NC	5.3E-04
Landbay E	SW 45-01D	Shallow	Inside	VOC	Chlorobenzene	108-90-7	D	1.90E-02	5/3/2004	1.00E-01	FM	1.9E-01
Landbay E	SW 45-01D	Shallow	Inside	VOC	1,1-Dichloroethane	75-34-3	SC	5.00E-03	5/3/2004	1.20E-01	RSL-C	4.2E-02
Landbay E	SW 45-01D	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	1.40E-02	5/3/2004	7.00E-03	FM	**2.0E+00**
Landbay E	SW 45-01D	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	5/3/2004	7.00E-02	FM	5.7E-02
Landbay E	SW 45-01D	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	1.40E-02	5/3/2004	5.00E-03	FM	**2.8E+00**
Landbay E	SW 45-01D	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	3.00E-03	5/3/2004	5.00E-03	FM	6.0E-01
Landbay E	SW 45-01D	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.54E-01	5/3/2004	1.50E-02	IHA	**1.7E+01**
Landbay E	SW 45-01S	Shallow	Inside	VOC	1,1-Dichloroethene	75-35-4	C	8.00E-03	8/25/2004	7.00E-03	FM	**1.1E+00**
Landbay E	SW 45-01S	Shallow	Inside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	8/25/2004	7.00E-02	FM	4.3E-02
Landbay E	SW 45-01S	Shallow	Inside	VOC	Tetrachloroethene	127-18-4	LC	6.00E-03	3/3/2005	5.00E-03	FM	**1.2E+00**
Landbay E	SW 45-01S	Shallow	Inside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	3/3/2005	2.00E-01	FM	1.0E-02
Landbay E	SW 45-01S	Shallow	Inside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	8/25/2004	5.00E-03	FM	1.0E+00
Landbay E	SW 45-01S	Shallow	Inside	INORG	Perchlorate	14797-73-0	NC	2.05E+00	8/25/2004	1.50E-02	IHA	**1.4E+02**
Landbay E	SW 46-01	Shallow	Outside	WQ	Chloride	16887-00-6		1.13E+01	2/15/2007			
Landbay E	SW 46-01	Shallow	Outside	WQ	Sulfate	14808-79-8		5.90E+01	11/16/2006			
Landbay E	SW 46-01	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	12/13/2011	7.00E-03	FM	2.9E-01
Landbay E	SW 46-01	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.40E-02	12/13/2011	7.00E-02	FM	6.3E-01
Landbay E	SW 46-01	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	3.00E-01	9/13/2011	5.00E-03	FM	**6.0E+01**
Landbay E	SW 46-01	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	1.00E-03	3/29/2010	2.00E-01	FM	5.0E-03
Landbay E	SW 46-01	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	2.40E-02	12/13/2011	5.00E-03	FM	**4.8E+00**
Landbay E	SW 46-01	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		1.90E+00	1/22/2004			
Landbay E	SW 46-01	Shallow	Outside	INORG	Iron	7439-89-6	D	3.49E+00	9/29/2003	1.10E+01	RSL-NC	3.2E-01
Landbay E	SW 46-01	Shallow	Outside	INORG	Manganese	7439-96-5	D	4.18E-01	9/29/2003	3.80E-01	RSL-NC	**1.1E+00**
Landbay E	SW 46-01	Shallow	Outside	INORG	Nitrate	14797-55-8		1.00E+00	5/12/2006	1.00E+01	FM	1.0E-01
Landbay E	SW 46-01	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	8.60E-01	9/13/2011	1.50E-02	IHA	**5.7E+01**
Landbay E	SW 46-02	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	2/14/2006	7.00E-02	FM	2.9E-02
Landbay E	SW 46-02	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.00E-02	2/14/2006	5.00E-03	FM	**2.0E+00**
Landbay E	SW 46-02	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.00E-03	2/14/2006	5.00E-03	FM	2.0E-01
Landbay E	SW 46-02	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.00E-01	2/14/2006	1.50E-02	IHA	**6.7E+00**
Landbay E	SW 46-03	Shallow	Outside	WQ	Chloride	16887-00-6		8.80E+00	2/15/2007			
Landbay E	SW 46-03	Shallow	Outside	WQ	Sulfate	14808-79-8		2.49E+01	8/31/2004			
Landbay E	SW 46-03	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	3.00E-03	3/4/2005	1.20E-01	RSL-C	2.5E-02
Landbay E	SW 46-03	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	2/15/2007	7.00E-03	FM	4.3E-01
Landbay E	SW 46-03	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1.30E-02	2/15/2007	7.00E-02	FM	1.9E-01
Landbay E	SW 46-03	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.40E-01	2/15/2007	5.00E-03	FM	**2.8E+01**
Landbay E	SW 46-03	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	2/15/2007	2.00E-01	FM	1.0E-02
Landbay E	SW 46-03	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	1.40E-02	2/15/2007	5.00E-03	FM	**2.8E+00**
Landbay E	SW 46-03	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		3.90E+00	8/31/2004			
Landbay E	SW 46-03	Shallow	Outside	INORG	Nitrate	14797-55-8		5.60E-01	8/31/2004	1.00E+01	FM	5.6E-02
Landbay E	SW 46-03	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	8.50E-01	2/15/2007	1.50E-02	IHA	**5.7E+01**
Landbay E	SW 46-04	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	11/28/2005	1.20E-01	RSL-C	1.7E-02
Landbay E	SW 46-04	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	4.00E-03	11/28/2005	7.00E-03	FM	5.7E-01
Landbay E	SW 46-04	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	11/28/2005	7.00E-02	FM	2.9E-02
Landbay E	SW 46-04	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.50E-02	11/28/2005	5.00E-03	FM	**3.0E+00**
Landbay E	SW 46-04	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.00E-03	11/28/2005	2.00E-01	FM	1.5E-02
Landbay E	SW 46-04	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	1.50E+00	11/28/2005	1.50E-02	IHA	**1.0E+02**
Landbay E	SW 47-02	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	3.00E-03	3/29/2010	7.00E-03	FM	4.3E-01
Landbay E	SW 47-02	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3.00E-03	3/29/2010	7.00E-02	FM	4.3E-02
Landbay E	SW 47-02	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	1.90E-02	3/29/2010	5.00E-03	FM	**3.8E+00**
Landbay E	SW 47-02	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	2.00E-03	3/29/2010	2.00E-01	FM	1.0E-02
Landbay E	SW 47-02	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	3/29/2010	5.00E-03	FM	1.0E+00
Landbay E	SW 47-02	Shallow	Outside	VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		2.00E-03	8/13/2009	4.70E+02	RSL-NC	4.3E-06
Landbay E	SW 47-02	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	7.30E-01	3/29/2010	1.50E-02	IHA	**4.9E+01**
Landbay E	SW 47-03	Shallow	Outside	VOC	Chloroform	67-66-3	B2	2.00E-03	5/18/2005	8.00E-02	FM	2.5E-02
Landbay E	SW 47-03	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	9.00E-03	5/18/2005	1.20E-01	RSL-C	7.5E-02
Landbay E	SW 47-03	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	1.60E-02	3/4/2005	7.00E-03	FM	**2.3E+00**
Landbay E	SW 47-03	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.20E-01	5/17/2006	7.00E-02	FM	**3.1E+00**
Landbay E	SW 47-03	Shallow	Outside	VOC	trans-1,2-Dichloroethene	156-60-5	ID	1.00E-03	5/17/2006	1.00E-01	FM	1.0E-02
Landbay E	SW 47-03	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	6.80E-01	5/17/2006	5.00E-03	FM	**1.4E+02**
Landbay E	SW 47-03	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	3.40E-02	3/4/2005	2.00E-01	FM	1.7E-01
Landbay E	SW 47-03	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	5.30E-01	3/4/2005	5.00E-03	FM	**1.1E+02**
Landbay E	SW 47-03	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	2.61E-02	3/4/2005	1.50E-02	IHA	**1.7E+00**
Landbay E	SW 47-04	Shallow	Outside	WQ	Chloride	16887-00-6		1.06E+01	2/15/2007			
Landbay E	SW 47-04	Shallow	Outside	WQ	Sulfate	14808-79-8		5.31E+01	8/31/2004			
Landbay E	SW 47-04	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	2.00E-03	2/15/2007	1.20E-01	RSL-C	1.7E-02
Landbay E	SW 47-04	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	5.00E-03	2/15/2007	7.00E-03	FM	7.1E-01
Landbay E	SW 47-04	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.00E-03	2/15/2007	7.00E-02	FM	5.7E-02
Landbay E	SW 47-04	Shallow	Outside	VOC	Tetrachloroethene	127-18-4	LC	2.70E-02	2/15/2007	5.00E-03	FM	**5.4E+00**
Landbay E	SW 47-04	Shallow	Outside	VOC	1,1,1-Trichloroethane	71-55-6	ID	5.00E-03	2/15/2007	2.00E-01	FM	2.5E-02
Landbay E	SW 47-04	Shallow	Outside	VOC	Trichloroethene	79-01-6	HC	5.00E-03	2/15/2007	5.00E-03	FM	1.0E+00
Landbay E	SW 47-04	Shallow	Outside	PHYS	Organic Carbon (total)	C-012		2.20E+00	8/31/2004			
Landbay E	SW 47-04	Shallow	Outside	INORG	Nitrate	14797-55-8		6.40E-01	8/31/2004	1.00E+01	FM	6.4E-02
Landbay E	SW 47-04	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	6.50E-01	2/15/2007	1.50E-02	IHA	**4.3E+01**
Landbay E	SW PBS-01	Shallow	Outside	VOC	1,4-Dioxane	123-91-1	LC	2.60E-04	8/31/2011	6.70E-03	RSL-C	3.9E-02
Landbay E	SW SB-02	Shallow	Outside	INORG	Barium	7440-39-3	NC	1.55E-02	8/12/2009	2.00E+00	FM	7.8E-03
Landbay E	SW SB-02	Shallow	Outside	INORG	Boron	7440-42-8	ID	2.00E-01	8/12/2009	3.10E+00	RSL-NC	6.5E-02
Landbay E	SW SB-02	Shallow	Outside	INORG	Chromium (total)	7440-47-3		7.50E-03	8/12/2009	1.00E-01	FM	7.5E-02
Landbay E	SW SB-02	Shallow	Outside	INORG	Copper	7440-50-8	D	4.10E-03	8/12/2009	1.30E+00	FM	3.2E-03
Landbay E	SW SB-02	Shallow	Outside	INORG	Manganese	7439-96-5	D	1.10E-02	3/24/2010	3.80E-01	RSL-NC	2.9E-02
Landbay E	SW SB-02	Shallow	Outside	INORG	Nickel	7440-02-0	A	7.30E-03	8/12/2009	3.10E-01	RSL-NC	2.4E-02
Landbay E	SW SB-02	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	7.10E-04	3/24/2010	1.50E-02	IHA	4.7E-02

Table 4-7: Comparison of Groundwater Concentrations to Drinking Water Criteria
ARC Gainesville, Gainesville, Virginia

Landbay	Location	Well Zone	Zone of Hydraulic Influence	Chem Group	Chemical	CASRN	Carc Class	Max Detected (mg/L)	Date of Max Concentration	Drinking Water Criteria (mg/L)	DWC Basis	Ratio of Conc to DWC
Landbay E	SW SB-02	Shallow	Outside	INORG	Strontium	7440-24-6		2.90E-01	8/12/2009	9.40E+00	RSL-NC	3.1E-02
Landbay E	SW SB-02	Shallow	Outside	INORG	Vanadium	7440-62-2	ID	1.40E-02	3/24/2010	7.90E-02	RSL-NC	1.8E-01
Landbay E	SW SB-02	Shallow	Outside	INORG	Zinc	7440-66-6	ID	1.00E-02	8/12/2009	4.70E+00	RSL-NC	2.1E-03
Landbay E	SW SB-03	Shallow	Outside	VOC	1,1-Dichloroethane	75-34-3	SC	1.00E-03	9/1/2011	1.20E-01	RSL-C	8.3E-03
Landbay E	SW SB-03	Shallow	Outside	VOC	1,1-Dichloroethene	75-35-4	C	2.00E-03	9/1/2011	7.00E-03	FM	2.9E-01
Landbay E	SW SB-03	Shallow	Outside	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.00E-03	9/1/2011	7.00E-02	FM	2.9E-02
Landbay E	SW SB-03	Shallow	Outside	VOC	1,4-Dioxane	123-91-1	LC	1.80E-03	9/1/2011	6.70E-03	RSL-C	2.7E-01
Landbay E	SW SB-03	Shallow	Outside	INORG	Barium	7440-39-3	NC	3.43E-02	8/18/2009	2.00E+00	FM	1.7E-02
Landbay E	SW SB-03	Shallow	Outside	INORG	Boron	7440-42-8	ID	3.78E-01	8/18/2009	3.10E+00	RSL-NC	1.2E-01
Landbay E	SW SB-03	Shallow	Outside	INORG	Chromium (total)	7440-47-3		5.00E-03	8/18/2009	1.00E-01	FM	5.0E-02
Landbay E	SW SB-03	Shallow	Outside	INORG	Copper	7440-50-8	D	5.60E-03	8/18/2009	1.30E+00	FM	4.3E-03
Landbay E	SW SB-03	Shallow	Outside	INORG	Iron	7439-89-6	D	6.43E-02	8/18/2009	1.10E+01	RSL-NC	5.8E-03
Landbay E	SW SB-03	Shallow	Outside	INORG	Manganese	7439-96-5	D	7.07E-02	9/1/2011	3.80E-01	RSL-NC	1.9E-01
Landbay E	SW SB-03	Shallow	Outside	INORG	Nickel	7440-02-0	A	1.33E-02	8/18/2009	3.10E-01	RSL-NC	4.3E-02
Landbay E	SW SB-03	Shallow	Outside	INORG	Perchlorate	14797-73-0	NC	8.50E-03	9/1/2011	1.50E-02	IHA	5.7E-01
Landbay E	SW SB-03	Shallow	Outside	INORG	Strontium	7440-24-6		4.67E-01	3/24/2010	9.40E+00	RSL-NC	5.0E-02
Landbay E	SW SB-03	Shallow	Outside	INORG	Zinc	7440-66-6	ID	1.96E-02	3/24/2010	4.70E+00	RSL-NC	4.2E-03
Landbay E	SW SB-03	Shallow	Outside	EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	C	2.50E-04	3/24/2010	6.10E-03	RSL-C	4.1E-02

Notes:

1. Landbay Use Designation:
   - Landbay A - industrial/commercial use
   - Landbay B - mixed use
   - Landbay C - industrial/commercial use
   - Landbay D - residential use
   - Landbay E - residential use
2. Only constituents detected at each location are shown.
3. The max detected concentration is the highest exposure concentration from the groundwater data collected within 2 years of the most recent analysis at each location by constituent.
4. The drinking water criteria are based on the following hierarchy: Federal MCL, Regional Screening Levels Tap Water Ingestion value at the lower of the criteria calculated at either the target cancer risk of 1E-5 or target hazard quotient of 1.
5. The drinking water criteria for perchlorate is from the USEPA Interim Health Advisory (IHA).
6. The MCL for chromium VI is the MCL provided by the agency for chromium (total).
7. The concentrations for the methylphenol isomers (2, 3, & 4) were summedbefore comparing to the criteria for Methylphenol (total).
8. The concentrations for all polychlorinated biphenyls (PCBs) Aroclors were summed before comparing to the criteria for PCBs (total). If an Aroclor was not detected in the sample, but was detected in soil at the Site, then half the limit was included the summation.
9. The concentrations for the xylene isomers (m/p and o) were summed before comparing to the criteria for Xylenes (total).
10. Ratios of concentration to the criteria greater than 1.0 are shaded in bold.

FM - The criterion is the Federal MCL.
C - The criterion is based on cancer risk at the indicated cancer risk.
NC - The criterion is based on noncancer effects at the indicated hazard quotient.
Chem Group - chemical group
Carc Class - USEPA Weight-of-Evidence Cancer Classification

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	100AB1	5E-08	7E-03	7E-08	1E-02	5E-09	2E-02	6E-09	3E-02
Landbay A	100AB2	2E-07	8E-03	3E-07	1E-02	2E-08	2E-02	3E-08	3E-02
Landbay A	100AG3	7E-09	1E-04	7E-09	2E-04	1E-09	2E-04	1E-09	3E-04
Landbay A	100AG4	NC	1E-06	NC	2E-06	NC	4E-06	NC	7E-06
Landbay A	105B148	NC	2E-06	NC	4E-06	NC	9E-06	NC	1E-05
Landbay A	105B149	NC	4E-06	NC	7E-06	NC	1E-05	NC	2E-05
Landbay A	105B150	NC	8E-07	NC	2E-06	NC	3E-06	NC	5E-06
Landbay A	105G41	NC	4E-03	NC	7E-03	NC	1E-02	NC	2E-02
Landbay A	105G42	NC	5E-04	NC	1E-03	NC	2E-03	NC	3E-03
Landbay A	105G43	3E-08	1E-02	3E-08	2E-02	4E-09	8E-02	5E-09	1E-01
Landbay A	105G44	NC	1E-06	NC	2E-06	NC	5E-06	NC	8E-06
Landbay A	105G45	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G46	3E-08	1E-02	3E-08	2E-02	4E-09	8E-02	5E-09	1E-01
Landbay A	105G47	NC	2E-05	NC	3E-05	NC	6E-05	NC	1E-04
Landbay A	105G48	NC	2E-05	NC	3E-05	NC	7E-05	NC	1E-04
Landbay A	105G49	NC	3E-04	NC	5E-04	NC	1E-03	NC	2E-03
Landbay A	105G50	3E-08	1E-02	3E-08	2E-02	4E-09	8E-02	5E-09	1E-01
Landbay A	105G51	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G52	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	106B1	2E-07	2E-02	2E-07	3E-02	1E-08	7E-02	2E-08	1E-01
Landbay A	106B2	2E-08	9E-03	2E-08	2E-02	2E-09	7E-02	2E-09	8E-02
Landbay A	106B3	7E-08	1E-02	9E-08	2E-02	6E-09	7E-02	8E-09	9E-02
Landbay A	106B6	NC	9E-06	NC	1E-05	NC	8E-06	NC	1E-05
Landbay A	106G4	NC	1E-06	NC	2E-06	NC	4E-06	NC	7E-06
Landbay A	106G5	NC	5E-04	NC	9E-04	NC	2E-03	NC	3E-03
Landbay A	106TP1-7	NC	4E-03	NC	8E-03	NC	3E-02	NC	4E-02
Landbay A	106TP3-7	2E-07	2E-02	3E-07	3E-02	2E-08	6E-02	3E-08	8E-02
Landbay A	107B1	2E-08	7E-03	3E-08	1E-02	3E-09	4E-02	3E-09	6E-02
Landbay A	107B2	7E-07	1E-02	1E-06	2E-02	9E-08	1E-02	1E-07	2E-02
Landbay A	107B3	2E-07	7E-03	3E-07	1E-02	2E-08	9E-03	3E-08	1E-02
Landbay A	107G4	2E-07	1E-02	3E-07	3E-02	2E-08	7E-02	4E-08	1E-01
Landbay A	107G5	4E-07	7E-03	7E-07	1E-02	5E-08	3E-02	9E-08	4E-02
Landbay A	107G6	2E-12	9E-03	2E-12	2E-02	6E-10	6E-02	6E-10	8E-02
Landbay A	107G7	4E-07	5E-03	6E-07	1E-02	5E-08	2E-02	7E-08	3E-02
Landbay A	107G8	8E-13	1E-03	8E-13	2E-03	3E-10	6E-03	3E-10	9E-03
Landbay A	107TP1-20	5E-13	1E-03	5E-13	2E-03	2E-10	8E-03	2E-10	1E-02
Landbay A	107TP1-30	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	107TP13-15	1E-13	2E-03	1E-13	3E-03	5E-11	6E-03	5E-11	1E-02
Landbay A	107TP14-15	8E-13	1E-02	8E-13	2E-02	3E-10	8E-02	3E-10	1E-01
Landbay A	107TP18-(-10)	3E-08	4E-02	4E-08	7E-02	1E-08	2E-01	1E-08	3E-01
Landbay A	107TP2-10	1E-09	4E-03	1E-09	9E-03	3E-10	4E-02	3E-10	5E-02
Landbay A	18B1	NC	1E-04	NC	3E-04	NC	6E-04	NC	9E-04
Landbay A	2700-24	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	2700-3200	9E-07	3E-02	2E-06	6E-02	1E-07	1E-01	2E-07	2E-01
Landbay A	2850-3050	1E-06	3E-02	2E-06	5E-02	2E-07	2E-01	3E-07	3E-01
Landbay A	2850-3200	1E-06	2E-02	2E-06	4E-02	2E-07	2E-01	3E-07	2E-01
Landbay A	2850-3350	6E-07	3E-02	1E-06	6E-02	8E-08	2E-01	1E-07	2E-01
Landbay A	2850-3500	8E-13	7E-04	8E-13	1E-03	3E-10	2E-03	3E-10	4E-03
Landbay A	3000-27	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	3000-3050	5E-07	2E-02	9E-07	3E-02	7E-08	6E-02	1E-07	9E-02
Landbay A	3000-3200	5E-07	2E-02	9E-07	3E-02	7E-08	6E-02	1E-07	9E-02
Landbay A	3000-3350	8E-13	7E-04	8E-13	1E-03	3E-10	2E-03	3E-10	4E-03
Landbay A	3000-3500	8E-13	7E-04	8E-13	1E-03	3E-10	2E-03	3E-10	4E-03
Landbay A	3150-3050	1E-06	3E-02	2E-06	6E-02	1E-07	1E-01	2E-07	2E-01
Landbay A	3150-3200	5E-07	2E-02	9E-07	3E-02	7E-08	6E-02	1E-07	9E-02
Landbay A	3150-3350	8E-07	2E-02	1E-06	3E-02	1E-07	3E-01	2E-07	3E-01
Landbay A	3150-3500	8E-13	7E-04	8E-13	1E-03	3E-10	2E-03	3E-10	4E-03
Landbay A	3300-2900	9E-07	4E-02	1E-06	9E-02	1E-07	2E-01	2E-07	2E-01
Landbay A	3300-3050	3E-06	2E-01	5E-06	4E-01	5E-07	9E-01	7E-07	1E+00
Landbay A	3300-3200	1E-06	5E-02	2E-06	9E-02	1E-07	2E-01	2E-07	3E-01
Landbay A	3300-3350	8E-07	2E-02	1E-06	3E-02	1E-07	3E-01	2E-07	3E-01
Landbay A	3300-3500	8E-07	2E-02	1E-06	3E-02	1E-07	3E-01	2E-07	3E-01
Landbay A	3450-2900	9E-07	4E-02	1E-06	9E-02	1E-07	2E-01	2E-07	2E-01
Landbay A	3450-3050	NC	3E-03	NC	7E-03	NC	2E-02	NC	3E-02
Landbay A	3450-3200	5E-07	4E-02	8E-07	8E-02	7E-08	1E-01	1E-07	2E-01
Landbay A	3450-3350	8E-07	2E-02	1E-06	3E-02	1E-07	3E-01	2E-07	3E-01
Landbay A	3450-3500	5E-07	3E-02	8E-07	6E-02	7E-08	3E-01	1E-07	4E-01
Landbay A	3450-3650	1E-06	2E-02	2E-06	4E-02	2E-07	6E-01	2E-07	6E-01
Landbay A	3450-3800	NC	1E-05	NC	2E-05	NC	4E-05	NC	7E-05
Landbay A	3450-3950	7E-07	1E-02	1E-06	2E-02	9E-08	3E-02	1E-07	4E-02
Landbay A	34B1	4E-07	8E-03	7E-07	2E-02	5E-08	5E-02	8E-08	6E-02
Landbay A	34B2	4E-07	8E-03	7E-07	2E-02	5E-08	5E-02	8E-08	6E-02
Landbay A	34G3	NC	5E-06	NC	1E-05	NC	2E-05	NC	4E-05
Landbay A	34G4	NC	2E-06	NC	5E-06	NC	1E-05	NC	2E-05
Landbay A	34G5	NC	1E-05	NC	2E-05	NC	4E-05	NC	7E-05
Landbay A	3600-2900	NC	3E-03	NC	7E-03	NC	2E-02	NC	3E-02
Landbay A	3600-3050	NC	3E-03	NC	7E-03	NC	2E-02	NC	3E-02
Landbay A	3600-31	2E-06	1E-01	4E-06	2E-01	4E-07	3E-01	5E-07	4E-01
Landbay A	3600-3200	NC	3E-03	NC	7E-03	NC	2E-02	NC	3E-02
Landbay A	3600-3350	5E-07	3E-02	8E-07	6E-02	7E-08	3E-01	1E-07	4E-01
Landbay A	3600-3500	5E-07	3E-02	8E-07	6E-02	7E-08	3E-01	1E-07	4E-01
Landbay A	3600-3650	5E-07	3E-02	8E-07	6E-02	7E-08	3E-01	1E-07	4E-01
Landbay A	3600-3800	2E-06	3E-01	4E-06	6E-01	5E-07	1E+00	7E-07	**2E+00**

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	3600-3950	5E-07	7E-02	9E-07	1E-01	1E-07	4E-01	1E-07	4E-01
Landbay A	3600-4100	5E-07	7E-02	9E-07	1E-01	1E-07	4E-01	1E-07	4E-01
Landbay A	3600-4250	1E-06	1E-02	2E-06	2E-02	1E-07	2E-02	2E-07	3E-02
Landbay A	3700-32	3E-06	6E-02	5E-06	1E-01	4E-07	4E-01	6E-07	5E-01
Landbay A	3750-3050	2E-08	3E-03	3E-08	5E-03	2E-09	6E-02	3E-09	7E-02
Landbay A	3750-3200	2E-08	3E-03	3E-08	5E-03	2E-09	6E-02	3E-09	7E-02
Landbay A	3750-3350	2E-08	2E-03	3E-08	4E-03	3E-09	2E-02	5E-09	2E-02
Landbay A	3750-3500	2E-08	2E-03	3E-08	4E-03	3E-09	2E-02	5E-09	2E-02
Landbay A	3750-3650	7E-08	1E-02	1E-07	2E-02	2E-08	1E-02	2E-08	2E-02
Landbay A	3750-3800	7E-08	1E-02	1E-07	2E-02	2E-08	1E-02	2E-08	2E-02
Landbay A	3750-3950	5E-07	7E-02	9E-07	1E-01	1E-07	4E-01	1E-07	4E-01
Landbay A	3750-4100	5E-07	7E-02	9E-07	1E-01	1E-07	4E-01	1E-07	4E-01
Landbay A	3750-4250	7E-08	1E-02	1E-07	2E-02	2E-08	3E-02	2E-08	5E-02
Landbay A	3750-4400	4E-08	2E-02	6E-08	4E-02	2E-08	1E-01	2E-08	1E-01
Landbay A	3750-4550	4E-08	2E-02	6E-08	4E-02	2E-08	1E-01	2E-08	1E-01
Landbay A	37B1	NC	3E-07	NC	6E-07	NC	1E-06	NC	2E-06
Landbay A	3800-19	NC	5E-06	NC	9E-06	NC	2E-05	NC	3E-05
Landbay A	3800-41	3E-06	2E-01	5E-06	3E-01	4E-07	9E-01	6E-07	1E+00
Landbay A	3900-3050	6E-07	7E-02	1E-06	1E-01	1E-07	4E-01	2E-07	4E-01
Landbay A	3900-3200	6E-07	7E-02	1E-06	1E-01	1E-07	4E-01	2E-07	4E-01
Landbay A	3900-3350	2E-08	2E-03	3E-08	4E-03	3E-09	2E-02	5E-09	2E-02
Landbay A	3900-34	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	3900-3500	2E-08	2E-03	3E-08	4E-03	3E-09	2E-02	5E-09	2E-02
Landbay A	3900-3650	7E-08	1E-02	1E-07	2E-02	2E-08	1E-02	2E-08	2E-02
Landbay A	3900-3800	7E-08	1E-02	1E-07	2E-02	2E-08	1E-02	2E-08	2E-02
Landbay A	3900-3950	8E-08	3E-02	2E-07	6E-02	3E-08	1E-01	4E-08	2E-01
Landbay A	3900-4100	4E-07	6E-03	7E-07	1E-02	5E-08	3E-01	8E-08	3E-01
Landbay A	3900-4250	1E-09	6E-03	2E-09	1E-02	1E-10	3E-01	2E-10	3E-01
Landbay A	3900-4400	4E-08	2E-02	6E-08	4E-02	2E-08	1E-01	2E-08	1E-01
Landbay A	3900-4550	4E-08	2E-02	6E-08	4E-02	2E-08	1E-01	2E-08	1E-01
Landbay A	39B1	NC	1E-04	NC	2E-04	NC	5E-04	NC	8E-04
Landbay A	4000-36	2E-09	4E-03	3E-09	9E-03	5E-10	4E-02	7E-10	5E-02
Landbay A	4000-37-1	2E-06	3E-02	3E-06	6E-02	2E-07	1E-01	4E-07	2E-01
Landbay A	4000-37-2	1E-07	6E-02	2E-07	1E-01	7E-08	3E-01	8E-08	3E-01
Landbay A	4000-43	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4050-3200	1E-12	1E-02	1E-12	2E-02	5E-10	1E-01	5E-10	1E-01
Landbay A	4050-3350	2E-07	6E-02	3E-07	1E-01	5E-08	3E-01	7E-08	4E-01
Landbay A	4050-3500	2E-13	4E-05	2E-13	7E-05	6E-11	2E-04	6E-11	3E-04
Landbay A	4050-4250	9E-13	2E-03	9E-13	4E-03	3E-10	1E-02	3E-10	2E-02
Landbay A	4050-4400	9E-13	2E-03	9E-13	4E-03	3E-10	1E-02	3E-10	2E-02
Landbay A	4050-4550	4E-06	1E-01	7E-06	3E-01	5E-07	1E+00	8E-07	1E+00
Landbay A	4050-4550SE	1E-07	7E-03	2E-07	1E-02	2E-08	6E-02	3E-08	8E-02
Landbay A	4050-4550SW	3E-13	8E-03	3E-13	2E-02	1E-10	7E-02	1E-10	9E-02
Landbay A	4100-38	NC	2E-06	NC	4E-06	NC	8E-06	NC	1E-05
Landbay A	4100-39	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-40	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-44	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-45	1E-06	1E-02	3E-06	2E-02	2E-07	8E-03	3E-07	1E-02
Landbay A	4200-3500	5E-08	2E-02	1E-07	3E-02	1E-08	1E-01	1E-08	2E-01
Landbay A	4200-4250	9E-13	2E-03	9E-13	4E-03	3E-10	1E-02	3E-10	2E-02
Landbay A	4200-4400	9E-13	2E-03	9E-13	4E-03	3E-10	1E-02	3E-10	2E-02
Landbay A	4350-2900	2E-08	8E-03	3E-08	1E-02	3E-09	5E-02	4E-09	7E-02
Landbay A	4350-3050	1E-12	2E-03	1E-12	3E-03	4E-10	8E-03	4E-10	1E-02
Landbay A	4350-3500	4E-08	9E-03	9E-08	2E-02	9E-09	7E-02	1E-08	1E-01
Landbay A	4350-4250	6E-07	7E-02	1E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay A	4350-4400	6E-07	7E-02	1E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay A	4400-52	2E-06	2E-02	4E-06	3E-02	3E-07	4E-02	5E-07	6E-02
Landbay A	4500-2900	2E-08	8E-03	3E-08	1E-02	3E-09	5E-02	4E-09	7E-02
Landbay A	4500-3050	1E-12	4E-03	1E-12	8E-03	3E-10	3E-02	3E-10	4E-02
Landbay A	4500-3200	1E-12	8E-03	1E-12	2E-02	4E-10	4E-02	4E-10	6E-02
Landbay A	4500-4250	6E-07	7E-02	1E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay A	4500-4400	6E-07	7E-02	1E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay A	4500-53	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4650-3050	2E-08	8E-03	3E-08	1E-02	3E-09	5E-02	4E-09	7E-02
Landbay A	4650-3200	2E-12	5E-03	2E-12	9E-03	5E-10	4E-02	5E-10	5E-02
Landbay A	4650-4250	3E-08	2E-02	6E-08	4E-02	2E-08	8E-02	2E-08	1E-01
Landbay A	5100-3050	6E-07	5E-02	1E-06	1E-01	1E-07	3E-01	2E-07	4E-01
Landbay A	5100-3200	7E-07	6E-02	1E-06	1E-01	1E-07	3E-01	2E-07	4E-01
Landbay A	5200-70	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	5200-71	2E-06	5E-02	4E-06	9E-02	3E-07	2E-01	5E-07	3E-01
Landbay A	5300-74	1E-07	1E-02	2E-07	2E-02	1E-08	3E-02	2E-08	4E-02
Landbay A	5400-3500	6E-13	6E-04	6E-13	1E-03	2E-10	3E-03	2E-10	4E-03
Landbay A	5400-75	2E-06	4E-02	4E-06	8E-02	3E-07	2E-01	5E-07	3E-01
Landbay A	5500-76	2E-06	3E-02	3E-06	5E-02	2E-07	8E-02	3E-07	1E-01
Landbay A	5550-3950	9E-07	4E-02	2E-06	7E-02	1E-07	8E-02	2E-07	1E-01
Landbay A	5700-3950	9E-07	4E-02	2E-06	7E-02	1E-07	8E-02	2E-07	1E-01
Landbay A	5700-88	2E-06	6E-02	4E-06	1E-01	3E-07	1E-01	5E-07	2E-01
Landbay A	5TP1-7	NC	4E-03	NC	8E-03	NC	3E-02	NC	4E-02
Landbay A	5TP2-7	NC	4E-03	NC	8E-03	NC	3E-02	NC	4E-02
Landbay A	8TP1-7	NC	5E-03	NC	9E-03	NC	4E-02	NC	5E-02
Landbay A	8TP2-7	NC	7E-03	NC	1E-02	NC	6E-02	NC	7E-02
Landbay A	9TP1-7	3E-08	4E-03	3E-08	8E-03	2E-09	2E-02	3E-09	3E-02
Landbay A	9TP2-8	4E-07	4E-03	7E-07	8E-03	5E-08	2E-02	8E-08	2E-02
Landbay A	9TP3-6	2E-06	1E-02	3E-06	2E-02	2E-07	8E-03	4E-07	1E-02

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	9TP4-5	1E-06	1E-02	2E-06	2E-02	1E-07	2E-02	2E-07	2E-02
Landbay A	A1G244	4E-07	4E-02	5E-07	5E-02	3E-08	8E-02	5E-08	1E-01
Landbay A	A1G247	9E-08	1E-02	1E-07	2E-02	8E-09	6E-02	1E-08	8E-02
Landbay A	A1G253	4E-07	3E-03	7E-07	6E-03	5E-08	5E-03	8E-08	8E-03
Landbay A	A1G259	2E-07	2E-02	3E-07	3E-02	2E-08	5E-02	3E-08	6E-02
Landbay A	A1G262	7E-13	5E-03	7E-13	9E-03	2E-10	4E-02	2E-10	5E-02
Landbay A	A1G265	4E-08	1E-02	5E-08	2E-02	4E-09	6E-02	5E-09	8E-02
Landbay A	A1S130	2E-07	2E-02	3E-07	3E-02	2E-08	5E-02	3E-08	6E-02
Landbay A	A1S131	2E-07	8E-03	3E-07	1E-02	2E-08	5E-02	4E-08	6E-02
Landbay A	A1S132	4E-07	3E-02	5E-07	4E-02	3E-08	5E-02	4E-08	6E-02
Landbay A	A1S133	2E-07	2E-02	3E-07	3E-02	2E-08	5E-02	3E-08	6E-02
Landbay A	A2G171	6E-07	1E-02	1E-06	2E-02	8E-08	5E-02	1E-07	6E-02
Landbay A	A2G173	2E-06	3E-02	3E-06	5E-02	3E-07	9E-02	4E-07	1E-01
Landbay A	A2G177	3E-06	8E-02	4E-06	1E-01	3E-07	1E-01	5E-07	2E-01
Landbay A	A2G180	2E-06	3E-02	3E-06	5E-02	2E-07	9E-02	4E-07	1E-01
Landbay A	A2G181	4E-08	3E-03	5E-08	4E-03	3E-09	2E-03	5E-09	3E-03
Landbay A	A2G184	2E-06	3E-02	3E-06	4E-02	2E-07	7E-02	3E-07	1E-01
Landbay A	A2G187	NC	5E-06	NC	9E-06	NC	2E-05	NC	3E-05
Landbay A	A2G192	4E-08	3E-03	5E-08	4E-03	3E-09	2E-03	5E-09	3E-03
Landbay A	A2G195	8E-07	6E-02	1E-06	8E-02	7E-08	5E-02	1E-07	7E-02
Landbay A	A2G198	7E-07	5E-02	9E-07	6E-02	6E-08	4E-02	8E-08	5E-02
Landbay A	A2G201	4E-07	3E-02	5E-07	4E-02	3E-08	2E-02	5E-08	3E-02
Landbay A	A2G202	4E-07	1E-02	7E-07	2E-02	5E-08	7E-02	8E-08	9E-02
Landbay A	A2S134	2E-06	9E-02	3E-06	2E-01	2E-07	2E-01	4E-07	3E-01
Landbay A	A2S135	5E-07	8E-02	9E-07	2E-01	1E-07	3E-01	1E-07	4E-01
Landbay A	A2S136	2E-06	9E-02	3E-06	2E-01	2E-07	3E-01	3E-07	4E-01
Landbay A	A2S137	8E-07	8E-02	1E-06	2E-01	1E-07	3E-01	2E-07	4E-01
Landbay A	A2S138	1E-06	8E-02	2E-06	1E-01	2E-07	2E-01	2E-07	2E-01
Landbay A	A2S139	2E-06	1E-01	3E-06	2E-01	2E-07	2E-01	3E-07	3E-01
Landbay A	A2S164	6E-07	4E-02	1E-06	8E-02	1E-07	2E-01	1E-07	2E-01
Landbay A	A2S167	1E-06	8E-02	2E-06	1E-01	2E-07	2E-01	2E-07	2E-01
Landbay A	A3B198	1E-14	1E-02	1E-14	2E-02	4E-12	1E-01	4E-12	1E-01
Landbay A	A3B202	2E-06	2E-02	3E-06	3E-02	2E-07	6E-02	3E-07	8E-02
Landbay A	A3B205	1E-07	7E-03	2E-07	1E-02	1E-08	6E-02	2E-08	7E-02
Landbay A	A3B208	2E-08	6E-03	3E-08	1E-02	2E-09	4E-02	2E-09	5E-02
Landbay A	A3B211	4E-08	6E-03	5E-08	1E-02	3E-09	3E-02	4E-09	5E-02
Landbay A	A3B222	2E-08	4E-03	3E-08	6E-03	2E-09	2E-02	3E-09	2E-02
Landbay A	A3G214	1E-06	4E-02	2E-06	7E-02	1E-07	1E-01	1E-07	2E-01
Landbay A	A3G217	2E-08	6E-03	3E-08	1E-02	2E-09	4E-02	3E-09	5E-02
Landbay A	A3G220	3E-07	6E-02	4E-07	1E-01	3E-08	3E-01	5E-08	4E-01
Landbay A	A3G223	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	A3G226	NC	8E-06	NC	2E-05	NC	3E-05	NC	5E-05
Landbay A	A3G229	1E-07	9E-03	2E-07	1E-02	1E-08	8E-03	2E-08	1E-02
Landbay A	A3G232	NC	3E-07	NC	6E-07	NC	1E-06	NC	2E-06
Landbay A	A3G235	NC	8E-07	NC	2E-06	NC	3E-06	NC	5E-06
Landbay A	A3G238	NC	8E-07	NC	2E-06	NC	3E-06	NC	5E-06
Landbay A	A3G241	NC	4E-07	NC	8E-07	NC	2E-06	NC	3E-06
Landbay A	A3S144	3E-07	4E-02	4E-07	6E-02	2E-08	1E-01	3E-08	2E-01
Landbay A	A3S145	2E-07	1E-02	2E-07	2E-02	1E-08	4E-02	2E-08	5E-02
Landbay A	A3S146	2E-07	1E-02	2E-07	2E-02	1E-08	4E-02	2E-08	5E-02
Landbay A	A3S147	2E-07	1E-02	2E-07	2E-02	1E-08	4E-02	2E-08	5E-02
Landbay A	A4S140	7E-13	3E-03	7E-13	6E-03	3E-10	2E-02	3E-10	3E-02
Landbay A	A4S141	7E-13	3E-03	7E-13	6E-03	3E-10	2E-02	3E-10	3E-02
Landbay A	A4S142	7E-13	3E-03	7E-13	6E-03	3E-10	2E-02	3E-10	3E-02
Landbay A	A4S143	7E-13	3E-03	7E-13	6E-03	3E-10	2E-02	3E-10	3E-02
Landbay A	A5-1	NC	5E-07	NC	1E-06	NC	2E-06	NC	3E-06
Landbay A	A5-4	NC	2E-06	NC	4E-06	NC	8E-06	NC	1E-05
Landbay A	A5B268	NC	7E-07	NC	1E-06	NC	3E-06	NC	4E-06
Landbay A	A5S148	2E-13	4E-04	2E-13	7E-04	6E-11	1E-03	6E-11	2E-03
Landbay A	A5S149	2E-13	4E-04	2E-13	7E-04	6E-11	1E-03	6E-11	2E-03
Landbay A	A5S150	7E-08	5E-03	1E-07	7E-03	6E-09	6E-03	9E-09	8E-03
Landbay A	A5S151	7E-08	5E-03	1E-07	8E-03	6E-09	6E-03	9E-09	8E-03
Landbay A	AB-01	2E-08	1E-03	3E-08	2E-03	3E-09	3E-03	4E-09	5E-03
Landbay A	AB-02	4E-11	3E-02	4E-11	6E-02	1E-08	1E-01	1E-08	2E-01
Landbay A	AB-04	1E-12	9E-04	1E-12	2E-03	3E-10	3E-03	3E-10	4E-03
Landbay A	AB-05	9E-13	1E-03	9E-13	2E-03	3E-10	3E-03	3E-10	5E-03
Landbay A	AB-07	5E-09	2E-03	9E-09	3E-03	8E-10	1E-02	1E-09	1E-02
Landbay A	AB-08	1E-12	4E-03	1E-12	8E-03	4E-10	3E-02	4E-10	4E-02
Landbay A	AB-09	3E-08	1E-03	5E-08	3E-03	4E-09	3E-03	6E-09	4E-03
Landbay A	AB-10	3E-07	2E-03	6E-07	4E-03	6E-08	1E-02	9E-08	1E-02
Landbay A	AB-11	7E-13	8E-04	7E-13	1E-03	3E-10	3E-03	3E-10	4E-03
Landbay A	AB-12	1E-08	1E-03	2E-08	2E-03	2E-09	3E-03	3E-09	5E-03
Landbay A	AJA PP-1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	AJA-111	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	Bldg 34-35-36	NC	4E-07	NC	4E-07	NC	2E-06	NC	2E-06
Landbay A	CARD GAP B1	NC	7E-05	NC	1E-04	NC	2E-05	NC	4E-05
Landbay A	DP-23	1E-06	8E-03	2E-06	1E-02	2E-07	6E-03	3E-07	8E-03
Landbay A	DP-29	6E-07	1E-02	1E-06	1E-02	7E-08	9E-03	1E-07	1E-02
Landbay A	GP 100-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 100-05	NC	2E-05	NC	4E-05	NC	7E-05	NC	1E-04
Landbay A	GP 103-02	NC	3E-05	NC	6E-05	NC	1E-04	NC	2E-04
Landbay A	GP 104-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 105-01	NC	3E-05	NC	5E-05	NC	1E-04	NC	2E-04

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	GP 105-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 105-06	NC	2E-03	NC	4E-03	NC	8E-03	NC	1E-02
Landbay A	GP 105-07	NC	2E-04	NC	4E-04	NC	8E-04	NC	1E-03
Landbay A	GP 105-08	NC	8E-05	NC	2E-04	NC	3E-04	NC	6E-04
Landbay A	GP 105-09	NC	5E-04	NC	1E-03	NC	2E-03	NC	4E-03
Landbay A	GP 105-10	NC	9E-05	NC	2E-04	NC	4E-04	NC	6E-04
Landbay A	GP 105-11	NC	6E-03	NC	1E-02	NC	2E-02	NC	4E-02
Landbay A	GP 105-12	NC	9E-04	NC	2E-03	NC	4E-03	NC	6E-03
Landbay A	GP 105-13	NC	3E-05	NC	6E-05	NC	1E-04	NC	2E-04
Landbay A	GP 105-14	NC	2E-03	NC	5E-03	NC	9E-03	NC	2E-02
Landbay A	GP 105-15	NC	2E-02	NC	4E-02	NC	8E-02	NC	1E-01
Landbay A	GP 107-01	NC	6E-05	NC	1E-04	NC	4E-04	NC	6E-04
Landbay A	GP 107-02	NC	9E-06	NC	2E-05	NC	4E-05	NC	6E-05
Landbay A	GP 108-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-06	NC	1E-05	NC	2E-05	NC	4E-05	NC	6E-05
Landbay A	GP 18-01	NC	7E-05	NC	1E-04	NC	3E-04	NC	4E-04
Landbay A	GP 33-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 33-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 34-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 34-02	NC	4E-05	NC	8E-05	NC	2E-04	NC	3E-04
Landbay A	GP CM-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-03	NC	8E-06	NC	2E-05	NC	3E-05	NC	6E-05
Landbay A	GP CM-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-06	NC	8E-03	NC	2E-02	NC	3E-02	NC	5E-02
Landbay A	GP CM-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-08	NC	4E-05	NC	9E-05	NC	2E-04	NC	3E-04
Landbay A	GP CM-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-10	NC	1E-05	NC	2E-05	NC	5E-05	NC	8E-05
Landbay A	GP CM-12	4E-07	3E-03	7E-07	6E-03	5E-08	4E-03	8E-08	6E-03
Landbay A	GP CM-13	NC	9E-06	NC	2E-05	NC	4E-05	NC	6E-05
Landbay A	GP CM-14	NC	9E-04	NC	2E-03	NC	4E-03	NC	6E-03
Landbay A	GP CM-15	NC	1E-03	NC	3E-03	NC	5E-03	NC	9E-03
Landbay A	GP CM-16	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-17	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-18	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-19	NC	1E-03	NC	2E-03	NC	4E-03	NC	7E-03
Landbay A	GP CM-20	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-21	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-22	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP EXT TTU-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP EXT TTU-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-11	NC	2E-04	NC	4E-04	NC	8E-04	NC	1E-03
Landbay A	GP TTF-12	NC	2E-04	NC	4E-04	NC	2E-03	NC	3E-03
Landbay A	GP TTF-13	NC	1E-04	NC	3E-04	NC	2E-03	NC	2E-03
Landbay A	GP TTU-37	4E-08	3E-03	5E-08	3E-03	3E-09	2E-03	4E-09	3E-03
Landbay A	GP TTU-41	1E-07	8E-03	1E-07	1E-02	9E-09	6E-03	1E-08	9E-03
Landbay A	GP TTU-43	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-44	1E-07	9E-03	2E-07	1E-02	1E-08	8E-03	2E-08	1E-02
Landbay A	GP TTU-45	3E-06	2E-01	3E-06	2E-01	2E-07	1E-01	3E-07	2E-01
Landbay A	GP TTU-46	1E-07	1E-02	2E-07	1E-02	1E-08	8E-03	2E-08	1E-02
Landbay A	GP TTU-47	9E-07	6E-02	1E-06	9E-02	8E-08	5E-02	1E-07	8E-02
Landbay A	GP TTU-48	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-49	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-50	7E-08	5E-03	9E-08	6E-03	6E-09	4E-03	8E-09	5E-03
Landbay A	GP TTU-51	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-52	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-53	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	IM10-1	3E-06	1E-01	5E-06	2E-01	3E-07	4E-01	5E-07	5E-01
Landbay A	IM10-2	3E-07	2E-02	6E-07	4E-02	4E-08	1E-01	7E-08	2E-01
Landbay A	IM10-3	9E-13	6E-03	9E-13	1E-02	3E-10	5E-02	3E-10	6E-02
Landbay A	IM10-4	2E-08	6E-03	3E-08	1E-02	4E-09	5E-02	6E-09	7E-02
Landbay A	IM10-5	3E-08	1E-02	4E-08	3E-02	4E-09	8E-02	5E-09	1E-01
Landbay A	IM9-1	5E-06	6E-02	7E-06	1E-01	5E-07	4E-01	7E-07	4E-01
Landbay A	IM9-2	7E-06	2E-02	9E-06	4E-02	6E-07	1E-01	9E-07	2E-01
Landbay A	IM9-3	1E-12	9E-03	1E-12	2E-02	5E-10	6E-02	5E-10	8E-02
Landbay A	IM9-4	8E-11	3E-02	8E-11	7E-02	3E-08	2E-01	3E-08	2E-01
Landbay A	IM9-5	7E-08	1E-02	1E-07	2E-02	2E-08	5E-02	2E-08	6E-02
Landbay A	JTOO-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	MCD-22	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	POND 01 INF	2E-06	2E-01	3E-06	2E-01	2E-07	1E-01	3E-07	2E-01
Landbay A	SB CM-08	NC	8E-05	NC	2E-04	NC	3E-04	NC	5E-04
Landbay A	SB CM-10	NC	3E-03	NC	7E-03	NC	1E-02	NC	2E-02
Landbay A	SB CM-11	NC	5E-04	NC	1E-03	NC	2E-03	NC	4E-03
Landbay A	SEDA 13	9E-07	5E-03	1E-06	9E-03	1E-07	3E-03	2E-07	5E-03

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	SEDP 01 INF	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	S-IMSED-1	2E-06	1E-01	2E-06	2E-01	1E-07	1E-01	2E-07	1E-01
Landbay A	S-IMSED-3	6E-07	4E-02	8E-07	6E-02	5E-08	4E-02	8E-08	5E-02
Landbay A	SR-100B	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SS-103A	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SS-105C	NC	2E-06	NC	5E-06	NC	9E-06	NC	2E-05
Landbay A	SS-CGA	NC	3E-03	NC	4E-03	NC	6E-04	NC	9E-04
Landbay A	SW 105-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 105-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 105-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 106-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-02	NC	1E-04	NC	2E-04	NC	5E-04	NC	8E-04
Landbay A	SW CM-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-07	NC	5E-05	NC	9E-05	NC	2E-04	NC	3E-04
Landbay A	SW CM-08	NC	1E-03	NC	2E-03	NC	5E-03	NC	7E-03
Landbay A	SW CM-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-10	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW TTU-01	NC	7E-03	NC	1E-02	NC	6E-02	NC	8E-02
Landbay A	SW TTU-02	3E-12	7E-03	5E-12	1E-02	4E-13	6E-02	7E-13	8E-02
Landbay A	SW TTU-03	NC	1E-03	NC	3E-03	NC	1E-02	NC	1E-02
Landbay A	SW TTU-04	2E-08	6E-03	4E-08	1E-02	4E-09	5E-02	6E-09	6E-02
Landbay A	SW TTU-05	9E-09	7E-04	2E-08	1E-03	2E-09	6E-03	3E-09	8E-03
Landbay A	TP 107-01	8E-08	2E-03	1E-07	3E-03	1E-08	4E-03	2E-08	5E-03
Landbay A	TP 107-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-07	2E-14	2E-04	2E-14	4E-04	6E-12	8E-04	6E-12	1E-03
Landbay A	TRL100B1	NC	3E-05	NC	5E-05	NC	1E-04	NC	2E-04
Landbay A	TTU GP-01	6E-08	4E-03	8E-08	5E-03	5E-09	3E-03	7E-09	5E-03
Landbay A	TTU GP-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-13	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-15	2E-08	1E-03	2E-08	2E-03	1E-09	1E-03	2E-09	1E-03
Landbay A	TTU GP-19	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-21	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-23	2E-08	1E-03	2E-08	1E-03	1E-09	9E-04	2E-09	1E-03
Landbay A	TTU GP-27	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-29	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-31	9E-08	6E-03	1E-07	8E-03	8E-09	5E-03	1E-08	7E-03
Landbay A	TTU GP-33	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-54	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-55	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU SED-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU SED-02	1E-07	7E-03	1E-07	1E-02	9E-09	6E-03	1E-08	9E-03
Landbay A	TTU SED-03	1E-06	5E-02	2E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay A	TTU1P3-1	NC	7E-02	NC	1E-01	NC	3E-01	NC	5E-01
Landbay A	TTU1P3-2	NC	6E-03	NC	1E-02	NC	2E-02	NC	4E-02
Landbay A	TTU1P3-3	NC	5E-04	NC	9E-04	NC	2E-03	NC	3E-03
Landbay A	TTU1P3-4	NC	2E-05	NC	4E-05	NC	7E-05	NC	1E-04
Landbay A	TTU2P2-10	5E-08	9E-03	7E-08	2E-02	4E-09	7E-02	7E-09	9E-02
Landbay A	TTU2P2-9	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay A	TTU2P3-5	NC	4E-03	NC	9E-03	NC	2E-02	NC	3E-02
Landbay A	TTU2P3-6	NC	5E-03	NC	1E-02	NC	2E-02	NC	3E-02
Landbay A	TTU3P3-7	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay A	TTU3P3-8	NC	4E-05	NC	8E-05	NC	2E-04	NC	3E-04
Landbay A	TTU3P3-9	NC	2E-07	NC	5E-07	NC	9E-07	NC	2E-06
Landbay A	TTUP2-DS-1	6E-10	6E-03	9E-10	1E-02	6E-11	5E-02	9E-11	6E-02
Landbay A	TTUP2-DS-2	NC	5E-04	NC	1E-03	NC	4E-03	NC	5E-03
Landbay A	TTUP2-DS-3	NC	7E-03	NC	1E-02	NC	6E-02	NC	7E-02
Landbay A	TTUP2-DS-4	NC	1E-02	NC	2E-02	NC	9E-02	NC	1E-01
Landbay B	116AEC-1	7E-08	9E-04	1E-07	1E-03	6E-09	1E-03	9E-09	2E-03
Landbay B	116ANEC	NC	1E-04	NC	2E-04	NC	4E-04	NC	6E-04
Landbay B	116B145	4E-07	2E-01	7E-07	3E-01	1E-07	7E-01	2E-07	9E-01
Landbay B	116B146	1E-08	3E-02	3E-08	5E-02	2E-08	6E-02	2E-08	9E-02
Landbay B	116B147	6E-13	6E-03	6E-13	1E-02	2E-10	5E-02	2E-10	7E-02
Landbay B	116G17	2E-08	2E-02	4E-08	3E-02	4E-09	9E-02	6E-09	1E-01
Landbay B	116G18	7E-08	2E-01	1E-07	4E-01	2E-07	9E-01	2E-07	1E+00
Landbay B	116G19	7E-08	1E-01	1E-07	2E-01	6E-08	5E-01	7E-08	7E-01
Landbay B	116G20	7E-08	3E-02	1E-07	7E-02	1E-08	2E-01	2E-08	3E-01
Landbay B	116G21	2E-08	1E-02	3E-08	2E-02	4E-09	8E-02	6E-09	1E-01
Landbay B	116G22	2E-08	8E-03	3E-08	2E-02	3E-09	6E-02	4E-09	8E-02
Landbay B	116G23	6E-08	1E-01	1E-07	2E-01	7E-08	3E-01	7E-08	4E-01
Landbay B	116G24	4E-08	2E-02	8E-08	3E-02	8E-09	1E-01	1E-08	2E-01
Landbay B	116G25	2E-07	7E-02	3E-07	1E-01	6E-08	2E-01	7E-08	2E-01
Landbay B	116G26	3E-08	4E-03	5E-08	8E-03	4E-09	3E-02	6E-09	4E-02
Landbay B	116G27	3E-07	1E-01	5E-07	2E-01	1E-07	8E-01	1E-07	8E-01
Landbay B	116G28	1E-08	7E-03	2E-08	1E-02	8E-09	9E-03	9E-09	1E-02
Landbay B	117AEC-1	NC	3E-02	NC	5E-02	NC	1E-01	NC	2E-01

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	117ANEC	NC	1E-04	NC	2E-04	NC	5E-04	NC	8E-04
Landbay B	117B1	1E-06	1E-02	2E-06	2E-02	2E-07	3E-02	2E-07	4E-02
Landbay B	117B2	1E-06	8E-03	2E-06	1E-02	2E-07	8E-03	2E-07	1E-02
Landbay B	117B3	NC	2E-06	NC	4E-06	NC	8E-06	NC	1E-05
Landbay B	117G4	NC	3E-04	NC	6E-04	NC	1E-03	NC	2E-03
Landbay B	119AEC-2	NC	5E-03	NC	9E-03	NC	2E-02	NC	3E-02
Landbay B	119ANEC	NC	8E-03	NC	2E-02	NC	3E-02	NC	5E-02
Landbay B	119B137	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119B138	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G29	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G30	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G31	4E-08	4E-02	7E-08	8E-02	2E-08	1E-01	3E-08	2E-01
Landbay B	119G32	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G33	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G34	4E-08	4E-02	7E-08	8E-02	2E-08	1E-01	3E-08	2E-01
Landbay B	119G35	4E-08	4E-02	7E-08	8E-02	2E-08	1E-01	3E-08	2E-01
Landbay B	119G37	NC	3E-04	NC	6E-04	NC	1E-03	NC	2E-03
Landbay B	119G38	4E-08	4E-02	7E-08	8E-02	2E-08	1E-01	3E-08	2E-01
Landbay B	119G39	NC	2E-06	NC	4E-06	NC	8E-06	NC	1E-05
Landbay B	119G40	NC	1E-06	NC	3E-06	NC	5E-06	NC	8E-06
Landbay B	15TP1-7	NC	4E-03	NC	9E-03	NC	4E-02	NC	5E-02
Landbay B	16TP1-7	NC	3E-03	NC	5E-03	NC	2E-02	NC	3E-02
Landbay B	16TP2-7	1E-06	8E-03	2E-06	1E-02	1E-07	4E-03	2E-07	5E-03
Landbay B	16TP3-7	5E-10	4E-03	5E-10	9E-03	9E-11	3E-02	1E-10	4E-02
Landbay B	16TP4-7	7E-07	6E-03	1E-06	1E-02	8E-08	9E-03	1E-07	1E-02
Landbay B	16TP5-7	1E-11	2E-03	1E-11	4E-03	2E-10	1E-02	2E-10	2E-02
Landbay B	16TP6-7	6E-13	3E-03	6E-13	5E-03	2E-10	2E-02	2E-10	2E-02
Landbay B	42B136	2E-07	1E-02	2E-07	2E-02	1E-08	1E-02	2E-08	2E-02
Landbay B	42G110	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	42G115	4E-06	1E-02	6E-06	2E-02	4E-07	5E-02	5E-07	7E-02
Landbay B	42G116	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	42G117	6E-07	4E-02	8E-07	5E-02	5E-08	3E-02	7E-08	5E-02
Landbay B	42TP3-25	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay B	42TP3-37	4E-08	7E-03	5E-08	1E-02	4E-09	4E-02	5E-09	5E-02
Landbay B	42TP3-43	1E-08	2E-03	2E-08	3E-03	1E-09	7E-03	2E-09	1E-02
Landbay B	42TP4-125	1E-10	4E-02	1E-10	8E-02	3E-08	2E-01	3E-08	2E-01
Landbay B	42TP4-127	2E-06	1E-01	2E-06	2E-01	1E-07	1E-01	2E-07	2E-01
Landbay B	42TP4-136	5E-07	4E-02	7E-07	7E-02	6E-08	3E-01	7E-08	4E-01
Landbay B	42TP4-165	1E-06	8E-02	2E-06	1E-01	1E-07	9E-02	1E-07	1E-01
Landbay B	42TP4-180	8E-08	7E-03	1E-07	1E-02	7E-09	2E-02	1E-08	2E-02
Landbay B	42TP4-195	4E-07	3E-02	5E-07	4E-02	3E-08	4E-02	4E-08	5E-02
Landbay B	42TP4-75	8E-13	2E-03	8E-13	4E-03	3E-10	1E-02	3E-10	2E-02
Landbay B	42TP5-260	4E-08	2E-01	5E-08	3E-01	1E-07	9E-01	1E-07	1E+00
Landbay B	42TP5-275	7E-08	5E-02	1E-07	1E-01	5E-08	3E-01	6E-08	3E-01
Landbay B	42TP6-40	5E-11	2E-02	5E-11	5E-02	2E-08	7E-02	2E-08	9E-02
Landbay B	42TP6-5	9E-13	6E-03	9E-13	1E-02	3E-10	5E-02	3E-10	6E-02
Landbay B	5100-2750	1E-06	5E-02	2E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay B	5100-2750N	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2750SE	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2750SW	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2900	8E-07	5E-02	1E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay B	5250-2600	8E-07	5E-02	1E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay B	5250-2750	8E-07	5E-02	1E-06	1E-01	1E-07	2E-01	2E-07	2E-01
Landbay B	5400-77	1E-06	2E-02	2E-06	3E-02	2E-07	3E-02	3E-07	4E-02
Landbay B	5550-3350	6E-13	6E-04	6E-13	1E-03	2E-10	3E-03	2E-10	4E-03
Landbay B	5700-2600	2E-08	4E-02	5E-08	8E-02	3E-08	9E-02	4E-08	1E-01
Landbay B	5850-2300	3E-07	7E-02	5E-07	1E-01	8E-08	3E-01	1E-07	4E-01
Landbay B	5850-2600	2E-08	3E-01	5E-08	7E-01	3E-08	1E+00	4E-08	**2E+00**
Landbay B	5850-2600N	NC	2E-02	NC	3E-02	NC	7E-02	NC	1E-01
Landbay B	5850-2600SE	NC	7E-04	NC	1E-03	NC	3E-03	NC	5E-03
Landbay B	5850-2600SW	NC	3E-03	NC	6E-03	NC	1E-02	NC	2E-02
Landbay B	5850-3350	6E-07	7E-03	1E-06	1E-02	8E-08	1E-02	1E-07	2E-02
Landbay B	5850-3650	1E-07	9E-03	2E-07	2E-02	2E-08	5E-02	3E-08	7E-02
Landbay B	5850-3800	9E-07	2E-02	2E-06	5E-02	1E-07	7E-02	2E-07	1E-01
Landbay B	5850-3950	9E-07	4E-02	2E-06	7E-02	1E-07	8E-02	2E-07	1E-01
Landbay B	6000-2000	2E-08	4E-03	3E-08	8E-03	5E-09	2E-02	7E-09	2E-02
Landbay B	6000-2150	3E-07	7E-02	5E-07	1E-01	8E-08	3E-01	1E-07	4E-01
Landbay B	6000-2300	3E-07	7E-02	5E-07	1E-01	8E-08	3E-01	1E-07	4E-01
Landbay B	6000-2600	2E-08	4E-02	5E-08	8E-02	3E-08	9E-02	4E-08	1E-01
Landbay B	6000-2750	2E-08	4E-02	5E-08	8E-02	3E-08	9E-02	4E-08	1E-01
Landbay B	6000-2900	7E-13	3E-03	7E-13	7E-03	2E-10	3E-02	2E-10	3E-02
Landbay B	6000-3350	4E-14	1E-03	4E-14	2E-03	1E-11	6E-03	1E-11	9E-03
Landbay B	6000-3500	4E-14	1E-03	4E-14	2E-03	1E-11	6E-03	1E-11	9E-03
Landbay B	6000-3650	6E-12	2E-02	6E-12	5E-02	2E-09	9E-02	2E-09	1E-01
Landbay B	6000-3800	9E-07	2E-02	2E-06	5E-02	1E-07	7E-02	2E-07	1E-01
Landbay B	6000-94	2E-06	4E-02	3E-06	6E-02	2E-07	4E-02	4E-07	5E-02
Landbay B	6150-2150	2E-08	4E-03	3E-08	8E-03	5E-09	2E-02	7E-09	2E-02
Landbay B	6150-3050	7E-13	3E-03	7E-13	7E-03	2E-10	3E-02	2E-10	3E-02
Landbay B	6150-3350	4E-14	1E-03	4E-14	2E-03	1E-11	6E-03	1E-11	9E-03
Landbay B	6150-3500	6E-12	2E-02	6E-12	5E-02	2E-09	9E-02	2E-09	1E-01
Landbay B	6150-3650	6E-12	2E-02	6E-12	5E-02	2E-09	9E-02	2E-09	1E-01
Landbay B	6150-3800	9E-07	2E-02	2E-06	5E-02	1E-07	7E-02	2E-07	1E-01
Landbay B	6200-96	NC	2E-07	NC	4E-07	NC	8E-07	NC	1E-06

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	6300-107	5E-07	1E-02	9E-07	2E-02	6E-08	4E-02	1E-07	5E-02
Landbay B	6300-2150	8E-08	3E-02	2E-07	7E-02	3E-08	9E-02	4E-08	1E-01
Landbay B	6300-2300	2E-08	4E-03	3E-08	8E-03	5E-09	2E-02	7E-09	2E-02
Landbay B	6300-2450	2E-08	4E-03	3E-08	8E-03	5E-09	2E-02	7E-09	2E-02
Landbay B	6300-3350	4E-14	1E-03	4E-14	2E-03	1E-11	6E-03	1E-11	9E-03
Landbay B	6300-3500	6E-12	2E-02	6E-12	5E-02	2E-09	9E-02	2E-09	1E-01
Landbay B	6400-108	1E-07	1E-03	2E-07	2E-03	2E-08	2E-03	3E-08	2E-03
Landbay B	6450-2600	4E-07	3E-03	7E-07	5E-03	5E-08	4E-03	9E-08	4E-03
Landbay B	6450-2750	4E-07	3E-03	7E-07	5E-03	5E-08	4E-03	9E-08	4E-03
Landbay B	6450-2900	4E-07	3E-03	7E-07	5E-03	5E-08	4E-03	9E-08	4E-03
Landbay B	6450-3200	2E-13	3E-04	2E-13	6E-04	8E-11	2E-03	8E-11	3E-03
Landbay B	6450-3350	2E-13	3E-04	2E-13	6E-04	8E-11	2E-03	8E-11	3E-03
Landbay B	6450-3500	3E-13	1E-03	3E-13	3E-03	1E-10	8E-03	1E-10	1E-02
Landbay B	6450-3650	3E-13	1E-03	3E-13	3E-03	1E-10	8E-03	1E-10	1E-02
Landbay B	6600-3350	3E-13	1E-03	3E-13	3E-03	1E-10	8E-03	1E-10	1E-02
Landbay B	6600-3500	3E-13	1E-03	3E-13	3E-03	1E-10	8E-03	1E-10	1E-02
Landbay B	6750-2750	4E-08	3E-02	8E-08	7E-02	2E-08	8E-02	3E-08	1E-01
Landbay B	6750-2900	4E-08	3E-02	8E-08	7E-02	2E-08	8E-02	3E-08	1E-01
Landbay B	6750-3050	4E-08	3E-02	8E-08	7E-02	2E-08	8E-02	3E-08	1E-01
Landbay B	6750-3350	1E-07	9E-04	2E-07	2E-03	2E-08	1E-03	3E-08	1E-03
Landbay B	6750-3500	1E-07	9E-04	2E-07	2E-03	2E-08	1E-03	3E-08	1E-03
Landbay B	6800-117	NC	1E-06	NC	2E-06	NC	4E-06	NC	7E-06
Landbay B	6800-118	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	6900-3200	1E-07	9E-04	2E-07	2E-03	2E-08	1E-03	3E-08	1E-03
Landbay B	6900-3350	1E-07	9E-04	2E-07	2E-03	2E-08	1E-03	3E-08	1E-03
Landbay B	7050-3200	7E-14	2E-05	7E-14	3E-05	3E-11	1E-04	3E-11	1E-04
Landbay B	7050-3350	7E-14	2E-05	7E-14	3E-05	3E-11	1E-04	3E-11	1E-04
Landbay B	70AEC-3	9E-11	4E-03	1E-10	9E-03	2E-11	2E-02	2E-11	3E-02
Landbay B	70ANEC	NC	3E-03	NC	7E-03	NC	1E-02	NC	2E-02
Landbay B	70B1	2E-07	6E-03	4E-07	9E-03	3E-08	1E-02	4E-08	2E-02
Landbay B	70B2	2E-07	3E-03	3E-07	5E-03	2E-08	1E-02	4E-08	1E-02
Landbay B	70B3	5E-13	3E-04	5E-13	7E-04	2E-10	2E-03	2E-10	3E-03
Landbay B	70G4	1E-10	3E-04	2E-10	5E-04	1E-11	1E-03	1E-11	2E-03
Landbay B	73B105	NC	9E-06	NC	2E-05	NC	4E-05	NC	6E-05
Landbay B	73B106	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73B107	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73B108	NC	3E-06	NC	5E-06	NC	1E-05	NC	2E-05
Landbay B	73B151	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G76	3E-08	3E-03	4E-08	5E-03	3E-09	1E-02	4E-09	2E-02
Landbay B	73G77	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G78	NC	2E-06	NC	3E-06	NC	6E-06	NC	1E-05
Landbay B	73G79	NC	7E-06	NC	1E-05	NC	3E-05	NC	5E-05
Landbay B	73G80	3E-08	3E-03	4E-08	5E-03	3E-09	1E-02	4E-09	1E-02
Landbay B	73G81	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G82	NC	2E-04	NC	4E-04	NC	8E-04	NC	1E-03
Landbay B	73G83	NC	1E-06	NC	2E-06	NC	4E-06	NC	7E-06
Landbay B	73G84	3E-08	3E-03	4E-08	5E-03	3E-09	1E-02	4E-09	1E-02
Landbay B	73G85	NC	2E-04	NC	4E-04	NC	9E-04	NC	1E-03
Landbay B	73G86	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G87	3E-08	3E-03	4E-08	5E-03	3E-09	1E-02	4E-09	1E-02
Landbay B	74AEC-2	8E-08	8E-02	1E-07	2E-01	7E-09	3E-01	1E-08	5E-01
Landbay B	74ANEC	NC	8E-05	NC	2E-04	NC	3E-04	NC	5E-04
Landbay B	74B100	2E-08	2E-04	2E-08	3E-04	2E-09	3E-04	2E-09	4E-04
Landbay B	74B101	NC	4E-05	NC	9E-05	NC	2E-04	NC	3E-04
Landbay B	74B102	NC	9E-05	NC	2E-04	NC	4E-04	NC	6E-04
Landbay B	74B103	NC	2E-04	NC	3E-04	NC	6E-04	NC	1E-03
Landbay B	74B104	NC	9E-07	NC	2E-06	NC	4E-06	NC	6E-06
Landbay B	74B99	NC	2E-04	NC	4E-04	NC	8E-04	NC	1E-03
Landbay B	74G88	NC	2E-05	NC	5E-05	NC	1E-04	NC	2E-04
Landbay B	74G89	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay B	74G91	1E-08	1E-04	2E-08	2E-04	1E-09	7E-05	2E-09	1E-04
Landbay B	74G92	4E-08	1E-02	6E-08	2E-02	5E-09	7E-02	8E-09	9E-02
Landbay B	74G93	NC	1E-03	NC	2E-03	NC	5E-03	NC	8E-03
Landbay B	74G94	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74G95	4E-08	1E-02	6E-08	2E-02	5E-09	7E-02	8E-09	9E-02
Landbay B	74G96	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74G97	NC	1E-02	NC	2E-02	NC	4E-02	NC	7E-02
Landbay B	74G98	4E-08	1E-02	6E-08	2E-02	5E-09	7E-02	8E-09	9E-02
Landbay B	76AEC-1	4E-08	5E-03	6E-08	9E-03	4E-09	2E-02	5E-09	3E-02
Landbay B	76ANEC	NC	2E-02	NC	4E-02	NC	8E-02	NC	1E-01
Landbay B	76B12	NC	8E-07	NC	2E-06	NC	3E-06	NC	6E-06
Landbay B	76B13	NC	2E-05	NC	2E-05	NC	3E-06	NC	5E-06
Landbay B	76B14	NC	1E-06	NC	3E-06	NC	5E-06	NC	9E-06
Landbay B	76B15	NC	4E-06	NC	8E-06	NC	2E-05	NC	2E-05
Landbay B	76G1	NC	2E-06	NC	4E-06	NC	8E-06	NC	1E-05
Landbay B	76G10	NC	1E-06	NC	3E-06	NC	6E-06	NC	9E-06
Landbay B	76G11	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay B	76G16	NC	5E-06	NC	1E-05	NC	2E-05	NC	3E-05
Landbay B	76G2	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76G3	2E-08	4E-03	3E-08	7E-03	2E-09	2E-02	3E-09	3E-02
Landbay B	76G4	NC	9E-07	NC	2E-06	NC	4E-06	NC	6E-06
Landbay B	76G5	2E-08	4E-03	3E-08	7E-03	2E-09	2E-02	3E-09	3E-02
Landbay B	76G6	2E-08	4E-03	3E-08	7E-03	2E-09	2E-02	3E-09	3E-02

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	76G7	NC	6E-07	NC	1E-06	NC	2E-06	NC	4E-06
Landbay B	76G8	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76G9	NC	1E-06	NC	2E-06	NC	4E-06	NC	7E-06
Landbay B	78B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	81B1	4E-13	3E-03	4E-13	5E-03	1E-10	2E-02	1E-10	2E-02
Landbay B	81B2	4E-13	3E-03	4E-13	5E-03	1E-10	2E-02	1E-10	2E-02
Landbay B	81G3	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	81G4	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85AEC-1	NC	1E-04	NC	2E-04	NC	4E-04	NC	7E-04
Landbay B	85ANEC	NC	1E-04	NC	3E-04	NC	6E-04	NC	1E-03
Landbay B	85B140	NC	8E-07	NC	2E-06	NC	3E-06	NC	5E-06
Landbay B	85B141	NC	3E-03	NC	4E-03	NC	7E-04	NC	1E-03
Landbay B	85B142	NC	2E-05	NC	3E-05	NC	5E-06	NC	8E-06
Landbay B	85B143	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay B	85B144	NC	2E-05	NC	2E-05	NC	4E-06	NC	5E-06
Landbay B	85G53	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G54	NC	1E-06	NC	3E-06	NC	5E-06	NC	8E-06
Landbay B	85G55	NC	2E-06	NC	3E-06	NC	6E-06	NC	1E-05
Landbay B	85G56	NC	1E-06	NC	2E-06	NC	4E-06	NC	6E-06
Landbay B	85G57	NC	4E-06	NC	7E-06	NC	1E-05	NC	2E-05
Landbay B	85G58	2E-07	3E-03	3E-07	5E-03	2E-08	3E-02	3E-08	4E-02
Landbay B	85G59	2E-07	3E-03	3E-07	5E-03	2E-08	3E-02	3E-08	4E-02
Landbay B	85G60	NC	2E-06	NC	5E-06	NC	1E-05	NC	2E-05
Landbay B	85G61	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G62	2E-07	3E-03	3E-07	5E-03	2E-08	3E-02	3E-08	4E-02
Landbay B	85G63	NC	1E-06	NC	2E-06	NC	4E-06	NC	7E-06
Landbay B	85G64	NC	8E-06	NC	2E-05	NC	3E-05	NC	5E-05
Landbay B	86B1	3E-07	7E-03	5E-07	1E-02	4E-08	1E-02	6E-08	2E-02
Landbay B	86B2	3E-07	7E-03	5E-07	1E-02	4E-08	1E-02	6E-08	2E-02
Landbay B	86G3	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	86G4	3E-07	7E-03	5E-07	1E-02	4E-08	1E-02	6E-08	2E-02
Landbay B	87B1	7E-09	1E-03	1E-08	2E-03	2E-09	3E-03	2E-09	5E-03
Landbay B	87B2	7E-09	9E-04	1E-08	1E-03	2E-09	3E-03	2E-09	4E-03
Landbay B	87G4	7E-09	8E-04	1E-08	1E-03	2E-09	3E-03	2E-09	4E-03
Landbay B	97B1	8E-09	1E-03	2E-08	3E-03	2E-09	9E-03	2E-09	1E-02
Landbay B	98B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	A6G183	6E-07	4E-02	8E-07	6E-02	5E-08	6E-02	7E-08	9E-02
Landbay B	A6G184	2E-06	2E-02	3E-06	4E-02	2E-07	6E-02	4E-07	7E-02
Landbay B	A6G185	5E-07	1E-02	8E-07	2E-02	5E-08	5E-02	9E-08	7E-02
Landbay B	A6G186	6E-13	1E-02	6E-13	2E-02	2E-10	1E-01	2E-10	1E-01
Landbay B	A6G187	6E-13	7E-03	6E-13	1E-02	2E-10	6E-02	2E-10	8E-02
Landbay B	A6S158	7E-07	6E-02	1E-06	8E-02	6E-08	7E-02	9E-08	1E-01
Landbay B	A7G188	6E-07	7E-03	1E-06	1E-02	8E-08	3E-02	1E-07	4E-02
Landbay B	A7G189	8E-07	6E-03	1E-06	1E-02	1E-07	8E-03	2E-07	1E-02
Landbay B	A7G190	2E-06	1E-02	3E-06	2E-02	2E-07	1E-02	3E-07	1E-02
Landbay B	A7S162	6E-07	1E-01	1E-06	2E-01	1E-07	9E-01	2E-07	1E+00
Landbay B	A7S163	2E-08	1E-01	3E-08	2E-01	6E-08	9E-01	6E-08	1E+00
Landbay B	A8G193	NC	5E-06	NC	1E-05	NC	2E-05	NC	3E-05
Landbay B	A8G194	NC	7E-05	NC	1E-04	NC	3E-04	NC	5E-04
Landbay B	A8G195	3E-07	3E-02	5E-07	5E-02	3E-08	9E-02	4E-08	1E-01
Landbay B	A8S154	1E-05	7E-01	1E-05	9E-01	8E-07	6E-01	1E-06	8E-01
Landbay B	A8S155	1E-05	7E-01	1E-05	9E-01	8E-07	6E-01	1E-06	8E-01
Landbay B	A8S156	3E-07	3E-02	4E-07	5E-02	3E-08	7E-02	4E-08	1E-01
Landbay B	A8S159	2E-08	5E-03	3E-08	8E-03	2E-09	3E-02	3E-09	4E-02
Landbay B	A8S169	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay B	A8S170	6E-08	4E-03	8E-08	6E-03	5E-09	4E-03	8E-09	5E-03
Landbay B	AB-03	3E-09	8E-04	5E-09	1E-03	7E-10	2E-03	9E-10	4E-03
Landbay B	AB-06	2E-07	4E-03	5E-07	8E-03	4E-08	2E-02	7E-08	3E-02
Landbay B	AB-13	7E-07	2E-03	1E-06	5E-03	1E-07	1E-02	2E-07	2E-02
Landbay B	AB-14	3E-08	8E-03	6E-08	2E-02	5E-09	7E-02	8E-09	9E-02
Landbay B	AB-15	8E-13	5E-03	8E-13	9E-03	3E-10	4E-02	3E-10	5E-02
Landbay B	AB-16	4E-13	3E-03	4E-13	5E-03	1E-10	2E-02	1E-10	3E-02
Landbay B	AB-17	2E-08	3E-03	4E-08	5E-03	3E-09	2E-02	5E-09	2E-02
Landbay B	AB-18	4E-09	9E-04	8E-09	2E-03	8E-10	2E-03	1E-09	4E-03
Landbay B	AB-19	5E-09	6E-04	8E-09	1E-03	8E-10	1E-03	1E-09	2E-03
Landbay B	AB-20	7E-13	8E-04	7E-13	1E-03	2E-10	3E-03	2E-10	4E-03
Landbay B	AB-21	6E-13	7E-04	6E-13	1E-03	2E-10	2E-03	2E-10	4E-03
Landbay B	AB-22	3E-08	2E-03	5E-08	3E-03	4E-09	3E-03	6E-09	5E-03
Landbay B	AJA EE-2	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	AJAY-301	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	B97AEC-1S	NC	2E-04	NC	5E-04	NC	9E-04	NC	2E-03
Landbay B	BKG-A	NC	6E-03	NC	1E-02	NC	5E-02	NC	6E-02
Landbay B	BKG-B	NC	4E-04	NC	8E-04	NC	2E-03	NC	2E-03
Landbay B	BKG-C	NC	2E-04	NC	4E-04	NC	9E-04	NC	1E-03
Landbay B	BKG-D	NC	3E-03	NC	6E-03	NC	3E-02	NC	3E-02
Landbay B	BKG-E	NC	7E-03	NC	1E-02	NC	6E-02	NC	8E-02
Landbay B	BKG-F	NC	8E-03	NC	2E-02	NC	6E-02	NC	8E-02
Landbay B	BKG-G	NC	4E-03	NC	8E-03	NC	3E-02	NC	4E-02
Landbay B	BKG-H	NC	5E-03	NC	1E-02	NC	4E-02	NC	5E-02
Landbay B	BKG-I	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-J	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-K	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-L	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	BW 78-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-10	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay B	BW 78-11	NC	3E-03	NC	5E-03	NC	1E-02	NC	2E-02
Landbay B	BW 78-12	NC	7E-06	NC	1E-05	NC	3E-05	NC	5E-05
Landbay B	DP-119	1E-06	5E-02	2E-06	8E-02	2E-07	1E-01	3E-07	2E-01
Landbay B	DP-30	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 108-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 116-02	NC	3E-05	NC	5E-05	NC	1E-04	NC	2E-04
Landbay B	GP 119-02	NC	4E-05	NC	8E-05	NC	2E-04	NC	3E-04
Landbay B	GP 42-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-04	NC	6E-04	NC	1E-03	NC	3E-03	NC	4E-03
Landbay B	GP 70-05	NC	4E-03	NC	8E-03	NC	2E-02	NC	3E-02
Landbay B	GP 70-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-03	NC	4E-05	NC	7E-05	NC	1E-04	NC	2E-04
Landbay B	GP 73-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-03	NC	4E-05	NC	8E-05	NC	2E-04	NC	2E-04
Landbay B	GP 74-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-06	NC	8E-04	NC	2E-03	NC	3E-03	NC	6E-03
Landbay B	GP 74-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-05	NC	2E-02	NC	2E-02	NC	8E-02	NC	8E-02
Landbay B	GP 77-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-02	NC	2E-04	NC	5E-04	NC	1E-03	NC	2E-03
Landbay B	GP 77-05	NC	2E-03	NC	4E-03	NC	7E-03	NC	1E-02
Landbay B	GP 77-06	NC	2E-04	NC	4E-04	NC	8E-04	NC	1E-03
Landbay B	GP 77-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-10	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-12	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay B	GP 77-13	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-14	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-15	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-16	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 78-01	NC	8E-03	NC	2E-02	NC	3E-02	NC	5E-02
Landbay B	GP 78-03	NC	4E-02	NC	8E-02	NC	2E-01	NC	3E-01
Landbay B	GP 79-01	NC	3E-04	NC	3E-04	NC	4E-04	NC	5E-04
Landbay B	GP 79-02	NC	1E-04	NC	1E-04	NC	2E-04	NC	2E-04
Landbay B	GP 81-01	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay B	GP 81-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 81-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 82-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 82-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 84-01	NC	2E-05	NC	2E-05	NC	3E-06	NC	5E-06
Landbay B	GP 85-01	NC	8E-06	NC	2E-05	NC	3E-05	NC	5E-05
Landbay B	GP 86-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP BG-03	1E-06	8E-02	2E-06	1E-01	2E-07	3E-01	3E-07	3E-01
Landbay B	GP PP-01	NC	2E-04	NC	4E-04	NC	8E-04	NC	1E-03
Landbay B	GP PP-02	NC	1E-06	NC	3E-06	NC	6E-06	NC	1E-05
Landbay B	GP PP-03	NC	4E-06	NC	8E-06	NC	2E-05	NC	3E-05
Landbay B	GP PP-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-1	3E-06	1E-01	5E-06	3E-01	4E-07	2E-01	6E-07	3E-01
Landbay B	IM11-10	1E-10	5E-02	1E-10	1E-01	3E-08	1E+00	3E-08	1E+00
Landbay B	IM11-2	9E-11	1E-01	9E-11	2E-01	3E-08	**3E+00**	3E-08	**3E+00**
Landbay B	IM11-3	2E-07	3E-02	3E-07	6E-02	2E-08	7E-01	3E-08	8E-01
Landbay B	IM11-4	1E-07	2E-02	2E-07	4E-02	2E-08	1E+00	3E-08	1E+00
Landbay B	IM11-5	7E-07	8E-02	1E-06	2E-01	1E-07	1E+00	2E-07	1E+00
Landbay B	IM11-6	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-7	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-8	3E-11	1E-02	3E-11	2E-02	1E-08	9E-03	1E-08	1E-02
Landbay B	IM11-9	3E-11	2E-02	3E-11	4E-02	1E-08	6E-01	1E-08	6E-01
Landbay B	JT O-01A	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	MC D-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 117-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 70-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 70-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 71-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 77-02	NC	8E-05	NC	2E-04	NC	3E-04	NC	6E-04
Landbay B	SB 77-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 77-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-04	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay B	SB 78-05	NC	1E-04	NC	3E-04	NC	5E-04	NC	8E-04
Landbay B	SB 78-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-08	NC	4E-05	NC	7E-05	NC	1E-04	NC	2E-04
Landbay B	SB 78-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-10	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-11	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-12	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-14	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-15	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-16	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-17	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-18	NC	3E-03	NC	7E-03	NC	1E-02	NC	2E-02
Landbay B	SB 78-19	NC	1E-03	NC	2E-03	NC	4E-03	NC	7E-03
Landbay B	SB 78-20	NC	2E-02	NC	5E-02	NC	9E-02	NC	2E-01
Landbay B	SB 78-21	NC	5E-05	NC	1E-04	NC	2E-04	NC	3E-04
Landbay B	SB 78-22	NC	4E-05	NC	8E-05	NC	2E-04	NC	3E-04
Landbay B	SB 78-23	NC	8E-04	NC	2E-03	NC	3E-03	NC	5E-03
Landbay B	SB 78-24	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-25	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-26	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-27	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-28	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-29	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-30	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay B	SB 78-31	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-32	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-33	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-34	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-35	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-36	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-37	NC	3E-05	NC	6E-05	NC	1E-04	NC	2E-04
Landbay B	SB 78-38	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-39	NC	2E-05	NC	4E-05	NC	7E-05	NC	1E-04
Landbay B	SB 78-40	NC	2E-04	NC	3E-04	NC	6E-04	NC	1E-03
Landbay B	SB 78-41	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-42	NC	3E-03	NC	6E-03	NC	1E-02	NC	2E-02
Landbay B	SB 78-43	NC	3E-05	NC	5E-05	NC	1E-04	NC	2E-04
Landbay B	SED 40-26	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SED 40-27	NC	3E-05	NC	6E-05	NC	1E-04	NC	2E-04
Landbay B	SED 40-28	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	S-IMSED-4	6E-08	4E-03	8E-08	6E-03	5E-09	3E-03	7E-09	5E-03
Landbay B	S-IMSED-6	2E-08	2E-03	3E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay B	SR-116	7E-07	9E-03	1E-06	1E-02	7E-08	4E-03	1E-07	7E-03
Landbay B	SR-76B	NC	7E-04	NC	1E-03	NC	2E-03	NC	3E-03
Landbay B	SR-76S	1E-08	6E-04	2E-08	1E-03	1E-09	1E-03	2E-09	2E-03
Landbay B	SR-85S	6E-06	6E-02	9E-06	8E-02	6E-07	8E-03	9E-07	1E-02
Landbay B	SS-108A	NC	1E-05	NC	2E-05	NC	4E-05	NC	7E-05
Landbay B	SS-116B	NC	5E-05	NC	6E-05	NC	1E-05	NC	2E-05
Landbay B	SS-116C	5E-06	5E-02	7E-06	7E-02	4E-07	7E-03	7E-07	1E-02
Landbay B	SS-116D	3E-08	3E-04	4E-08	4E-04	3E-09	4E-05	4E-09	6E-05
Landbay B	SS-74A	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-74E	8E-07	1E-02	1E-06	2E-02	7E-08	2E-03	1E-07	3E-03
Landbay B	SS-74G	2E-05	2E-01	2E-05	2E-01	2E-06	2E-02	2E-06	3E-02
Landbay B	SS-85A	NC	2E-02	NC	2E-02	NC	4E-03	NC	5E-03
Landbay B	SS-86A	NC	1E-05	NC	2E-05	NC	4E-05	NC	7E-05
Landbay B	SS-98A	NC	2E-06	NC	3E-06	NC	7E-06	NC	1E-05
Landbay B	SW 115-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 70-01	NC	2E-05	NC	4E-05	NC	7E-05	NC	1E-04
Landbay B	SW 70-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 74-02	NC	7E-04	NC	1E-03	NC	3E-03	NC	5E-03
Landbay B	SW 74-03	NC	1E-05	NC	3E-05	NC	6E-05	NC	9E-05
Landbay B	SW 74-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 74-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-02	NC	7E-03	NC	1E-02	NC	3E-02	NC	5E-02
Landbay B	TRL200B1	NC	1E-05	NC	2E-05	NC	4E-05	NC	6E-05
Landbay C	194B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	23TP2-10	2E-06	1E-02	3E-06	2E-02	2E-07	1E-02	4E-07	1E-02
Landbay C	23TP3-7	8E-07	2E-02	1E-06	3E-02	1E-07	1E-01	2E-07	1E-01
Landbay C	23TP4-7	NC	8E-03	NC	2E-02	NC	7E-02	NC	9E-02
Landbay C	23TP5-12	1E-06	1E-02	2E-06	2E-02	1E-07	7E-02	2E-07	1E-01

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay C	25TP1-25	1E-13	3E-05	1E-13	6E-05	5E-11	2E-04	5E-11	3E-04
Landbay C	25TP2-30	6E-07	6E-03	1E-06	1E-02	8E-08	2E-02	1E-07	2E-02
Landbay C	25TP3-10	NC	2E-08	NC	3E-08	NC	5E-08	NC	7E-08
Landbay C	25TP4-25	8E-09	1E-04	8E-09	2E-04	2E-09	3E-04	2E-09	4E-04
Landbay C	26TP1-5	4E-13	5E-04	4E-13	9E-04	2E-10	4E-03	2E-10	5E-03
Landbay C	26TP2-7	8E-07	5E-03	1E-06	9E-03	1E-07	4E-03	2E-07	6E-03
Landbay C	27TP1-7	7E-07	5E-03	1E-06	8E-03	9E-08	3E-03	1E-07	4E-03
Landbay C	27TP2-7	6E-07	4E-03	1E-06	6E-03	8E-08	2E-03	1E-07	3E-03
Landbay C	6150-1850	7E-08	6E-02	1E-07	1E-01	5E-08	3E-01	6E-08	4E-01
Landbay C	6300-1850	5E-08	3E-02	9E-08	6E-02	3E-08	8E-02	4E-08	1E-01
Landbay C	6450-1700	5E-08	3E-02	9E-08	6E-02	3E-08	8E-02	4E-08	1E-01
Landbay C	6450-1850	5E-08	3E-02	9E-08	6E-02	3E-08	8E-02	4E-08	1E-01
Landbay C	6450-2000	4E-05	4E-02	5E-05	8E-02	3E-06	9E-02	5E-06	1E-01
Landbay C	6450-2000N	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6450-2000SE	2E-05	3E-03	3E-05	4E-03	2E-06	1E-03	3E-06	2E-03
Landbay C	6450-2000SW	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6450-2150	8E-08	3E-02	2E-07	7E-02	3E-08	9E-02	4E-08	1E-01
Landbay C	6500-111	1E-06	2E-02	2E-06	5E-02	2E-07	1E-01	3E-07	2E-01
Landbay C	6600-1850	5E-08	3E-02	9E-08	6E-02	3E-08	8E-02	4E-08	1E-01
Landbay C	6600-2000	8E-08	3E-02	2E-07	7E-02	3E-08	9E-02	4E-08	1E-01
Landbay C	6600-2300	6E-08	3E-02	1E-07	7E-02	3E-08	1E-01	3E-08	1E-01
Landbay C	6750-1850	9E-07	2E-02	2E-06	4E-02	1E-07	2E-01	2E-07	2E-01
Landbay C	6750-2000	4E-08	3E-02	8E-08	6E-02	3E-08	4E-02	3E-08	6E-02
Landbay C	6750-2300	6E-08	3E-02	1E-07	7E-02	3E-08	1E-01	3E-08	1E-01
Landbay C	6900-119	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6900-1850	9E-07	2E-02	2E-06	4E-02	1E-07	2E-01	2E-07	2E-01
Landbay C	6900-2000	4E-08	3E-02	8E-08	6E-02	3E-08	4E-02	3E-08	6E-02
Landbay C	6900-2150	4E-08	3E-02	8E-08	6E-02	3E-08	4E-02	3E-08	6E-02
Landbay C	6900-2300	3E-08	7E-03	6E-08	1E-02	1E-08	2E-02	1E-08	2E-02
Landbay C	6900-2450	6E-08	3E-02	1E-07	7E-02	3E-08	1E-01	3E-08	1E-01
Landbay C	7000-120	2E-06	7E-02	3E-06	1E-01	3E-07	3E-01	4E-07	4E-01
Landbay C	7000-121	2E-06	2E-02	3E-06	4E-02	2E-07	1E-01	3E-07	1E-01
Landbay C	7000-122	NC	2E-07	NC	3E-07	NC	7E-07	NC	1E-06
Landbay C	7050-1700	9E-07	2E-02	2E-06	4E-02	1E-07	2E-01	2E-07	2E-01
Landbay C	7050-1850	9E-07	2E-02	2E-06	4E-02	1E-07	2E-01	2E-07	2E-01
Landbay C	7050-2150	4E-08	3E-02	8E-08	6E-02	3E-08	4E-02	3E-08	6E-02
Landbay C	7050-2300	3E-08	7E-03	6E-08	1E-02	1E-08	2E-02	1E-08	2E-02
Landbay C	7050-2900	4E-08	3E-02	8E-08	7E-02	2E-08	8E-02	3E-08	1E-01
Landbay C	7100-135	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7100-137	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7200-138	NC	2E-07	NC	4E-07	NC	8E-07	NC	1E-06
Landbay C	7200-2000	2E-08	8E-03	3E-08	2E-02	3E-09	1E-01	4E-09	2E-01
Landbay C	7200-2150	2E-08	8E-03	3E-08	2E-02	3E-09	1E-01	4E-09	2E-01
Landbay C	7200-2300	3E-08	7E-03	6E-08	1E-02	1E-08	2E-02	1E-08	2E-02
Landbay C	7200-2450	3E-08	6E-02	6E-08	1E-01	5E-08	2E-01	5E-08	2E-01
Landbay C	7200-2600	1E-07	3E-02	2E-07	6E-02	3E-08	1E-01	4E-08	2E-01
Landbay C	7200-2750	1E-07	3E-02	2E-07	6E-02	3E-08	1E-01	4E-08	2E-01
Landbay C	7200-3050	7E-14	2E-05	7E-14	3E-05	3E-11	1E-04	3E-11	1E-04
Landbay C	7200-3200	7E-14	2E-05	7E-14	3E-05	3E-11	1E-04	3E-11	1E-04
Landbay C	7350-1850	2E-08	8E-03	3E-08	2E-02	3E-09	1E-01	4E-09	2E-01
Landbay C	7350-2000	2E-08	8E-03	3E-08	2E-02	3E-09	1E-01	4E-09	2E-01
Landbay C	7350-2300	3E-08	6E-02	6E-08	1E-01	5E-08	2E-01	5E-08	2E-01
Landbay C	7350-2450	3E-08	6E-02	6E-08	1E-01	5E-08	2E-01	5E-08	2E-01
Landbay C	7350-2750	1E-07	3E-02	2E-07	6E-02	3E-08	1E-01	4E-08	2E-01
Landbay C	7350-2900	1E-07	3E-02	2E-07	6E-02	3E-08	1E-01	4E-08	2E-01
Landbay C	7350-3050	8E-13	9E-04	8E-13	2E-03	3E-10	3E-03	3E-10	5E-03
Landbay C	7350-3200	2E-14	2E-05	2E-14	4E-05	9E-12	8E-05	9E-12	1E-04
Landbay C	7500-141	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7500-144	NC	2E-07	NC	3E-07	NC	7E-07	NC	1E-06
Landbay C	7500-145	NC	2E-02	NC	4E-02	NC	3E-01	NC	3E-01
Landbay C	7500-146	3E-07	2E-02	3E-07	2E-02	2E-08	2E-02	3E-08	2E-02
Landbay C	7500-1700	NC	1E-03	NC	2E-03	NC	8E-02	NC	8E-02
Landbay C	7500-1850	NC	1E-03	NC	2E-03	NC	8E-02	NC	8E-02
Landbay C	7500-2000	2E-13	9E-05	2E-13	2E-04	7E-11	4E-04	7E-11	5E-04
Landbay C	7500-2300	4E-07	5E-03	7E-07	8E-03	5E-08	7E-03	8E-08	1E-02
Landbay C	7500-2450	3E-08	6E-02	6E-08	1E-01	5E-08	2E-01	5E-08	2E-01
Landbay C	7500-2900	1E-10	6E-02	1E-10	1E-01	4E-08	6E-01	4E-08	6E-01
Landbay C	7500-3050	2E-13	4E-05	2E-13	7E-05	6E-11	2E-04	6E-11	3E-04
Landbay C	7600-147	NC	4E-07	NC	9E-07	NC	2E-06	NC	3E-06
Landbay C	7650-1700	2E-13	4E-05	2E-13	7E-05	6E-11	2E-04	6E-11	3E-04
Landbay C	7650-2150	2E-13	1E-04	2E-13	2E-04	7E-11	5E-04	7E-11	6E-04
Landbay C	7650-2300	4E-07	5E-03	7E-07	8E-03	5E-08	7E-03	8E-08	1E-02
Landbay C	7650-2450	4E-07	5E-03	7E-07	8E-03	5E-08	7E-03	8E-08	1E-02
Landbay C	7650-2600	3E-13	4E-04	3E-13	8E-04	1E-10	2E-03	1E-10	3E-03
Landbay C	7650-2750	3E-13	4E-04	3E-13	8E-04	1E-10	2E-03	1E-10	3E-03
Landbay C	7650-2900	1E-13	1E-04	1E-13	2E-04	4E-11	4E-04	4E-11	6E-04
Landbay C	7650-3050	9E-08	2E-03	1E-07	3E-03	1E-08	2E-03	2E-08	3E-03
Landbay C	7800-1700	5E-13	6E-04	5E-13	1E-03	2E-10	2E-03	2E-10	4E-03
Landbay C	7800-1850	5E-13	6E-04	5E-13	1E-03	2E-10	2E-03	2E-10	4E-03
Landbay C	7800-2000	2E-07	1E-03	3E-07	2E-03	2E-08	1E-03	3E-08	2E-03
Landbay C	7800-2150	2E-13	9E-05	2E-13	2E-04	7E-11	4E-04	7E-11	5E-04
Landbay C	7800-2300	4E-07	5E-03	7E-07	8E-03	5E-08	7E-03	8E-08	1E-02
Landbay C	7800-2450	3E-13	4E-04	3E-13	8E-04	1E-10	2E-03	1E-10	3E-03

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay C	7800-2600	3E-13	4E-04	3E-13	8E-04	1E-10	2E-03	1E-10	3E-03
Landbay C	7800-2750	1E-13	1E-04	1E-13	2E-04	4E-11	4E-04	4E-11	6E-04
Landbay C	7950-1700	5E-13	6E-04	5E-13	1E-03	2E-10	2E-03	2E-10	4E-03
Landbay C	7950-1850	5E-13	6E-04	5E-13	1E-03	2E-10	2E-03	2E-10	4E-03
Landbay C	7950-2000	2E-07	1E-03	3E-07	2E-03	2E-08	1E-03	3E-08	2E-03
Landbay C	7950-2150	2E-07	1E-03	3E-07	2E-03	2E-08	1E-03	3E-08	2E-03
Landbay C	7950-2300	2E-13	7E-05	2E-13	1E-04	8E-11	4E-04	8E-11	5E-04
Landbay C	7950-2450	2E-13	7E-05	2E-13	1E-04	8E-11	4E-04	8E-11	5E-04
Landbay C	7950-2600	1E-13	1E-04	1E-13	2E-04	4E-11	4E-04	4E-11	6E-04
Landbay C	8100-1700	8E-08	7E-04	1E-07	1E-03	1E-08	9E-04	2E-08	1E-03
Landbay C	8100-1850	8E-08	7E-04	1E-07	1E-03	1E-08	9E-04	2E-08	1E-03
Landbay C	8100-2000	2E-07	1E-03	3E-07	2E-03	2E-08	1E-03	3E-08	2E-03
Landbay C	8100-2150	2E-13	7E-05	2E-13	1E-04	8E-11	4E-04	8E-11	5E-04
Landbay C	8100-2300	2E-13	7E-05	2E-13	1E-04	8E-11	4E-04	8E-11	5E-04
Landbay C	8100-2450	1E-13	1E-04	1E-13	2E-04	4E-11	4E-04	4E-11	6E-04
Landbay C	8200-158	1E-07	1E-03	2E-07	2E-03	2E-08	2E-03	2E-08	3E-03
Landbay C	8250-1550	4E-08	5E-04	7E-08	9E-04	5E-09	1E-03	8E-09	2E-03
Landbay C	8250-1700	8E-08	7E-04	1E-07	1E-03	1E-08	9E-04	2E-08	1E-03
Landbay C	8250-1850	8E-08	7E-04	1E-07	1E-03	1E-08	9E-04	2E-08	1E-03
Landbay C	8250-2000	1E-06	7E-03	2E-06	1E-02	1E-07	4E-03	2E-07	5E-03
Landbay C	8250-2150	3E-14	7E-06	3E-14	1E-05	9E-12	4E-05	9E-12	6E-05
Landbay C	8250-2300	3E-14	7E-06	3E-14	1E-05	9E-12	4E-05	9E-12	6E-05
Landbay C	8400-1700	1E-06	7E-03	2E-06	1E-02	1E-07	4E-03	2E-07	5E-03
Landbay C	8400-1850	1E-06	7E-03	2E-06	1E-02	1E-07	4E-03	2E-07	5E-03
Landbay C	8400-2000	3E-14	7E-06	3E-14	1E-05	9E-12	4E-05	9E-12	6E-05
Landbay C	8400-2150	3E-14	7E-06	3E-14	1E-05	9E-12	4E-05	9E-12	6E-05
Landbay C	87G3	7E-09	8E-04	1E-08	1E-03	2E-09	3E-03	2E-09	4E-03
Landbay C	88B1	2E-08	5E-03	3E-08	8E-03	2E-09	2E-02	3E-09	3E-02
Landbay C	88B2	2E-08	5E-03	3E-08	8E-03	2E-09	2E-02	3E-09	3E-02
Landbay C	88G3	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	88G4	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	90B1	2E-12	3E-03	2E-12	5E-03	5E-10	1E-02	5E-10	2E-02
Landbay C	90B2	2E-12	3E-03	2E-12	6E-03	5E-10	1E-02	5E-10	2E-02
Landbay C	90G3	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	90G4	NC	3E-07	NC	5E-07	NC	1E-06	NC	2E-06
Landbay C	93B1	NC	3E-07	NC	6E-07	NC	1E-06	NC	2E-06
Landbay C	94B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	95AB1	NC	2E-07	NC	5E-07	NC	1E-06	NC	2E-06
Landbay C	96B1	NC	3E-07	NC	6E-07	NC	1E-06	NC	2E-06
Landbay C	97B2	8E-09	1E-03	2E-08	3E-03	2E-09	9E-03	2E-09	1E-02
Landbay C	97G3	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	99B1	NC	3E-07	NC	6E-07	NC	1E-06	NC	2E-06
Landbay C	AJA W-201	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	AJAY-1 MCD-13	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	AJAY-101	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 190-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 221-05	6E-10	7E-04	9E-10	1E-03	1E-09	5E-03	1E-09	6E-03
Landbay C	GP 221-06	7E-09	1E-05	1E-08	3E-05	1E-09	3E-05	2E-09	5E-05
Landbay C	GP 221-07	5E-13	1E-04	5E-13	2E-04	2E-10	7E-04	2E-10	1E-03
Landbay C	GP 221-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 221-12	6E-08	2E-04	1E-07	4E-04	1E-08	9E-04	2E-08	1E-03
Landbay C	GP 221-15	8E-09	2E-05	2E-08	3E-05	2E-09	4E-05	2E-09	6E-05
Landbay C	GP 221-16	7E-08	2E-04	1E-07	3E-04	1E-08	7E-04	2E-08	9E-04
Landbay C	GP 88-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 88-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 91-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 92-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 94-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-03	NC	5E-05	NC	9E-05	NC	2E-04	NC	3E-04
Landbay C	GP 97-01	3E-08	6E-05	6E-08	1E-04	5E-09	2E-04	8E-09	3E-04
Landbay C	GP 97-02	NC	2E-05	NC	4E-05	NC	2E-04	NC	3E-04
Landbay C	GP 97-03	9E-11	3E-05	2E-10	4E-05	1E-11	3E-05	2E-11	4E-05
Landbay C	GP 97-04	2E-08	3E-05	3E-08	7E-05	3E-09	9E-05	5E-09	1E-04
Landbay C	GP BG-01	2E-13	4E-05	2E-13	7E-05	6E-11	2E-04	6E-11	3E-04
Landbay C	GP NPB-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP NPB-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP NPB-03	8E-08	2E-04	2E-07	4E-04	1E-08	7E-04	2E-08	1E-03
Landbay C	HA BG-01	1E-06	8E-03	2E-06	1E-02	2E-07	5E-03	3E-07	6E-03
Landbay C	IM13-1	9E-09	3E-02	2E-08	6E-02	3E-09	2E-01	4E-09	3E-01
Landbay C	IM13-2	4E-07	3E-02	7E-07	6E-02	6E-08	2E-01	9E-08	3E-01
Landbay C	IM13-3	4E-13	5E-03	4E-13	1E-02	2E-10	5E-02	2E-10	6E-02
Landbay C	IM13-4	9E-09	3E-02	2E-08	5E-02	3E-09	2E-01	4E-09	3E-01
Landbay C	IM13-5	3E-12	1E-02	3E-12	3E-02	9E-10	1E-01	9E-10	1E-01
Landbay C	JSEE-0101	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	JT GG-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	JTGG-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	MCD-18	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	MOB	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SB PBN-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SB PBN-02	NC	7E-06	NC	1E-05	NC	3E-05	NC	5E-05
Landbay C	SR-90	NC	2E-05	NC	2E-05	NC	4E-06	NC	6E-06

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay C	SS-96A	NC	5E-05	NC	1E-04	NC	2E-04	NC	3E-04
Landbay C	SW 94-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	TP 221-02	2E-08	1E-03	5E-08	3E-03	6E-09	8E-03	9E-09	1E-02
Landbay C	TP 97-01	4E-13	9E-05	4E-13	2E-04	1E-10	5E-04	1E-10	8E-04
Landbay C	TP 97-02	9E-13	2E-04	9E-13	4E-04	3E-10	1E-03	3E-10	2E-03
Landbay C	TP NPB-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	TP NPB-03	3E-10	3E-06	4E-10	4E-06	3E-11	1E-06	4E-11	2E-06
Landbay D	10TP1-7	NC	1E-02	NC	2E-02	NC	9E-02	NC	1E-01
Landbay D	10TP2-7	NC	8E-03	NC	2E-02	NC	7E-02	NC	9E-02
Landbay D	11 GP-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	11 GP-02	2E-08	1E-03	2E-08	2E-03	1E-09	1E-03	2E-09	1E-03
Landbay D	11 GP-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	11B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	13B1	1E-07	7E-03	2E-07	1E-02	2E-08	6E-02	2E-08	7E-02
Landbay D	15 GP-01	9E-08	6E-03	1E-07	8E-03	7E-09	5E-03	1E-08	7E-03
Landbay D	15 GP-02	6E-07	4E-02	7E-07	5E-02	5E-08	3E-02	7E-08	5E-02
Landbay D	15 GP-03	1E-06	7E-02	1E-06	1E-01	9E-08	6E-02	1E-07	9E-02
Landbay D	15 GP-04	1E-05	9E-01	2E-05	1E+00	1E-06	7E-01	2E-06	1E+00
Landbay D	15 GP-05	2E-06	1E-01	3E-06	2E-01	2E-07	1E-01	2E-07	2E-01
Landbay D	15 GP-06	2E-06	1E-01	3E-06	2E-01	2E-07	1E-01	2E-07	2E-01
Landbay D	15 GP-07	6E-07	4E-02	8E-07	5E-02	5E-08	3E-02	7E-08	5E-02
Landbay D	15 GP-08	4E-08	3E-03	5E-08	3E-03	3E-09	2E-03	4E-09	3E-03
Landbay D	15 GP-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-10	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-11	8E-07	6E-02	1E-06	8E-02	7E-08	5E-02	1E-07	7E-02
Landbay D	15 GP-12	6E-08	4E-03	7E-08	5E-03	5E-09	3E-03	7E-09	5E-03
Landbay D	15 GP-13	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-14	3E-08	2E-03	4E-08	3E-03	2E-09	2E-03	4E-09	2E-03
Landbay D	15 GP-16	6E-08	4E-03	7E-08	5E-03	5E-09	3E-03	7E-09	5E-03
Landbay D	15 GP-17	2E-08	1E-03	2E-08	2E-03	1E-09	9E-04	2E-09	1E-03
Landbay D	15 GP-18	5E-06	3E-01	7E-06	5E-01	4E-07	3E-01	6E-07	4E-01
Landbay D	15 GP-19	3E-07	2E-02	4E-07	3E-02	3E-08	2E-02	4E-08	3E-02
Landbay D	15 GP-20	1E-07	7E-03	1E-07	9E-03	8E-09	6E-03	1E-08	8E-03
Landbay D	15 GP-21	3E-06	2E-01	3E-06	2E-01	2E-07	1E-01	3E-07	2E-01
Landbay D	15 GP-22	2E-07	1E-02	2E-07	2E-02	1E-08	1E-02	2E-08	1E-02
Landbay D	15 GP-23	2E-08	1E-03	3E-08	2E-03	2E-09	1E-03	2E-09	2E-03
Landbay D	15 GP-24	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-25	3E-07	2E-02	4E-07	3E-02	2E-08	2E-02	4E-08	2E-02
Landbay D	15 GP-26	5E-08	3E-03	6E-08	4E-03	4E-09	3E-03	5E-09	4E-03
Landbay D	15 GP-27	6E-08	4E-03	8E-08	5E-03	5E-09	3E-03	7E-09	5E-03
Landbay D	15 GP-29	3E-08	2E-03	4E-08	3E-03	2E-09	2E-03	3E-09	2E-03
Landbay D	15 GP-30	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-32	3E-07	2E-02	5E-07	3E-02	3E-08	2E-02	4E-08	3E-02
Landbay D	15 GP-33	2E-08	2E-03	3E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	151B1	1E-06	3E-02	2E-06	5E-02	2E-07	2E-01	3E-07	2E-01
Landbay D	152B1	5E-07	9E-03	8E-07	2E-02	6E-08	5E-02	1E-07	6E-02
Landbay D	15ANEC	NC	9E-04	NC	2E-03	NC	4E-03	NC	6E-03
Landbay D	17AB1	NC	1E-04	NC	2E-04	NC	4E-04	NC	7E-04
Landbay D	17B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-01	3E-08	2E-03	4E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	2 GP-02	8E-06	6E-01	1E-05	8E-01	7E-07	5E-01	1E-06	7E-01
Landbay D	2 GP-03	8E-06	5E-01	1E-05	7E-01	7E-07	4E-01	9E-07	6E-01
Landbay D	2 GP-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-05	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	2E-01
Landbay D	2 GP-06	4E-06	2E-01	5E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	2 GP-07	4E-07	3E-02	6E-07	4E-02	4E-08	2E-02	5E-08	3E-02
Landbay D	2 GP-08	1E-06	9E-02	2E-06	1E-01	1E-07	7E-02	2E-07	1E-01
Landbay D	2 GP-09	2E-05	**2E+00**	3E-05	**2E+00**	2E-06	1E+00	3E-06	**2E+00**
Landbay D	2 GP-10	5E-07	3E-02	6E-07	4E-02	4E-08	3E-02	6E-08	4E-02
Landbay D	2 GP-11	8E-06	5E-01	1E-05	7E-01	7E-07	4E-01	9E-07	6E-01
Landbay D	2 GP-12	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-13	1E-07	9E-03	2E-07	1E-02	1E-08	7E-03	2E-08	1E-02
Landbay D	2 GP-14	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-15	7E-08	5E-03	1E-07	7E-03	6E-09	4E-03	9E-09	6E-03
Landbay D	2 GP-16	2E-07	1E-02	3E-07	2E-02	2E-08	1E-02	2E-08	2E-02
Landbay D	2 GP-17	3E-06	2E-01	5E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	2 GP-18	5E-08	4E-03	7E-08	5E-03	4E-09	3E-03	6E-09	4E-03
Landbay D	2 GP-19	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-20	5E-07	4E-02	7E-07	5E-02	4E-08	3E-02	6E-08	4E-02
Landbay D	2 GP-21	4E-07	3E-02	6E-07	4E-02	4E-08	2E-02	5E-08	3E-02
Landbay D	2 GP-22	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-23	4E-08	2E-03	5E-08	3E-03	3E-09	2E-03	4E-09	3E-03
Landbay D	2 GP-24	2E-07	1E-02	2E-07	2E-02	2E-08	1E-02	2E-08	1E-02
Landbay D	2 GP-25	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-26	2E-06	1E-01	3E-06	2E-01	2E-07	1E-01	2E-07	2E-01
Landbay D	2 SED-01	5E-07	3E-02	9E-07	6E-02	7E-08	1E-01	1E-07	2E-01
Landbay D	22B1	1E-07	1E-03	2E-07	2E-03	2E-08	4E-03	3E-08	6E-03
Landbay D	22B2	1E-07	1E-03	2E-07	2E-03	2E-08	4E-03	3E-08	6E-03
Landbay D	22B3	1E-07	1E-03	2E-07	2E-03	2E-08	4E-03	3E-08	6E-03
Landbay D	22B4	1E-07	3E-03	2E-07	4E-03	2E-08	5E-03	3E-08	8E-03
Landbay D	22B7	9E-12	1E-05	1E-11	2E-05	2E-12	4E-05	2E-12	6E-05
Landbay D	22G5	NC	8E-03	NC	2E-02	NC	3E-02	NC	6E-02
Landbay D	22G6	NC	6E-03	NC	1E-02	NC	2E-02	NC	4E-02

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	24B1	NC	1E-02	NC	3E-02	NC	1E-01	NC	1E-01
Landbay D	2550-2300	3E-07	2E-02	5E-07	3E-02	4E-08	6E-02	6E-08	8E-02
Landbay D	2550-2450	3E-07	2E-02	5E-07	3E-02	4E-08	6E-02	6E-08	8E-02
Landbay D	2550-2600	3E-07	2E-02	5E-07	3E-02	4E-08	6E-02	6E-08	8E-02
Landbay D	2550-2750	8E-09	2E-02	1E-08	5E-02	1E-08	2E-01	1E-08	2E-01
Landbay D	2700-2150	2E-13	4E-03	2E-13	7E-03	8E-11	1E-02	8E-11	2E-02
Landbay D	2700-2300	2E-13	4E-03	2E-13	7E-03	8E-11	1E-02	8E-11	2E-02
Landbay D	2700-2750	8E-09	2E-02	1E-08	5E-02	1E-08	2E-01	1E-08	2E-01
Landbay D	2700-2900	8E-09	2E-02	1E-08	5E-02	1E-08	2E-01	1E-08	2E-01
Landbay D	2700-3050	2E-06	4E-02	3E-06	7E-02	2E-07	2E-01	4E-07	2E-01
Landbay D	28 SED-01	7E-07	3E-02	1E-06	6E-02	1E-07	2E-01	2E-07	2E-01
Landbay D	2800-23	7E-07	5E-03	1E-06	9E-03	1E-07	2E-02	2E-07	2E-02
Landbay D	2850-2000	2E-13	4E-03	2E-13	7E-03	8E-11	1E-02	8E-11	2E-02
Landbay D	2850-2150	2E-13	4E-03	2E-13	7E-03	8E-11	1E-02	8E-11	2E-02
Landbay D	28B1	3E-08	8E-03	7E-08	1E-02	8E-09	4E-02	1E-08	6E-02
Landbay D	28B2	7E-07	5E-02	9E-07	7E-02	6E-08	6E-02	8E-08	9E-02
Landbay D	28B5	NC	4E-07	NC	8E-07	NC	2E-06	NC	3E-06
Landbay D	29B1	6E-09	7E-03	9E-09	1E-02	6E-10	6E-02	9E-10	8E-02
Landbay D	29B2	NC	5E-03	NC	9E-03	NC	4E-02	NC	5E-02
Landbay D	29B3	NC	4E-03	NC	9E-03	NC	4E-02	NC	5E-02
Landbay D	2B1	2E-09	5E-03	2E-09	1E-02	1E-10	4E-02	2E-10	6E-02
Landbay D	3000-2000	1E-06	7E-02	2E-06	1E-01	2E-07	6E-01	3E-07	7E-01
Landbay D	3000-2000N	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2000SE	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2000SW	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2150	9E-12	2E-02	9E-12	4E-02	3E-09	6E-02	3E-09	9E-02
Landbay D	3000-2300	4E-06	1E-01	7E-06	2E-01	5E-07	3E-01	8E-07	5E-01
Landbay D	3000-2300N	2E-12	1E-02	2E-12	3E-02	5E-10	1E-01	5E-10	1E-01
Landbay D	3000-2300SE	6E-13	5E-03	6E-13	1E-02	2E-10	4E-02	2E-10	5E-02
Landbay D	3000-2300SW	1E-12	7E-03	1E-12	1E-02	4E-10	5E-02	4E-10	7E-02
Landbay D	3000-2450	1E-12	7E-03	1E-12	1E-02	3E-10	6E-02	3E-10	8E-02
Landbay D	3000-26	1E-06	1E-02	2E-06	2E-02	1E-07	5E-02	2E-07	6E-02
Landbay D	3000-2900	1E-06	3E-02	2E-06	5E-02	2E-07	2E-01	3E-07	3E-01
Landbay D	3150-1850	4E-07	2E-02	7E-07	4E-02	5E-08	7E-02	8E-08	1E-01
Landbay D	3150-2000	4E-06	5E-02	5E-06	8E-02	3E-07	7E-02	5E-07	1E-01
Landbay D	3150-2000N	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2000SE	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2000SW	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2150	3E-07	2E-02	4E-07	3E-02	3E-08	5E-02	5E-08	8E-02
Landbay D	3300-17	5E-10	7E-04	7E-10	1E-03	1E-10	4E-03	1E-10	5E-03
Landbay D	3300-1700	4E-06	9E-02	7E-06	2E-01	6E-07	1E+00	9E-07	1E+00
Landbay D	3300-1850	2E-06	4E-02	3E-06	7E-02	2E-07	1E-01	4E-07	2E-01
Landbay D	3300-2000	7E-07	6E-03	1E-06	1E-02	9E-08	8E-03	1E-07	1E-02
Landbay D	3300-2150	7E-07	6E-03	1E-06	1E-02	9E-08	8E-03	1E-07	1E-02
Landbay D	3300-2750	1E-06	3E-02	2E-06	5E-02	2E-07	2E-01	3E-07	3E-01
Landbay D	3450-1850	1E-06	2E-02	2E-06	4E-02	1E-07	5E-02	2E-07	8E-02
Landbay D	3450-2000	7E-07	6E-03	1E-06	1E-02	9E-08	8E-03	1E-07	1E-02
Landbay D	3450-2750	9E-07	4E-02	1E-06	9E-02	1E-07	2E-01	2E-07	2E-01
Landbay D	35B1	2E-07	1E-02	2E-07	2E-02	2E-08	2E-02	2E-08	2E-02
Landbay D	35B2	1E-07	9E-03	1E-07	1E-02	9E-09	1E-02	1E-08	2E-02
Landbay D	35G3	4E-08	3E-03	6E-08	4E-03	4E-09	3E-03	5E-09	4E-03
Landbay D	3600-18	1E-06	1E-02	2E-06	2E-02	1E-07	2E-02	2E-07	3E-02
Landbay D	3600-2750	9E-07	4E-02	1E-06	9E-02	1E-07	2E-01	2E-07	2E-01
Landbay D	3750-2150	3E-07	8E-03	5E-07	2E-02	4E-08	2E-01	6E-08	2E-01
Landbay D	3750-2300	3E-07	8E-03	5E-07	2E-02	4E-08	2E-01	6E-08	2E-01
Landbay D	3750-2450	3E-07	8E-03	5E-07	2E-02	4E-08	2E-01	6E-08	2E-01
Landbay D	3750-2750	2E-08	3E-03	3E-08	5E-03	2E-09	6E-02	3E-09	7E-02
Landbay D	3750-2900	2E-08	3E-03	3E-08	5E-03	2E-09	6E-02	3E-09	7E-02
Landbay D	3900-2750	6E-07	7E-02	1E-06	1E-01	1E-07	4E-01	2E-07	4E-01
Landbay D	3900-2900	6E-07	7E-02	1E-06	1E-01	1E-07	4E-01	2E-07	4E-01
Landbay D	3TP1-7	2E-12	5E-03	2E-12	9E-03	8E-10	2E-02	8E-10	3E-02
Landbay D	3TP2-7	2E-12	4E-03	2E-12	7E-03	8E-10	1E-02	8E-10	2E-02
Landbay D	3TP3-7	NC	7E-04	NC	1E-03	NC	3E-03	NC	5E-03
Landbay D	3TP4-7	NC	8E-04	NC	2E-03	NC	3E-03	NC	5E-03
Landbay D	4000-20	2E-06	2E-02	3E-06	5E-02	2E-07	6E-02	3E-07	9E-02
Landbay D	4050-2450	1E-08	3E-03	2E-08	7E-03	2E-09	2E-02	3E-09	3E-02
Landbay D	4050-2600	1E-08	3E-03	2E-08	7E-03	2E-09	2E-02	3E-09	3E-02
Landbay D	41B1	2E-08	7E-03	2E-08	1E-02	2E-09	5E-02	2E-09	7E-02
Landbay D	41B2	2E-08	7E-03	2E-08	1E-02	2E-09	5E-02	2E-09	7E-02
Landbay D	41B3	2E-08	7E-03	2E-08	1E-02	2E-09	5E-02	2E-09	7E-02
Landbay D	41B6	3E-09	5E-05	3E-09	7E-05	7E-10	8E-05	7E-10	1E-04
Landbay D	41G4	5E-10	8E-05	7E-10	1E-04	5E-11	2E-05	7E-11	3E-05
Landbay D	41G5	NC	8E-03	NC	2E-02	NC	3E-02	NC	5E-02
Landbay D	42 GP-01	2E-07	2E-02	3E-07	2E-02	2E-08	1E-02	3E-08	2E-02
Landbay D	42 GP-02	1E-06	9E-02	2E-06	1E-01	1E-07	8E-02	2E-07	1E-01
Landbay D	42 GP-03	2E-07	2E-02	3E-07	2E-02	2E-08	1E-02	3E-08	2E-02
Landbay D	42 GP-04	1E-07	1E-02	2E-07	1E-02	1E-08	8E-03	2E-08	1E-02
Landbay D	42 GP-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-06	2E-08	1E-03	2E-08	2E-03	1E-09	1E-03	2E-09	1E-03
Landbay D	42 GP-07	5E-08	3E-03	7E-08	5E-03	4E-09	3E-03	6E-09	4E-03
Landbay D	42 GP-08	1E-05	7E-01	1E-05	1E+00	9E-07	6E-01	1E-06	9E-01
Landbay D	42 GP-09	3E-06	2E-01	4E-06	3E-01	2E-07	2E-01	4E-07	2E-01
Landbay D	42 GP-16	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	3E-01

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	42 GP-17	2E-07	1E-02	3E-07	2E-02	2E-08	1E-02	3E-08	2E-02
Landbay D	42 GP-18	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-19	2E-05	1E+00	2E-05	**2E+00**	2E-06	1E+00	2E-06	1E+00
Landbay D	42 GP-20	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-21	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-22	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-23	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-24	2E-08	1E-03	3E-08	2E-03	2E-09	1E-03	2E-09	2E-03
Landbay D	42 GP-25	9E-06	6E-01	1E-05	8E-01	7E-07	5E-01	1E-06	7E-01
Landbay D	42 GP-26	1E-07	8E-03	2E-07	1E-02	1E-08	7E-03	1E-08	1E-02
Landbay D	42 GP-27	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-28	2E-05	**2E+00**	3E-05	**2E+00**	2E-06	1E+00	3E-06	**2E+00**
Landbay D	42 GP-29	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-32	1E-06	8E-02	1E-06	1E-01	9E-08	6E-02	1E-07	9E-02
Landbay D	42 GP-33	3E-06	2E-01	4E-06	2E-01	2E-07	1E-01	3E-07	2E-01
Landbay D	42 GP-34	2E-08	2E-03	3E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	42 GP-35	7E-06	5E-01	1E-05	7E-01	6E-07	4E-01	9E-07	6E-01
Landbay D	42 GP-36	1E-06	8E-02	2E-06	1E-01	9E-08	6E-02	1E-07	9E-02
Landbay D	42 GP-37	2E-06	1E-01	2E-06	1E-01	1E-07	9E-02	2E-07	1E-01
Landbay D	42 GP-38	5E-06	4E-01	7E-06	5E-01	5E-07	3E-01	6E-07	4E-01
Landbay D	42 GP-39	7E-06	5E-01	9E-06	6E-01	6E-07	4E-01	8E-07	6E-01
Landbay D	4200-1100	7E-07	7E-02	1E-06	1E-01	1E-07	3E-01	2E-07	3E-01
Landbay D	4200-1250	2E-08	2E-03	3E-08	4E-03	2E-09	4E-03	2E-09	7E-03
Landbay D	4200-1550	3E-12	1E-03	3E-12	3E-03	9E-10	4E-03	9E-10	6E-03
Landbay D	4200-47	2E-06	4E-02	3E-06	7E-02	3E-07	2E-01	4E-07	2E-01
Landbay D	4200-48	6E-08	2E-03	8E-08	3E-03	5E-09	2E-03	7E-09	3E-03
Landbay D	42B133	7E-08	5E-03	1E-07	7E-03	6E-09	4E-03	9E-09	6E-03
Landbay D	42B134	3E-08	2E-03	4E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	42B135	1E-06	1E-01	2E-06	1E-01	1E-07	8E-02	2E-07	1E-01
Landbay D	42G109	7E-10	1E-04	1E-09	2E-04	7E-11	4E-04	1E-10	6E-04
Landbay D	42G111	6E-07	6E-03	9E-07	1E-02	6E-08	5E-02	8E-08	6E-02
Landbay D	42G112	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42G114	9E-06	3E-01	1E-05	4E-01	7E-07	3E-01	1E-06	4E-01
Landbay D	42G118	8E-07	1E-02	1E-06	2E-02	7E-08	5E-02	1E-07	7E-02
Landbay D	42G119	4E-06	3E-01	5E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	42G120	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	42TP3-125	1E-12	6E-03	1E-12	1E-02	4E-10	5E-02	4E-10	7E-02
Landbay D	42TP3-175	4E-12	1E-03	4E-12	3E-03	1E-09	6E-03	1E-09	9E-03
Landbay D	42TP3-227	9E-13	7E-03	9E-13	1E-02	3E-10	6E-02	3E-10	7E-02
Landbay D	42TP3-75	5E-09	4E-03	8E-09	8E-03	2E-09	2E-02	2E-09	3E-02
Landbay D	42TP4-(-5)	4E-13	6E-03	4E-13	1E-02	1E-10	5E-02	1E-10	7E-02
Landbay D	42TP5-138	1E-06	3E-02	1E-06	5E-02	1E-07	1E-01	2E-07	2E-01
Landbay D	42TP5-150	3E-07	4E-03	5E-07	8E-03	4E-08	1E-02	6E-08	2E-02
Landbay D	42TP5-200	2E-07	2E-02	3E-07	5E-02	4E-08	5E-02	5E-08	7E-02
Landbay D	42TP5-25	2E-07	2E-02	3E-07	3E-02	2E-08	3E-02	3E-08	5E-02
Landbay D	42TP5-75	1E-09	6E-02	2E-09	1E-01	5E-08	2E-01	5E-08	2E-01
Landbay D	42TP6-125	2E-06	1E-01	2E-06	2E-01	1E-07	2E-01	2E-07	2E-01
Landbay D	42TP6-175	2E-12	1E-02	2E-12	2E-02	8E-10	9E-02	8E-10	1E-01
Landbay D	42TP6-185	7E-07	2E-01	1E-06	5E-01	2E-07	1E+00	3E-07	1E+00
Landbay D	42TP6-200	7E-13	6E-03	7E-13	1E-02	2E-10	5E-02	2E-10	7E-02
Landbay D	42TP6-215	NC	7E-04	NC	1E-03	NC	6E-03	NC	8E-03
Landbay D	42TP6-75	1E-11	3E-02	1E-11	6E-02	4E-09	2E-01	4E-09	3E-01
Landbay D	4350-0950	7E-07	7E-02	1E-06	1E-01	1E-07	3E-01	2E-07	3E-01
Landbay D	4350-1100	2E-08	2E-03	3E-08	4E-03	2E-09	4E-03	2E-09	7E-03
Landbay D	4350-1250	2E-08	2E-03	3E-08	4E-03	2E-09	4E-03	2E-09	7E-03
Landbay D	4350-1400	3E-12	1E-03	3E-12	3E-03	9E-10	4E-03	9E-10	6E-03
Landbay D	43B132	4E-07	3E-02	5E-07	3E-02	3E-08	2E-02	4E-08	3E-02
Landbay D	43G113	6E-07	4E-02	8E-07	6E-02	5E-08	4E-02	8E-08	5E-02
Landbay D	43G121	5E-08	4E-03	7E-08	5E-03	4E-09	3E-03	6E-09	4E-03
Landbay D	43G122	9E-06	6E-01	1E-05	8E-01	7E-07	5E-01	1E-06	8E-01
Landbay D	43G123	2E-08	2E-03	3E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	43G124	2E-06	1E-01	3E-06	2E-01	2E-07	1E-01	2E-07	2E-01
Landbay D	43G125	4E-06	3E-01	5E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	43G126	2E-08	1E-03	2E-08	1E-03	1E-09	9E-04	2E-09	1E-03
Landbay D	43G127	4E-06	3E-01	5E-06	4E-01	3E-07	2E-01	5E-07	3E-01
Landbay D	43G128	3E-07	3E-02	4E-07	4E-02	3E-08	6E-02	4E-08	8E-02
Landbay D	43G129	5E-08	3E-03	7E-08	5E-03	4E-09	3E-03	6E-09	4E-03
Landbay D	43G130	4E-06	3E-01	5E-06	4E-01	3E-07	2E-01	5E-07	3E-01
Landbay D	4500-0800	7E-07	7E-02	1E-06	1E-01	1E-07	3E-01	2E-07	3E-01
Landbay D	4500-0950	7E-07	7E-02	1E-06	1E-01	1E-07	3E-01	2E-07	3E-01
Landbay D	4500-1100	2E-08	2E-03	3E-08	4E-03	2E-09	4E-03	2E-09	7E-03
Landbay D	4500-1250	3E-12	1E-03	3E-12	3E-03	9E-10	4E-03	9E-10	6E-03
Landbay D	4500-1400	3E-08	3E-02	3E-08	5E-02	2E-08	3E-02	2E-08	4E-02
Landbay D	4500-2750	2E-08	8E-03	3E-08	1E-02	3E-09	5E-02	4E-09	7E-02
Landbay D	4500-57	NC	2E-07	NC	5E-07	NC	1E-06	NC	2E-06
Landbay D	4600-58	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4650-1100	5E-07	3E-02	8E-07	6E-02	8E-08	2E-01	1E-07	3E-01
Landbay D	4650-1250	3E-08	3E-02	3E-08	5E-02	2E-08	3E-02	2E-08	4E-02
Landbay D	4650-1400	3E-08	3E-02	3E-08	5E-02	2E-08	3E-02	2E-08	4E-02
Landbay D	4650-1550	3E-08	3E-02	3E-08	5E-02	2E-08	3E-02	2E-08	4E-02
Landbay D	4700-62	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4800-1250	7E-07	2E-02	1E-06	3E-02	9E-08	4E-02	1E-07	6E-02
Landbay D	4800-51	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	49-01	NC	4E-05	NC	8E-05	NC	2E-04	NC	3E-04
Landbay D	49-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4950-1550	8E-07	8E-02	1E-06	2E-01	2E-07	4E-01	2E-07	4E-01
Landbay D	4950-1700	8E-07	8E-02	1E-06	2E-01	2E-07	4E-01	2E-07	4E-01
Landbay D	4B1	NC	1E-06	NC	2E-06	NC	5E-06	NC	8E-06
Landbay D	50B1	3E-07	7E-03	5E-07	1E-02	4E-08	4E-02	6E-08	6E-02
Landbay D	5100-1700	8E-07	8E-02	1E-06	2E-01	2E-07	4E-01	2E-07	4E-01
Landbay D	5100-1850	2E-08	2E-03	2E-08	2E-03	2E-09	4E-03	2E-09	5E-03
Landbay D	5100-2000	2E-08	2E-03	2E-08	2E-03	2E-09	4E-03	2E-09	5E-03
Landbay D	51B1	NC	2E-07	NC	4E-07	NC	8E-07	NC	1E-06
Landbay D	53B1	NC	1E-06	NC	2E-06	NC	4E-06	NC	7E-06
Landbay D	54-02	9E-08	7E-04	2E-07	1E-03	1E-08	1E-03	2E-08	1E-03
Landbay D	59B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	5B1	4E-06	3E-01	5E-06	4E-01	3E-07	3E-01	5E-07	4E-01
Landbay D	5B2	3E-08	1E-02	6E-08	2E-02	5E-09	8E-02	8E-09	1E-01
Landbay D	5B3	2E-08	1E-02	4E-08	2E-02	4E-09	8E-02	6E-09	1E-01
Landbay D	5B4	4E-08	1E-02	6E-08	2E-02	5E-09	8E-02	8E-09	1E-01
Landbay D	5B6	3E-09	3E-03	4E-09	7E-03	8E-10	3E-02	9E-10	4E-02
Landbay D	5G5	5E-08	5E-04	7E-08	7E-04	5E-09	2E-04	7E-09	4E-04
Landbay D	62B1	2E-07	8E-03	4E-07	2E-02	3E-08	5E-02	4E-08	7E-02
Landbay D	64B1	NC	2E-07	NC	4E-07	NC	9E-07	NC	1E-06
Landbay D	67B1	NC	5E-07	NC	1E-06	NC	2E-06	NC	4E-06
Landbay D	68G65	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G66	NC	3E-06	NC	6E-06	NC	1E-05	NC	2E-05
Landbay D	68G67	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G68	6E-08	2E-02	8E-08	3E-02	5E-09	6E-02	7E-09	8E-02
Landbay D	68G69	6E-08	2E-02	8E-08	3E-02	5E-09	6E-02	7E-09	8E-02
Landbay D	68G70	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G71	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G72	6E-08	2E-02	8E-08	3E-02	5E-09	6E-02	7E-09	8E-02
Landbay D	68G73	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G74	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G75	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	6B1	NC	2E-07	NC	3E-07	NC	6E-07	NC	1E-06
Landbay D	9 GP-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	A6G197	9E-08	1E-02	1E-07	2E-02	7E-09	4E-02	1E-08	5E-02
Landbay D	A6S152	2E-06	2E-02	3E-06	3E-02	2E-07	7E-02	3E-07	9E-02
Landbay D	A6S153	3E-07	3E-02	4E-07	4E-02	2E-08	9E-02	3E-08	1E-01
Landbay D	A6S157	2E-08	9E-03	3E-08	2E-02	2E-09	6E-02	3E-09	8E-02
Landbay D	B11AEC-1S	NC	2E-03	NC	5E-03	NC	9E-03	NC	2E-02
Landbay D	B31AEC-1S	NC	7E-05	NC	1E-04	NC	3E-04	NC	5E-04
Landbay D	B32AEC-1S	NC	2E-03	NC	3E-03	NC	7E-03	NC	1E-02
Landbay D	B41AEC-1S	NC	2E-01	NC	3E-01	NC	6E-01	NC	1E+00
Landbay D	B6AEC-1S	NC	2E-01	NC	3E-01	NC	6E-01	NC	1E+00
Landbay D	BW 10-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 14-02	NC	9E-06	NC	2E-05	NC	4E-05	NC	6E-05
Landbay D	BW 16-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 17-02	NC	3E-04	NC	7E-04	NC	1E-03	NC	2E-03
Landbay D	BW 21-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 21-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 21-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 32-01	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay D	BW 32-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 5-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 5-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 6-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 9-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	CDP1	8E-08	7E-03	2E-07	1E-02	2E-08	6E-02	2E-08	7E-02
Landbay D	CDP2	2E-12	6E-03	2E-12	1E-02	6E-10	5E-02	6E-10	6E-02
Landbay D	CDP3	1E-12	5E-03	1E-12	1E-02	4E-10	4E-02	4E-10	5E-02
Landbay D	CDP4	7E-13	5E-03	7E-13	9E-03	3E-10	4E-02	3E-10	5E-02
Landbay D	CDP5	7E-13	5E-03	7E-13	1E-02	2E-10	4E-02	2E-10	6E-02
Landbay D	CDP6	1E-09	3E-03	2E-09	6E-03	6E-10	2E-02	7E-10	3E-02
Landbay D	CDP7	1E-12	6E-03	1E-12	1E-02	5E-10	5E-02	5E-10	7E-02
Landbay D	CDP8	6E-07	3E-02	8E-07	5E-02	5E-08	1E-01	7E-08	2E-01
Landbay D	DP-42	2E-08	7E-02	5E-08	1E-01	7E-09	3E-01	1E-08	5E-01
Landbay D	DW-17	NC	7E-06	NC	1E-05	NC	3E-05	NC	5E-05
Landbay D	DW-18	NC	7E-06	NC	1E-05	NC	3E-05	NC	5E-05
Landbay D	GP 10-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-03	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	GP 13-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 150-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 15-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 15-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 151A-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 16-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 16-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-02	NC	3E-05	NC	6E-05	NC	1E-04	NC	2E-04
Landbay D	GP 17-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-07	5E-09	4E-04	1E-08	9E-04	1E-09	2E-03	2E-09	3E-03
Landbay D	GP 17-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-10	NC	1E-04	NC	2E-04	NC	4E-04	NC	6E-04
Landbay D	GP 17-11	NC	1E-04	NC	3E-04	NC	5E-04	NC	8E-04
Landbay D	GP 22-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 22-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 22-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 25-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 3-02	NC	3E-05	NC	5E-05	NC	1E-04	NC	2E-04
Landbay D	GP 31-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 32-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 32-03	2E-09	8E-06	2E-09	9E-06	4E-10	4E-05	4E-10	4E-05
Landbay D	GP 35-01	NC	5E-05	NC	1E-04	NC	2E-04	NC	3E-04
Landbay D	GP 4-01	NC	4E-05	NC	7E-05	NC	1E-04	NC	2E-04
Landbay D	GP 4-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 41-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 41-02	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay D	GP 41-05	NC	7E-05	NC	1E-04	NC	3E-04	NC	5E-04
Landbay D	GP 42-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 42-03	NC	3E-05	NC	6E-05	NC	1E-04	NC	2E-04
Landbay D	GP 43-01	NC	5E-04	NC	1E-03	NC	2E-03	NC	3E-03
Landbay D	GP 49-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 50-01	NC	4E-06	NC	8E-06	NC	2E-05	NC	3E-05
Landbay D	GP 50-01A	NC	2E-04	NC	4E-04	NC	8E-04	NC	1E-03
Landbay D	GP 50-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 51-01	NC	7E-06	NC	1E-05	NC	9E-06	NC	1E-05
Landbay D	GP 51-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 52-01	NC	4E-06	NC	8E-06	NC	5E-06	NC	8E-06
Landbay D	GP 52-02	NC	2E-05	NC	4E-05	NC	2E-05	NC	4E-05
Landbay D	GP 52-04	NC	1E-02	NC	2E-02	NC	8E-02	NC	1E-01
Landbay D	GP 54-01	2E-07	1E-03	3E-07	2E-03	2E-08	1E-03	3E-08	2E-03
Landbay D	GP 56-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 58-01	NC	1E-03	NC	2E-03	NC	8E-03	NC	1E-02
Landbay D	GP 59-01	NC	7E-03	NC	1E-02	NC	6E-02	NC	8E-02
Landbay D	GP 59-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-02	NC	3E-05	NC	7E-05	NC	1E-04	NC	2E-04
Landbay D	GP 6-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 62-03	NC	1E-05	NC	2E-05	NC	4E-05	NC	7E-05
Landbay D	GP 64-01	NC	1E-04	NC	3E-04	NC	6E-04	NC	9E-04
Landbay D	GP 64-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 65-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 66-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 67-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 67-02	NC	1E-04	NC	3E-04	NC	5E-04	NC	9E-04
Landbay D	GP 68-01	NC	5E-06	NC	1E-05	NC	2E-05	NC	4E-05
Landbay D	GP 8-01	7E-08	9E-03	1E-07	2E-02	2E-08	4E-02	3E-08	6E-02
Landbay D	GP 8-02	5E-09	7E-04	1E-08	1E-03	2E-09	5E-03	3E-09	7E-03
Landbay D	GP 8-03	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay D	GP 9-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP BG-07	2E-06	2E-01	3E-06	3E-01	3E-07	8E-01	4E-07	9E-01
Landbay D	GP GS-01	5E-14	3E-04	5E-14	7E-04	2E-11	1E-03	2E-11	2E-03
Landbay D	GP GS-02	NC	4E-03	NC	8E-03	NC	3E-02	NC	4E-02
Landbay D	GP GS-03	6E-13	2E-04	6E-13	4E-04	2E-10	1E-03	2E-10	2E-03
Landbay D	GP GS-04	NC	3E-03	NC	6E-03	NC	2E-02	NC	3E-02
Landbay D	GP PBS-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP PBS-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	HA 15-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	HA 62-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	IM8-1	4E-06	3E-01	6E-06	4E-01	4E-07	2E-01	5E-07	4E-01
Landbay D	IM8-2	2E-08	2E-03	3E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	IM8-3	2E-08	2E-03	3E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	IM8-4	4E-07	2E-02	5E-07	3E-02	3E-08	2E-02	5E-08	3E-02
Landbay D	JT O-01B	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 2-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 43-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 6-01	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	SR-4S	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-1	4E-07	3E-02	5E-07	3E-02	3E-08	2E-02	4E-08	3E-02
Landbay D	SRA4-10	6E-06	4E-01	8E-06	6E-01	5E-07	3E-01	7E-07	5E-01
Landbay D	SRA4-11	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-12	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-16	1E-06	7E-02	1E-06	9E-02	8E-08	5E-02	1E-07	8E-02
Landbay D	SRA4-17	1E-07	8E-03	2E-07	1E-02	1E-08	6E-03	1E-08	9E-03
Landbay D	SRA4-18	9E-07	6E-02	1E-06	8E-02	7E-08	5E-02	1E-07	7E-02
Landbay D	SRA4-19	7E-06	5E-01	9E-06	6E-01	6E-07	4E-01	8E-07	6E-01
Landbay D	SRA4-2	3E-08	2E-03	4E-08	3E-03	2E-09	2E-03	4E-09	2E-03
Landbay D	SRA4-20	4E-06	3E-01	6E-06	4E-01	4E-07	2E-01	5E-07	4E-01
Landbay D	SRA4-21	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-22	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-23	3E-08	2E-03	4E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	SRA4-24	1E-07	7E-03	1E-07	9E-03	8E-09	6E-03	1E-08	8E-03
Landbay D	SRA4-25	2E-07	1E-02	3E-07	2E-02	2E-08	1E-02	3E-08	2E-02
Landbay D	SRA4-26	7E-07	5E-02	9E-07	7E-02	6E-08	4E-02	8E-08	6E-02
Landbay D	SRA4-27	1E-06	8E-02	2E-06	1E-01	1E-07	7E-02	1E-07	1E-01
Landbay D	SRA4-29	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	SRA4-3	1E-07	7E-03	1E-07	9E-03	8E-09	5E-03	1E-08	8E-03
Landbay D	SRA4-30	1E-06	7E-02	1E-06	1E-01	9E-08	6E-02	1E-07	9E-02
Landbay D	SRA4-31	7E-07	5E-02	1E-06	7E-02	6E-08	4E-02	9E-08	6E-02
Landbay D	SRA4-32	5E-06	4E-01	7E-06	5E-01	5E-07	3E-01	7E-07	4E-01
Landbay D	SRA4-33	1E-06	8E-02	2E-06	1E-01	1E-07	6E-02	1E-07	9E-02
Landbay D	SRA4-34	1E-06	7E-02	1E-06	1E-01	9E-08	6E-02	1E-07	9E-02
Landbay D	SRA4-35	2E-06	1E-01	3E-06	2E-01	2E-07	1E-01	2E-07	2E-01
Landbay D	SRA4-36	1E-07	7E-03	1E-07	1E-02	9E-09	6E-03	1E-08	9E-03
Landbay D	SRA4-38	8E-07	5E-02	1E-06	7E-02	6E-08	4E-02	9E-08	6E-02
Landbay D	SRA4-4	2E-07	1E-02	3E-07	2E-02	2E-08	1E-02	2E-08	2E-02
Landbay D	SRA4-5	3E-07	2E-02	4E-07	3E-02	3E-08	2E-02	4E-08	2E-02
Landbay D	SRA4-6	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	SRA4-8	3E-08	2E-03	4E-08	3E-03	2E-09	2E-03	4E-09	2E-03
Landbay D	SRA4-9	7E-07	5E-02	9E-07	7E-02	6E-08	4E-02	8E-08	6E-02
Landbay D	SRA5-1	3E-06	2E-01	5E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	SRA5-10	8E-07	6E-02	1E-06	8E-02	7E-08	5E-02	1E-07	7E-02
Landbay D	SRA5-11	3E-07	2E-02	4E-07	3E-02	3E-08	2E-02	4E-08	3E-02
Landbay D	SRA5-13	7E-06	5E-01	9E-06	6E-01	6E-07	4E-01	8E-07	6E-01
Landbay D	SRA5-14	3E-08	2E-03	4E-08	3E-03	3E-09	2E-03	4E-09	3E-03
Landbay D	SRA5-16	6E-07	4E-02	7E-07	5E-02	5E-08	3E-02	7E-08	5E-02
Landbay D	SRA5-17	2E-08	1E-03	3E-08	2E-03	2E-09	1E-03	3E-09	2E-03
Landbay D	SRA5-18	9E-07	6E-02	1E-06	8E-02	7E-08	5E-02	1E-07	7E-02
Landbay D	SRA5-19	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	SRA5-2	1E-07	9E-03	2E-07	1E-02	1E-08	7E-03	2E-08	1E-02
Landbay D	SRA5-20	6E-07	4E-02	8E-07	5E-02	5E-08	3E-02	7E-08	5E-02
Landbay D	SRA5-21	3E-06	2E-01	4E-06	3E-01	2E-07	2E-01	3E-07	2E-01
Landbay D	SRA5-22	5E-06	4E-01	7E-06	5E-01	4E-07	3E-01	6E-07	4E-01
Landbay D	SRA5-23	5E-06	3E-01	7E-06	5E-01	4E-07	3E-01	6E-07	4E-01
Landbay D	SRA5-24	2E-07	2E-02	3E-07	2E-02	2E-08	1E-02	3E-08	2E-02
Landbay D	SRA5-25	3E-08	2E-03	4E-08	3E-03	2E-09	2E-03	3E-09	2E-03
Landbay D	SRA5-26	4E-08	3E-03	5E-08	4E-03	3E-09	2E-03	5E-09	3E-03
Landbay D	SRA5-27	9E-07	6E-02	1E-06	9E-02	8E-08	5E-02	1E-07	8E-02
Landbay D	SRA5-28	8E-06	5E-01	1E-05	7E-01	7E-07	4E-01	9E-07	6E-01
Landbay D	SRA5-3	1E-06	8E-02	2E-06	1E-01	1E-07	7E-02	1E-07	1E-01
Landbay D	SRA5-30	7E-07	5E-02	1E-06	7E-02	6E-08	4E-02	9E-08	6E-02
Landbay D	SRA5-31	4E-08	3E-03	6E-08	4E-03	4E-09	2E-03	5E-09	4E-03
Landbay D	SRA5-32	8E-08	6E-03	1E-07	8E-03	7E-09	5E-03	1E-08	7E-03
Landbay D	SRA5-34	7E-06	5E-01	9E-06	6E-01	6E-07	4E-01	8E-07	5E-01
Landbay D	SRA5-35	2E-07	1E-02	2E-07	2E-02	1E-08	1E-02	2E-08	1E-02
Landbay D	SRA5-36	1E-06	9E-02	2E-06	1E-01	1E-07	7E-02	2E-07	1E-01
Landbay D	SRA5-5	5E-08	3E-03	6E-08	4E-03	4E-09	3E-03	6E-09	4E-03
Landbay D	SRA5-6	1E-06	9E-02	2E-06	1E-01	1E-07	7E-02	2E-07	1E-01
Landbay D	SRA5-7	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA5-8	3E-07	2E-02	4E-07	3E-02	3E-08	2E-02	4E-08	2E-02
Landbay D	SRA5-9	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA6-1	5E-08	4E-03	7E-08	5E-03	4E-09	3E-03	6E-09	4E-03
Landbay D	SRA6-10	3E-06	2E-01	4E-06	3E-01	3E-07	2E-01	4E-07	3E-01
Landbay D	SRA6-11	2E-07	1E-02	2E-07	1E-02	1E-08	9E-03	2E-08	1E-02
Landbay D	SRA6-12	1E-06	1E-01	2E-06	1E-01	1E-07	8E-02	2E-07	1E-01
Landbay D	SRA6-2	2E-07	2E-02	3E-07	2E-02	2E-08	1E-02	3E-08	2E-02
Landbay D	SRA6-3	2E-07	1E-02	2E-07	2E-02	1E-08	9E-03	2E-08	1E-02
Landbay D	SRA6-4	1E-06	1E-01	2E-06	1E-01	1E-07	8E-02	2E-07	1E-01
Landbay D	SRA6-5	2E-06	1E-01	3E-06	2E-01	2E-07	1E-01	2E-07	2E-01
Landbay D	SRA6-6	2E-07	1E-02	3E-07	2E-02	2E-08	1E-02	2E-08	2E-02
Landbay D	SRA6-7	4E-07	3E-02	6E-07	4E-02	4E-08	3E-02	5E-08	4E-02
Landbay D	SRA6-8	4E-08	3E-03	5E-08	4E-03	3E-09	2E-03	5E-09	3E-03
Landbay D	SRA6-9	4E-07	2E-02	5E-07	3E-02	3E-08	2E-02	4E-08	3E-02
Landbay D	SS-08A	6E-08	8E-04	1E-07	2E-03	1E-08	5E-03	2E-08	7E-03
Landbay D	SS-09A	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SS-15A	1E-14	9E-04	1E-14	2E-03	4E-12	3E-03	4E-12	6E-03
Landbay D	SS-22A	NC	8E-06	NC	2E-05	NC	3E-05	NC	6E-05
Landbay D	SS-35A	2E-08	6E-04	3E-08	1E-03	4E-09	3E-03	6E-09	5E-03
Landbay D	SS-43A	NC	5E-06	NC	9E-06	NC	2E-05	NC	3E-05
Landbay D	SS-60A	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	SS-67A	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SS-68A	NC	3E-05	NC	6E-05	NC	1E-04	NC	2E-04
Landbay D	SW 14-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 15-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 16-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 17-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 21-01	NC	2E-05	NC	3E-05	NC	7E-05	NC	1E-04
Landbay D	SW 27-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 35-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 41-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 43-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 43-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 45-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 5-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 5-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 6-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 7-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 9-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	119B139	NC	1E-06	NC	3E-06	NC	5E-06	NC	8E-06
Landbay E	119G36	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	120AB1	NC	6E-07	NC	1E-06	NC	3E-06	NC	4E-06
Landbay E	121B1	NC	3E-07	NC	7E-07	NC	1E-06	NC	2E-06
Landbay E	200B1	3E-09	8E-03	5E-09	1E-02	8E-10	5E-02	1E-09	6E-02
Landbay E	200B2	3E-09	8E-03	5E-09	1E-02	8E-10	5E-02	1E-09	6E-02
Landbay E	200B3	3E-09	8E-03	5E-09	1E-02	8E-10	5E-02	1E-09	6E-02
Landbay E	207B1	NC	8E-07	NC	2E-06	NC	3E-06	NC	6E-06
Landbay E	208B1	9E-07	2E-02	2E-06	5E-02	1E-07	2E-01	2E-07	3E-01
Landbay E	209B1	3E-11	1E-02	3E-11	3E-02	1E-08	2E-02	1E-08	3E-02
Landbay E	20TP1-7	2E-13	1E-02	2E-13	2E-02	8E-11	1E-01	8E-11	1E-01
Landbay E	212B1	1E-09	1E-02	3E-09	2E-02	3E-10	9E-02	4E-10	1E-01
Landbay E	214B1	4E-13	2E-04	4E-13	4E-04	1E-10	9E-04	1E-10	1E-03
Landbay E	214B2	4E-13	2E-04	4E-13	4E-04	1E-10	9E-04	1E-10	1E-03
Landbay E	214G3	4E-13	2E-04	4E-13	4E-04	1E-10	9E-04	1E-10	1E-03
Landbay E	214G4	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	217B1	NC	3E-07	NC	7E-07	NC	1E-06	NC	2E-06
Landbay E	219B1	NC	2E-06	NC	4E-06	NC	8E-06	NC	1E-05
Landbay E	21TP1-5	4E-13	6E-03	4E-13	1E-02	1E-10	5E-02	1E-10	7E-02
Landbay E	21TP2-7	NC	3E-03	NC	6E-03	NC	3E-02	NC	3E-02
Landbay E	230AEC-2	NC	2E-02	NC	4E-02	NC	8E-02	NC	1E-01
Landbay E	230ANEC	NC	2E-04	NC	5E-04	NC	1E-03	NC	2E-03
Landbay E	230B1	NC	1E-02	NC	2E-02	NC	8E-02	NC	1E-01
Landbay E	230-BM	2E-06	4E-02	4E-06	7E-02	3E-07	1E-01	5E-07	2E-01
Landbay E	235B1	NC	6E-03	NC	1E-02	NC	6E-02	NC	7E-02
Landbay E	235B2	NC	1E-02	NC	2E-02	NC	1E-01	NC	1E-01
Landbay E	236B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	237B1	NC	1E-02	NC	3E-02	NC	6E-02	NC	1E-01
Landbay E	23TP1-7	6E-13	1E-02	6E-13	3E-02	2E-10	1E-01	2E-10	1E-01
Landbay E	253B1	NC	6E-03	NC	1E-02	NC	5E-02	NC	6E-02
Landbay E	253B2	6E-07	1E-02	1E-06	3E-02	8E-08	9E-02	1E-07	1E-01
Landbay E	253B3	2E-06	1E-02	3E-06	2E-02	2E-07	4E-02	3E-07	5E-02
Landbay E	253B5	2E-06	2E-02	3E-06	4E-02	2E-07	1E-01	3E-07	1E-01
Landbay E	253G4	NC	3E-05	NC	7E-05	NC	1E-04	NC	2E-04
Landbay E	253G5	NC	3E-07	NC	7E-07	NC	1E-06	NC	2E-06
Landbay E	255B1	NC	4E-04	NC	7E-04	NC	1E-03	NC	2E-03
Landbay E	28B3	6E-08	8E-03	1E-07	1E-02	9E-09	4E-02	1E-08	5E-02
Landbay E	28B6	2E-07	5E-03	4E-07	9E-03	4E-08	4E-02	6E-08	5E-02
Landbay E	28G4	3E-08	4E-03	7E-08	7E-03	6E-09	3E-02	1E-08	4E-02
Landbay E	40AEC-2	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay E	40ANEC	NC	2E-05	NC	4E-05	NC	7E-05	NC	1E-04
Landbay E	40B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-10	3E-07	2E-02	4E-07	3E-02	2E-08	2E-02	3E-08	2E-02
Landbay E	42 GP-11	4E-08	3E-03	5E-08	4E-03	3E-09	2E-03	5E-09	3E-03
Landbay E	42 GP-12	1E-07	1E-02	2E-07	1E-02	1E-08	8E-03	2E-08	1E-02
Landbay E	42 GP-13	2E-08	1E-03	3E-08	2E-03	2E-09	1E-03	2E-09	2E-03
Landbay E	42 GP-14	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-15	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-30	4E-08	3E-03	5E-08	3E-03	3E-09	2E-03	4E-09	3E-03
Landbay E	42 GP-31	4E-08	3E-03	6E-08	4E-03	4E-09	2E-03	5E-09	3E-03
Landbay E	45B1	2E-07	6E-03	3E-07	1E-02	3E-08	4E-02	4E-08	5E-02
Landbay E	45B2	2E-07	6E-03	3E-07	1E-02	3E-08	4E-02	4E-08	5E-02
Landbay E	45B4	NC	1E-05	NC	3E-05	NC	5E-05	NC	8E-05
Landbay E	45B5	NC	1E-05	NC	3E-05	NC	5E-05	NC	8E-05
Landbay E	45B6	NC	1E-05	NC	3E-05	NC	5E-05	NC	8E-05
Landbay E	45G3	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay E	4650-0800	2E-06	1E-02	3E-06	2E-02	2E-07	1E-02	3E-07	1E-02
Landbay E	4650-0950	5E-07	3E-02	8E-07	6E-02	8E-08	2E-01	1E-07	3E-01
Landbay E	46B1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	47B1	3E-07	9E-03	5E-07	2E-02	4E-08	6E-02	6E-08	8E-02
Landbay E	4800-0650	2E-06	1E-02	3E-06	2E-02	2E-07	1E-02	3E-07	1E-02
Landbay E	4800-0800	5E-07	3E-02	8E-07	6E-02	8E-08	2E-01	1E-07	3E-01
Landbay E	4800-0950	5E-07	3E-02	8E-07	6E-02	8E-08	2E-01	1E-07	3E-01
Landbay E	4800-1100	7E-07	2E-02	1E-06	3E-02	9E-08	4E-02	1E-07	6E-02
Landbay E	4800-60	6E-08	4E-03	1E-07	8E-03	1E-08	3E-02	2E-08	4E-02

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	4950-0500	2E-06	1E-02	3E-06	2E-02	2E-07	1E-02	3E-07	1E-02
Landbay E	4950-0650	2E-08	2E-03	2E-08	2E-03	2E-09	3E-03	2E-09	4E-03
Landbay E	4950-0800	2E-08	2E-03	2E-08	2E-03	2E-09	3E-03	2E-09	4E-03
Landbay E	4950-0950	7E-07	2E-02	1E-06	3E-02	9E-08	4E-02	1E-07	6E-02
Landbay E	4950-1100	7E-07	2E-02	1E-06	3E-02	9E-08	4E-02	1E-07	6E-02
Landbay E	5100-0350	2E-06	1E-02	3E-06	2E-02	2E-07	1E-02	3E-07	1E-02
Landbay E	5100-0500	2E-08	2E-03	2E-08	2E-03	2E-09	3E-03	2E-09	4E-03
Landbay E	5100-0650	2E-11	8E-03	2E-11	2E-02	7E-09	3E-02	7E-09	3E-02
Landbay E	5100-0800	2E-11	8E-03	2E-11	2E-02	7E-09	3E-02	7E-09	3E-02
Landbay E	5100-1250	2E-07	8E-02	3E-07	2E-01	8E-08	9E-01	1E-07	1E+00
Landbay E	5100-1400	2E-07	8E-02	4E-07	2E-01	9E-08	9E-01	1E-07	1E+00
Landbay E	5100-1550	8E-07	8E-02	1E-06	2E-01	2E-07	4E-01	2E-07	4E-01
Landbay E	5200-67	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	5250-0350	2E-08	2E-03	2E-08	2E-03	2E-09	3E-03	2E-09	4E-03
Landbay E	5250-0500	3E-13	1E-03	3E-13	2E-03	1E-10	7E-03	1E-10	1E-02
Landbay E	5250-0650	3E-13	1E-03	3E-13	2E-03	1E-10	7E-03	1E-10	1E-02
Landbay E	5400-0200	3E-13	1E-03	3E-13	2E-03	1E-10	7E-03	1E-10	1E-02
Landbay E	5400-0350	8E-08	8E-02	2E-07	2E-01	6E-08	2E-01	7E-08	3E-01
Landbay E	5400-0500	8E-08	8E-02	2E-07	2E-01	6E-08	2E-01	7E-08	3E-01
Landbay E	5400-0650	8E-08	8E-02	2E-07	2E-01	6E-08	2E-01	7E-08	3E-01
Landbay E	5400-0800	3E-13	1E-03	3E-13	2E-03	1E-10	7E-03	1E-10	1E-02
Landbay E	5400-0950	5E-08	1E-02	8E-08	2E-02	1E-08	5E-02	2E-08	6E-02
Landbay E	5400-1100	5E-08	1E-02	8E-08	2E-02	1E-08	5E-02	2E-08	6E-02
Landbay E	5400-1250	2E-07	8E-02	3E-07	2E-01	8E-08	9E-01	1E-07	1E+00
Landbay E	5400-79	3E-06	8E-02	4E-06	1E-01	4E-07	5E-01	5E-07	6E-01
Landbay E	5400-86	NC	7E-04	NC	1E-03	NC	3E-03	NC	5E-03
Landbay E	5500-84-1	2E-06	2E-02	3E-06	4E-02	2E-07	8E-02	3E-07	1E-01
Landbay E	5500-84-2	8E-07	1E-02	1E-06	3E-02	1E-07	5E-02	2E-07	7E-02
Landbay E	5500-84-3	3E-06	1E-01	6E-06	2E-01	5E-07	7E-01	7E-07	8E-01
Landbay E	5550-0200	4E-08	2E-03	8E-08	4E-03	8E-09	2E-02	1E-08	2E-02
Landbay E	5550-0500	4E-08	2E-03	8E-08	4E-03	8E-09	2E-02	1E-08	2E-02
Landbay E	5550-0650	4E-08	2E-03	8E-08	4E-03	8E-09	2E-02	1E-08	2E-02
Landbay E	5550-0800	7E-08	3E-02	1E-07	6E-02	4E-08	6E-02	4E-08	8E-02
Landbay E	5550-0950	5E-08	1E-02	8E-08	2E-02	1E-08	5E-02	2E-08	6E-02
Landbay E	5550-1100	5E-08	1E-02	8E-08	2E-02	1E-08	5E-02	2E-08	6E-02
Landbay E	5550-1250	4E-07	3E-02	6E-07	6E-02	7E-08	2E-01	1E-07	2E-01
Landbay E	5550-1400	4E-07	3E-02	6E-07	6E-02	7E-08	2E-01	1E-07	2E-01
Landbay E	5550-1550	4E-07	3E-02	6E-07	6E-02	7E-08	2E-01	1E-07	2E-01
Landbay E	5550-1700	1E-07	2E-02	1E-07	5E-02	2E-08	2E-01	3E-08	2E-01
Landbay E	5550-1850	2E-08	2E-02	4E-08	4E-02	2E-08	2E-01	2E-08	2E-01
Landbay E	5600-82	6E-08	6E-03	8E-08	9E-03	5E-09	2E-02	8E-09	3E-02
Landbay E	5600-83	NC	3E-07	NC	6E-07	NC	1E-06	NC	2E-06
Landbay E	5700-0650	4E-08	2E-03	8E-08	4E-03	8E-09	2E-02	1E-08	2E-02
Landbay E	5700-0800	7E-08	3E-02	1E-07	6E-02	4E-08	6E-02	4E-08	8E-02
Landbay E	5700-0950	7E-08	3E-02	1E-07	6E-02	4E-08	6E-02	4E-08	8E-02
Landbay E	5700-1100	3E-08	9E-03	7E-08	2E-02	1E-08	8E-03	2E-08	1E-02
Landbay E	5700-1250	3E-08	9E-03	7E-08	2E-02	1E-08	8E-03	2E-08	1E-02
Landbay E	5700-1400	3E-07	3E-02	5E-07	6E-02	6E-08	2E-01	9E-08	3E-01
Landbay E	5700-1550	3E-07	3E-02	5E-07	6E-02	6E-08	2E-01	9E-08	3E-01
Landbay E	5700-1700	7E-08	4E-02	1E-07	8E-02	4E-08	2E-01	5E-08	2E-01
Landbay E	5700-1850	7E-08	4E-02	1E-07	8E-02	4E-08	2E-01	5E-08	2E-01
Landbay E	5850-0950	7E-08	3E-02	1E-07	6E-02	4E-08	6E-02	4E-08	8E-02
Landbay E	5850-1100	3E-08	9E-03	7E-08	2E-02	1E-08	8E-03	2E-08	1E-02
Landbay E	5850-1250	3E-08	9E-03	7E-08	2E-02	1E-08	8E-03	2E-08	1E-02
Landbay E	5850-1400	3E-07	3E-02	5E-07	6E-02	6E-08	2E-01	9E-08	3E-01
Landbay E	5850-1550	3E-07	3E-02	5E-07	6E-02	6E-08	2E-01	9E-08	3E-01
Landbay E	5850-1700	4E-08	8E-03	8E-08	2E-02	8E-09	7E-02	1E-08	9E-02
Landbay E	5850-1850	7E-08	4E-02	1E-07	8E-02	4E-08	2E-01	5E-08	2E-01
Landbay E	6000-0950	1E-07	9E-02	3E-07	2E-01	7E-08	8E-01	8E-08	9E-01
Landbay E	6000-1100	9E-08	4E-02	2E-07	7E-02	5E-08	7E-02	6E-08	8E-02
Landbay E	6000-1250	9E-08	4E-02	2E-07	7E-02	5E-08	7E-02	6E-08	8E-02
Landbay E	6000-1400	1E-07	1E-01	2E-07	2E-01	9E-08	4E-01	9E-08	5E-01
Landbay E	6000-1550	1E-07	1E-01	2E-07	2E-01	9E-08	4E-01	9E-08	5E-01
Landbay E	6000-1700	6E-08	3E-02	1E-07	5E-02	3E-08	5E-02	4E-08	7E-02
Landbay E	6000-91	8E-07	5E-03	1E-06	8E-03	1E-07	3E-03	2E-07	3E-03
Landbay E	6100-101	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6150-0050	7E-08	1E-02	1E-07	3E-02	2E-08	3E-02	3E-08	4E-02
Landbay E	6150-0950	1E-12	6E-03	1E-12	1E-02	4E-10	5E-02	4E-10	6E-02
Landbay E	6150-1100	9E-08	4E-02	2E-07	7E-02	5E-08	7E-02	6E-08	8E-02
Landbay E	6150-1250	9E-08	4E-02	2E-07	7E-02	5E-08	7E-02	6E-08	8E-02
Landbay E	6150-1400	1E-07	1E-01	2E-07	2E-01	9E-08	4E-01	9E-08	5E-01
Landbay E	6150-1550	1E-07	1E-01	2E-07	2E-01	9E-08	4E-01	9E-08	5E-01
Landbay E	6150-1700	9E-08	4E-02	2E-07	8E-02	4E-08	3E-01	5E-08	4E-01
Landbay E	6150-9750	7E-08	1E-02	1E-07	3E-02	2E-08	3E-02	3E-08	4E-02
Landbay E	6150-9900	7E-08	1E-02	1E-07	3E-02	2E-08	3E-02	3E-08	4E-02
Landbay E	6300-0800	6E-07	1E-01	1E-06	2E-01	2E-07	5E-01	2E-07	5E-01
Landbay E	6300-0950	6E-07	1E-01	1E-06	2E-01	1E-07	4E-01	2E-07	5E-01
Landbay E	6300-1100	1E-07	8E-02	2E-07	2E-01	7E-08	3E-01	9E-08	3E-01
Landbay E	6300-1250	1E-07	8E-02	2E-07	2E-01	7E-08	3E-01	9E-08	3E-01
Landbay E	6300-1400	1E-07	2E-01	2E-07	3E-01	1E-07	7E-01	1E-07	8E-01
Landbay E	6300-1550	1E-07	2E-01	2E-07	3E-01	1E-07	7E-01	1E-07	8E-01
Landbay E	6300-1700	5E-08	7E-04	1E-07	1E-03	1E-08	5E-03	1E-08	6E-03
Landbay E	6300-9900	7E-08	1E-02	1E-07	3E-02	2E-08	3E-02	3E-08	4E-02

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	6400-103	2E-06	4E-02	4E-06	8E-02	3E-07	2E-01	5E-07	3E-01
Landbay E	6450-0050	4E-07	2E-01	6E-07	3E-01	2E-07	9E-01	2E-07	1E+00
Landbay E	6450-1100	1E-07	8E-02	2E-07	2E-01	7E-08	3E-01	9E-08	3E-01
Landbay E	6450-1250	1E-07	8E-02	2E-07	2E-01	7E-08	3E-01	9E-08	3E-01
Landbay E	6450-1400	1E-07	2E-01	2E-07	3E-01	1E-07	7E-01	1E-07	8E-01
Landbay E	6450-1550	1E-07	2E-01	2E-07	3E-01	1E-07	7E-01	1E-07	8E-01
Landbay E	6600-0050	4E-07	2E-01	6E-07	3E-01	2E-07	9E-01	2E-07	1E+00
Landbay E	6600-0200	4E-07	2E-01	6E-07	3E-01	2E-07	9E-01	2E-07	1E+00
Landbay E	6600-0350	4E-07	2E-01	6E-07	3E-01	2E-07	9E-01	2E-07	1E+00
Landbay E	6600-1100	5E-08	3E-02	1E-07	6E-02	3E-08	8E-02	4E-08	9E-02
Landbay E	6600-112	3E-06	2E-01	4E-06	4E-01	5E-07	1E+00	7E-07	1E+00
Landbay E	6600-113	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6600-1250	5E-08	3E-02	1E-07	6E-02	3E-08	8E-02	4E-08	9E-02
Landbay E	6600-1400	4E-07	5E-02	8E-07	9E-02	8E-08	2E-01	1E-07	3E-01
Landbay E	6750-0050	6E-07	7E-02	1E-06	1E-01	1E-07	6E-01	2E-07	7E-01
Landbay E	6750-0200	6E-07	7E-02	1E-06	1E-01	1E-07	6E-01	2E-07	7E-01
Landbay E	6750-0350	2E-06	1E-01	3E-06	3E-01	3E-07	6E-01	5E-07	7E-01
Landbay E	6750-0500	8E-08	8E-03	1E-07	2E-02	1E-08	6E-02	2E-08	7E-02
Landbay E	6750-0650	8E-08	8E-02	1E-07	2E-01	7E-08	3E-01	8E-08	4E-01
Landbay E	6750-0800	8E-08	8E-02	1E-07	2E-01	7E-08	3E-01	8E-08	4E-01
Landbay E	6750-1100	5E-08	3E-02	1E-07	6E-02	3E-08	8E-02	4E-08	9E-02
Landbay E	6750-1250	5E-08	3E-02	1E-07	6E-02	3E-08	8E-02	4E-08	9E-02
Landbay E	6750-1400	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6900-0050	6E-07	7E-02	1E-06	1E-01	1E-07	6E-01	2E-07	7E-01
Landbay E	6900-0200	9E-07	2E-01	2E-06	4E-01	3E-07	7E-01	3E-07	9E-01
Landbay E	6900-0350	6E-08	5E-02	1E-07	1E-01	5E-08	9E-02	5E-08	1E-01
Landbay E	6900-0500	8E-08	8E-02	1E-07	2E-01	7E-08	3E-01	8E-08	4E-01
Landbay E	6900-0650	8E-08	8E-02	1E-07	2E-01	7E-08	3E-01	8E-08	4E-01
Landbay E	6900-9900	6E-07	7E-02	1E-06	1E-01	1E-07	6E-01	2E-07	7E-01
Landbay E	7000-126	4E-06	1E-01	7E-06	3E-01	6E-07	3E-01	9E-07	4E-01
Landbay E	7000-127	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7050-0050	3E-07	2E-03	6E-07	4E-03	4E-08	5E-03	7E-08	5E-03
Landbay E	7050-0200	2E-08	5E-02	3E-08	1E-01	4E-08	6E-01	4E-08	6E-01
Landbay E	7050-0350	2E-08	5E-02	3E-08	1E-01	4E-08	6E-01	4E-08	6E-01
Landbay E	7050-0500	2E-08	5E-02	3E-08	1E-01	4E-08	6E-01	4E-08	6E-01
Landbay E	7050-0650	2E-08	5E-02	3E-08	1E-01	4E-08	6E-01	4E-08	6E-01
Landbay E	7050-0800	4E-14	8E-06	4E-14	2E-05	1E-11	5E-05	1E-11	7E-05
Landbay E	7050-0950	1E-06	2E-02	2E-06	4E-02	1E-07	2E-02	2E-07	2E-02
Landbay E	7050-1100	1E-06	2E-02	2E-06	4E-02	1E-07	2E-02	2E-07	2E-02
Landbay E	7200-0200	3E-07	2E-03	6E-07	4E-03	4E-08	5E-03	7E-08	5E-03
Landbay E	7200-0350	6E-07	4E-03	1E-06	7E-03	7E-08	4E-03	1E-07	6E-03
Landbay E	7200-0500	6E-07	4E-03	1E-06	7E-03	7E-08	4E-03	1E-07	6E-03
Landbay E	7200-0650	4E-14	8E-06	4E-14	2E-05	1E-11	5E-05	1E-11	7E-05
Landbay E	7200-0800	4E-14	8E-06	4E-14	2E-05	1E-11	5E-05	1E-11	7E-05
Landbay E	7200-0950	1E-06	2E-02	2E-06	4E-02	1E-07	2E-02	2E-07	2E-02
Landbay E	7200-1100	1E-06	2E-02	2E-06	4E-02	1E-07	2E-02	2E-07	2E-02
Landbay E	7200-130	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-132	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-133	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-1400	6E-07	1E-02	1E-06	3E-02	8E-08	6E-02	1E-07	7E-02
Landbay E	7350-0500	6E-07	4E-03	1E-06	7E-03	7E-08	4E-03	1E-07	6E-03
Landbay E	7350-0650	6E-07	4E-03	1E-06	7E-03	7E-08	4E-03	1E-07	6E-03
Landbay E	7350-0800	4E-14	8E-06	4E-14	2E-05	1E-11	5E-05	1E-11	7E-05
Landbay E	7350-1400	6E-07	1E-02	1E-06	3E-02	8E-08	6E-02	1E-07	7E-02
Landbay E	7500-0650	8E-08	6E-04	1E-07	1E-03	1E-08	7E-04	2E-08	1E-03
Landbay E	7500-0800	8E-08	6E-04	1E-07	1E-03	1E-08	7E-04	2E-08	1E-03
Landbay E	7500-0950	8E-08	6E-04	1E-07	1E-03	1E-08	7E-04	2E-08	1E-03
Landbay E	7500-1100	8E-08	6E-04	1E-07	1E-03	1E-08	7E-04	2E-08	1E-03
Landbay E	7500-1400	NC	1E-03	NC	2E-03	NC	8E-02	NC	8E-02
Landbay E	7500-1550	NC	1E-03	NC	2E-03	NC	8E-02	NC	8E-02
Landbay E	7650-0800	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-0950	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1100	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1250	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1550	2E-13	4E-05	2E-13	7E-05	6E-11	2E-04	6E-11	3E-04
Landbay E	7700-150	2E-06	1E-02	3E-06	2E-02	2E-07	7E-03	3E-07	9E-03
Landbay E	7700-151	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7800-1100	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7800-1250	NC	1E-05	NC	1E-05	NC	5E-05	NC	5E-05
Landbay E	7800-1400	2E-13	4E-05	2E-13	7E-05	6E-11	2E-04	6E-11	3E-04
Landbay E	7800-1550	2E-13	4E-05	2E-13	7E-05	6E-11	2E-04	6E-11	3E-04
Landbay E	7950-1250	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7950-1400	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7950-1550	4E-08	5E-04	7E-08	9E-04	5E-09	1E-03	8E-09	2E-03
Landbay E	8100-1400	4E-08	5E-04	7E-08	9E-04	5E-09	1E-03	8E-09	2E-03
Landbay E	8100-1550	4E-08	5E-04	7E-08	9E-04	5E-09	1E-03	8E-09	2E-03
Landbay E	A7G191	8E-07	9E-03	1E-06	2E-02	1E-07	4E-02	2E-07	5E-02
Landbay E	A7G192	7E-13	3E-03	7E-13	6E-03	3E-10	2E-02	3E-10	3E-02
Landbay E	A7S160	9E-07	1E-01	2E-06	2E-01	2E-07	9E-01	2E-07	9E-01
Landbay E	A7S161	2E-08	1E-01	3E-08	2E-01	6E-08	9E-01	6E-08	1E+00
Landbay E	AAMARKB1-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	AAN-1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	B227AEC-1S	NC	1E-03	NC	3E-03	NC	5E-03	NC	9E-03

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	DP-223	3E-13	6E-05	3E-13	1E-04	9E-11	4E-04	9E-11	5E-04
Landbay E	DP-223A	7E-13	2E-04	7E-13	3E-04	3E-10	1E-03	3E-10	1E-03
Landbay E	DP-223B	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	F-234	NC	3E-06	NC	5E-06	NC	1E-05	NC	2E-05
Landbay E	F-6	4E-08	9E-03	8E-08	2E-02	7E-09	8E-02	1E-08	1E-01
Landbay E	GP 200-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 200-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 201-03	NC	9E-06	NC	2E-05	NC	4E-05	NC	6E-05
Landbay E	GP 201-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 202-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 202-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 203-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 203-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 204-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 204-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 205-03	NC	7E-06	NC	1E-05	NC	3E-05	NC	5E-05
Landbay E	GP 208-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-09	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-10	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-12	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-15	6E-13	1E-04	6E-13	3E-04	2E-10	9E-04	2E-10	1E-03
Landbay E	GP 211-16	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 212-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 212-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 213-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 213-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 214-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 215-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 220-07	1E-13	3E-05	1E-13	6E-05	5E-11	2E-04	5E-11	3E-04
Landbay E	GP 221-10	2E-08	1E-04	4E-08	2E-04	4E-09	6E-04	6E-09	9E-04
Landbay E	GP 221-11	4E-08	9E-05	8E-08	2E-04	8E-09	4E-04	1E-08	5E-04
Landbay E	GP 221-13	6E-08	1E-04	1E-07	3E-04	1E-08	6E-04	2E-08	8E-04
Landbay E	GP 221-14	1E-07	3E-04	3E-07	7E-04	3E-08	1E-03	4E-08	2E-03
Landbay E	GP 223-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 223-06	5E-08	1E-04	9E-08	2E-04	8E-09	4E-04	1E-08	6E-04
Landbay E	GP 223-07	3E-08	7E-05	6E-08	1E-04	6E-09	2E-04	9E-09	4E-04
Landbay E	GP 223-08	6E-08	1E-04	1E-07	3E-04	1E-08	6E-04	2E-08	8E-04
Landbay E	GP 223-09	2E-08	4E-05	4E-08	8E-05	3E-09	1E-04	5E-09	2E-04
Landbay E	GP 223-10	3E-08	7E-05	7E-08	1E-04	6E-09	3E-04	1E-08	4E-04
Landbay E	GP 223-11	NC	4E-06	NC	7E-06	NC	4E-05	NC	5E-05
Landbay E	GP 223-12	5E-08	1E-04	1E-07	2E-04	9E-09	4E-04	1E-08	6E-04
Landbay E	GP 223-13	6E-08	1E-04	1E-07	3E-04	1E-08	5E-04	2E-08	7E-04
Landbay E	GP 223-14	5E-08	1E-04	1E-07	2E-04	9E-09	4E-04	1E-08	6E-04
Landbay E	GP 225-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 225-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 226-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 227-01	NC	8E-06	NC	2E-05	NC	3E-05	NC	5E-05
Landbay E	GP 227-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 228-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 234-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 234-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 235-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 235-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 236-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 236-02	NC	2E-05	NC	4E-05	NC	8E-05	NC	1E-04
Landbay E	GP 237-01	NC	4E-05	NC	9E-05	NC	2E-04	NC	3E-04
Landbay E	GP 237-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 240-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 244-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 250-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 252-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 252-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 253-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 253-08	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-07	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-11	NC	4E-05	NC	9E-05	NC	2E-04	NC	3E-04
Landbay E	GP 45-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 46-01	NC	1E-04	NC	3E-04	NC	5E-04	NC	9E-04
Landbay E	GP 47-03	NC	1E-04	NC	3E-04	NC	5E-04	NC	8E-04
Landbay E	GP 47-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-07	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay E	GP 47-09	NC	5E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay E	GP 47-12	NC	6E-05	NC	1E-04	NC	2E-04	NC	4E-04
Landbay E	GP 47-14	NC	1E-04	NC	2E-04	NC	5E-04	NC	8E-04
Landbay E	GP 47-15	NC	1E-04	NC	2E-04	NC	4E-04	NC	7E-04
Landbay E	GP 47-17	NC	1E-05	NC	2E-05	NC	4E-05	NC	7E-05

Table 4-8a: Uncertainty Analysis – Exposure Factors – Construction and Outdoor Workers
Upper-Bound Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, Virginia

		Routine Worker (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
		Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	GP 47-19	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-22	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP BG-04	3E-07	2E-03	5E-07	3E-03	4E-08	1E-03	6E-08	1E-03
Landbay E	GP BG-05	2E-06	1E-02	3E-06	2E-02	2E-07	6E-03	3E-07	7E-03
Landbay E	GP BG-06	6E-07	8E-02	1E-06	2E-01	1E-07	4E-01	2E-07	4E-01
Landbay E	GP PBS-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP PBS-04	NC	1E-05	NC	2E-05	NC	5E-05	NC	8E-05
Landbay E	GP PBS-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP PBS-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	HA 211-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	HA 211-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	IM12-1	2E-05	1E-01	3E-05	2E-01	2E-06	1E-01	4E-06	1E-01
Landbay E	IM12-2	4E-07	3E-03	7E-07	5E-03	5E-08	4E-03	8E-08	6E-03
Landbay E	IM12-3	3E-06	2E-02	6E-06	4E-02	4E-07	1E-02	7E-07	2E-02
Landbay E	IM12-4	5E-13	2E-04	5E-13	4E-04	2E-10	2E-03	2E-10	2E-03
Landbay E	IM12-5	2E-06	1E-02	3E-06	2E-02	2E-07	7E-03	4E-07	9E-03
Landbay E	IM14-1	NC	8E-07	NC	1E-06	NC	2E-06	NC	2E-06
Landbay E	IM14-2	3E-10	9E-05	3E-10	1E-04	6E-11	2E-04	6E-11	2E-04
Landbay E	IM14-3	9E-10	1E-05	1E-09	2E-05	2E-10	4E-05	2E-10	4E-05
Landbay E	IM14-4	1E-09	2E-05	2E-09	3E-05	3E-10	7E-05	3E-10	7E-05
Landbay E	IM14-5	4E-09	1E-03	5E-09	1E-03	8E-10	2E-03	8E-10	2E-03
Landbay E	IM14-6	NC	2E-06	NC	2E-06	NC	9E-06	NC	9E-06
Landbay E	IM14-7	7E-10	2E-04	7E-10	2E-04	1E-10	7E-04	1E-10	7E-04
Landbay E	JT I-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JT O-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JT O-01C	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JTF-0101	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	MARKH-1	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	MCD-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	S-234	NC	5E-07	NC	1E-06	NC	2E-06	NC	3E-06
Landbay E	SB 211-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SR-200S	5E-10	3E-04	5E-10	4E-04	2E-10	1E-03	2E-10	2E-03
Landbay E	SR-235	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-219A	NC	5E-06	NC	1E-05	NC	2E-05	NC	4E-05
Landbay E	SS-227A	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-227B	NC	1E-03	NC	2E-03	NC	3E-04	NC	5E-04
Landbay E	SS-236A	NC	6E-06	NC	1E-05	NC	2E-05	NC	4E-05
Landbay E	SS-244A	NC	7E-04	NC	1E-03	NC	6E-03	NC	8E-03
Landbay E	SS-250A	4E-08	2E-03	8E-08	4E-03	8E-09	9E-03	1E-08	1E-02
Landbay E	SS-255A	NC	2E-05	NC	4E-05	NC	9E-05	NC	1E-04
Landbay E	SS-40A	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 205-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 221-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 252-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 45-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 47-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 47-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 221-01	1E-08	2E-03	3E-08	4E-03	4E-09	1E-02	5E-09	2E-02
Landbay E	TP 221-03	2E-08	1E-03	3E-08	2E-03	4E-09	6E-03	6E-09	9E-03
Landbay E	TP 223-01	6E-08	1E-04	1E-07	3E-04	1E-08	6E-04	2E-08	8E-04
Landbay E	TP 223-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 223-04	2E-12	5E-04	2E-12	1E-03	8E-10	3E-03	8E-10	5E-03

Notes:

1. Landbay Use Designation:
   - Landbay A - industrial/commercial use
   - Landbay B - mixed use
   - Landbay C - industrial/commercial use
   - Landbay D - residential use
   - Landbay E - residential use
2. Cumulative cancer risk and HI estimates in excess of 1E-4 and 1, respectively, are shaded gray and in bold font.
3. Cumulative cancer risk and HI estimates are based on the highest concentration for each chemical at each location.
4. Cumulative cancer risk and HI estimates are calculated using site-related concentrations, which are those in excess of site-specific background for inorganics.
5. NC - risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected at this location.

Table 4-8b: Uncertainty Analysis – Exposure Factors – Outdoor Workers
Refined Cumulative Cancer Risks and Noncancer HIs
ARC Gainesville, Gainesville, VA

Land Use	Soil Exposure Area	Area Type	**Routine Worker** (50 mg/day Ingestion Rate)		**Hypothetical Outdoor Worker** (100 mg/day Ingestion Rate)		**Constr. Worker** (200 mg/day Ingestion Rate)		**Constr. Worker** (330 mg/day Ingestion Rate)	
			Outdoor Activities		Outdoor Activities		Redevel. Activities		Redevel. Activities	
			Risk	HI	Risk	HI	Risk	HI	Risk	HI
Residential	42GP28_42_GP19 Area	Non-Debris Area	NR	1E+00	NR	1E+00	NR	NR	NR	1E+00
Residential	SRA 6 (South)	Non-Debris Area	NR	6E-01	NR	9E-01	NR	NR	NR	9E-01
Mixed Use	SRA 9	Non-Debris Area	NR	NR	NR	NR	NR	1E+00	NR	1E+00

Notes:

1. Only exposure areas with at least one location with an unnacceptable risk from exposure during outdoor activities are shown.
2. Cumulative cancer risk and HI estimates in excess of 1E-4 and 1, respectively, are shaded gray and in bold.
3. Cumulative cancer risk and HI estimates are based on the reasonable maximum exposure concentration for each chemical in presented exposure areas.
4. NR - No refinements were necessary based on the upper-bound risk estimates.

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	100AB1	5E-08	7E-03	6E-10	4E-04	1E-08	7E-03	5E-09	2E-02	1E-08	5E-03	2E-07	4E-02	2E-07	7E-02	6E-08	**5E+00**	6E-08	1E-01	3E-09	3E-04
Landbay A	100AB2	2E-07	8E-03	6E-10	4E-04	4E-08	7E-03	2E-08	2E-02	6E-08	6E-03	1E-06	4E-02	2E-07	7E-02	1E-06	4E-01	1E-06	4E-02	3E-09	3E-04
Landbay A	100AG3	7E-09	1E-04	1E-08	1E-04	1E-09	6E-05	1E-09	2E-04	4E-10	5E-05	3E-08	5E-04	4E-06	3E-02	7E-09	**6E+00**	7E-09	1E-01	3E-08	2E-04
Landbay A	100AG4	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105B148	NC	2E-06	NC	NC	NC	1E-06	NC	9E-06	NC	2E-06	NC	2E-05	NC	NC	NC	9E-01	NC	2E-02	NC	NC
Landbay A	105B149	NC	4E-06	NC	NC	NC	2E-06	NC	1E-05	NC	3E-06	NC	3E-05	NC	NC	NC	1E+00	NC	3E-02	NC	NC
Landbay A	105B150	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G41	NC	4E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**2E+03**	NC	**3E+01**	NC	NC
Landbay A	105G42	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	NC
Landbay A	105G43	3E-08	1E-02	3E-10	NC	9E-09	2E-02	4E-09	8E-02	7E-09	8E-03	1E-07	7E-02	9E-08	NC	3E-08	**4E+00**	3E-08	7E-02	2E-09	2E-05
Landbay A	105G44	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G45	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G46	3E-08	1E-02	3E-10	NC	9E-09	2E-02	4E-09	8E-02	7E-09	8E-03	1E-07	8E-02	9E-08	NC	3E-08	**8E+01**	3E-08	**2E+00**	2E-09	2E-05
Landbay A	105G47	NC	2E-05	NC	NC	NC	1E-05	NC	6E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**7E+00**	NC	1E-01	NC	NC
Landbay A	105G48	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**7E+00**	NC	1E-01	NC	NC
Landbay A	105G49	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay A	105G50	3E-08	1E-02	3E-10	NC	9E-09	2E-02	4E-09	8E-02	7E-09	8E-03	1E-07	8E-02	9E-08	NC	3E-08	1E+00	3E-08	3E-02	2E-09	2E-05
Landbay A	105G51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	105G52	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	106B1	2E-07	2E-02	2E-09	2E-08	3E-08	2E-02	1E-08	7E-02	4E-08	1E-02	7E-07	9E-02	5E-07	5E-06	1E-07	2E-01	1E-07	2E-02	1E-08	2E-05
Landbay A	106B2	2E-08	9E-03	3E-09	8E-04	3E-09	2E-02	2E-09	7E-02	5E-09	6E-03	8E-08	6E-02	6E-07	1E-01	2E-08	4E-01	2E-08	2E-02	1E-09	4E-05
Landbay A	106B3	7E-08	1E-02	8E-10	6E-08	1E-08	2E-02	6E-09	7E-02	2E-08	9E-03	3E-07	7E-02	2E-07	2E-05	7E-08	2E-01	7E-08	2E-02	4E-09	2E-05
Landbay A	106B6	NC	9E-06	NC	NC	NC	4E-06	NC	8E-06	NC	6E-06	NC	4E-05	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay A	106G4	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	5E-01	NC	9E-03	NC	NC
Landbay A	106G5	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	3E-04	NC	4E-03	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay A	106TP1-7	NC	4E-03	NC	3E-05	NC	9E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	5E-03	NC	5E-03	NC	5E-03	NC	1E-05
Landbay A	106TP3-7	2E-07	2E-02	2E-09	6E-05	4E-08	2E-02	2E-08	6E-02	7E-08	1E-02	1E-06	9E-02	5E-07	1E-02	1E-06	2E-02	1E-06	2E-02	9E-09	1E-05
Landbay A	107B1	2E-08	7E-03	2E-07	1E-02	5E-09	1E-02	3E-09	4E-02	6E-09	5E-03	2E-07	4E-02	**2E-04**	**2E+00**	1E-05	9E-01	1E-05	2E-02	2E-08	3E-04
Landbay A	107B2	7E-07	1E-02	4E-08	3E-02	2E-07	6E-03	9E-08	1E-02	2E-07	8E-03	5E-06	6E-02	3E-05	**5E+00**	3E-06	**3E+00**	3E-06	6E-02	8E-09	6E-04
Landbay A	107B3	2E-07	7E-03	3E-08	3E-03	3E-08	3E-03	2E-08	9E-03	5E-08	5E-03	1E-06	3E-02	2E-05	5E-01	3E-07	1E+00	3E-07	3E-02	7E-09	5E-05
Landbay A	107G4	2E-07	1E-02	3E-10	NC	4E-08	2E-02	2E-08	7E-02	6E-08	1E-02	1E-06	1E-01	8E-08	NC	3E-07	4E-01	3E-07	1E-02	2E-09	9E-06
Landbay A	107G5	4E-07	7E-03	NC	NC	1E-07	1E-02	5E-08	3E-02	1E-07	5E-03	3E-06	5E-02	NC	NC	8E-07	9E-01	8E-07	3E-02	1E-11	8E-06
Landbay A	107G6	2E-12	9E-03	NC	NC	2E-09	1E-02	6E-10	6E-02	4E-14	7E-03	9E-12	7E-02	NC	NC	NC	2E-01	NC	7E-03	9E-12	9E-06
Landbay A	107G7	4E-07	5E-03	NC	NC	8E-08	6E-03	5E-08	2E-02	1E-07	4E-03	2E-06	3E-02	NC	NC	7E-07	2E-01	7E-07	1E-02	2E-11	4E-06
Landbay A	107G8	8E-13	1E-03	NC	NC	9E-10	1E-03	3E-10	6E-03	2E-14	9E-04	4E-12	9E-03	NC	NC	NC	9E-02	NC	5E-03	4E-12	5E-07
Landbay A	107TP1-20	5E-13	4E-02	NC	NC	6E-10	3E-02	2E-10	5E-02	1E-14	3E-02	2E-12	3E-01	NC	NC	NC	9E-02	NC	1E-02	2E-12	2E-06
Landbay A	107TP1-30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	107TP13-15	1E-13	2E-03	NC	1E-08	2E-10	1E-03	5E-11	6E-03	3E-15	1E-03	7E-13	1E-02	NC	3E-06	NC	**3E+00**	NC	6E-02	7E-13	1E-07
Landbay A	107TP14-15	8E-13	7E-02	NC	NC	9E-10	6E-02	3E-10	1E-01	2E-14	5E-02	4E-12	5E-01	NC	NC	NC	**2E+00**	NC	4E-02	4E-12	2E-05
Landbay A	107TP18-(-10)	3E-08	9E-02	3E-10	NC	3E-08	1E-01	1E-08	3E-01	7E-09	7E-02	1E-07	7E-01	1E-07	NC	3E-08	**2E+00**	3E-08	5E-02	2E-09	6E-05
Landbay A	107TP2-10	1E-09	5E-02	NC	NC	8E-10	4E-02	3E-10	8E-02	3E-10	4E-02	5E-09	4E-01	NC	NC	7E-09	1E-02	7E-09	1E-02	3E-12	9E-06
Landbay A	18B1	NC	1E-04	NC	NC	NC	9E-05	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay A	2700-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	2700-3200	9E-07	3E-02	NC	NC	2E-07	3E-02	1E-07	1E-01	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	3E-11	2E-05
Landbay A	2850-3050	1E-06	3E-02	NC	NC	3E-07	6E-02	2E-07	2E-01	4E-07	2E-02	9E-06	2E-01	NC	NC	2E-06	4E-02	2E-06	4E-02	4E-11	7E-05
Landbay A	2850-3200	1E-06	3E-02	NC	NC	3E-07	7E-02	2E-07	2E-01	4E-07	2E-02	1E-05	2E-01	NC	NC	3E-06	1E-02	3E-06	1E-02	4E-11	8E-05
Landbay A	2850-3350	6E-07	7E-02	NC	NC	1E-07	7E-02	8E-08	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	9E-03	1E-06	9E-03	4E-11	3E-05
Landbay A	2850-3500	8E-13	1E-02	NC	NC	9E-10	9E-03	3E-10	2E-02	2E-14	1E-02	4E-12	1E-01	NC	NC	NC	1E-01	NC	2E-02	4E-12	5E-07
Landbay A	3000-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	3000-3050	5E-07	2E-02	NC	3E-05	1E-07	1E-02	7E-08	6E-02	1E-07	1E-02	4E-06	1E-01	NC	6E-03	1E-06	3E-02	1E-06	3E-02	2E-11	3E-05
Landbay A	3000-3200	5E-07	2E-02	NC	3E-05	1E-07	1E-02	7E-08	6E-02	1E-07	1E-02	4E-06	1E-01	NC	6E-03	1E-06	3E-02	1E-06	3E-02	2E-11	3E-05
Landbay A	3000-3350	8E-13	1E-02	NC	NC	9E-10	9E-03	3E-10	2E-02	2E-14	1E-02	4E-12	1E-01	NC	NC	NC	1E-01	NC	2E-02	4E-12	5E-07
Landbay A	3000-3500	8E-13	1E-02	NC	NC	9E-10	9E-03	3E-10	2E-02	2E-14	1E-02	4E-12	1E-01	NC	NC	NC	1E-01	NC	2E-02	4E-12	5E-07
Landbay A	3150-3050	1E-06	8E-02	NC	NC	2E-07	6E-02	1E-07	2E-01	3E-07	6E-02	7E-06	6E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	1E-05
Landbay A	3150-3200	5E-07	2E-02	NC	3E-05	1E-07	1E-02	7E-08	6E-02	1E-07	1E-02	4E-06	1E-01	NC	6E-03	1E-06	3E-02	1E-06	3E-02	2E-11	3E-05
Landbay A	3150-3350	8E-07	2E-01	NC	6E-05	2E-07	2E-01	1E-07	5E-01	2E-07	2E-01	6E-06	**2E+00**	NC	1E-02	2E-06	9E-03	2E-06	9E-03	2E-11	2E-04
Landbay A	3150-3500	8E-13	1E-02	NC	NC	9E-10	9E-03	3E-10	2E-02	2E-14	1E-02	4E-12	1E-01	NC	NC	NC	1E-01	NC	2E-02	4E-12	5E-07
Landbay A	3300-2900	9E-07	4E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	6E-02	2E-06	6E-02	2E-10	4E-05
Landbay A	3300-3050	3E-06	3E-01	NC	2E-08	1E-06	4E-01	5E-07	1E+00	8E-07	2E-01	2E-05	**2E+00**	NC	5E-06	5E-06	3E-02	5E-06	3E-02	2E-09	3E-04
Landbay A	3300-3200	1E-06	1E-01	NC	NC	2E-07	9E-02	1E-07	3E-01	3E-07	8E-02	8E-06	8E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	4E-05
Landbay A	3300-3350	8E-07	2E-01	NC	6E-05	2E-07	2E-01	1E-07	5E-01	2E-07	2E-01	6E-06	**2E+00**	NC	1E-02	2E-06	9E-03	2E-06	9E-03	2E-11	2E-04
Landbay A	3300-3500	8E-07	2E-01	NC	6E-05	2E-07	2E-01	1E-07	5E-01	2E-07	2E-01	6E-06	**2E+00**	NC	1E-02	2E-06	9E-03	2E-06	9E-03	2E-11	2E-04
Landbay A	3450-2900	9E-07	4E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	6E-02	2E-06	6E-02	2E-10	4E-05
Landbay A	3450-3050	NC	3E-03	NC	NC	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	4E-03	NC	4E-03	NC	5E-06
Landbay A	3450-3200	5E-07	8E-02	NC	NC	1E-07	7E-02	7E-08	2E-01	1E-07	6E-02	3E-06	6E-01	NC	NC	8E-07	5E-03	8E-07	5E-03	2E-10	3E-05
Landbay A	3450-3350	8E-07	2E-01	NC	6E-05	2E-07	2E-01	1E-07	5E-01	2E-07	2E-01	6E-06	**2E+00**	NC	1E-02	2E-06	9E-03	2E-06	9E-03	2E-11	2E-04
Landbay A	3450-3500	5E-07	3E-01	NC	NC	1E-07	3E-01	7E-08	6E-01	1E-07	2E-01	3E-06	**2E+00**	NC	NC	9E-07	9E-03	9E-07	9E-03	1E-10	1E-04
Landbay A	3450-3650	1E-06	7E-02	NC	NC	3E-07	2E-01	2E-07	6E-01	3E-07	5E-02	9E-06	5E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	2E-04
Landbay A	3450-3800	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	3E-04	NC	3E-04	NC	NC
Landbay A	3450-3950	7E-07	1E-02	NC	NC	2E-07	9E-03	9E-08	3E-02	2E-07	8E-03	5E-06	7E-02	NC	NC	1E-06	6E-03	1E-06	6E-03	2E-11	3E-06
Landbay A	34B1	4E-07	8E-03	NC	NC	9E-08	1E-02	5E-08	5E-02	1E-07	6E-03	3E-06	6E-02	NC	NC	7E-07	**4E+00**	7E-07	9E-02	1E-11	1E-05
Landbay A	34B2	4E-07	8E-03	NC	NC	9E-08	1E-02	5E-08	5E-02	1E-07	6E-03	3E-06	6E-02	NC	NC	7E-07	8E-01	7E-07	4E-02	1E-11	1E-05
Landbay A	34G3	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay A	34G4	NC	2E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	1E+00	NC	2E-02	NC	NC
Landbay A	34G5	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	**5E+00**	NC	9E-02	NC	NC
Landbay A	3600-2900	NC	3E-03	NC	NC	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	4E-03	NC	4E-03	NC	5E-06
Landbay A	3600-3050	NC	3E-03	NC	NC	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	4E-03	NC	4E-03	NC	5E-06
Landbay A	3600-31	2E-06	1E-01	NC	NC	7E-07	2E-01	4E-07	3E-01	7E-07	8E-02	2E-05	7E-01	NC	NC	4E-06	2E-02	4E-06	2E-02	9E-10	1E-04
Landbay A	3600-3200	NC	3E-03	NC	NC	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	4E-03	NC	4E-03	NC	5E-06
Landbay A	3600-3350	5E-07	3E-01	NC	NC	1E-07	3E-01	7E-08	6E-01	1E-07	2E-01	3E-06	**2E+00**	NC	NC	9E-07	9E-03	9E-07	9E-03	1E-10	1E-04
Landbay A	3600-3500	5E-07	3E-01	NC	NC	1E-07	3E-01	7E-08	6E-01	1E-07	2E-01	3E-06	**2E+00**	NC	NC	9E-07	9E-03	9E-07	9E-03	1E-10	1E-04
Landbay A	3600-3650	5E-07	3E-01	NC	NC	1E-07	3E-01	7E-08	6E-01	1E-07	2E-01	3E-06	**2E+00**	NC	NC	9E-07	9E-03	9E-07	9E-03	1E-10	1E-04
Landbay A	3600-3800	2E-06	4E-01	NC	NC	1E-06	6E-01	5E-07	**2E+00**	7E-07	3E-01	2E-05	**3E+00**	NC	NC	5E-06	3E-02	5E-06	3E-02	2E-09	6E-04
Landbay A	3600-3950	5E-07	3E-01	NC	2E-05	2E-07	3E-01	1E-07	6E-01	1E-07	2E-01	4E-06	**2E+00**	NC	4E-03	9E-07	4E-03	9E-07	4E-03	6E-10	2E-04
Landbay A	3600-4100	5E-07	3E-01	NC	2E-05	2E-07	3E-01	1E-07	6E-01	1E-07	2E-01	4E-06	**2E+00**	NC	4E-03	9E-07	4E-03	9E-07	4E-03	6E-10	2E-04
Landbay A	3600-4250	1E-06	1E-02	NC	NC	2E-07	8E-03	1E-07	2E-02	3E-07	8E-03	8E-06	7E-02	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	2E-06
Landbay A	3700-32	3E-06	1E-01	NC	3E-04	7E-07	2E-01	4E-07	5E-01	9E-07	8E-02	2E-05	8E-01	NC	6E-02	6E-06	4E-02	6E-06	4E-02	3E-10	5E-04
Landbay A	3750-3050	2E-08	3E-03	3E-10	9E-05	5E-09	2E-02	2E-09	6E-02	6E-09	2E-03	1E-07	2E-02	9E-08	2E-02	2E-08	1E-02	2E-08	1E-02	2E-09	1E-04
Landbay A	3750-3200	2E-08	3E-03	3E-10	9E-05	5E-09	2E-02	2E-09	6E-02	6E-09	2E-03	1E-07	2E-02	9E-08	2E-02	2E-08	1E-02	2E-08	1E-02	2E-09	1E-04
Landbay A	3750-3350	2E-08	1E-01	NC	1E-05	7E-09	8E-02	3E-09	1E-01	5E-09	8E-02	2E-07	9E-01	NC	2E-03	3E-08	6E-04	3E-08	6E-04	9E-12	2E-05
Landbay A	3750-3500	2E-08	1E-01	NC	1E-05	7E-09	8E-02	3E-09	1E-01	5E-09	8E-02	2E-07	9E-01	NC	2E-03	3E-08	6E-04	3E-08	6E-04	9E-12	2E-05
Landbay A	3750-3650	7E-08	1E-01	2E-10	NC	5E-08	1E-01	2E-08	1E-01	2E-08	1E-01	5E-07	1E+00	7E-08	NC	1E-07	1E-03	1E-07	1E-03	1E-09	6E-06
Landbay A	3750-3800	7E-08	1E-01	2E-10	NC	5E-08	1E-01	2E-08	1E-01	2E-08	1E-01	5E-07	1E+00	7E-08	NC	1E-07	1E-03	1E-07	1E-03	1E-09	6E-06
Landbay A	3750-3950	5E-07	3E-01	NC	2E-05	2E-07	3E-01	1E-07	6E-01	1E-07	2E-01	4E-06	**2E+00**	NC	4E-03	9E-07	4E-03	9E-07	4E-03	6E-10	2E-04
Landbay A	3750-4100	5E-07	3E-01	NC	2E-05	2E-07	3E-01	1E-07	6E-01	1E-07	2E-01	4E-06	**2E+00**	NC	4E-03	9E-07	4E-03	9E-07	4E-03	6E-10	2E-04
Landbay A	3750-4250	7E-08	1E-02	NC	NC	3E-08	1E-02	2E-08	3E-02	2E-08	8E-03	6E-07	8E-02	NC	NC	2E-07	6E-04	2E-07	6E-04	7E-11	4E-06
Landbay A	3750-4400	4E-08	2E-01	2E-10	3E-05	5E-08	2E-01	2E-08	3E-01	1E-08	2E-01	3E-07	**2E+00**	6E-08	5E-03	6E-08	2E-03	6E-08	2E-03	1E-09	7E-05
Landbay A	3750-4550	4E-08	2E-01	2E-10	3E-05	5E-08	2E-01	2E-08	3E-01	1E-08	2E-01	3E-07	**2E+00**	6E-08	5E-03	6E-08	2E-03	6E-08	2E-03	1E-09	7E-05
Landbay A	37B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	3E-03	NC	NC
Landbay A	3800-19	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay A	3800-41	3E-06	2E-01	3E-10	NC	9E-07	4E-01	4E-07	9E-01	7E-07	1E-01	2E-05	1E+00	1E-07	NC	5E-06	3E-02	5E-06	3E-02	3E-09	4E-04
Landbay A	3900-3050	6E-07	3E-01	NC	NC	3E-07	3E-01	1E-07	6E-01	2E-07	2E-01	4E-06	**2E+00**	NC	NC	1E-06	6E-03	1E-06	6E-03	7E-10	2E-04
Landbay A	3900-3200	6E-07	3E-01	NC	NC	3E-07	3E-01	1E-07	6E-01	2E-07	2E-01	4E-06	**2E+00**	NC	NC	1E-06	6E-03	1E-06	6E-03	7E-10	2E-04
Landbay A	3900-3350	2E-08	1E-01	NC	1E-05	7E-09	8E-02	3E-09	1E-01	5E-09	8E-02	2E-07	9E-01	NC	2E-03	3E-08	6E-04	3E-08	6E-04	9E-12	2E-05
Landbay A	3900-34	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	3900-3500	2E-08	1E-01	NC	1E-05	7E-09	8E-02	3E-09	1E-01	5E-09	8E-02	2E-07	9E-01	NC	2E-03	3E-08	6E-04	3E-08	6E-04	9E-12	2E-05
Landbay A	3900-3650	7E-08	1E-01	2E-10	NC	5E-08	1E-01	2E-08	1E-01	2E-08	1E-01	5E-07	1E+00	7E-08	NC	1E-07	1E-03	1E-07	1E-03	1E-09	6E-06
Landbay A	3900-3800	7E-08	1E-01	2E-10	NC	5E-08	1E-01	2E-08	1E-01	2E-08	1E-01	5E-07	1E+00	7E-08	NC	1E-07	1E-03	1E-07	1E-03	1E-09	6E-06
Landbay A	3900-3950	8E-08	3E-02	NC	NC	7E-08	5E-02	3E-08	1E-01	2E-08	2E-02	7E-07	2E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	2E-10	4E-05
Landbay A	3900-4100	4E-07	6E-03	NC	NC	9E-08	8E-02	5E-08	3E-01	1E-07	4E-03	3E-06	4E-02	NC	NC	7E-07	4E-03	7E-07	4E-03	1E-11	1E-04
Landbay A	3900-4250	1E-09	6E-03	NC	NC	3E-10	9E-02	1E-10	3E-01	4E-10	4E-03	7E-09	4E-02	NC	NC	1E-08	7E-04	1E-08	7E-04	2E-13	1E-04
Landbay A	3900-4400	4E-08	2E-01	2E-10	3E-05	5E-08	2E-01	2E-08	3E-01	1E-08	2E-01	3E-07	**2E+00**	6E-08	5E-03	6E-08	2E-03	6E-08	2E-03	1E-09	7E-05
Landbay A	3900-4550	4E-08	2E-01	2E-10	3E-05	5E-08	2E-01	2E-08	3E-01	1E-08	2E-01	3E-07	**2E+00**	6E-08	5E-03	6E-08	2E-03	6E-08	2E-03	1E-09	7E-05
Landbay A	39B1	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	2E-01	NC	5E-03	NC	NC
Landbay A	4000-36	2E-09	4E-03	NC	NC	1E-09	9E-03	5E-10	4E-02	5E-10	3E-03	1E-08	3E-02	NC	NC	3E-09	5E-04	3E-09	5E-04	4E-12	1E-05
Landbay A	4000-37-1	2E-06	9E-02	NC	NC	4E-07	8E-02	2E-07	2E-01	5E-07	7E-02	1E-05	7E-01	NC	NC	3E-06	2E-02	3E-06	2E-02	8E-11	3E-05
Landbay A	4000-37-2	1E-07	3E-01	NC	3E-05	2E-07	3E-01	7E-08	5E-01	4E-08	2E-01	1E-06	**2E+00**	NC	7E-03	3E-07	1E-03	3E-07	1E-03	7E-10	2E-04
Landbay A	4000-43	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4050-3200	1E-12	1E-02	NC	NC	2E-09	3E-02	5E-10	1E-01	3E-14	9E-03	8E-12	9E-02	NC	NC	NC	1E-03	NC	1E-03	8E-12	3E-05
Landbay A	4050-3350	2E-07	6E-02	NC	NC	1E-07	1E-01	5E-08	3E-01	5E-08	4E-02	1E-06	4E-01	NC	NC	3E-07	2E-03	3E-07	2E-03	4E-10	1E-04
Landbay A	4050-3500	2E-13	4E-05	NC	NC	2E-10	8E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	1E-04	NC	1E-04	8E-13	9E-08
Landbay A	4050-4250	9E-13	1E-02	NC	NC	1E-09	9E-03	3E-10	2E-02	2E-14	8E-03	5E-12	8E-02	NC	NC	NC	2E-02	NC	2E-02	5E-12	3E-06
Landbay A	4050-4400	9E-13	1E-02	NC	NC	1E-09	9E-03	3E-10	2E-02	2E-14	8E-03	5E-12	8E-02	NC	NC	NC	2E-02	NC	2E-02	5E-12	3E-06
Landbay A	4050-4550	4E-06	2E-01	NC	9E-05	1E-06	5E-01	5E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	2E-02	7E-06	1E-01	7E-06	5E-02	9E-10	6E-04
Landbay A	4050-4550SE	1E-07	7E-03	NC	NC	3E-08	1E-02	2E-08	6E-02	3E-08	5E-03	9E-07	5E-02	NC	NC	2E-07	1E-03	2E-07	1E-03	4E-11	2E-05
Landbay A	4050-4550SW	3E-13	8E-03	NC	5E-06	4E-10	2E-02	1E-10	7E-02	7E-15	6E-03	2E-12	6E-02	NC	9E-04	NC	3E-04	NC	3E-04	2E-12	2E-05
Landbay A	4100-38	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	8E-01	NC	2E-02	NC	NC
Landbay A	4100-39	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-40	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-44	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4100-45	1E-06	1E-02	NC	NC	3E-07	7E-03	2E-07	8E-03	4E-07	7E-03	1E-05	6E-02	NC	NC	3E-06	4E-02	3E-06	4E-02	5E-11	2E-06
Landbay A	4200-3500	5E-08	2E-02	NC	NC	2E-08	3E-02	1E-08	1E-01	1E-08	1E-02	4E-07	1E-01	NC	NC	1E-07	5E-03	1E-07	5E-03	3E-11	2E-05
Landbay A	4200-4250	9E-13	1E-02	NC	NC	1E-09	9E-03	3E-10	2E-02	2E-14	8E-03	5E-12	8E-02	NC	NC	NC	2E-02	NC	2E-02	5E-12	3E-06
Landbay A	4200-4400	9E-13	1E-02	NC	NC	1E-09	9E-03	3E-10	2E-02	2E-14	8E-03	5E-12	8E-02	NC	NC	NC	2E-02	NC	2E-02	5E-12	3E-06
Landbay A	4350-2900	2E-08	8E-03	3E-10	NC	8E-09	1E-02	3E-09	5E-02	6E-09	6E-03	1E-07	5E-02	8E-08	NC	2E-08	4E-02	2E-08	4E-02	2E-09	1E-05
Landbay A	4350-3050	1E-12	2E-03	NC	NC	1E-09	2E-03	4E-10	8E-03	3E-14	1E-03	6E-12	1E-02	NC	NC	NC	3E-02	NC	3E-02	6E-12	2E-06
Landbay A	4350-3500	4E-08	2E-02	NC	NC	2E-08	3E-02	9E-09	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	4E-03	9E-08	4E-03	3E-11	2E-05
Landbay A	4350-4250	6E-07	7E-02	NC	NC	3E-07	1E-01	1E-07	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	8E-10	8E-05
Landbay A	4350-4400	6E-07	7E-02	NC	NC	3E-07	1E-01	1E-07	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	8E-10	8E-05
Landbay A	4400-52	2E-06	6E-02	2E-10	NC	5E-07	4E-02	3E-07	8E-02	7E-07	4E-02	2E-05	4E-01	7E-08	NC	4E-06	3E-02	4E-06	3E-02	1E-09	1E-05
Landbay A	4500-2900	2E-08	8E-03	3E-10	NC	8E-09	1E-02	3E-09	5E-02	6E-09	6E-03	1E-07	5E-02	8E-08	NC	2E-08	4E-02	2E-08	4E-02	2E-09	1E-05
Landbay A	4500-3050	1E-12	4E-03	NC	5E-04	1E-09	7E-03	3E-10	3E-02	2E-14	3E-03	5E-12	3E-02	NC	9E-02	NC	2E-02	NC	2E-02	5E-12	5E-04
Landbay A	4500-3200	1E-12	1E-02	NC	NC	1E-09	1E-02	4E-10	4E-02	3E-14	8E-03	6E-12	8E-02	NC	NC	NC	9E-02	NC	3E-02	6E-12	7E-06
Landbay A	4500-4250	6E-07	7E-02	NC	NC	3E-07	1E-01	1E-07	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	8E-10	8E-05
Landbay A	4500-4400	6E-07	7E-02	NC	NC	3E-07	1E-01	1E-07	2E-01	2E-07	5E-02	4E-06	5E-01	NC	NC	1E-06	2E-02	1E-06	2E-02	8E-10	8E-05
Landbay A	4500-53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	4650-3050	2E-08	8E-03	3E-10	NC	8E-09	1E-02	3E-09	5E-02	6E-09	6E-03	1E-07	5E-02	8E-08	NC	2E-08	4E-02	2E-08	4E-02	2E-09	1E-05
Landbay A	4650-3200	2E-12	1E-02	NC	NC	2E-09	1E-02	5E-10	4E-02	3E-14	1E-02	8E-12	1E-01	NC	NC	NC	3E-02	NC	3E-02	8E-12	9E-06
Landbay A	4650-4250	3E-08	2E-02	NC	NC	5E-08	3E-02	2E-08	8E-02	9E-09	2E-02	3E-07	2E-01	NC	NC	6E-08	3E-03	6E-08	3E-03	2E-10	2E-05
Landbay A	5100-3050	6E-07	5E-02	NC	2E-04	2E-07	1E-01	1E-07	3E-01	2E-07	4E-02	4E-06	4E-01	NC	3E-02	1E-06	4E-02	1E-06	4E-02	4E-10	3E-04
Landbay A	5100-3200	7E-07	6E-02	1E-09	2E-04	2E-07	1E-01	1E-07	3E-01	2E-07	4E-02	5E-06	4E-01	3E-07	3E-02	1E-06	5E-02	1E-06	5E-02	7E-09	3E-04
Landbay A	5200-70	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	5200-71	2E-06	2E-01	4E-10	3E-06	5E-07	1E-01	3E-07	3E-01	7E-07	1E-01	2E-05	1E+00	1E-07	7E-04	4E-06	**4E+00**	4E-06	1E-01	3E-09	4E-05

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	5300-74	1E-07	3E-02	1E-09	NC	3E-08	2E-02	1E-08	5E-02	4E-08	2E-02	8E-07	2E-01	3E-07	NC	2E-07	6E-03	2E-07	6E-03	6E-09	7E-06
Landbay A	5400-3500	6E-13	6E-04	NC	NC	7E-10	1E-03	2E-10	3E-03	1E-14	5E-04	3E-12	4E-03	NC	NC	NC	2E-02	NC	2E-02	3E-12	9E-07
Landbay A	5400-75	2E-06	4E-02	2E-13	1E-06	6E-07	9E-02	3E-07	2E-01	7E-07	3E-02	2E-05	3E-01	2E-10	3E-04	5E-06	**5E+00**	5E-06	1E-01	3E-10	9E-05
Landbay A	5500-76	2E-06	7E-02	3E-09	2E-04	4E-07	5E-02	2E-07	1E-01	8E-07	5E-02	2E-05	5E-01	1E-06	3E-02	5E-06	8E-01	5E-06	5E-02	6E-08	2E-04
Landbay A	5550-3950	9E-07	4E-02	NC	2E-05	3E-07	3E-02	1E-07	8E-02	3E-07	3E-02	7E-06	3E-01	NC	4E-03	2E-06	1E+00	2E-06	8E-02	2E-10	3E-05
Landbay A	5700-3950	9E-07	4E-02	NC	2E-05	3E-07	3E-02	1E-07	8E-02	3E-07	3E-02	7E-06	3E-01	NC	4E-03	2E-06	1E+00	2E-06	8E-02	2E-10	3E-05
Landbay A	5700-88	2E-06	1E-01	NC	1E-05	5E-07	8E-02	3E-07	2E-01	6E-07	7E-02	1E-05	7E-01	NC	3E-03	4E-06	3E-02	4E-06	3E-02	4E-10	3E-05
Landbay A	5TP1-7	NC	4E-03	NC	NC	NC	8E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	NC	NC	2E-01	NC	4E-03	NC	8E-06
Landbay A	5TP2-7	NC	4E-03	NC	NC	NC	8E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	NC	NC	7E-02	NC	1E-03	NC	8E-06
Landbay A	8TP1-7	NC	5E-03	NC	NC	NC	9E-03	NC	4E-02	NC	3E-03	NC	3E-02	NC	NC	NC	2E-01	NC	4E-03	NC	1E-05
Landbay A	8TP2-7	NC	7E-03	NC	NC	NC	1E-02	NC	6E-02	NC	5E-03	NC	5E-02	NC	NC	NC	NC	NC	NC	NC	1E-05
Landbay A	9TP1-7	3E-08	4E-03	3E-10	1E-08	5E-09	6E-03	2E-09	2E-02	7E-09	3E-03	1E-07	3E-02	9E-08	4E-06	2E-08	**4E+00**	2E-08	7E-02	2E-09	5E-06
Landbay A	9TP2-8	4E-07	4E-03	NC	4E-08	9E-08	6E-03	5E-08	2E-02	1E-07	3E-03	3E-06	3E-02	NC	9E-06	7E-07	4E-03	7E-07	4E-03	1E-11	5E-06
Landbay A	9TP3-6	2E-06	1E-02	3E-10	3E-07	4E-07	8E-03	2E-07	8E-03	5E-07	9E-03	1E-05	7E-02	1E-07	7E-05	3E-06	2E-02	3E-06	2E-02	2E-09	2E-06
Landbay A	9TP4-5	1E-06	1E-02	1E-09	2E-04	2E-07	8E-03	1E-07	2E-02	4E-07	8E-03	1E-05	6E-02	3E-07	4E-02	3E-06	3E-01	3E-06	2E-02	2E-08	2E-04
Landbay A	A1G244	4E-07	4E-02	5E-09	NC	7E-08	2E-02	3E-08	8E-02	1E-07	2E-02	2E-06	2E-01	1E-06	NC	4E-07	2E-02	4E-07	2E-02	3E-08	9E-06
Landbay A	A1G247	9E-08	1E-02	1E-09	NC	2E-08	2E-02	8E-09	6E-02	2E-08	9E-03	4E-07	7E-02	3E-07	NC	8E-08	1E-01	8E-08	8E-03	6E-09	1E-05
Landbay A	A1G253	4E-07	3E-03	NC	NC	9E-08	3E-03	5E-08	5E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	8E-07	4E-03	8E-07	4E-03	2E-11	1E-06
Landbay A	A1G259	2E-07	2E-02	3E-09	5E-04	4E-08	1E-02	2E-08	5E-02	6E-08	1E-02	1E-06	9E-02	9E-07	9E-02	2E-07	**3E+01**	2E-07	6E-01	2E-08	4E-04
Landbay A	A1G262	7E-13	5E-03	NC	NC	8E-10	1E-02	2E-10	4E-02	1E-14	3E-03	4E-12	3E-02	NC	NC	NC	1E-01	NC	3E-03	4E-12	1E-05
Landbay A	A1G265	4E-08	1E-02	5E-10	6E-04	7E-09	1E-02	4E-09	6E-02	1E-08	7E-03	2E-07	6E-02	1E-07	1E-01	4E-08	7E-02	4E-08	3E-03	3E-09	6E-04
Landbay A	A1S130	2E-07	2E-02	2E-09	NC	4E-08	1E-02	2E-08	5E-02	6E-08	1E-02	1E-06	8E-02	7E-07	NC	2E-07	2E-02	2E-07	2E-02	1E-08	9E-06
Landbay A	A1S131	2E-07	8E-03	1E-10	2E-03	4E-08	1E-02	2E-08	5E-02	5E-08	6E-03	1E-06	5E-02	4E-08	3E-01	3E-07	8E-03	3E-07	8E-03	8E-10	2E-03
Landbay A	A1S132	4E-07	3E-02	5E-09	4E-05	7E-08	2E-02	3E-08	5E-02	1E-07	2E-02	2E-06	1E-01	1E-06	7E-03	4E-07	9E-01	4E-07	4E-02	3E-08	4E-05
Landbay A	A1S133	2E-07	2E-02	2E-09	NC	4E-08	1E-02	2E-08	5E-02	6E-08	1E-02	1E-06	8E-02	7E-07	NC	2E-07	2E-02	2E-07	2E-02	1E-08	9E-06
Landbay A	A2G171	6E-07	1E-02	3E-10	NC	1E-07	1E-02	8E-08	5E-02	2E-07	8E-03	4E-06	7E-02	1E-07	NC	1E-06	1E+00	1E-06	5E-02	2E-09	1E-05
Landbay A	A2G173	2E-06	3E-02	1E-09	NC	4E-07	3E-02	3E-07	9E-02	6E-07	2E-02	1E-05	2E-01	3E-07	NC	4E-06	1E+00	4E-06	6E-02	6E-09	2E-05
Landbay A	A2G177	3E-06	8E-02	1E-08	9E-05	6E-07	6E-02	3E-07	1E-01	7E-07	6E-02	2E-05	4E-01	3E-06	2E-02	4E-06	**6E+01**	4E-06	1E+00	5E-08	1E-04
Landbay A	A2G180	2E-06	3E-02	2E-09	NC	4E-07	3E-02	2E-07	9E-02	5E-07	2E-02	1E-05	2E-01	5E-07	NC	3E-06	**6E+02**	3E-06	**1E+01**	9E-09	2E-05
Landbay A	A2G181	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	**2E+00**	4E-08	3E-02	3E-09	NC
Landbay A	A2G184	2E-06	3E-02	1E-09	NC	4E-07	3E-02	2E-07	7E-02	5E-07	2E-02	1E-05	1E-01	4E-07	NC	3E-06	1E-01	3E-06	1E-01	7E-09	2E-05
Landbay A	A2G187	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	A2G192	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	7E-02	4E-08	3E-03	3E-09	NC
Landbay A	A2G195	8E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	1E-01	8E-07	5E-02	6E-08	NC
Landbay A	A2G198	7E-07	5E-02	8E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	**6E+00**	6E-07	2E-01	5E-08	NC
Landbay A	A2G201	4E-07	3E-02	5E-09	NC	7E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	1E-01	1E-06	NC	4E-07	**8E+01**	4E-07	**2E+00**	3E-08	NC
Landbay A	A2G202	4E-07	1E-02	3E-10	NC	1E-07	2E-02	5E-08	7E-02	1E-07	9E-03	3E-06	8E-02	9E-08	NC	8E-07	**2E+02**	8E-07	**5E+00**	2E-09	2E-05
Landbay A	A2S134	2E-06	9E-02	5E-10	NC	5E-07	9E-02	2E-07	2E-01	5E-07	6E-02	1E-05	6E-01	1E-07	NC	3E-06	3E-01	3E-06	3E-02	3E-09	6E-05
Landbay A	A2S135	5E-07	8E-02	5E-10	NC	2E-07	1E-01	1E-07	3E-01	1E-07	6E-02	4E-06	6E-01	2E-07	NC	9E-07	1E-01	9E-07	2E-02	3E-09	7E-05
Landbay A	A2S136	2E-06	9E-02	NC	NC	4E-07	1E-01	2E-07	3E-01	4E-07	6E-02	1E-05	6E-01	NC	NC	3E-06	9E-01	3E-06	4E-02	5E-10	6E-05
Landbay A	A2S137	8E-07	8E-02	3E-10	NC	3E-07	1E-01	1E-07	3E-01	2E-07	6E-02	6E-06	6E-01	1E-07	NC	1E-06	**6E+01**	1E-06	1E+00	2E-09	7E-05
Landbay A	A2S138	1E-06	9E-02	8E-09	NC	3E-07	8E-02	2E-07	2E-01	3E-07	6E-02	7E-06	5E-01	2E-06	NC	2E-06	**5E+00**	2E-06	2E-01	4E-08	5E-05
Landbay A	A2S139	2E-06	1E-01	2E-08	NC	4E-07	1E-01	2E-07	2E-01	5E-07	9E-02	1E-05	7E-01	5E-06	NC	2E-06	4E-01	2E-06	1E-01	9E-08	5E-05
Landbay A	A2S164	6E-07	5E-02	6E-10	NC	2E-07	7E-02	1E-07	2E-01	2E-07	4E-02	4E-06	4E-01	2E-07	NC	1E-06	3E-01	1E-06	3E-02	4E-09	5E-05
Landbay A	A2S167	1E-06	9E-02	8E-09	NC	3E-07	8E-02	2E-07	2E-01	3E-07	6E-02	7E-06	5E-01	2E-06	NC	2E-06	8E-01	2E-06	7E-02	4E-08	5E-05
Landbay A	A3B198	1E-14	1E-02	NC	NC	1E-11	3E-02	4E-12	1E-01	2E-16	9E-03	6E-14	9E-02	NC	NC	NC	4E-03	NC	4E-03	6E-14	3E-05
Landbay A	A3B202	2E-06	2E-02	NC	NC	4E-07	2E-02	2E-07	6E-02	5E-07	1E-02	1E-05	1E-01	NC	NC	3E-06	1E-01	3E-06	6E-02	5E-11	1E-05
Landbay A	A3B205	1E-07	7E-03	NC	NC	2E-08	1E-02	1E-08	6E-02	3E-08	5E-03	7E-07	5E-02	NC	NC	2E-07	2E-01	2E-07	8E-03	5E-12	1E-05
Landbay A	A3B208	2E-08	6E-03	2E-10	NC	3E-09	1E-02	2E-09	4E-02	5E-09	5E-03	8E-08	4E-02	7E-08	NC	2E-08	**2E+00**	2E-08	3E-02	1E-09	9E-06
Landbay A	A3B211	4E-08	6E-03	4E-10	NC	6E-09	9E-03	3E-09	3E-02	9E-09	4E-03	2E-07	4E-02	1E-07	NC	3E-08	8E-01	3E-08	2E-02	2E-09	8E-06
Landbay A	A3B222	2E-08	4E-03	2E-10	6E-05	4E-09	5E-03	2E-09	2E-02	5E-09	3E-03	9E-08	2E-02	7E-08	1E-02	3E-08	1E+00	3E-08	3E-02	1E-09	6E-05
Landbay A	A3G214	1E-06	4E-02	3E-09	NC	2E-07	3E-02	1E-07	1E-01	8E-07	3E-02	2E-05	2E-01	9E-07	NC	5E-06	**8E+03**	5E-06	**2E+02**	6E-08	1E-05
Landbay A	A3G217	2E-08	6E-03	3E-10	NC	5E-09	1E-02	2E-09	4E-02	6E-09	5E-03	1E-07	4E-02	9E-08	NC	2E-08	**7E+01**	2E-08	1E+00	2E-09	9E-06
Landbay A	A3G220	3E-07	6E-02	3E-10	3E-06	6E-08	5E-02	3E-08	3E-01	7E-08	4E-02	2E-06	4E-01	8E-08	7E-04	5E-07	**2E+04**	5E-07	**4E+02**	1E-09	2E-05
Landbay A	A3G223	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	A3G226	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	7E-02	NC	1E-03	NC	NC
Landbay A	A3G229	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	6E-03	6E-07	4E-02	5E-07	NC	1E-07	**1E+02**	1E-07	**2E+00**	9E-09	NC
Landbay A	A3G232	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	3E-03	NC	NC
Landbay A	A3G235	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	9E-02	NC	2E-03	NC	NC
Landbay A	A3G238	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	3E-01	NC	6E-03	NC	NC
Landbay A	A3G241	NC	4E-07	NC	NC	NC	3E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	2E-01	NC	3E-03	NC	NC
Landbay A	A3S144	3E-07	4E-02	3E-09	NC	5E-08	3E-02	2E-08	1E-01	7E-08	3E-02	1E-06	2E-01	1E-06	NC	3E-07	**3E+03**	3E-07	**6E+01**	2E-08	8E-06
Landbay A	A3S145	2E-07	1E-02	2E-09	NC	3E-08	1E-02	1E-08	4E-02	4E-08	1E-02	7E-07	7E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	8E-06
Landbay A	A3S146	2E-07	1E-02	2E-09	NC	3E-08	1E-02	1E-08	4E-02	4E-08	1E-02	7E-07	7E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	8E-06
Landbay A	A3S147	2E-07	1E-02	2E-09	NC	3E-08	1E-02	1E-08	4E-02	4E-08	1E-02	7E-07	7E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	8E-06
Landbay A	A4S140	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	1E-14	2E-03	4E-12	2E-02	NC	NC	NC	7E-01	NC	1E-02	4E-12	6E-06
Landbay A	A4S141	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	1E-14	2E-03	4E-12	2E-02	NC	NC	NC	7E-01	NC	1E-02	4E-12	6E-06
Landbay A	A4S142	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	1E-14	2E-03	4E-12	2E-02	NC	NC	NC	7E-01	NC	1E-02	4E-12	6E-06
Landbay A	A4S143	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	1E-14	2E-03	4E-12	2E-02	NC	NC	NC	7E-01	NC	1E-02	4E-12	6E-06
Landbay A	A5-1	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	7E-02	NC	1E-03	NC	NC
Landbay A	A5-4	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay A	A5B268	NC	7E-07	NC	1E-05	NC	5E-07	NC	3E-06	NC	5E-07	NC	5E-06	NC	1E-03	NC	2E-01	NC	5E-03	NC	4E-07
Landbay A	A5S148	2E-13	4E-04	NC	3E-04	2E-10	3E-04	6E-11	1E-03	4E-15	2E-04	9E-13	3E-03	NC	6E-02	NC	7E-01	NC	2E-02	9E-13	3E-04
Landbay A	A5S149	2E-13	4E-04	NC	3E-04	2E-10	3E-04	6E-11	1E-03	4E-15	2E-04	9E-13	3E-03	NC	6E-02	NC	6E-01	NC	1E-02	9E-13	3E-04
Landbay A	A5S150	7E-08	5E-03	9E-10	3E-04	1E-08	2E-03	6E-09	6E-03	2E-08	4E-03	3E-07	2E-02	3E-07	6E-02	8E-08	5E-03	8E-08	5E-03	5E-09	3E-04
Landbay A	A5S151	7E-08	5E-03	9E-10	3E-04	1E-08	2E-03	6E-09	6E-03	2E-08	4E-03	3E-07	2E-02	3E-07	6E-02	7E-08	2E-01	7E-08	9E-03	5E-09	3E-04
Landbay A	AB-01	2E-08	1E-03	1E-11	2E-08	5E-09	1E-03	3E-09	3E-03	5E-09	1E-03	1E-07	8E-03	3E-09	6E-06	2E-08	3E-02	2E-08	3E-02	9E-10	2E-06
Landbay A	AB-02	4E-11	3E-02	NC	NC	4E-08	3E-02	1E-08	1E-01	8E-13	2E-02	2E-10	2E-01	NC	NC	NC	9E-01	NC	9E-01	2E-10	2E-05
Landbay A	AB-04	1E-12	9E-04	NC	NC	1E-09	9E-04	3E-10	3E-03	2E-14	7E-04	5E-12	5E-03	NC	NC	NC	2E-02	NC	2E-02	5E-12	6E-07
Landbay A	AB-05	9E-13	1E-03	NC	NC	1E-09	1E-03	3E-10	3E-03	2E-14	8E-04	4E-12	6E-03	NC	NC	NC	2E-02	NC	2E-02	4E-12	6E-07
Landbay A	AB-07	5E-09	2E-03	3E-12	6E-09	2E-09	3E-03	8E-10	1E-02	1E-09	1E-03	4E-08	1E-02	9E-10	2E-06	7E-09	1E-01	7E-09	2E-02	3E-10	3E-06
Landbay A	AB-08	1E-12	4E-03	NC	NC	1E-09	8E-03	4E-10	3E-02	2E-14	3E-03	5E-12	3E-02	NC	NC	NC	3E-02	NC	3E-02	5E-12	8E-06
Landbay A	AB-09	3E-08	1E-03	2E-11	3E-08	7E-09	1E-03	4E-09	3E-03	7E-09	1E-03	2E-07	9E-03	5E-09	8E-06	3E-08	2E-02	3E-08	2E-02	1E-09	3E-06
Landbay A	AB-10	3E-07	2E-03	NC	NC	1E-07	3E-03	6E-08	1E-02	9E-08	2E-03	3E-06	2E-02	NC	NC	6E-07	3E-02	6E-07	3E-02	1E-10	2E-06
Landbay A	AB-11	7E-13	8E-04	NC	NC	8E-10	8E-04	3E-10	3E-03	2E-14	6E-04	4E-12	5E-03	NC	NC	NC	2E-02	NC	2E-02	4E-12	5E-07
Landbay A	AB-12	1E-08	1E-03	8E-12	2E-08	4E-09	1E-03	2E-09	3E-03	4E-09	1E-03	1E-07	8E-03	3E-09	5E-06	2E-08	3E-02	2E-08	3E-02	8E-10	2E-06
Landbay A	AJA PP-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	AJA-111	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	Bldg 34-35-36	NC	4E-07	NC	6E-05	NC	2E-07	NC	2E-06	NC	7E-08	NC	2E-06	NC	1E-02	NC	2E-04	NC	2E-04	NC	1E-06
Landbay A	CARD GAP B1	NC	7E-05	NC	NC	NC	3E-05	NC	2E-05	NC	5E-05	NC	3E-04	NC	NC	NC	9E-01	NC	2E-02	NC	NC
Landbay A	DP-23	1E-06	1E-01	NC	NC	3E-07	9E-02	2E-07	1E-01	4E-07	1E-01	9E-06	1E+00	NC	NC	2E-06	3E-02	2E-06	3E-02	4E-11	2E-06
Landbay A	DP-29	6E-07	9E-02	1E-09	NC	1E-07	6E-02	7E-08	9E-02	2E-07	7E-02	4E-06	7E-01	3E-07	NC	1E-06	2E-02	1E-06	2E-02	6E-09	9E-07
Landbay A	GP 100-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 100-05	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay A	GP 103-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay A	GP 104-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 105-01	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay A	GP 105-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 105-06	NC	2E-03	NC	NC	NC	1E-03	NC	8E-03	NC	2E-03	NC	2E-02	NC	NC	NC	**9E+02**	NC	**2E+01**	NC	NC
Landbay A	GP 105-07	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	2E-04	NC	2E-03	NC	NC	NC	**9E+01**	NC	**2E+00**	NC	NC
Landbay A	GP 105-08	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay A	GP 105-09	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	**2E+02**	NC	**5E+00**	NC	NC
Landbay A	GP 105-10	NC	9E-05	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay A	GP 105-11	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	5E-03	NC	5E-02	NC	NC	NC	**3E+03**	NC	**5E+01**	NC	NC
Landbay A	GP 105-12	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	**4E+02**	NC	**8E+00**	NC	NC
Landbay A	GP 105-13	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay A	GP 105-14	NC	2E-03	NC	NC	NC	1E-03	NC	9E-03	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**2E+01**	NC	NC
Landbay A	GP 105-15	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**8E+03**	NC	**2E+02**	NC	NC
Landbay A	GP 107-01	NC	6E-05	NC	NC	NC	9E-05	NC	4E-04	NC	5E-05	NC	5E-04	NC	NC	NC	1E-03	NC	1E-03	NC	7E-08
Landbay A	GP 107-02	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	1E-04	NC	1E-04	NC	NC
Landbay A	GP 108-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 110-06	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay A	GP 18-01	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay A	GP 33-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 33-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 34-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP 34-02	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay A	GP CM-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-03	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	**4E+00**	NC	7E-02	NC	NC
Landbay A	GP CM-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-06	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**3E+03**	NC	**7E+01**	NC	NC
Landbay A	GP CM-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-08	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay A	GP CM-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-10	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay A	GP CM-12	4E-07	3E-03	NC	NC	9E-08	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	7E-07	**3E+02**	7E-07	**5E+00**	1E-11	4E-07
Landbay A	GP CM-13	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay A	GP CM-14	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	**4E+02**	NC	**8E+00**	NC	NC
Landbay A	GP CM-15	NC	1E-03	NC	NC	NC	9E-04	NC	5E-03	NC	1E-03	NC	1E-02	NC	NC	NC	**6E+02**	NC	**1E+01**	NC	NC
Landbay A	GP CM-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-17	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-19	NC	1E-03	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	**4E+02**	NC	**8E+00**	NC	NC
Landbay A	GP CM-20	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP CM-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP EXT TTU-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP EXT TTU-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-11	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTF-12	NC	2E-04	NC	NC	NC	5E-04	NC	2E-03	NC	2E-04	NC	2E-03	NC	NC	NC	5E-03	NC	5E-03	NC	6E-07
Landbay A	GP TTF-13	NC	1E-04	NC	NC	NC	6E-04	NC	2E-03	NC	1E-04	NC	1E-03	NC	NC	NC	6E-03	NC	6E-03	NC	7E-07
Landbay A	GP TTU-37	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	9E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay A	GP TTU-41	1E-07	8E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	NC	NC	NC	NC	8E-09	NC

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay A	GP TTU-43	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-44	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	6E-03	6E-07	3E-02	5E-07	NC	1E-07	7E-03	1E-07	7E-03	9E-09	NC
Landbay A	GP TTU-45	3E-06	2E-01	3E-08	NC	4E-07	8E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	9E-06	NC	2E-06	1E-01	2E-06	1E-01	2E-07	NC
Landbay A	GP TTU-46	1E-07	1E-02	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	7E-03	6E-07	4E-02	5E-07	NC	1E-07	8E-03	1E-07	8E-03	1E-08	NC
Landbay A	GP TTU-47	9E-07	6E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	3E-07	4E-02	4E-06	2E-01	3E-06	NC	9E-07	5E-02	9E-07	5E-02	6E-08	NC
Landbay A	GP TTU-48	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-49	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-50	7E-08	5E-03	8E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	6E-08	4E-03	6E-08	4E-03	5E-09	NC
Landbay A	GP TTU-51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-52	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	GP TTU-53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	IM10-1	3E-06	1E-01	2E-08	1E-04	6E-07	1E-01	3E-07	4E-01	8E-07	9E-02	2E-05	6E-01	5E-06	3E-02	4E-06	1E-01	4E-06	1E-01	9E-08	2E-04
Landbay A	IM10-2	3E-07	2E-02	6E-10	3E-05	8E-08	3E-02	4E-08	1E-01	1E-07	2E-02	2E-06	2E-01	2E-07	6E-03	6E-07	2E-02	6E-07	2E-02	3E-09	6E-05
Landbay A	IM10-3	9E-13	6E-03	NC	3E-05	1E-09	1E-02	3E-10	5E-02	2E-14	4E-03	5E-12	4E-02	NC	6E-03	NC	4E-03	NC	4E-03	5E-12	4E-05
Landbay A	IM10-4	2E-08	6E-03	NC	NC	8E-09	1E-02	4E-09	5E-02	5E-09	5E-03	2E-07	5E-02	NC	NC	3E-08	3E-03	3E-08	3E-03	1E-11	1E-05
Landbay A	IM10-5	3E-08	1E-02	4E-10	NC	9E-09	2E-02	4E-09	8E-02	9E-09	1E-02	1E-07	1E-01	1E-07	NC	3E-08	1E-02	3E-08	1E-02	2E-09	1E-05
Landbay A	IM9-1	5E-06	2E-01	2E-10	5E-03	1E-06	2E-01	5E-07	5E-01	4E-06	2E-01	1E-04	**2E+00**	2E-07	1E+00	3E-05	5E-02	3E-05	5E-02	3E-07	5E-03
Landbay A	IM9-2	7E-06	1E-01	3E-10	9E-04	1E-06	8E-02	6E-07	2E-01	6E-06	8E-02	1E-04	8E-01	3E-07	2E-01	4E-05	2E-02	4E-05	2E-02	4E-07	9E-04
Landbay A	IM9-3	1E-12	9E-03	NC	NC	1E-09	2E-02	5E-10	6E-02	3E-14	7E-03	7E-12	7E-02	NC	NC	NC	5E-03	NC	5E-03	7E-12	2E-05
Landbay A	IM9-4	8E-11	3E-01	NC	NC	9E-08	2E-01	3E-08	4E-01	2E-12	2E-01	4E-10	**2E+00**	NC	NC	NC	1E-04	NC	1E-04	4E-10	1E-04
Landbay A	IM9-5	7E-08	1E-01	NC	8E-05	4E-08	1E-01	2E-08	2E-01	2E-08	1E-01	6E-07	1E+00	NC	1E-02	1E-07	6E-03	1E-07	6E-03	8E-11	9E-05
Landbay A	JTOO-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	MCD-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	POND 01 INF	2E-06	2E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	6E-07	1E-01	1E-05	6E-01	8E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay A	SB CM-08	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	**3E+01**	NC	7E-01	NC	NC
Landbay A	SB CM-10	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**1E+03**	NC	**3E+01**	NC	NC
Landbay A	SB CM-11	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	NC
Landbay A	SEDA 13	9E-07	5E-03	NC	NC	2E-07	4E-03	1E-07	3E-03	2E-07	4E-03	6E-06	3E-02	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	9E-07
Landbay A	SEDP 01 INF	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	S-IMSED-1	2E-06	1E-01	2E-08	NC	3E-07	5E-02	1E-07	1E-01	5E-07	8E-02	8E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay A	S-IMSED-3	6E-07	4E-02	8E-09	NC	1E-07	2E-02	5E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	4E-02	6E-07	4E-02	4E-08	NC
Landbay A	SR-100B	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SS-103A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SS-105C	NC	2E-06	NC	NC	NC	1E-06	NC	9E-06	NC	2E-06	NC	2E-05	NC	NC	NC	1E+00	NC	2E-02	NC	NC
Landbay A	SS-CGA	NC	3E-03	NC	NC	NC	1E-03	NC	6E-04	NC	2E-03	NC	1E-02	NC	NC	NC	1E+00	NC	3E-02	NC	NC
Landbay A	SW 105-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 105-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 105-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW 106-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-02	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay A	SW CM-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-07	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay A	SW CM-08	NC	1E-03	NC	NC	NC	7E-04	NC	5E-03	NC	8E-04	NC	8E-03	NC	NC	NC	**5E+02**	NC	**9E+00**	NC	NC
Landbay A	SW CM-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW CM-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	SW TTU-01	NC	7E-03	NC	NC	NC	1E-02	NC	6E-02	NC	5E-03	NC	5E-02	NC	NC	NC	1E-03	NC	1E-03	NC	2E-05
Landbay A	SW TTU-02	3E-12	7E-03	NC	NC	6E-13	2E-02	4E-13	6E-02	7E-13	5E-03	2E-11	5E-02	NC	NC	NC	**3E+01**	NC	6E-01	NC	2E-05
Landbay A	SW TTU-03	NC	1E-03	NC	NC	NC	3E-03	NC	1E-02	NC	1E-03	NC	1E-02	NC	NC	NC	**1E+01**	NC	3E-01	NC	3E-06
Landbay A	SW TTU-04	2E-08	6E-03	NC	NC	7E-09	1E-02	4E-09	5E-02	6E-09	4E-03	2E-07	4E-02	NC	NC	4E-08	**2E+01**	4E-08	4E-01	7E-12	1E-05
Landbay A	SW TTU-05	9E-09	7E-04	NC	NC	3E-09	2E-03	2E-09	6E-03	3E-09	6E-04	8E-08	6E-03	NC	NC	2E-08	4E-04	2E-08	4E-04	3E-12	2E-06
Landbay A	TP 107-01	8E-08	2E-03	NC	2E-03	2E-08	1E-03	1E-08	4E-03	2E-08	1E-03	6E-07	1E-02	NC	3E-01	2E-07	2E-03	2E-07	2E-03	2E-12	2E-03
Landbay A	TP 107-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TP 107-07	2E-14	2E-04	NC	1E-04	2E-11	1E-04	6E-12	8E-04	3E-16	1E-04	8E-14	1E-03	NC	3E-02	NC	3E-06	NC	3E-06	8E-14	1E-04
Landbay A	TRL100B1	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	8E-01	NC	2E-02	NC	NC
Landbay A	TTU GP-01	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay A	TTU GP-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-15	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	4E-03	6E-08	NC	2E-08	9E-04	2E-08	9E-04	1E-09	NC
Landbay A	TTU GP-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-23	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	7E-04	7E-08	4E-03	6E-08	NC	1E-08	9E-04	1E-08	9E-04	1E-09	NC
Landbay A	TTU GP-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-31	9E-08	6E-03	1E-09	NC	2E-08	3E-03	8E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	9E-08	5E-03	9E-08	5E-03	6E-09	NC
Landbay A	TTU GP-33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-54	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU GP-55	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU SED-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay A	TTU SED-02	1E-07	7E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	1E-07	6E-03	1E-07	6E-03	7E-09	NC
Landbay A	TTU SED-03	1E-06	5E-02	4E-10	6E-05	3E-07	7E-02	1E-07	2E-01	3E-07	4E-02	7E-06	4E-01	1E-07	1E-02	2E-06	**2E+00**	2E-06	5E-02	3E-09	5E-05
Landbay A	TTU1P3-1	NC	7E-02	NC	NC	NC	4E-02	NC	3E-01	NC	5E-02	NC	5E-01	NC	NC	NC	**3E+04**	NC	**6E+02**	NC	NC
Landbay A	TTU1P3-2	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	**2E+03**	NC	**5E+01**	NC	NC
Landbay A	TTU1P3-3	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	3E-04	NC	3E-03	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	NC
Landbay A	TTU1P3-4	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay A	TTU2P2-10	5E-08	9E-03	NC	NC	9E-09	2E-02	4E-09	7E-02	1E-08	6E-03	2E-07	6E-02	NC	NC	NC	**2E+01**	NC	3E-01	NC	2E-05
Landbay A	TTU2P2-9	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay A	TTU2P3-5	NC	4E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**9E+02**	NC	**2E+01**	NC	NC
Landbay A	TTU2P3-6	NC	5E-03	NC	NC	NC	3E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	**2E+03**	NC	**4E+01**	NC	NC
Landbay A	TTU3P3-7	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay A	TTU3P3-8	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay A	TTU3P3-9	NC	2E-07	NC	NC	NC	1E-07	NC	9E-07	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay A	TTUP2-DS-1	6E-10	6E-03	NC	NC	1E-10	1E-02	6E-11	5E-02	2E-10	4E-03	3E-09	4E-02	NC	NC	5E-09	**1E+02**	5E-09	**2E+00**	NC	1E-05
Landbay A	TTUP2-DS-2	NC	5E-04	NC	NC	NC	1E-03	NC	4E-03	NC	4E-04	NC	4E-03	NC	NC	NC	1E+00	NC	3E-02	NC	1E-06
Landbay A	TTUP2-DS-3	NC	7E-03	NC	NC	NC	1E-02	NC	6E-02	NC	5E-03	NC	5E-02	NC	NC	NC	NC	NC	NC	NC	1E-05
Landbay A	TTUP2-DS-4	NC	1E-02	NC	NC	NC	2E-02	NC	9E-02	NC	8E-03	NC	8E-02	NC	NC	NC	3E-03	NC	3E-03	NC	2E-05
Landbay B	116AEC-1	7E-08	9E-04	NC	NC	1E-08	5E-04	6E-09	1E-03	2E-08	6E-04	3E-07	5E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay B	116ANEC	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	8E-05	NC	7E-04	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay B	116B145	4E-07	4E-01	NC	NC	4E-07	5E-01	1E-07	1E+00	1E-07	3E-01	3E-06	**3E+00**	NC	NC	7E-07	1E+00	7E-07	3E-02	1E-09	3E-04
Landbay B	116B146	1E-08	2E-01	NC	NC	5E-08	1E-01	2E-08	2E-01	4E-09	1E-01	1E-07	1E+00	NC	NC	3E-08	8E-04	3E-08	8E-04	2E-10	2E-05
Landbay B	116B147	6E-13	6E-03	NC	NC	7E-10	1E-02	2E-10	5E-02	1E-14	5E-03	3E-12	5E-02	NC	NC	NC	4E-04	NC	4E-04	3E-12	1E-05
Landbay B	116G17	2E-08	1E-01	NC	NC	8E-09	8E-02	4E-09	2E-01	5E-09	8E-02	2E-07	8E-01	NC	NC	4E-08	1E-03	4E-08	1E-03	1E-11	2E-05
Landbay B	116G18	7E-08	5E-01	NC	NC	5E-07	6E-01	2E-07	1E+00	2E-08	4E-01	6E-07	**4E+00**	NC	NC	1E-07	5E-03	1E-07	5E-03	2E-09	3E-04
Landbay B	116G19	7E-08	3E-01	2E-10	NC	2E-07	3E-01	6E-08	7E-01	2E-08	2E-01	6E-07	**2E+00**	6E-08	NC	1E-07	1E-02	1E-07	1E-02	2E-09	2E-04
Landbay B	116G20	7E-08	1E-01	NC	NC	3E-08	1E-01	1E-08	3E-01	2E-08	1E-01	6E-07	1E+00	NC	NC	1E-07	5E-03	1E-07	5E-03	4E-11	4E-05
Landbay B	116G21	2E-08	1E-01	NC	NC	9E-09	8E-02	4E-09	2E-01	5E-09	8E-02	1E-07	9E-01	NC	NC	3E-08	3E-03	3E-08	3E-03	2E-11	2E-05
Landbay B	116G22	2E-08	9E-02	2E-10	NC	7E-09	7E-02	3E-09	1E-01	6E-09	7E-02	1E-07	7E-01	6E-08	NC	3E-08	3E-03	3E-08	3E-03	1E-09	2E-05
Landbay B	116G23	6E-08	2E-01	2E-10	NC	2E-07	2E-01	7E-08	4E-01	2E-08	2E-01	5E-07	**2E+00**	6E-08	NC	1E-07	3E-03	1E-07	3E-03	2E-09	7E-05
Landbay B	116G24	4E-08	1E-01	NC	NC	2E-08	8E-02	8E-09	2E-01	1E-08	8E-02	4E-07	8E-01	NC	NC	8E-08	2E-03	8E-08	2E-03	3E-11	2E-05
Landbay B	116G25	2E-07	2E-01	NC	NC	2E-07	2E-01	6E-08	3E-01	5E-08	2E-01	1E-06	**2E+00**	NC	NC	4E-07	3E-03	4E-07	3E-03	5E-10	4E-05
Landbay B	116G26	3E-08	9E-02	2E-10	NC	8E-09	6E-02	4E-09	1E-01	8E-09	6E-02	2E-07	6E-01	6E-08	NC	4E-08	2E-03	4E-08	2E-03	1E-09	7E-06
Landbay B	116G27	3E-07	3E-01	NC	NC	3E-07	4E-01	1E-07	1E+00	9E-08	2E-01	2E-06	**2E+00**	NC	NC	6E-07	6E-03	6E-07	6E-03	1E-09	3E-04
Landbay B	116G28	1E-08	9E-02	NC	NC	2E-08	6E-02	8E-09	9E-02	3E-09	7E-02	1E-07	7E-01	NC	NC	2E-08	8E-04	2E-08	8E-04	9E-11	5E-06
Landbay B	117AEC-1	NC	3E-02	NC	NC	NC	2E-02	NC	1E-01	NC	2E-02	NC	2E-01	NC	NC	NC	**1E+04**	NC	**2E+02**	NC	NC
Landbay B	117ANEC	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay B	117B1	1E-06	1E-02	NC	3E-06	3E-07	9E-03	2E-07	3E-02	3E-07	9E-03	9E-06	9E-02	NC	5E-04	2E-06	**2E+03**	2E-06	**4E+01**	4E-11	5E-06
Landbay B	117B2	1E-06	8E-03	NC	3E-06	3E-07	6E-03	2E-07	8E-03	3E-07	6E-03	9E-06	5E-02	NC	5E-04	2E-06	**2E+00**	2E-06	7E-02	4E-11	5E-06
Landbay B	117B3	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	2E-06	NC	2E-05	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay B	117G4	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay B	119AEC-2	NC	5E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**2E+03**	NC	**4E+01**	NC	NC
Landbay B	119ANEC	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**3E+03**	NC	**6E+01**	NC	NC
Landbay B	119B137	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119B138	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G31	4E-08	4E-02	2E-10	NC	7E-08	4E-02	2E-08	1E-01	1E-08	3E-02	3E-07	3E-01	7E-08	NC	6E-08	4E-03	6E-08	4E-03	2E-09	2E-05
Landbay B	119G32	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	119G34	4E-08	4E-02	2E-10	NC	7E-08	4E-02	2E-08	1E-01	1E-08	3E-02	3E-07	3E-01	7E-08	NC	6E-08	4E-03	6E-08	4E-03	2E-09	2E-05
Landbay B	119G35	4E-08	4E-02	2E-10	NC	7E-08	4E-02	2E-08	1E-01	1E-08	3E-02	3E-07	3E-01	7E-08	NC	6E-08	4E-03	6E-08	4E-03	2E-09	2E-05
Landbay B	119G37	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**3E+00**	NC	NC
Landbay B	119G38	4E-08	4E-02	2E-10	NC	7E-08	4E-02	2E-08	1E-01	1E-08	3E-02	3E-07	3E-01	7E-08	NC	6E-08	**4E+01**	6E-08	9E-01	2E-09	2E-05
Landbay B	119G39	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	8E-01	NC	2E-02	NC	NC
Landbay B	119G40	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	15TP1-7	NC	4E-03	NC	NC	NC	9E-03	NC	4E-02	NC	3E-03	NC	3E-02	NC	NC	NC	1E+00	NC	3E-02	NC	9E-06
Landbay B	16TP1-7	NC	3E-03	NC	1E-08	NC	5E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	3E-06	NC	2E-01	NC	4E-03	NC	6E-06
Landbay B	16TP2-7	1E-06	8E-03	NC	5E-08	2E-07	5E-03	1E-07	4E-03	3E-07	6E-03	7E-06	4E-02	NC	1E-05	4E-06	4E-01	4E-06	4E-02	2E-11	8E-07
Landbay B	16TP3-7	5E-10	4E-03	7E-08	2E-02	1E-10	7E-03	9E-11	3E-02	3E-11	3E-03	2E-09	3E-02	1E-05	**3E+00**	6E-09	**5E+02**	6E-09	**9E+00**	2E-09	5E-04
Landbay B	16TP4-7	7E-07	6E-03	3E-08	9E-03	1E-07	4E-03	8E-08	9E-03	2E-07	4E-03	5E-06	3E-02	7E-06	**2E+00**	1E-06	**2E+02**	1E-06	**4E+00**	1E-09	2E-04
Landbay B	16TP5-7	1E-11	2E-03	1E-09	4E-04	6E-10	3E-03	2E-10	1E-02	5E-13	1E-03	5E-11	1E-02	3E-07	6E-02	1E-10	7E-04	1E-10	7E-04	4E-11	1E-05
Landbay B	16TP6-7	6E-13	3E-03	NC	4E-08	7E-10	4E-03	2E-10	2E-02	1E-14	2E-03	3E-12	2E-02	NC	9E-06	NC	7E-04	NC	7E-04	3E-12	3E-06
Landbay B	42B136	2E-07	1E-02	2E-09	NC	3E-08	6E-03	1E-08	1E-02	5E-08	9E-03	8E-07	5E-02	7E-07	NC	2E-07	**3E+02**	2E-07	**6E+00**	1E-08	NC
Landbay B	42G110	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	42G115	4E-06	1E-02	2E-09	NC	8E-07	2E-02	4E-07	5E-02	3E-06	1E-02	8E-05	7E-02	6E-07	NC	2E-05	7E-01	2E-05	2E-02	3E-07	1E-05
Landbay B	42G116	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	42G117	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	7E-01	6E-07	5E-02	4E-08	NC
Landbay B	42TP3-25	3E-06	2E-01	4E-08	NC	5E-07	1E-01	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	**2E+01**	3E-06	6E-01	2E-07	8E-06
Landbay B	42TP3-37	4E-08	7E-03	5E-10	NC	9E-09	1E-02	4E-09	4E-02	1E-08	5E-03	2E-07	4E-02	1E-07	NC	5E-08	**1E+01**	5E-08	3E-01	2E-09	9E-06
Landbay B	42TP3-43	1E-08	2E-03	2E-10	NC	3E-09	2E-03	1E-09	7E-03	4E-09	1E-03	7E-08	1E-02	5E-08	NC	1E-08	**1E+01**	1E-08	3E-01	1E-09	2E-06
Landbay B	42TP4-125	1E-10	4E-02	NC	2E-07	1E-07	9E-02	3E-08	2E-01	2E-12	3E-02	5E-10	3E-01	NC	5E-05	NC	2E-02	NC	2E-02	5E-10	1E-04
Landbay B	42TP4-127	2E-06	1E-01	2E-08	NC	3E-07	5E-02	1E-07	1E-01	4E-07	8E-02	8E-06	4E-01	6E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	3E-06
Landbay B	42TP4-136	5E-07	4E-02	3E-09	2E-03	1E-07	1E-01	6E-08	3E-01	3E-07	3E-02	7E-06	2E-01	8E-07	4E-01	2E-06	5E-01	2E-06	9E-02	3E-08	2E-03
Landbay B	42TP4-165	1E-06	8E-02	1E-08	1E-04	2E-07	4E-02	1E-07	9E-02	3E-07	6E-02	5E-06	3E-01	4E-06	2E-02	1E-06	8E-02	1E-06	8E-02	8E-08	1E-04
Landbay B	42TP4-180	8E-08	7E-03	1E-09	NC	2E-08	6E-03	7E-09	2E-02	2E-08	5E-03	4E-07	3E-02	3E-07	NC	8E-08	**2E+01**	8E-08	4E-01	5E-09	3E-06
Landbay B	42TP4-195	4E-07	3E-02	4E-09	1E-06	6E-08	2E-02	3E-08	4E-02	1E-07	2E-02	2E-06	1E-01	1E-06	3E-04	4E-07	**2E+00**	4E-07	8E-02	2E-08	5E-06

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	42TP4-75	8E-13	2E-03	NC	NC	1E-09	4E-03	3E-10	1E-02	2E-14	1E-03	4E-12	1E-02	NC	NC	NC	6E-04	NC	6E-04	4E-12	4E-06
Landbay B	42TP5-260	4E-08	3E-01	5E-10	4E-08	3E-07	4E-01	1E-07	1E+00	1E-08	2E-01	2E-07	**2E+00**	1E-07	1E-05	4E-08	7E-01	4E-08	7E-02	4E-09	4E-04
Landbay B	42TP5-275	7E-08	6E-02	NC	NC	2E-07	1E-01	5E-08	3E-01	2E-08	4E-02	6E-07	4E-01	NC	NC	1E-07	5E-01	1E-07	1E-02	6E-10	2E-04
Landbay B	42TP6-40	5E-11	7E-02	NC	2E-06	5E-08	6E-02	2E-08	1E-01	1E-12	5E-02	2E-10	5E-01	NC	4E-04	NC	5E-01	NC	1E-02	2E-10	2E-05
Landbay B	42TP6-5	9E-13	6E-03	NC	NC	1E-09	1E-02	3E-10	5E-02	2E-14	4E-03	5E-12	4E-02	NC	NC	NC	2E-01	NC	5E-03	5E-12	1E-05
Landbay B	5100-2750	1E-06	5E-02	2E-11	3E-04	3E-07	6E-02	1E-07	2E-01	5E-07	4E-02	1E-05	4E-01	1E-08	6E-02	3E-06	8E-01	3E-06	8E-02	2E-08	3E-04
Landbay B	5100-2750N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2750SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2750SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	5100-2900	8E-07	5E-02	NC	3E-04	2E-07	6E-02	1E-07	2E-01	2E-07	4E-02	5E-06	4E-01	NC	6E-02	1E-06	8E-01	1E-06	8E-02	3E-10	3E-04
Landbay B	5250-2600	8E-07	5E-02	NC	3E-04	2E-07	6E-02	1E-07	2E-01	2E-07	4E-02	5E-06	4E-01	NC	6E-02	1E-06	8E-01	1E-06	8E-02	3E-10	3E-04
Landbay B	5250-2750	8E-07	5E-02	NC	3E-04	2E-07	6E-02	1E-07	2E-01	2E-07	4E-02	5E-06	4E-01	NC	6E-02	1E-06	8E-01	1E-06	8E-02	3E-10	3E-04
Landbay B	5400-77	1E-06	5E-02	2E-09	7E-05	3E-07	3E-02	2E-07	6E-02	4E-07	3E-02	1E-05	3E-01	5E-07	1E-02	3E-06	1E+00	3E-06	4E-02	9E-09	7E-05
Landbay B	5550-3350	6E-13	6E-04	NC	NC	7E-10	1E-03	2E-10	3E-03	1E-14	5E-04	3E-12	4E-03	NC	NC	NC	2E-02	NC	2E-02	3E-12	9E-07
Landbay B	5700-2600	2E-08	4E-02	NC	NC	1E-07	5E-02	3E-08	9E-02	7E-09	3E-02	2E-07	3E-01	NC	NC	5E-08	6E-01	5E-08	7E-02	4E-10	4E-05
Landbay B	5850-2300	3E-07	7E-02	NC	NC	2E-07	1E-01	8E-08	3E-01	8E-08	5E-02	2E-06	5E-01	NC	NC	5E-07	7E-02	5E-07	7E-02	6E-10	1E-04
Landbay B	5850-2600	2E-08	3E-01	NC	NC	1E-07	2E-01	3E-08	1E+00	7E-09	2E-01	2E-07	**3E+00**	NC	NC	5E-08	**1E+05**	5E-08	**2E+03**	4E-10	4E-05
Landbay B	5850-2600N	NC	2E-02	NC	NC	NC	1E-02	NC	7E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**7E+03**	NC	**1E+02**	NC	NC
Landbay B	5850-2600SE	NC	7E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	**3E+02**	NC	**6E+00**	NC	NC
Landbay B	5850-2600SW	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**2E+01**	NC	NC
Landbay B	5850-3350	6E-07	7E-03	NC	NC	1E-07	4E-03	8E-08	1E-02	2E-07	5E-03	4E-06	4E-02	NC	NC	1E-06	6E-01	1E-06	2E-02	2E-11	7E-07
Landbay B	5850-3650	1E-07	9E-03	NC	NC	3E-08	1E-02	2E-08	5E-02	4E-08	6E-03	1E-06	6E-02	NC	NC	3E-07	6E-01	3E-07	1E-02	4E-12	7E-06
Landbay B	5850-3800	9E-07	2E-02	NC	3E-05	2E-07	2E-02	1E-07	7E-02	2E-07	2E-02	6E-06	2E-01	NC	7E-03	2E-06	5E-02	2E-06	5E-02	3E-11	4E-05
Landbay B	5850-3950	9E-07	4E-02	NC	2E-05	3E-07	3E-02	1E-07	8E-02	3E-07	3E-02	7E-06	3E-01	NC	4E-03	2E-06	1E+00	2E-06	8E-02	2E-10	3E-05
Landbay B	6000-2000	2E-08	4E-03	NC	2E-08	1E-08	7E-03	5E-09	2E-02	5E-09	3E-03	1E-07	3E-02	NC	5E-06	3E-08	7E-03	3E-08	7E-03	4E-11	6E-06
Landbay B	6000-2150	3E-07	7E-02	NC	NC	2E-07	1E-01	8E-08	3E-01	8E-08	5E-02	2E-06	5E-01	NC	NC	5E-07	7E-02	5E-07	7E-02	6E-10	1E-04
Landbay B	6000-2300	3E-07	7E-02	NC	NC	2E-07	1E-01	8E-08	3E-01	8E-08	5E-02	2E-06	5E-01	NC	NC	5E-07	7E-02	5E-07	7E-02	6E-10	1E-04
Landbay B	6000-2600	2E-08	4E-02	NC	NC	1E-07	5E-02	3E-08	9E-02	7E-09	3E-02	2E-07	3E-01	NC	NC	5E-08	2E-01	5E-08	6E-02	4E-10	4E-05
Landbay B	6000-2750	2E-08	4E-02	NC	1E-08	1E-07	5E-02	3E-08	9E-02	7E-09	3E-02	2E-07	3E-01	NC	3E-06	5E-08	9E-01	5E-08	7E-02	4E-10	4E-05
Landbay B	6000-2900	7E-13	3E-03	NC	9E-07	8E-10	6E-03	2E-10	3E-02	1E-14	3E-03	3E-12	2E-02	NC	2E-04	NC	3E-02	NC	3E-02	3E-12	7E-06
Landbay B	6000-3350	4E-14	1E-03	NC	NC	4E-11	1E-03	1E-11	6E-03	8E-16	9E-04	2E-13	9E-03	NC	NC	NC	5E-03	NC	5E-03	2E-13	6E-07
Landbay B	6000-3500	4E-14	1E-03	NC	NC	4E-11	1E-03	1E-11	6E-03	8E-16	9E-04	2E-13	9E-03	NC	NC	NC	5E-03	NC	5E-03	2E-13	6E-07
Landbay B	6000-3650	6E-12	9E-02	NC	2E-05	6E-09	7E-02	2E-09	2E-01	1E-13	7E-02	3E-11	7E-01	NC	4E-03	NC	4E-01	NC	6E-02	3E-11	3E-05
Landbay B	6000-3800	9E-07	2E-02	NC	4E-05	2E-07	2E-02	1E-07	7E-02	2E-07	2E-02	6E-06	2E-01	NC	7E-03	2E-06	5E-02	2E-06	5E-02	3E-11	4E-05
Landbay B	6000-94	2E-06	4E-02	6E-09	9E-05	4E-07	2E-02	2E-07	4E-02	6E-07	3E-02	1E-05	2E-01	2E-06	2E-02	3E-06	4E-01	3E-06	7E-02	3E-08	9E-05
Landbay B	6150-2150	2E-08	4E-03	NC	1E-08	1E-08	7E-03	5E-09	2E-02	5E-09	3E-03	1E-07	3E-02	NC	4E-06	3E-08	7E-03	3E-08	7E-03	4E-11	6E-06
Landbay B	6150-3050	7E-13	3E-03	NC	NC	8E-10	6E-03	2E-10	3E-02	1E-14	3E-03	3E-12	2E-02	NC	NC	NC	2E-02	NC	2E-02	3E-12	6E-06
Landbay B	6150-3350	4E-14	1E-03	NC	NC	4E-11	1E-03	1E-11	6E-03	8E-16	9E-04	2E-13	9E-03	NC	NC	NC	5E-03	NC	5E-03	2E-13	6E-07
Landbay B	6150-3500	6E-12	9E-02	NC	2E-05	6E-09	7E-02	2E-09	2E-01	1E-13	7E-02	3E-11	7E-01	NC	4E-03	NC	4E-01	NC	6E-02	3E-11	3E-05
Landbay B	6150-3650	6E-12	9E-02	NC	2E-05	6E-09	7E-02	2E-09	2E-01	1E-13	7E-02	3E-11	7E-01	NC	4E-03	NC	4E-01	NC	6E-02	3E-11	3E-05
Landbay B	6150-3800	9E-07	2E-02	NC	3E-05	2E-07	2E-02	1E-07	7E-02	2E-07	2E-02	6E-06	2E-01	NC	7E-03	2E-06	5E-02	2E-06	5E-02	3E-11	4E-05
Landbay B	6200-96	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	1E-06	NC	NC	NC	8E-02	NC	2E-03	NC	NC
Landbay B	6300-107	5E-07	1E-02	1E-09	NC	1E-07	1E-02	6E-08	4E-02	1E-07	9E-03	3E-06	7E-02	3E-07	NC	9E-07	9E-03	9E-07	9E-03	6E-09	9E-06
Landbay B	6300-2150	8E-08	3E-02	NC	3E-07	9E-08	4E-02	3E-08	9E-02	2E-08	3E-02	7E-07	3E-01	NC	7E-05	2E-07	2E-03	2E-07	2E-03	3E-10	2E-05
Landbay B	6300-2300	2E-08	4E-03	NC	NC	1E-08	7E-03	5E-09	2E-02	5E-09	3E-03	1E-07	3E-02	NC	NC	3E-08	7E-03	3E-08	7E-03	4E-11	6E-06
Landbay B	6300-2450	2E-08	4E-03	NC	NC	1E-08	7E-03	5E-09	2E-02	5E-09	3E-03	1E-07	3E-02	NC	NC	3E-08	7E-03	3E-08	7E-03	4E-11	6E-06
Landbay B	6300-3350	4E-14	1E-03	NC	NC	4E-11	1E-03	1E-11	6E-03	8E-16	9E-04	2E-13	9E-03	NC	NC	NC	5E-03	NC	5E-03	2E-13	6E-07
Landbay B	6300-3500	6E-12	9E-02	NC	2E-05	6E-09	7E-02	2E-09	2E-01	1E-13	7E-02	3E-11	7E-01	NC	4E-03	NC	4E-01	NC	6E-02	3E-11	3E-05
Landbay B	6400-108	1E-07	1E-03	6E-08	2E-03	3E-08	8E-04	2E-08	2E-03	3E-08	8E-04	9E-07	7E-03	2E-05	4E-01	2E-07	4E-03	2E-07	4E-03	3E-08	7E-04
Landbay B	6450-2600	4E-07	3E-03	NC	NC	1E-07	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	8E-07	1E-02	8E-07	1E-02	1E-11	1E-06
Landbay B	6450-2750	4E-07	3E-03	NC	1E-08	1E-07	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	3E-06	8E-07	1E-02	8E-07	1E-02	1E-11	1E-06
Landbay B	6450-2900	4E-07	3E-03	NC	NC	1E-07	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	8E-07	1E-02	8E-07	1E-02	1E-11	1E-06
Landbay B	6450-3200	2E-13	3E-04	NC	NC	2E-10	6E-04	8E-11	2E-03	5E-15	2E-04	1E-12	2E-03	NC	NC	NC	9E-03	NC	9E-03	1E-12	6E-07
Landbay B	6450-3350	2E-13	3E-04	NC	NC	2E-10	6E-04	8E-11	2E-03	5E-15	2E-04	1E-12	2E-03	NC	NC	NC	9E-03	NC	9E-03	1E-12	6E-07
Landbay B	6450-3500	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	8E-03	6E-15	1E-03	1E-12	1E-02	NC	NC	NC	7E-05	NC	7E-05	1E-12	2E-06
Landbay B	6450-3650	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	8E-03	6E-15	1E-03	1E-12	1E-02	NC	NC	NC	7E-05	NC	7E-05	1E-12	2E-06
Landbay B	6600-3350	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	8E-03	6E-15	1E-03	1E-12	1E-02	NC	NC	NC	7E-05	NC	7E-05	1E-12	2E-06
Landbay B	6600-3500	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	8E-03	6E-15	1E-03	1E-12	1E-02	NC	NC	NC	7E-05	NC	7E-05	1E-12	2E-06
Landbay B	6750-2750	4E-08	3E-02	NC	NC	6E-08	3E-02	2E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	7E-04	8E-08	7E-04	2E-10	2E-05
Landbay B	6750-2900	4E-08	3E-02	NC	NC	6E-08	3E-02	2E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	7E-04	8E-08	7E-04	2E-10	2E-05
Landbay B	6750-3050	4E-08	3E-02	NC	4E-07	6E-08	3E-02	2E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	9E-05	8E-08	1E-03	8E-08	1E-03	2E-10	2E-05
Landbay B	6750-3350	1E-07	9E-04	NC	NC	3E-08	7E-04	2E-08	1E-03	4E-08	6E-04	9E-07	5E-03	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-12	2E-07
Landbay B	6750-3500	1E-07	9E-04	NC	NC	3E-08	7E-04	2E-08	1E-03	4E-08	6E-04	9E-07	5E-03	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-12	2E-07
Landbay B	6800-117	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	5E-01	NC	9E-03	NC	NC
Landbay B	6800-118	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	6900-3200	1E-07	9E-04	NC	NC	3E-08	7E-04	2E-08	1E-03	4E-08	6E-04	9E-07	5E-03	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-12	2E-07
Landbay B	6900-3350	1E-07	9E-04	NC	NC	3E-08	7E-04	2E-08	1E-03	4E-08	6E-04	9E-07	5E-03	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-12	2E-07
Landbay B	7050-3200	7E-14	2E-05	NC	NC	8E-11	2E-05	3E-11	1E-04	2E-15	1E-05	4E-13	1E-04	NC	NC	NC	1E-05	NC	1E-05	4E-13	2E-08
Landbay B	7050-3350	7E-14	2E-05	NC	NC	8E-11	2E-05	3E-11	1E-04	2E-15	1E-05	4E-13	1E-04	NC	NC	NC	1E-05	NC	1E-05	4E-13	2E-08
Landbay B	70AEC-3	9E-11	4E-03	8E-09	8E-04	2E-11	3E-03	2E-11	2E-02	5E-12	3E-03	5E-10	3E-02	2E-06	2E-01	7E-09	**2E+03**	7E-09	**4E+01**	4E-10	2E-05
Landbay B	70ANEC	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	3E-02	NC	NC	NC	**1E+03**	NC	**3E+01**	NC	NC
Landbay B	70B1	2E-07	6E-03	5E-10	1E-04	5E-08	4E-03	3E-08	1E-02	6E-08	4E-03	1E-06	3E-02	2E-07	2E-02	4E-07	**1E+02**	4E-07	**2E+00**	3E-09	1E-04
Landbay B	70B2	2E-07	3E-03	NC	1E-04	4E-08	3E-03	2E-08	1E-02	5E-08	2E-03	1E-06	2E-02	NC	2E-02	3E-07	**2E+01**	3E-07	5E-01	7E-12	1E-04
Landbay B	70B3	5E-13	3E-04	NC	NC	6E-10	5E-04	2E-10	2E-03	1E-14	3E-04	2E-12	3E-03	NC	NC	NC	2E-01	NC	5E-03	2E-12	5E-07
Landbay B	70G4	1E-10	3E-04	NC	NC	2E-11	2E-04	1E-11	1E-03	3E-11	2E-04	5E-10	2E-03	NC	NC	1E-08	**1E+02**	1E-08	**2E+00**	NC	NC
Landbay B	73B105	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay B	73B106	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73B107	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73B108	NC	3E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	7E-01	NC	1E-02	NC	NC
Landbay B	73B151	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G76	3E-08	3E-03	4E-10	NC	6E-09	3E-03	3E-09	1E-02	8E-09	2E-03	2E-07	2E-02	1E-07	NC	3E-08	**7E+01**	3E-08	1E+00	2E-09	2E-06
Landbay B	73G77	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G78	NC	2E-06	NC	NC	NC	1E-06	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G79	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay B	73G80	3E-08	3E-03	4E-10	NC	6E-09	3E-03	3E-09	1E-02	8E-09	2E-03	2E-07	2E-02	1E-07	NC	3E-08	4E-01	3E-08	1E-02	2E-09	2E-06
Landbay B	73G81	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G82	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**8E+01**	NC	**2E+00**	NC	NC
Landbay B	73G83	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	4E-01	NC	7E-03	NC	NC
Landbay B	73G84	3E-08	3E-03	4E-10	NC	6E-09	3E-03	3E-09	1E-02	8E-09	2E-03	2E-07	2E-02	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	2E-06
Landbay B	73G85	NC	2E-04	NC	NC	NC	1E-04	NC	9E-04	NC	2E-04	NC	2E-03	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay B	73G86	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	73G87	3E-08	3E-03	4E-10	NC	6E-09	3E-03	3E-09	1E-02	8E-09	2E-03	2E-07	2E-02	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	2E-06
Landbay B	74AEC-2	8E-08	8E-02	NC	NC	1E-08	5E-02	7E-09	3E-01	2E-08	6E-02	4E-07	6E-01	NC	NC	NC	**3E+04**	NC	**6E+02**	NC	NC
Landbay B	74ANEC	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay B	74B100	2E-08	2E-04	NC	NC	3E-09	1E-04	2E-09	3E-04	4E-09	1E-04	8E-08	1E-03	NC	NC	NC	1E+00	NC	3E-02	NC	NC
Landbay B	74B101	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74B102	NC	9E-05	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay B	74B103	NC	2E-04	NC	NC	NC	1E-04	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	9E-01	NC	2E-02	NC	NC
Landbay B	74B104	NC	9E-07	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	4E-01	NC	8E-03	NC	NC
Landbay B	74B99	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**8E+01**	NC	**2E+00**	NC	NC
Landbay B	74G88	NC	2E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	5E-01	NC	9E-03	NC	NC
Landbay B	74G89	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	5E-01	NC	NC
Landbay B	74G91	1E-08	1E-04	NC	NC	2E-09	6E-05	1E-09	7E-05	3E-09	9E-05	6E-08	6E-04	NC	NC	NC	**6E+00**	NC	1E-01	NC	NC
Landbay B	74G92	4E-08	1E-02	2E-10	NC	1E-08	2E-02	5E-09	7E-02	1E-08	8E-03	2E-07	8E-02	7E-08	NC	8E-08	5E-01	8E-08	1E-02	1E-09	1E-05
Landbay B	74G93	NC	1E-03	NC	NC	NC	8E-04	NC	5E-03	NC	9E-04	NC	9E-03	NC	NC	NC	**5E+02**	NC	**1E+01**	NC	NC
Landbay B	74G94	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74G95	4E-08	1E-02	2E-10	NC	1E-08	2E-02	5E-09	7E-02	1E-08	8E-03	2E-07	8E-02	7E-08	NC	8E-08	**3E+00**	8E-08	6E-02	1E-09	1E-05
Landbay B	74G96	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	74G97	NC	1E-02	NC	NC	NC	7E-03	NC	4E-02	NC	8E-03	NC	8E-02	NC	NC	NC	**5E+03**	NC	**9E+01**	NC	NC
Landbay B	74G98	4E-08	1E-02	2E-10	NC	1E-08	2E-02	5E-09	7E-02	1E-08	8E-03	2E-07	8E-02	7E-08	NC	8E-08	4E-03	8E-08	4E-03	1E-09	1E-05
Landbay B	76AEC-1	4E-08	5E-03	NC	NC	7E-09	3E-03	4E-09	2E-02	1E-08	3E-03	2E-07	3E-02	NC	NC	NC	**2E+03**	NC	**3E+01**	NC	NC
Landbay B	76ANEC	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**8E+03**	NC	**2E+02**	NC	NC
Landbay B	76B12	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	4E-01	NC	7E-03	NC	NC
Landbay B	76B13	NC	2E-05	NC	NC	NC	7E-06	NC	3E-06	NC	1E-05	NC	6E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76B14	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	1E-06	NC	1E-05	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay B	76B15	NC	4E-06	NC	NC	NC	2E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	**2E+00**	NC	3E-02	NC	NC
Landbay B	76G1	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	2E-05	NC	NC	NC	8E-01	NC	2E-02	NC	NC
Landbay B	76G10	NC	1E-06	NC	NC	NC	9E-07	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay B	76G11	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay B	76G16	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay B	76G2	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76G3	2E-08	4E-03	3E-10	NC	4E-09	6E-03	2E-09	2E-02	5E-09	3E-03	9E-08	2E-02	8E-08	NC	2E-08	4E-01	2E-08	9E-03	1E-09	6E-06
Landbay B	76G4	NC	9E-07	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	4E-01	NC	8E-03	NC	NC
Landbay B	76G5	2E-08	4E-03	3E-10	NC	4E-09	6E-03	2E-09	2E-02	5E-09	3E-03	9E-08	2E-02	8E-08	NC	2E-08	**2E+00**	2E-08	4E-02	1E-09	6E-06
Landbay B	76G6	2E-08	4E-03	3E-10	NC	4E-09	6E-03	2E-09	2E-02	5E-09	3E-03	9E-08	2E-02	8E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	6E-06
Landbay B	76G7	NC	6E-07	NC	NC	NC	4E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	2E-01	NC	5E-03	NC	NC
Landbay B	76G8	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	76G9	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	4E-01	NC	9E-03	NC	NC
Landbay B	78B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	81B1	4E-13	3E-03	NC	NC	4E-10	4E-03	1E-10	2E-02	8E-15	2E-03	2E-12	2E-02	NC	NC	NC	4E-01	NC	2E-02	2E-12	4E-06
Landbay B	81B2	4E-13	3E-03	NC	NC	4E-10	4E-03	1E-10	2E-02	8E-15	2E-03	2E-12	2E-02	NC	NC	NC	1E-02	NC	1E-02	2E-12	4E-06
Landbay B	81G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	81G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85AEC-1	NC	1E-04	NC	3E-04	NC	7E-05	NC	4E-04	NC	9E-05	NC	8E-04	NC	4E-02	NC	**4E+01**	NC	9E-01	NC	4E-06
Landbay B	85ANEC	NC	1E-04	NC	NC	NC	9E-05	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**6E+01**	NC	1E+00	NC	NC
Landbay B	85B140	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	3E-01	NC	6E-03	NC	NC
Landbay B	85B141	NC	3E-03	NC	NC	NC	1E-03	NC	7E-04	NC	2E-03	NC	1E-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85B142	NC	2E-05	NC	NC	NC	1E-05	NC	5E-06	NC	2E-05	NC	1E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85B143	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	6E-01	NC	1E-02	NC	NC
Landbay B	85B144	NC	2E-05	NC	NC	NC	7E-06	NC	4E-06	NC	1E-05	NC	7E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G53	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G54	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	4E-01	NC	8E-03	NC	NC
Landbay B	85G55	NC	2E-06	NC	NC	NC	1E-06	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	5E-01	NC	9E-03	NC	NC
Landbay B	85G56	NC	1E-06	NC	NC	NC	6E-07	NC	4E-06	NC	7E-07	NC	7E-06	NC	NC	NC	4E-01	NC	8E-03	NC	NC
Landbay B	85G57	NC	4E-06	NC	NC	NC	2E-06	NC	1E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G58	2E-07	3E-03	2E-10	4E-05	4E-08	1E-02	2E-08	3E-02	5E-08	2E-03	1E-06	2E-02	7E-08	8E-03	3E-07	3E-03	3E-07	3E-03	1E-09	5E-05
Landbay B	85G59	2E-07	3E-03	2E-10	4E-05	4E-08	1E-02	2E-08	3E-02	5E-08	2E-03	1E-06	2E-02	7E-08	8E-03	3E-07	3E-03	3E-07	3E-03	1E-09	5E-05
Landbay B	85G60	NC	2E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	1E+00	NC	2E-02	NC	NC
Landbay B	85G61	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G62	2E-07	3E-03	2E-10	4E-05	4E-08	1E-02	2E-08	3E-02	5E-08	2E-03	1E-06	2E-02	7E-08	8E-03	3E-07	4E-01	3E-07	1E-02	1E-09	5E-05
Landbay B	85G63	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	85G64	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	7E-01	NC	1E-02	NC	NC

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	86B1	3E-07	7E-03	4E-10	1E-03	7E-08	4E-03	4E-08	1E-02	8E-08	5E-03	2E-06	4E-02	1E-07	2E-01	5E-07	1E-01	5E-07	3E-02	2E-09	1E-03
Landbay B	86B2	3E-07	7E-03	4E-10	1E-03	7E-08	4E-03	4E-08	1E-02	8E-08	5E-03	2E-06	4E-02	1E-07	2E-01	5E-07	1E-01	5E-07	3E-02	2E-09	1E-03
Landbay B	86G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	86G4	3E-07	7E-03	4E-10	1E-03	7E-08	4E-03	4E-08	1E-02	8E-08	5E-03	2E-06	4E-02	1E-07	2E-01	5E-07	3E-02	5E-07	3E-02	2E-09	1E-03
Landbay B	87B1	7E-09	1E-03	NC	NC	4E-09	1E-03	2E-09	3E-03	2E-09	7E-04	6E-08	6E-03	NC	NC	1E-08	**6E+01**	1E-08	1E+00	7E-12	6E-07
Landbay B	87B2	7E-09	9E-04	NC	NC	4E-09	9E-04	2E-09	3E-03	2E-09	6E-04	6E-08	5E-03	NC	NC	1E-08	**1E+01**	1E-08	2E-01	7E-12	6E-07
Landbay B	87G4	7E-09	8E-04	NC	NC	4E-09	9E-04	2E-09	3E-03	2E-09	6E-04	6E-08	5E-03	NC	NC	1E-08	2E-02	1E-08	2E-02	7E-12	6E-07
Landbay B	97B1	8E-09	1E-03	NC	NC	3E-09	2E-03	2E-09	9E-03	2E-09	1E-03	7E-08	1E-02	NC	NC	2E-08	1E-02	2E-08	1E-02	6E-12	2E-06
Landbay B	98B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	A6G183	6E-07	4E-02	7E-09	1E-03	1E-07	2E-02	5E-08	6E-02	2E-07	3E-02	3E-06	2E-01	2E-06	3E-01	5E-07	**3E+01**	5E-07	7E-01	4E-08	1E-03
Landbay B	A6G184	2E-06	2E-02	1E-09	NC	4E-07	2E-02	2E-07	6E-02	5E-07	2E-02	1E-05	1E-01	3E-07	NC	3E-06	1E-01	3E-06	3E-02	6E-09	1E-05
Landbay B	A6G185	5E-07	1E-02	1E-09	5E-04	1E-07	2E-02	5E-08	5E-02	1E-07	1E-02	3E-06	8E-02	3E-07	9E-02	8E-07	9E-01	8E-07	4E-02	6E-09	5E-04
Landbay B	A6G186	6E-13	1E-02	NC	6E-05	7E-10	3E-02	2E-10	1E-01	1E-14	9E-03	3E-12	9E-02	NC	1E-02	NC	2E-01	NC	3E-02	3E-12	8E-05
Landbay B	A6G187	6E-13	7E-03	NC	NC	7E-10	1E-02	2E-10	6E-02	1E-14	5E-03	3E-12	5E-02	NC	NC	NC	2E-02	NC	2E-02	3E-12	2E-05
Landbay B	A6S158	7E-07	6E-02	9E-09	4E-03	1E-07	3E-02	6E-08	7E-02	2E-07	4E-02	3E-06	2E-01	3E-06	7E-01	7E-07	3E-01	7E-07	5E-02	5E-08	3E-03
Landbay B	A7G188	6E-07	7E-03	NC	1E-05	1E-07	1E-02	8E-08	3E-02	2E-07	5E-03	4E-06	5E-02	NC	2E-03	1E-06	2E-01	1E-06	2E-02	2E-11	2E-05
Landbay B	A7G189	8E-07	6E-03	NC	NC	2E-07	5E-03	1E-07	8E-03	2E-07	4E-03	6E-06	4E-02	NC	NC	2E-06	4E-01	2E-06	4E-02	3E-11	2E-06
Landbay B	A7G190	2E-06	1E-02	NC	NC	4E-07	8E-03	2E-07	1E-02	4E-07	8E-03	1E-05	6E-02	NC	NC	3E-06	3E-01	3E-06	5E-02	5E-11	3E-06
Landbay B	A7S162	6E-07	1E-01	2E-10	NC	3E-07	3E-01	1E-07	9E-01	2E-07	1E-01	4E-06	1E+00	7E-08	NC	1E-06	2E-02	1E-06	2E-02	2E-09	4E-04
Landbay B	A7S163	2E-08	1E-01	2E-10	NC	2E-07	3E-01	6E-08	9E-01	5E-09	1E-01	9E-08	1E+00	7E-08	NC	2E-08	6E-01	2E-08	5E-02	2E-09	4E-04
Landbay B	A8G193	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay B	A8G194	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay B	A8G195	3E-07	3E-02	4E-09	1E-03	6E-08	3E-02	3E-08	9E-02	9E-08	2E-02	2E-06	1E-01	1E-06	3E-01	3E-07	**9E+01**	3E-07	**2E+00**	2E-08	1E-03
Landbay B	A8S154	1E-05	7E-01	1E-07	NC	2E-06	3E-01	8E-07	6E-01	3E-06	4E-01	4E-05	**3E+00**	4E-05	NC	9E-06	5E-01	9E-06	5E-01	7E-07	7E-06
Landbay B	A8S155	1E-05	7E-01	1E-07	NC	2E-06	3E-01	8E-07	6E-01	3E-06	4E-01	4E-05	**3E+00**	4E-05	NC	9E-06	5E-01	9E-06	5E-01	7E-07	7E-06
Landbay B	A8S156	3E-07	3E-02	4E-09	1E-04	5E-08	2E-02	3E-08	7E-02	8E-08	2E-02	1E-06	1E-01	1E-06	2E-02	3E-07	**1E+03**	3E-07	**3E+01**	2E-08	1E-04
Landbay B	A8S159	2E-08	5E-03	2E-10	NC	5E-09	7E-03	2E-09	3E-02	5E-09	3E-03	9E-08	3E-02	7E-08	NC	2E-08	1E+00	2E-08	3E-02	1E-09	7E-06
Landbay B	A8S169	3E-06	2E-01	4E-08	NC	5E-07	1E-01	3E-07	2E-01	8E-07	2E-01	1E-05	9E-01	1E-05	NC	3E-06	**3E+00**	3E-06	2E-01	2E-07	1E-05
Landbay B	A8S170	6E-08	4E-03	8E-10	NC	1E-08	2E-03	5E-09	4E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	6E-08	2E-01	6E-08	8E-03	4E-09	NC
Landbay B	AB-03	3E-09	8E-04	2E-12	4E-09	2E-09	8E-04	7E-10	2E-03	9E-10	6E-04	2E-08	5E-03	6E-10	1E-06	4E-09	2E-02	4E-09	2E-02	2E-10	8E-07
Landbay B	AB-06	2E-07	4E-03	1E-11	2E-08	8E-08	6E-03	4E-08	2E-02	7E-08	3E-03	2E-06	3E-02	3E-09	6E-06	5E-07	3E-02	5E-07	3E-02	1E-09	8E-06
Landbay B	AB-13	7E-07	2E-03	NC	NC	2E-07	3E-03	1E-07	1E-02	2E-07	2E-03	6E-06	2E-02	NC	NC	1E-06	2E-03	1E-06	2E-03	2E-10	3E-06
Landbay B	AB-14	3E-08	8E-03	2E-12	4E-09	1E-08	2E-02	5E-09	7E-02	9E-09	6E-03	3E-07	6E-02	6E-10	1E-06	6E-08	2E-02	6E-08	2E-02	2E-10	2E-05
Landbay B	AB-15	8E-13	5E-03	NC	NC	9E-10	9E-03	3E-10	4E-02	2E-14	4E-03	4E-12	3E-02	NC	NC	NC	2E-02	NC	2E-02	4E-12	9E-06
Landbay B	AB-16	4E-13	3E-03	NC	NC	5E-10	5E-03	1E-10	2E-02	8E-15	2E-03	2E-12	2E-02	NC	NC	NC	1E-02	NC	1E-02	2E-12	6E-06
Landbay B	AB-17	2E-08	3E-03	1E-11	3E-08	6E-09	4E-03	3E-09	2E-02	7E-09	2E-03	2E-07	2E-02	4E-09	8E-06	3E-08	2E-02	3E-08	2E-02	1E-09	6E-06
Landbay B	AB-18	4E-09	9E-04	3E-12	5E-09	2E-09	8E-04	8E-10	2E-03	1E-09	6E-04	3E-08	5E-03	8E-10	1E-06	6E-09	2E-02	6E-09	2E-02	2E-10	1E-06
Landbay B	AB-19	5E-09	6E-04	3E-12	6E-09	1E-09	5E-04	8E-10	1E-03	1E-09	4E-04	3E-08	3E-03	9E-10	2E-06	6E-09	2E-01	6E-09	1E-02	3E-10	7E-07
Landbay B	AB-20	7E-13	8E-04	NC	NC	8E-10	8E-04	2E-10	3E-03	1E-14	6E-04	3E-12	5E-03	NC	NC	NC	2E-02	NC	2E-02	3E-12	4E-07
Landbay B	AB-21	6E-13	7E-04	NC	NC	7E-10	7E-04	2E-10	2E-03	1E-14	5E-04	3E-12	4E-03	NC	NC	NC	1E-02	NC	1E-02	3E-12	4E-07
Landbay B	AB-22	3E-08	2E-03	2E-11	3E-08	7E-09	1E-03	4E-09	3E-03	8E-09	1E-03	2E-07	1E-02	5E-09	8E-06	4E-08	2E-02	4E-08	2E-02	1E-09	3E-06
Landbay B	AJA EE-2	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	AJAY-301	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	B97AEC-1S	NC	2E-04	NC	NC	NC	1E-04	NC	9E-04	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay B	BKG-A	NC	6E-03	NC	NC	NC	1E-02	NC	5E-02	NC	5E-03	NC	5E-02	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	1E-05
Landbay B	BKG-B	NC	4E-04	NC	NC	NC	2E-04	NC	2E-03	NC	3E-04	NC	3E-03	NC	NC	NC	**2E+02**	NC	**3E+00**	NC	NC
Landbay B	BKG-C	NC	2E-04	NC	NC	NC	1E-04	NC	9E-04	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+01**	NC	2E-01	NC	4E-09
Landbay B	BKG-D	NC	3E-03	NC	NC	NC	6E-03	NC	3E-02	NC	2E-03	NC	2E-02	NC	NC	NC	**3E+01**	NC	6E-01	NC	7E-06
Landbay B	BKG-E	NC	7E-03	NC	NC	NC	2E-02	NC	6E-02	NC	5E-03	NC	6E-02	NC	NC	NC	**8E+01**	NC	**2E+00**	NC	2E-05
Landbay B	BKG-F	NC	8E-03	NC	NC	NC	2E-02	NC	6E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**1E+01**	NC	2E-01	NC	2E-05
Landbay B	BKG-G	NC	4E-03	NC	NC	NC	7E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC	NC	NC	NC	7E-06
Landbay B	BKG-H	NC	5E-03	NC	NC	NC	8E-03	NC	4E-02	NC	4E-03	NC	4E-02	NC	NC	NC	NC	NC	NC	NC	8E-06
Landbay B	BKG-I	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-J	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-K	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BKG-L	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	BW 78-10	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay B	BW 78-11	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**2E+01**	NC	NC
Landbay B	BW 78-12	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay B	DP-119	1E-06	1E-01	NC	7E-04	3E-07	8E-02	2E-07	2E-01	3E-07	8E-02	8E-06	7E-01	NC	1E-01	2E-06	1E+00	2E-06	1E+00	2E-10	7E-04
Landbay B	DP-30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 108-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 116-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay B	GP 119-02	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	GP 42-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 48-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-04	NC	6E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	**3E+02**	NC	**5E+00**	NC	NC
Landbay B	GP 70-05	NC	4E-03	NC	NC	NC	3E-03	NC	2E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**2E+03**	NC	**3E+01**	NC	NC
Landbay B	GP 70-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 70-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 73-03	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	GP 73-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-03	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	GP 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-06	NC	8E-04	NC	NC	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	NC	NC	**4E+02**	NC	**7E+00**	NC	NC
Landbay B	GP 74-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 74-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 76-05	NC	2E-02	NC	**3E+00**	NC	9E-03	NC	8E-02	NC	2E-03	NC	7E-02	NC	**5E+02**	NC	2E-01	NC	2E-01	NC	6E-02
Landbay B	GP 77-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-02	NC	2E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay B	GP 77-05	NC	2E-03	NC	NC	NC	1E-03	NC	7E-03	NC	1E-03	NC	1E-02	NC	NC	NC	**8E+02**	NC	**2E+01**	NC	NC
Landbay B	GP 77-06	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	2E-03	NC	NC	NC	**8E+01**	NC	**2E+00**	NC	NC
Landbay B	GP 77-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-12	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay B	GP 77-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 77-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 78-01	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**3E+03**	NC	**7E+01**	NC	NC
Landbay B	GP 78-03	NC	4E-02	NC	NC	NC	3E-02	NC	2E-01	NC	3E-02	NC	3E-01	NC	NC	NC	**2E+04**	NC	**3E+02**	NC	NC
Landbay B	GP 79-01	NC	3E-04	NC	2E-02	NC	1E-04	NC	4E-04	NC	3E-05	NC	1E-03	NC	**4E+00**	NC	1E-03	NC	1E-03	NC	1E-03
Landbay B	GP 79-02	NC	1E-04	NC	7E-03	NC	5E-05	NC	2E-04	NC	1E-05	NC	4E-04	NC	**2E+00**	NC	NC	NC	NC	NC	4E-04
Landbay B	GP 81-01	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay B	GP 81-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 81-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 82-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 82-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 84-01	NC	2E-05	NC	NC	NC	7E-06	NC	3E-06	NC	1E-05	NC	6E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP 85-01	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay B	GP 86-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	GP BG-03	1E-06	2E-01	NC	1E-04	4E-07	2E-01	2E-07	4E-01	4E-07	2E-01	9E-06	**2E+00**	NC	2E-02	2E-06	1E-02	2E-06	1E-02	6E-10	2E-04
Landbay B	GP PP-01	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	4E-04	NC	4E-04	NC	NC
Landbay B	GP PP-02	NC	1E-06	NC	NC	NC	9E-07	NC	6E-06	NC	1E-06	NC	1E-05	NC	NC	NC	2E-04	NC	2E-04	NC	NC
Landbay B	GP PP-03	NC	4E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	4E-04	NC	4E-04	NC	NC
Landbay B	GP PP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-1	3E-06	8E-01	NC	NC	9E-07	6E-01	4E-07	9E-01	8E-07	6E-01	2E-05	**6E+00**	NC	NC	5E-06	7E-02	5E-06	7E-02	1E-09	8E-05
Landbay B	IM11-10	1E-10	5E-02	NC	NC	1E-07	4E-01	3E-08	1E+00	2E-12	4E-02	5E-10	4E-01	NC	NC	NC	NC	NC	NC	5E-10	5E-04
Landbay B	IM11-2	9E-11	2E-01	NC	NC	1E-07	9E-01	3E-08	**3E+00**	2E-12	1E-01	5E-10	**2E+00**	NC	NC	NC	2E-02	NC	2E-02	5E-10	1E-03
Landbay B	IM11-3	2E-07	3E-02	NC	NC	4E-08	2E-01	2E-08	7E-01	4E-08	2E-02	1E-06	2E-01	NC	NC	3E-07	1E-02	3E-07	1E-02	1E-11	3E-04
Landbay B	IM11-4	1E-07	1E-01	NC	NC	4E-08	4E-01	2E-08	1E+00	4E-08	1E-01	1E-06	1E+00	NC	NC	3E-07	4E-02	3E-07	4E-02	2E-11	5E-04
Landbay B	IM11-5	7E-07	2E-01	NC	NC	3E-07	5E-01	1E-07	1E+00	2E-07	1E-01	5E-06	1E+00	NC	NC	1E-06	2E-02	1E-06	2E-02	7E-10	6E-04
Landbay B	IM11-6	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-7	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	IM11-8	3E-11	1E-02	NC	NC	3E-08	1E-02	1E-08	9E-03	6E-13	9E-03	2E-10	9E-02	NC	NC	NC	NC	NC	NC	2E-10	7E-06
Landbay B	IM11-9	3E-11	2E-02	NC	NC	4E-08	2E-01	1E-08	6E-01	7E-13	2E-02	2E-10	2E-01	NC	NC	NC	NC	NC	NC	2E-10	3E-04
Landbay B	JT O-01A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	MC D-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 117-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 70-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 70-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 71-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 74-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 77-02	NC	8E-05	NC	NC	NC	5E-05	NC	3E-04	NC	6E-05	NC	6E-04	NC	NC	NC	**4E+01**	NC	7E-01	NC	NC
Landbay B	SB 77-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 77-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-04	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay B	SB 78-05	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay B	SB 78-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-08	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	SB 78-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-11	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-17	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-18	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	3E-03	NC	3E-02	NC	NC	NC	**1E+03**	NC	**3E+01**	NC	NC
Landbay B	SB 78-19	NC	1E-03	NC	NC	NC	7E-04	NC	4E-03	NC	8E-04	NC	8E-03	NC	NC	NC	**5E+02**	NC	**9E+00**	NC	NC
Landbay B	SB 78-20	NC	2E-02	NC	NC	NC	1E-02	NC	9E-02	NC	2E-02	NC	2E-01	NC	NC	NC	**1E+04**	NC	**2E+02**	NC	NC
Landbay B	SB 78-21	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay B	SB 78-22	NC	4E-05	NC	NC	NC	2E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	3E-01	NC	NC
Landbay B	SB 78-23	NC	8E-04	NC	NC	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	NC	NC	**3E+02**	NC	**6E+00**	NC	NC
Landbay B	SB 78-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-25	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-26	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-28	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-30	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay B	SB 78-31	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-32	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-33	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-34	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-35	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-36	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-37	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay B	SB 78-38	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-39	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay B	SB 78-40	NC	2E-04	NC	NC	NC	1E-04	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**7E+01**	NC	1E+00	NC	NC
Landbay B	SB 78-41	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SB 78-42	NC	3E-03	NC	NC	NC	2E-03	NC	1E-02	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**3E+01**	NC	NC
Landbay B	SB 78-43	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay B	SED 40-26	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SED 40-27	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay B	SED 40-28	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	S-IMSED-4	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	2E-08	3E-03	3E-07	2E-02	2E-07	NC	6E-08	3E-03	6E-08	3E-03	4E-09	NC
Landbay B	S-IMSED-6	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	7E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay B	SR-116	7E-07	9E-03	NC	NC	1E-07	4E-03	7E-08	4E-03	2E-07	6E-03	4E-06	4E-02	NC	NC	NC	**3E+02**	NC	**6E+00**	NC	NC
Landbay B	SR-76B	NC	7E-04	NC	7E-04	NC	4E-04	NC	2E-03	NC	4E-04	NC	5E-03	NC	1E-01	NC	7E-03	NC	7E-03	NC	7E-04
Landbay B	SR-76S	1E-08	6E-04	NC	2E-04	3E-09	4E-04	1E-09	1E-03	3E-09	4E-04	6E-08	3E-03	NC	4E-02	NC	3E-03	NC	3E-03	2E-12	2E-04
Landbay B	SR-85S	6E-06	6E-02	NC	NC	1E-06	3E-02	6E-07	8E-03	2E-06	4E-02	3E-05	2E-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-108A	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	**5E+00**	NC	9E-02	NC	NC
Landbay B	SS-116B	NC	5E-05	NC	NC	NC	2E-05	NC	1E-05	NC	3E-05	NC	2E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-116C	5E-06	5E-02	NC	NC	9E-07	2E-02	4E-07	7E-03	1E-06	3E-02	2E-05	2E-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-116D	3E-08	3E-04	NC	NC	5E-09	1E-04	3E-09	4E-05	8E-09	2E-04	1E-07	1E-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-74A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-74E	8E-07	1E-02	NC	NC	1E-07	6E-03	7E-08	2E-03	2E-07	8E-03	4E-06	5E-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-74G	2E-05	2E-01	NC	NC	3E-06	7E-02	2E-06	2E-02	5E-06	1E-01	9E-05	6E-01	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-85A	NC	2E-02	NC	NC	NC	7E-03	NC	4E-03	NC	1E-02	NC	7E-02	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SS-86A	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	8E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay B	SS-98A	NC	2E-06	NC	NC	NC	1E-06	NC	7E-06	NC	1E-06	NC	1E-05	NC	NC	NC	7E-01	NC	1E-02	NC	NC
Landbay B	SW 115-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 70-01	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay B	SW 70-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 74-02	NC	7E-04	NC	NC	NC	5E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	**6E+00**	NC	1E-01	NC	NC
Landbay B	SW 74-03	NC	1E-05	NC	NC	NC	9E-06	NC	6E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**6E+00**	NC	1E-01	NC	NC
Landbay B	SW 74-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 74-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay B	SW 78-02	NC	7E-03	NC	NC	NC	4E-03	NC	3E-02	NC	5E-03	NC	5E-02	NC	NC	NC	**3E+03**	NC	**6E+01**	NC	NC
Landbay B	TRL200B1	NC	1E-05	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay C	194B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	23TP2-10	2E-06	1E-02	4E-10	3E-05	4E-07	9E-03	2E-07	1E-02	5E-07	1E-02	1E-05	8E-02	1E-07	5E-03	3E-06	1E-01	3E-06	3E-02	2E-09	4E-06
Landbay C	23TP3-7	8E-07	2E-02	NC	1E-04	2E-07	3E-02	1E-07	1E-01	2E-07	1E-02	6E-06	1E-01	NC	3E-02	2E-06	4E-02	2E-06	4E-02	3E-11	3E-05
Landbay C	23TP4-7	NC	8E-03	NC	NC	NC	2E-02	NC	7E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**8E+00**	NC	2E-01	NC	2E-05
Landbay C	23TP5-12	1E-06	1E-02	7E-10	5E-08	2E-07	2E-02	1E-07	7E-02	1E-06	9E-03	2E-05	8E-02	3E-07	1E-05	8E-06	**8E+00**	8E-06	2E-01	9E-08	2E-05
Landbay C	25TP1-25	1E-13	3E-05	NC	6E-08	2E-10	4E-05	5E-11	2E-04	3E-15	2E-05	7E-13	2E-04	NC	2E-05	NC	1E-04	NC	1E-04	7E-13	9E-08
Landbay C	25TP2-30	6E-07	6E-03	NC	1E-08	1E-07	6E-03	8E-08	2E-02	2E-07	4E-03	4E-06	4E-02	NC	3E-06	1E-06	1E-01	1E-06	8E-03	2E-11	5E-06
Landbay C	25TP3-10	NC	2E-08	NC	3E-08	NC	1E-08	NC	5E-08	NC	1E-08	NC	1E-07	NC	8E-06	NC	4E-05	NC	4E-05	NC	2E-08
Landbay C	25TP4-25	8E-09	1E-04	2E-08	1E-04	2E-09	8E-05	2E-09	3E-04	2E-10	6E-05	3E-08	6E-04	6E-06	4E-02	NC	**2E+00**	NC	8E-02	3E-08	2E-04
Landbay C	26TP1-5	4E-13	5E-04	NC	2E-08	5E-10	9E-04	2E-10	4E-03	9E-15	3E-04	2E-12	3E-03	NC	6E-06	NC	9E-02	NC	2E-03	2E-12	9E-07
Landbay C	26TP2-7	8E-07	5E-03	NC	2E-08	2E-07	4E-03	1E-07	4E-03	2E-07	4E-03	6E-06	3E-02	NC	4E-06	1E-06	2E-01	1E-06	1E-02	3E-11	1E-06
Landbay C	27TP1-7	7E-07	5E-03	NC	8E-08	2E-07	3E-03	9E-08	3E-03	2E-07	3E-03	5E-06	3E-02	NC	2E-05	1E-06	7E-02	1E-06	8E-03	2E-11	8E-07
Landbay C	27TP2-7	6E-07	4E-03	NC	1E-08	1E-07	2E-03	8E-08	2E-03	2E-07	3E-03	4E-06	2E-02	NC	3E-06	1E-06	6E-03	1E-06	6E-03	2E-11	6E-07
Landbay C	6150-1850	7E-08	6E-02	NC	NC	2E-07	1E-01	5E-08	3E-01	2E-08	4E-02	6E-07	4E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	6E-10	1E-04
Landbay C	6300-1850	5E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	1E-03	9E-08	1E-03	3E-10	4E-05
Landbay C	6450-1700	5E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	1E-03	9E-08	1E-03	3E-10	4E-05
Landbay C	6450-1850	5E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	1E-03	9E-08	1E-03	3E-10	4E-05
Landbay C	6450-2000	4E-05	4E-02	2E-07	5E-03	7E-06	4E-02	3E-06	9E-02	3E-05	3E-02	**7E-04**	3E-01	5E-05	1E+00	**2E-04**	4E-02	**2E-04**	4E-02	2E-06	2E-03
Landbay C	6450-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6450-2000SE	2E-05	3E-03	4E-08	1E-03	4E-06	1E-03	2E-06	1E-03	2E-05	2E-03	**5E-04**	1E-02	1E-05	3E-01	1E-04	2E-02	1E-04	2E-02	1E-06	4E-04
Landbay C	6450-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6450-2150	8E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	9E-02	2E-08	3E-02	7E-07	3E-01	NC	NC	2E-07	2E-03	2E-07	2E-03	3E-10	2E-05
Landbay C	6500-111	1E-06	1E-01	NC	NC	3E-07	8E-02	2E-07	2E-01	3E-07	8E-02	9E-06	8E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	9E-11	3E-05
Landbay C	6600-1850	5E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	9E-08	1E-03	9E-08	1E-03	3E-10	4E-05
Landbay C	6600-2000	8E-08	3E-02	NC	NC	9E-08	4E-02	3E-08	9E-02	2E-08	3E-02	7E-07	3E-01	NC	NC	2E-07	2E-03	2E-07	2E-03	3E-10	2E-05
Landbay C	6600-2300	6E-08	3E-02	NC	9E-06	7E-08	4E-02	3E-08	1E-01	2E-08	2E-02	5E-07	2E-01	NC	2E-03	1E-07	1E-03	1E-07	1E-03	3E-10	3E-05
Landbay C	6750-1850	9E-07	3E-02	NC	4E-08	2E-07	5E-02	1E-07	2E-01	3E-07	3E-02	6E-06	3E-01	NC	1E-05	2E-06	8E-03	2E-06	8E-03	3E-11	5E-05
Landbay C	6750-2000	4E-08	3E-02	NC	6E-03	8E-08	3E-02	3E-08	4E-02	1E-08	2E-02	4E-07	2E-01	NC	1E+00	8E-08	2E-03	8E-08	2E-03	3E-10	3E-04
Landbay C	6750-2300	6E-08	3E-02	NC	NC	7E-08	4E-02	3E-08	1E-01	2E-08	2E-02	5E-07	2E-01	NC	NC	1E-07	7E-04	1E-07	7E-04	3E-10	3E-05
Landbay C	6900-119	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	6900-1850	9E-07	3E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	3E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	8E-03	2E-06	8E-03	3E-11	5E-05
Landbay C	6900-2000	4E-08	3E-02	NC	NC	8E-08	3E-02	3E-08	4E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	6E-04	8E-08	6E-04	3E-10	2E-05
Landbay C	6900-2150	4E-08	3E-02	NC	NC	8E-08	3E-02	3E-08	4E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	6E-04	8E-08	6E-04	3E-10	2E-05
Landbay C	6900-2300	3E-08	7E-03	NC	NC	3E-08	1E-02	1E-08	2E-02	9E-09	6E-03	3E-07	6E-02	NC	NC	6E-08	1E-04	6E-08	1E-04	9E-11	9E-06
Landbay C	6900-2450	6E-08	3E-02	NC	1E-05	7E-08	4E-02	3E-08	1E-01	2E-08	2E-02	5E-07	2E-01	NC	2E-03	1E-07	1E-03	1E-07	1E-03	3E-10	3E-05
Landbay C	7000-120	2E-06	9E-02	NC	7E-07	5E-07	1E-01	3E-07	4E-01	5E-07	7E-02	1E-05	7E-01	NC	1E-04	4E-06	2E-02	4E-06	2E-02	5E-10	1E-04
Landbay C	7000-121	2E-06	2E-02	NC	2E-04	4E-07	5E-02	2E-07	1E-01	4E-07	2E-02	1E-05	2E-01	NC	3E-02	3E-06	2E-02	3E-06	2E-02	2E-10	2E-04
Landbay C	7000-122	NC	2E-07	NC	NC	NC	1E-07	NC	7E-07	NC	1E-07	NC	1E-06	NC	NC	NC	7E-02	NC	1E-03	NC	NC
Landbay C	7050-1700	9E-07	3E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	3E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	8E-03	2E-06	8E-03	3E-11	5E-05
Landbay C	7050-1850	9E-07	3E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	3E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	8E-03	2E-06	8E-03	3E-11	5E-05
Landbay C	7050-2150	4E-08	3E-02	NC	NC	8E-08	3E-02	3E-08	4E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	6E-04	8E-08	6E-04	3E-10	2E-05
Landbay C	7050-2300	3E-08	7E-03	NC	NC	3E-08	1E-02	1E-08	2E-02	9E-09	6E-03	3E-07	6E-02	NC	NC	6E-08	1E-04	6E-08	1E-04	9E-11	9E-06
Landbay C	7050-2900	4E-08	3E-02	NC	NC	6E-08	3E-02	2E-08	8E-02	1E-08	2E-02	4E-07	2E-01	NC	NC	8E-08	7E-04	8E-08	7E-04	2E-10	2E-05
Landbay C	7100-135	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7100-137	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7200-138	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	1E-06	NC	NC	NC	8E-02	NC	2E-03	NC	NC
Landbay C	7200-2000	2E-08	8E-03	NC	NC	5E-09	4E-02	3E-09	1E-01	5E-09	6E-03	1E-07	6E-02	NC	NC	3E-08	2E-03	3E-08	2E-03	5E-12	5E-05
Landbay C	7200-2150	2E-08	8E-03	NC	NC	5E-09	4E-02	3E-09	1E-01	5E-09	6E-03	1E-07	6E-02	NC	NC	3E-08	2E-03	3E-08	2E-03	5E-12	5E-05
Landbay C	7200-2300	3E-08	7E-03	NC	NC	3E-08	1E-02	1E-08	2E-02	9E-09	6E-03	3E-07	6E-02	NC	NC	6E-08	1E-04	6E-08	1E-04	9E-11	9E-06
Landbay C	7200-2450	3E-08	6E-02	NC	6E-05	1E-07	8E-02	5E-08	2E-01	8E-09	5E-02	3E-07	5E-01	NC	1E-02	6E-08	1E-04	6E-08	1E-04	6E-10	1E-04
Landbay C	7200-2600	1E-07	3E-02	7E-10	2E-04	8E-08	6E-02	3E-08	1E-01	3E-08	2E-02	7E-07	2E-01	2E-07	4E-02	2E-07	4E-03	2E-07	4E-03	4E-09	3E-04
Landbay C	7200-2750	1E-07	3E-02	7E-10	2E-04	8E-08	6E-02	3E-08	1E-01	3E-08	2E-02	7E-07	2E-01	2E-07	4E-02	2E-07	4E-03	2E-07	4E-03	4E-09	3E-04
Landbay C	7200-3050	7E-14	2E-05	NC	NC	8E-11	2E-05	3E-11	1E-04	2E-15	1E-05	4E-13	1E-04	NC	NC	NC	1E-05	NC	1E-05	4E-13	2E-08
Landbay C	7200-3200	7E-14	2E-05	NC	NC	8E-11	2E-05	3E-11	1E-04	2E-15	1E-05	4E-13	1E-04	NC	NC	NC	1E-05	NC	1E-05	4E-13	2E-08
Landbay C	7350-1850	2E-08	8E-03	NC	NC	5E-09	4E-02	3E-09	1E-01	5E-09	6E-03	1E-07	6E-02	NC	NC	3E-08	2E-03	3E-08	2E-03	5E-12	5E-05
Landbay C	7350-2000	2E-08	8E-03	NC	NC	5E-09	4E-02	3E-09	1E-01	5E-09	6E-03	1E-07	6E-02	NC	NC	3E-08	2E-03	3E-08	2E-03	5E-12	5E-05
Landbay C	7350-2300	3E-08	6E-02	NC	6E-05	1E-07	8E-02	5E-08	2E-01	8E-09	5E-02	3E-07	5E-01	NC	1E-02	6E-08	1E-04	6E-08	1E-04	6E-10	1E-04
Landbay C	7350-2450	3E-08	6E-02	NC	6E-05	1E-07	8E-02	5E-08	2E-01	8E-09	5E-02	3E-07	5E-01	NC	1E-02	6E-08	1E-04	6E-08	1E-04	6E-10	1E-04
Landbay C	7350-2750	1E-07	3E-02	7E-10	2E-04	8E-08	6E-02	3E-08	1E-01	3E-08	2E-02	7E-07	2E-01	2E-07	4E-02	2E-07	4E-03	2E-07	4E-03	4E-09	3E-04
Landbay C	7350-2900	1E-07	3E-02	7E-10	2E-04	8E-08	6E-02	3E-08	1E-01	3E-08	2E-02	7E-07	2E-01	2E-07	4E-02	2E-07	4E-03	2E-07	4E-03	4E-09	3E-04
Landbay C	7350-3050	8E-13	9E-02	NC	NC	8E-10	6E-02	3E-10	9E-02	2E-14	7E-02	4E-12	7E-01	NC	NC	NC	3E-01	NC	3E-02	4E-12	6E-07
Landbay C	7350-3200	2E-14	7E-02	NC	NC	3E-11	5E-02	9E-12	7E-02	5E-16	5E-02	1E-13	5E-01	NC	NC	NC	2E-01	NC	4E-03	1E-13	2E-08
Landbay C	7500-141	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	7500-144	NC	2E-07	NC	NC	NC	1E-07	NC	7E-07	NC	1E-07	NC	1E-06	NC	NC	NC	7E-02	NC	1E-03	NC	NC
Landbay C	7500-145	NC	2E-02	NC	NC	NC	8E-02	NC	3E-01	NC	1E-02	NC	1E-01	NC	NC	NC	1E+00	NC	9E-01	NC	1E-04
Landbay C	7500-146	3E-07	2E-02	3E-09	5E-04	4E-08	8E-03	2E-08	2E-02	7E-08	1E-02	1E-06	7E-02	9E-07	1E-01	2E-07	2E-02	2E-07	2E-02	2E-08	5E-04
Landbay C	7500-1700	NC	1E-03	NC	NC	NC	2E-02	NC	8E-02	NC	8E-04	NC	8E-03	NC	NC	NC	3E-04	NC	3E-04	NC	3E-05
Landbay C	7500-1850	NC	1E-03	NC	NC	NC	2E-02	NC	8E-02	NC	8E-04	NC	8E-03	NC	NC	NC	3E-04	NC	3E-04	NC	3E-05
Landbay C	7500-2000	2E-13	9E-05	NC	1E-04	2E-10	9E-05	7E-11	4E-04	4E-15	5E-05	1E-12	6E-04	NC	2E-02	NC	4E-05	NC	4E-05	1E-12	9E-05
Landbay C	7500-2300	4E-07	5E-03	2E-10	1E-04	9E-08	3E-03	5E-08	7E-03	1E-07	3E-03	3E-06	3E-02	5E-08	2E-02	8E-07	5E-03	8E-07	5E-03	1E-09	1E-04
Landbay C	7500-2450	3E-08	6E-02	NC	6E-05	1E-07	8E-02	5E-08	2E-01	8E-09	5E-02	3E-07	5E-01	NC	1E-02	6E-08	5E-04	6E-08	5E-04	6E-10	1E-04
Landbay C	7500-2900	1E-10	7E-02	NC	2E-04	1E-07	2E-01	4E-08	6E-01	3E-12	6E-02	6E-10	6E-01	NC	4E-02	NC	4E-01	NC	1E-02	6E-10	5E-04
Landbay C	7500-3050	2E-13	4E-02	NC	NC	2E-10	3E-02	6E-11	4E-02	3E-15	3E-02	8E-13	3E-01	NC	NC	NC	2E-01	NC	3E-03	8E-13	4E-08
Landbay C	7600-147	NC	4E-07	NC	NC	NC	3E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	2E-01	NC	4E-03	NC	NC
Landbay C	7650-1700	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-04	NC	3E-04	8E-13	4E-08
Landbay C	7650-2150	2E-13	1E-04	NC	1E-03	2E-10	9E-05	7E-11	5E-04	4E-15	5E-05	1E-12	6E-04	NC	2E-01	NC	1E-04	NC	1E-04	1E-12	1E-04
Landbay C	7650-2300	4E-07	5E-03	2E-10	1E-04	9E-08	3E-03	5E-08	7E-03	1E-07	3E-03	3E-06	3E-02	5E-08	2E-02	8E-07	5E-03	8E-07	5E-03	1E-09	1E-04
Landbay C	7650-2450	4E-07	5E-03	2E-10	1E-04	9E-08	3E-03	5E-08	7E-03	1E-07	3E-03	3E-06	3E-02	5E-08	2E-02	8E-07	5E-03	8E-07	5E-03	1E-09	1E-04
Landbay C	7650-2600	3E-13	4E-04	NC	1E-04	4E-10	5E-04	1E-10	2E-03	7E-15	3E-04	2E-12	3E-03	NC	2E-02	NC	2E-03	NC	2E-03	2E-12	1E-04
Landbay C	7650-2750	3E-13	4E-04	NC	1E-04	4E-10	5E-04	1E-10	2E-03	7E-15	3E-04	2E-12	3E-03	NC	2E-02	NC	2E-03	NC	2E-03	2E-12	1E-04
Landbay C	7650-2900	1E-13	1E-04	NC	1E-04	1E-10	9E-05	4E-11	4E-04	2E-15	7E-05	5E-13	7E-04	NC	2E-02	NC	4E-04	NC	4E-04	5E-13	1E-04
Landbay C	7650-3050	9E-08	6E-02	3E-10	1E-04	2E-08	4E-02	1E-08	6E-02	2E-08	4E-02	5E-07	4E-01	9E-08	2E-02	1E-07	4E-03	1E-07	4E-03	2E-09	1E-04
Landbay C	7800-1700	5E-13	2E-02	NC	NC	6E-10	2E-02	2E-10	3E-02	1E-14	2E-02	3E-12	2E-01	NC	NC	NC	3E-01	NC	1E-02	3E-12	3E-07
Landbay C	7800-1850	5E-13	2E-02	NC	3E-07	6E-10	2E-02	2E-10	3E-02	1E-14	2E-02	3E-12	2E-01	NC	7E-05	NC	3E-01	NC	1E-02	3E-12	5E-07
Landbay C	7800-2000	2E-07	1E-03	NC	1E-04	4E-08	8E-04	2E-08	1E-03	4E-08	8E-04	1E-06	7E-03	NC	3E-02	3E-07	2E-03	3E-07	2E-03	7E-12	1E-04
Landbay C	7800-2150	2E-13	9E-05	NC	1E-04	2E-10	9E-05	7E-11	4E-04	4E-15	5E-05	1E-12	6E-04	NC	2E-02	NC	4E-05	NC	4E-05	1E-12	9E-05
Landbay C	7800-2300	4E-07	5E-03	2E-10	1E-04	9E-08	3E-03	5E-08	7E-03	1E-07	3E-03	3E-06	3E-02	5E-08	2E-02	8E-07	5E-03	8E-07	5E-03	1E-09	1E-04

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay C	7800-2450	3E-13	4E-04	NC	1E-04	4E-10	5E-04	1E-10	2E-03	7E-15	3E-04	2E-12	3E-03	NC	2E-02	NC	2E-03	NC	2E-03	2E-12	1E-04
Landbay C	7800-2600	3E-13	4E-04	NC	1E-04	4E-10	5E-04	1E-10	2E-03	7E-15	3E-04	2E-12	3E-03	NC	2E-02	NC	2E-03	NC	2E-03	2E-12	1E-04
Landbay C	7800-2750	1E-13	1E-04	NC	1E-04	1E-10	9E-05	4E-11	4E-04	2E-15	7E-05	5E-13	7E-04	NC	2E-02	NC	9E-04	NC	9E-04	5E-13	1E-04
Landbay C	7950-1700	5E-13	2E-02	NC	3E-07	6E-10	2E-02	2E-10	3E-02	1E-14	2E-02	3E-12	2E-01	NC	8E-05	NC	3E-01	NC	1E-02	3E-12	5E-07
Landbay C	7950-1850	5E-13	2E-02	NC	2E-07	6E-10	2E-02	2E-10	3E-02	1E-14	2E-02	3E-12	2E-01	NC	6E-05	NC	3E-01	NC	1E-02	3E-12	4E-07
Landbay C	7950-2000	2E-07	1E-03	NC	1E-04	4E-08	8E-04	2E-08	1E-03	4E-08	8E-04	1E-06	7E-03	NC	3E-02	3E-07	2E-03	3E-07	2E-03	7E-12	1E-04
Landbay C	7950-2150	2E-07	1E-03	NC	1E-04	4E-08	8E-04	2E-08	1E-03	4E-08	8E-04	1E-06	7E-03	NC	3E-02	3E-07	2E-03	3E-07	2E-03	7E-12	1E-04
Landbay C	7950-2300	2E-13	7E-05	NC	4E-05	2E-10	8E-05	8E-11	4E-04	5E-15	4E-05	1E-12	5E-04	NC	8E-03	NC	4E-05	NC	4E-05	1E-12	4E-05
Landbay C	7950-2450	2E-13	7E-05	NC	4E-05	2E-10	8E-05	8E-11	4E-04	5E-15	4E-05	1E-12	5E-04	NC	8E-03	NC	4E-05	NC	4E-05	1E-12	4E-05
Landbay C	7950-2600	1E-13	1E-04	NC	1E-04	1E-10	9E-05	4E-11	4E-04	2E-15	7E-05	5E-13	7E-04	NC	2E-02	NC	4E-04	NC	4E-04	5E-13	1E-04
Landbay C	8100-1700	8E-08	7E-04	NC	1E-04	2E-08	5E-04	1E-08	9E-04	2E-08	5E-04	6E-07	4E-03	NC	2E-02	2E-07	9E-04	2E-07	9E-04	4E-12	1E-04
Landbay C	8100-1850	8E-08	7E-04	NC	1E-04	2E-08	5E-04	1E-08	9E-04	2E-08	5E-04	6E-07	4E-03	NC	2E-02	2E-07	9E-04	2E-07	9E-04	4E-12	1E-04
Landbay C	8100-2000	2E-07	1E-03	NC	1E-04	4E-08	8E-04	2E-08	1E-03	4E-08	8E-04	1E-06	7E-03	NC	3E-02	3E-07	2E-03	3E-07	2E-03	7E-12	1E-04
Landbay C	8100-2150	2E-13	7E-05	NC	4E-05	2E-10	8E-05	8E-11	4E-04	5E-15	4E-05	1E-12	5E-04	NC	8E-03	NC	4E-05	NC	4E-05	1E-12	4E-05
Landbay C	8100-2300	2E-13	7E-05	NC	4E-05	2E-10	8E-05	8E-11	4E-04	5E-15	4E-05	1E-12	5E-04	NC	8E-03	NC	4E-05	NC	4E-05	1E-12	4E-05
Landbay C	8100-2450	1E-13	1E-04	NC	1E-04	1E-10	9E-05	4E-11	4E-04	2E-15	7E-05	5E-13	7E-04	NC	2E-02	NC	4E-04	NC	4E-04	5E-13	1E-04
Landbay C	8200-158	1E-07	1E-03	NC	2E-05	3E-08	8E-04	2E-08	2E-03	3E-08	8E-04	8E-07	7E-03	NC	3E-03	2E-07	2E-01	2E-07	4E-03	4E-12	1E-05
Landbay C	8250-1550	4E-08	5E-04	NC	6E-05	1E-08	4E-04	5E-09	1E-03	1E-08	4E-04	3E-07	3E-03	NC	1E-02	7E-08	8E-04	7E-08	8E-04	3E-12	6E-05
Landbay C	8250-1700	8E-08	7E-04	NC	1E-04	2E-08	5E-04	1E-08	9E-04	2E-08	5E-04	6E-07	4E-03	NC	2E-02	2E-07	9E-04	2E-07	9E-04	4E-12	1E-04
Landbay C	8250-1850	8E-08	7E-04	NC	1E-04	2E-08	5E-04	1E-08	9E-04	2E-08	5E-04	6E-07	4E-03	NC	2E-02	2E-07	9E-04	2E-07	9E-04	4E-12	1E-04
Landbay C	8250-2000	1E-06	9E-02	NC	NC	2E-07	6E-02	1E-07	9E-02	3E-07	6E-02	7E-06	6E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	1E-06
Landbay C	8250-2150	3E-14	7E-06	NC	NC	3E-11	9E-06	9E-12	4E-05	5E-16	5E-06	1E-13	6E-05	NC	NC	NC	6E-05	NC	6E-05	1E-13	6E-09
Landbay C	8250-2300	3E-14	7E-06	NC	NC	3E-11	9E-06	9E-12	4E-05	5E-16	5E-06	1E-13	6E-05	NC	NC	NC	6E-05	NC	6E-05	1E-13	6E-09
Landbay C	8400-1700	1E-06	9E-02	NC	NC	2E-07	6E-02	1E-07	9E-02	3E-07	6E-02	7E-06	6E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	1E-06
Landbay C	8400-1850	1E-06	9E-02	NC	3E-08	2E-07	6E-02	1E-07	9E-02	3E-07	6E-02	7E-06	6E-01	NC	7E-06	2E-06	1E-02	2E-06	1E-02	3E-11	1E-06
Landbay C	8400-2000	3E-14	7E-06	NC	NC	3E-11	9E-06	9E-12	4E-05	5E-16	5E-06	1E-13	6E-05	NC	NC	NC	6E-05	NC	6E-05	1E-13	6E-09
Landbay C	8400-2150	3E-14	7E-06	NC	NC	3E-11	9E-06	9E-12	4E-05	5E-16	5E-06	1E-13	6E-05	NC	NC	NC	6E-05	NC	6E-05	1E-13	6E-09
Landbay C	87G3	7E-09	8E-04	NC	NC	4E-09	9E-04	2E-09	3E-03	2E-09	6E-04	6E-08	5E-03	NC	NC	1E-08	2E-02	1E-08	2E-02	7E-12	6E-07
Landbay C	88B1	2E-08	5E-03	3E-10	4E-04	5E-09	6E-03	2E-09	2E-02	6E-09	3E-03	1E-07	3E-02	8E-08	7E-02	2E-08	3E-02	2E-08	3E-02	2E-09	4E-04
Landbay C	88B2	2E-08	5E-03	3E-10	4E-04	5E-09	6E-03	2E-09	2E-02	6E-09	3E-03	1E-07	3E-02	8E-08	7E-02	2E-08	2E-01	2E-08	3E-02	2E-09	4E-04
Landbay C	88G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	88G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	90B1	2E-12	3E-03	NC	4E-04	2E-09	3E-03	5E-10	1E-02	3E-14	2E-03	8E-12	2E-02	NC	8E-02	NC	4E-02	NC	4E-02	8E-12	4E-04
Landbay C	90B2	2E-12	3E-03	NC	4E-04	2E-09	4E-03	5E-10	1E-02	3E-14	2E-03	8E-12	2E-02	NC	8E-02	NC	1E-01	NC	4E-02	8E-12	4E-04
Landbay C	90G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	90G4	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay C	93B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	6E-02	NC	1E-03	NC	NC
Landbay C	94B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	95AB1	NC	2E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	6E-02	NC	1E-03	NC	NC
Landbay C	96B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	97B2	8E-09	1E-03	NC	NC	3E-09	2E-03	2E-09	9E-03	2E-09	1E-03	7E-08	1E-02	NC	NC	2E-08	1E-02	2E-08	1E-02	6E-12	2E-06
Landbay C	97G3	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	99B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	3E-03	NC	NC
Landbay C	AJA W-201	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	AJAY-1 MCD-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	AJAY-101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 190-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 221-05	6E-10	7E-04	NC	NC	4E-09	2E-03	1E-09	5E-03	2E-10	5E-04	3E-09	5E-03	NC	NC	5E-09	2E-03	5E-09	2E-03	2E-11	2E-06
Landbay C	GP 221-06	7E-09	1E-05	NC	NC	2E-09	1E-05	1E-09	3E-05	2E-09	1E-05	6E-08	1E-04	NC	NC	1E-08	2E-05	1E-08	2E-05	2E-12	5E-09
Landbay C	GP 221-07	5E-13	1E-04	NC	NC	6E-10	2E-04	2E-10	7E-04	1E-14	9E-05	3E-12	9E-04	NC	NC	NC	1E-04	NC	1E-04	3E-12	1E-07
Landbay C	GP 221-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 221-12	6E-08	2E-04	NC	NC	2E-08	2E-04	1E-08	9E-04	2E-08	1E-04	5E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	2E-07
Landbay C	GP 221-15	8E-09	2E-05	NC	NC	3E-09	1E-05	2E-09	4E-05	2E-09	1E-05	8E-08	1E-04	NC	NC	2E-08	3E-05	2E-08	3E-05	3E-12	5E-09
Landbay C	GP 221-16	7E-08	2E-04	NC	NC	2E-08	2E-04	1E-08	7E-04	2E-08	1E-04	6E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay C	GP 88-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 88-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 91-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 92-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 94-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP 96-03	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay C	GP 97-01	3E-08	6E-05	NC	NC	9E-09	7E-05	5E-09	2E-04	8E-09	4E-05	3E-07	5E-04	NC	NC	6E-08	9E-05	6E-08	9E-05	9E-12	4E-08
Landbay C	GP 97-02	NC	2E-05	NC	NC	NC	6E-05	NC	2E-04	NC	1E-05	NC	1E-04	NC	NC	NC	NC	NC	NC	NC	6E-08
Landbay C	GP 97-03	9E-11	3E-05	1E-09	6E-04	2E-11	1E-05	1E-11	3E-05	6E-11	1E-05	3E-09	2E-04	1E-06	2E-01	6E-07	4E-02	6E-07	4E-02	2E-10	4E-05
Landbay C	GP 97-04	2E-08	3E-05	NC	NC	6E-09	3E-05	3E-09	9E-05	5E-09	2E-05	2E-07	2E-04	NC	NC	3E-08	5E-05	3E-08	5E-05	6E-12	1E-08
Landbay C	GP BG-01	2E-13	2E-02	NC	NC	2E-10	1E-02	6E-11	2E-02	3E-15	1E-02	8E-13	1E-01	NC	NC	NC	3E-05	NC	3E-05	8E-13	4E-08
Landbay C	GP NPB-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP NPB-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	GP NPB-03	8E-08	2E-04	NC	NC	3E-08	2E-04	1E-08	7E-04	2E-08	1E-04	7E-07	1E-03	NC	NC	2E-07	2E-04	2E-07	2E-04	3E-11	2E-07
Landbay C	HA BG-01	1E-06	4E-02	NC	NC	3E-07	2E-02	2E-07	3E-02	4E-07	3E-02	9E-06	2E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	4E-11	1E-06
Landbay C	IM13-1	9E-09	3E-02	NC	NC	8E-09	4E-02	3E-09	2E-01	3E-09	2E-02	8E-08	2E-01	NC	NC	2E-08	2E-02	2E-08	2E-02	3E-11	4E-05
Landbay C	IM13-2	4E-07	3E-02	1E-11	NC	1E-07	4E-02	6E-08	2E-01	3E-07	2E-02	7E-06	2E-01	1E-08	NC	2E-06	3E-02	2E-06	3E-02	2E-08	3E-05
Landbay C	IM13-3	4E-13	5E-03	NC	NC	5E-10	1E-02	2E-10	5E-02	9E-15	4E-03	2E-12	4E-02	NC	NC	NC	3E-03	NC	3E-03	2E-12	1E-05
Landbay C	IM13-4	9E-09	3E-02	NC	NC	7E-09	4E-02	3E-09	2E-01	3E-09	2E-02	8E-08	2E-01	NC	NC	2E-08	1E-02	2E-08	1E-02	2E-11	4E-05
Landbay C	IM13-5	3E-12	1E-02	NC	NC	3E-09	3E-02	9E-10	1E-01	6E-14	9E-03	1E-11	1E-01	NC	NC	NC	1E-02	NC	1E-02	1E-11	3E-05
Landbay C	JSEE-0101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	JT GG-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	JTGG-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	MCD-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	MOB	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SB PBN-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SB PBN-02	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay C	SR-90	NC	2E-05	NC	NC	NC	7E-06	NC	4E-06	NC	1E-05	NC	7E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	SS-96A	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay C	SW 94-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	TP 221-02	2E-08	1E-03	NC	NC	1E-08	3E-03	6E-09	8E-03	7E-09	1E-03	2E-07	1E-02	NC	NC	5E-08	1E-02	5E-08	1E-02	3E-11	3E-06
Landbay C	TP 97-01	4E-13	9E-05	NC	NC	4E-10	2E-04	1E-10	5E-04	8E-15	6E-05	2E-12	7E-04	NC	NC	NC	7E-04	NC	7E-04	2E-12	2E-07
Landbay C	TP 97-02	9E-13	2E-04	NC	NC	1E-09	4E-04	3E-10	1E-03	2E-14	1E-04	4E-12	1E-03	NC	NC	NC	1E-03	NC	1E-03	4E-12	5E-07
Landbay C	TP NPB-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay C	TP NPB-03	3E-10	3E-06	NC	NC	5E-11	1E-06	3E-11	1E-06	8E-11	2E-06	1E-09	1E-05	NC	NC	2E-09	2E-05	2E-09	2E-05	NC	NC
Landbay D	10TP1-7	NC	1E-02	NC	1E-08	NC	2E-02	NC	9E-02	NC	8E-03	NC	8E-02	NC	3E-06	NC	2E-05	NC	2E-05	NC	2E-05
Landbay D	10TP2-7	NC	8E-03	NC	NC	NC	2E-02	NC	7E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**6E+00**	NC	1E-01	NC	2E-05
Landbay D	11 GP-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	11 GP-02	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	5E-03	6E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	NC
Landbay D	11 GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	11B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	13B1	1E-07	7E-03	NC	NC	3E-08	1E-02	2E-08	6E-02	3E-08	5E-03	8E-07	5E-02	NC	NC	2E-07	9E-03	2E-07	9E-03	3E-12	1E-05
Landbay D	15 GP-01	9E-08	6E-03	1E-09	NC	1E-08	3E-03	7E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	8E-08	5E-03	8E-08	5E-03	6E-09	NC
Landbay D	15 GP-02	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	1E-07	3E-02	3E-06	1E-01	2E-06	NC	NC	NC	NC	NC	4E-08	NC
Landbay D	15 GP-03	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	7E-08	NC
Landbay D	15 GP-04	1E-05	9E-01	2E-07	NC	2E-06	4E-01	1E-06	7E-01	3E-06	6E-01	6E-05	**3E+00**	5E-05	NC	1E-06	8E-02	1E-06	8E-02	9E-07	NC
Landbay D	15 GP-05	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	15 GP-06	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	15 GP-07	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	3E-02	6E-07	3E-02	4E-08	NC
Landbay D	15 GP-08	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	9E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	15 GP-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-11	8E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	5E-02	8E-07	5E-02	6E-08	NC
Landbay D	15 GP-12	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	15 GP-13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-14	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	15 GP-16	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	15 GP-17	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	8E-04	7E-08	4E-03	6E-08	NC	NC	NC	NC	NC	1E-09	NC
Landbay D	15 GP-18	5E-06	3E-01	6E-08	NC	9E-07	1E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	3E-07	NC
Landbay D	15 GP-19	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	15 GP-20	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	6E-03	3E-08	5E-03	4E-07	3E-02	4E-07	NC	2E-08	1E-03	2E-08	1E-03	7E-09	NC
Landbay D	15 GP-21	3E-06	2E-01	3E-08	NC	4E-07	7E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	9E-06	NC	2E-06	1E-01	2E-06	1E-01	2E-07	NC
Landbay D	15 GP-22	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	1E-02	5E-08	8E-03	8E-07	4E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	15 GP-23	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	NC
Landbay D	15 GP-24	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-25	3E-07	2E-02	4E-09	NC	5E-08	9E-03	2E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	NC	NC	NC	NC	2E-08	NC
Landbay D	15 GP-26	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-08	3E-03	4E-08	3E-03	3E-09	NC
Landbay D	15 GP-27	6E-08	4E-03	7E-10	NC	1E-08	2E-03	5E-09	3E-03	1E-08	3E-03	3E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	15 GP-29	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	2E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	NC	NC	NC	NC	2E-09	NC
Landbay D	15 GP-30	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	15 GP-32	3E-07	2E-02	4E-09	NC	6E-08	1E-02	3E-08	2E-02	9E-08	2E-02	2E-06	9E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	15 GP-33	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	NC	NC	NC	NC	2E-09	NC
Landbay D	151B1	1E-06	3E-02	NC	6E-03	3E-07	5E-02	2E-07	2E-01	4E-07	2E-02	9E-06	2E-01	NC	1E+00	2E-06	3E-02	2E-06	3E-02	4E-11	5E-03
Landbay D	152B1	5E-07	9E-03	NC	7E-04	1E-07	1E-02	6E-08	5E-02	1E-07	6E-03	3E-06	6E-02	NC	1E-01	9E-07	1E-02	9E-07	1E-02	1E-11	7E-04
Landbay D	15ANEC	NC	9E-04	NC	NC	NC	6E-04	NC	4E-03	NC	7E-04	NC	7E-03	NC	NC	NC	**4E+02**	NC	**8E+00**	NC	NC
Landbay D	17AB1	NC	1E-04	NC	NC	NC	7E-05	NC	4E-04	NC	8E-05	NC	8E-04	NC	NC	NC	**4E+01**	NC	9E-01	NC	NC
Landbay D	17B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-01	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	NC	NC	NC	NC	2E-09	NC
Landbay D	2 GP-02	8E-06	6E-01	1E-07	NC	1E-06	2E-01	7E-07	5E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-06	5E-01	8E-06	5E-01	6E-07	NC
Landbay D	2 GP-03	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-06	4E-01	8E-06	4E-01	5E-07	NC
Landbay D	2 GP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-05	3E-06	2E-01	4E-08	NC	5E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	2 GP-06	4E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	2 GP-07	4E-07	3E-02	5E-09	NC	7E-08	1E-02	4E-08	2E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	4E-07	2E-02	4E-07	2E-02	3E-08	NC
Landbay D	2 GP-08	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	1E-06	7E-02	1E-06	7E-02	9E-08	NC
Landbay D	2 GP-09	2E-05	**2E+00**	3E-07	NC	4E-06	7E-01	2E-06	1E+00	6E-06	1E+00	1E-04	**6E+00**	9E-05	NC	2E-05	1E+00	2E-05	1E+00	2E-06	NC
Landbay D	2 GP-10	5E-07	3E-02	6E-09	NC	8E-08	1E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	5E-07	3E-02	5E-07	3E-02	3E-08	NC
Landbay D	2 GP-11	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	3E-06	2E-01	3E-06	2E-01	5E-07	NC
Landbay D	2 GP-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-13	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	5E-07	NC	1E-07	7E-03	1E-07	7E-03	9E-09	NC
Landbay D	2 GP-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-15	7E-08	5E-03	9E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	3E-07	NC	7E-08	4E-03	7E-08	4E-03	5E-09	NC
Landbay D	2 GP-16	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	8E-07	5E-02	7E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	2 GP-17	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	2 GP-18	5E-08	4E-03	6E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	2 GP-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	2 GP-20	5E-07	4E-02	6E-09	NC	9E-08	2E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	5E-07	3E-02	5E-07	3E-02	4E-08	NC
Landbay D	2 GP-21	4E-07	3E-02	5E-09	NC	7E-08	1E-02	4E-08	2E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	4E-07	2E-02	4E-07	2E-02	3E-08	NC
Landbay D	2 GP-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-23	4E-08	2E-03	4E-10	NC	6E-09	1E-03	3E-09	2E-03	9E-09	2E-03	2E-07	9E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	2 GP-24	2E-07	1E-02	2E-09	NC	3E-08	5E-03	2E-08	1E-02	5E-08	8E-03	8E-07	5E-02	7E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	2 GP-25	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	2 GP-26	2E-06	1E-01	2E-08	NC	3E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	2 SED-01	5E-07	3E-02	4E-10	2E-04	1E-07	3E-02	7E-08	1E-01	1E-07	2E-02	4E-06	2E-01	1E-07	3E-02	9E-07	2E-02	9E-07	2E-02	2E-09	2E-04
Landbay D	22B1	1E-07	1E-03	NC	4E-04	3E-08	1E-03	2E-08	4E-03	3E-08	1E-03	9E-07	8E-03	NC	9E-02	2E-07	1E-01	2E-07	3E-02	3E-11	3E-05
Landbay D	22B2	1E-07	1E-03	NC	2E-04	3E-08	1E-03	2E-08	4E-03	3E-08	1E-03	9E-07	8E-03	NC	5E-02	2E-07	4E-01	2E-07	4E-02	3E-11	1E-05
Landbay D	22B3	1E-07	1E-03	NC	8E-06	3E-08	1E-03	2E-08	4E-03	3E-08	1E-03	9E-07	8E-03	NC	8E-04	2E-07	**9E+00**	2E-07	2E-01	3E-11	1E-06
Landbay D	22B4	1E-07	3E-03	2E-09	7E-03	4E-08	2E-03	2E-08	5E-03	4E-08	2E-03	1E-06	1E-02	4E-07	1E+00	2E-07	1E+00	2E-07	6E-02	1E-09	2E-04
Landbay D	22B7	9E-12	1E-05	1E-09	4E-04	2E-12	6E-06	2E-12	4E-05	5E-13	6E-06	5E-11	6E-05	3E-07	6E-02	1E-10	**3E+00**	1E-10	6E-02	4E-11	9E-06
Landbay D	22G5	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**4E+03**	NC	**7E+01**	NC	NC
Landbay D	22G6	NC	6E-03	NC	NC	NC	4E-03	NC	2E-02	NC	4E-03	NC	4E-02	NC	NC	NC	**2E+03**	NC	**4E+01**	NC	NC
Landbay D	24B1	NC	1E-02	NC	NC	NC	3E-02	NC	1E-01	NC	1E-02	NC	1E-01	NC	NC	NC	8E-03	NC	8E-03	NC	3E-05
Landbay D	2550-2300	3E-07	2E-02	NC	2E-05	6E-08	2E-02	4E-08	6E-02	8E-08	1E-02	2E-06	1E-01	NC	3E-03	5E-07	3E-02	5E-07	3E-02	1E-11	2E-05
Landbay D	2550-2450	3E-07	2E-02	NC	2E-05	6E-08	2E-02	4E-08	6E-02	8E-08	1E-02	2E-06	1E-01	NC	3E-03	5E-07	3E-02	5E-07	3E-02	1E-11	2E-05
Landbay D	2550-2600	3E-07	2E-02	NC	2E-05	6E-08	2E-02	4E-08	6E-02	8E-08	1E-02	2E-06	1E-01	NC	3E-03	5E-07	3E-02	5E-07	3E-02	1E-11	2E-05
Landbay D	2550-2750	8E-09	2E-02	NC	1E-05	3E-08	6E-02	1E-08	2E-01	2E-09	2E-02	6E-08	2E-01	NC	2E-03	2E-08	2E-02	2E-08	2E-02	1E-10	7E-05
Landbay D	2700-2150	2E-13	4E-03	NC	NC	3E-10	3E-03	8E-11	1E-02	5E-15	3E-03	1E-12	3E-02	NC	NC	NC	1E-02	NC	1E-02	1E-12	5E-07
Landbay D	2700-2300	2E-13	4E-03	NC	NC	3E-10	3E-03	8E-11	1E-02	5E-15	3E-03	1E-12	3E-02	NC	NC	NC	1E-02	NC	1E-02	1E-12	5E-07
Landbay D	2700-2750	8E-09	2E-02	NC	1E-05	3E-08	6E-02	1E-08	2E-01	2E-09	2E-02	6E-08	2E-01	NC	2E-03	2E-08	2E-02	2E-08	2E-02	1E-10	7E-05
Landbay D	2700-2900	8E-09	2E-02	NC	1E-05	3E-08	6E-02	1E-08	2E-01	2E-09	2E-02	6E-08	2E-01	NC	2E-03	2E-08	2E-02	2E-08	2E-02	1E-10	7E-05
Landbay D	2700-3050	2E-06	7E-02	NC	NC	4E-07	7E-02	2E-07	2E-01	5E-07	6E-02	1E-05	5E-01	NC	NC	3E-06	2E-02	3E-06	2E-02	6E-11	4E-05
Landbay D	28 SED-01	7E-07	3E-02	NC	1E-07	2E-07	8E-02	1E-07	2E-01	2E-07	2E-02	5E-06	2E-01	NC	3E-05	1E-06	9E-03	1E-06	9E-03	3E-10	9E-05
Landbay D	2800-23	7E-07	5E-03	NC	NC	2E-07	8E-03	1E-07	2E-02	2E-07	4E-03	5E-06	3E-02	NC	NC	1E-06	9E-03	1E-06	9E-03	2E-11	8E-06
Landbay D	2850-2000	2E-13	4E-03	NC	NC	3E-10	3E-03	8E-11	1E-02	5E-15	3E-03	1E-12	3E-02	NC	NC	NC	1E-02	NC	1E-02	1E-12	5E-07
Landbay D	2850-2150	2E-13	4E-03	NC	NC	3E-10	3E-03	8E-11	1E-02	5E-15	3E-03	1E-12	3E-02	NC	NC	NC	1E-02	NC	1E-02	1E-12	5E-07
Landbay D	28B1	3E-08	8E-03	NC	2E-04	2E-08	1E-02	8E-09	4E-02	1E-08	6E-03	3E-07	5E-02	NC	5E-02	8E-08	2E-01	8E-08	1E-01	3E-11	2E-04
Landbay D	28B2	7E-07	5E-02	8E-09	2E-04	1E-07	3E-02	6E-08	6E-02	2E-07	3E-02	3E-06	2E-01	2E-06	5E-02	7E-07	4E-01	7E-07	5E-02	4E-08	2E-04
Landbay D	28B5	NC	4E-07	NC	NC	NC	2E-07	NC	2E-06	NC	3E-07	NC	3E-06	NC	NC	NC	2E-01	NC	3E-03	NC	NC
Landbay D	29B1	6E-09	7E-03	NC	NC	1E-09	2E-02	6E-10	6E-02	2E-09	6E-03	3E-08	6E-02	NC	NC	5E-08	5E-03	5E-08	5E-03	NC	2E-05
Landbay D	29B2	NC	5E-03	NC	NC	NC	1E-02	NC	4E-02	NC	3E-03	NC	3E-02	NC	NC	NC	2E-03	NC	2E-03	NC	1E-05
Landbay D	29B3	NC	4E-03	NC	NC	NC	9E-03	NC	4E-02	NC	3E-03	NC	3E-02	NC	NC	NC	2E-03	NC	2E-03	NC	1E-05
Landbay D	2B1	2E-09	5E-03	NC	1E-04	3E-10	1E-02	1E-10	4E-02	4E-10	4E-03	8E-09	4E-02	NC	2E-02	1E-08	**2E+01**	1E-08	5E-01	NC	1E-04
Landbay D	3000-2000	1E-06	2E-01	NC	NC	3E-07	3E-01	2E-07	7E-01	4E-07	1E-01	9E-06	1E+00	NC	NC	2E-06	8E-01	2E-06	1E-01	3E-10	2E-04
Landbay D	3000-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2000SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3000-2150	9E-12	1E-01	NC	NC	1E-08	9E-02	3E-09	2E-01	2E-13	1E-01	5E-11	1E+00	NC	NC	NC	2E-01	NC	3E-02	5E-11	7E-06
Landbay D	3000-2300	4E-06	2E-01	NC	1E-04	9E-07	1E-01	5E-07	4E-01	1E-06	1E-01	3E-05	1E+00	NC	2E-02	8E-06	5E-02	8E-06	5E-02	1E-10	1E-04
Landbay D	3000-2300N	2E-12	1E-02	NC	NC	2E-09	2E-02	5E-10	1E-01	3E-14	9E-03	8E-12	9E-02	NC	NC	NC	3E-02	NC	3E-02	8E-12	2E-05
Landbay D	3000-2300SE	6E-13	5E-03	NC	5E-05	7E-10	1E-02	2E-10	4E-02	1E-14	4E-03	3E-12	4E-02	NC	1E-02	NC	6E-04	NC	6E-04	3E-12	6E-05
Landbay D	3000-2300SW	1E-12	7E-03	NC	2E-04	1E-09	1E-02	4E-10	5E-02	2E-14	5E-03	5E-12	5E-02	NC	4E-02	NC	1E-02	NC	1E-02	5E-12	2E-04
Landbay D	3000-2450	1E-12	7E-03	NC	NC	1E-09	2E-02	3E-10	6E-02	2E-14	5E-03	5E-12	5E-02	NC	NC	NC	7E-04	NC	7E-04	5E-12	2E-05
Landbay D	3000-26	1E-06	6E-02	NC	NC	2E-07	5E-02	1E-07	1E-01	3E-07	5E-02	7E-06	5E-01	NC	NC	2E-06	1E-02	2E-06	1E-02	3E-11	1E-05
Landbay D	3000-2900	1E-06	3E-02	NC	NC	3E-07	6E-02	2E-07	2E-01	4E-07	2E-02	9E-06	2E-01	NC	NC	2E-06	4E-02	2E-06	4E-02	4E-11	7E-05
Landbay D	3150-1850	4E-07	2E-02	NC	NC	9E-08	1E-02	5E-08	7E-02	1E-07	2E-02	3E-06	1E-01	NC	NC	8E-07	5E-03	8E-07	5E-03	1E-11	3E-06
Landbay D	3150-2000	4E-06	1E-01	2E-07	7E-02	7E-07	8E-02	3E-07	2E-01	1E-06	1E-01	2E-05	9E-01	5E-05	**2E+01**	4E-05	**2E+00**	4E-05	1E+00	1E-07	1E-02
Landbay D	3150-2000N	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2000SE	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2000SW	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	3150-2150	3E-07	1E-01	NC	NC	6E-08	8E-02	3E-08	2E-01	7E-08	8E-02	2E-06	9E-01	NC	NC	5E-07	2E-01	5E-07	5E-02	1E-11	6E-06
Landbay D	3300-17	5E-10	7E-04	NC	NC	3E-10	9E-04	1E-10	4E-03	1E-10	5E-04	3E-09	5E-03	NC	NC	4E-09	1E-02	4E-09	1E-02	1E-12	7E-07
Landbay D	3300-1700	4E-06	2E-01	NC	NC	1E-06	4E-01	6E-07	1E+00	1E-06	2E-01	3E-05	**2E+00**	NC	NC	8E-06	5E-02	8E-06	5E-02	3E-10	4E-04
Landbay D	3300-1850	2E-06	6E-02	NC	NC	4E-07	4E-02	2E-07	1E-01	5E-07	4E-02	1E-05	4E-01	NC	NC	4E-06	2E-02	4E-06	2E-02	5E-11	6E-06
Landbay D	3300-2000	7E-07	6E-03	NC	9E-05	2E-07	5E-03	9E-08	8E-03	2E-07	4E-03	5E-06	4E-02	NC	2E-02	1E-06	7E-03	1E-06	7E-03	2E-11	9E-05
Landbay D	3300-2150	7E-07	6E-03	NC	9E-05	2E-07	5E-03	9E-08	8E-03	2E-07	4E-03	5E-06	4E-02	NC	2E-02	1E-06	7E-03	1E-06	7E-03	2E-11	9E-05
Landbay D	3300-2750	1E-06	3E-02	NC	NC	3E-07	6E-02	2E-07	2E-01	4E-07	2E-02	9E-06	2E-01	NC	NC	2E-06	4E-02	2E-06	4E-02	4E-11	7E-05
Landbay D	3450-1850	1E-06	2E-02	NC	1E-08	2E-07	2E-02	1E-07	5E-02	3E-07	1E-02	7E-06	1E-01	NC	3E-06	2E-06	1E-02	2E-06	1E-02	3E-11	4E-06
Landbay D	3450-2000	7E-07	6E-03	NC	9E-05	2E-07	5E-03	9E-08	8E-03	2E-07	4E-03	5E-06	4E-02	NC	2E-02	1E-06	7E-03	1E-06	7E-03	2E-11	9E-05
Landbay D	3450-2750	9E-07	4E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	6E-02	2E-06	6E-02	2E-10	4E-05
Landbay D	35B1	2E-07	1E-02	2E-09	7E-04	3E-08	7E-03	2E-08	2E-02	5E-08	1E-02	8E-07	6E-02	7E-07	1E-01	2E-07	**2E+00**	2E-07	9E-02	1E-08	6E-04
Landbay D	35B2	1E-07	9E-03	1E-09	7E-04	2E-08	5E-03	9E-09	1E-02	3E-08	6E-03	5E-07	4E-02	4E-07	1E-01	1E-07	**3E+00**	1E-07	1E-01	7E-09	6E-04
Landbay D	35G3	4E-08	3E-03	5E-10	NC	7E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-08	**1E+01**	4E-08	3E-01	3E-09	NC
Landbay D	3600-18	1E-06	1E-02	5E-10	2E-04	3E-07	1E-02	1E-07	2E-02	3E-07	8E-03	8E-06	7E-02	2E-07	4E-02	2E-06	1E+00	2E-06	4E-02	3E-09	2E-04
Landbay D	3600-2750	9E-07	4E-02	NC	NC	2E-07	5E-02	1E-07	2E-01	2E-07	3E-02	6E-06	3E-01	NC	NC	2E-06	6E-02	2E-06	6E-02	2E-10	4E-05
Landbay D	3750-2150	3E-07	8E-03	NC	4E-04	6E-08	5E-02	4E-08	2E-01	8E-08	6E-03	2E-06	6E-02	NC	7E-02	5E-07	2E-02	5E-07	2E-02	8E-12	4E-04
Landbay D	3750-2300	3E-07	8E-03	NC	4E-04	6E-08	5E-02	4E-08	2E-01	8E-08	6E-03	2E-06	6E-02	NC	7E-02	5E-07	2E-02	5E-07	2E-02	8E-12	4E-04
Landbay D	3750-2450	3E-07	8E-03	NC	4E-04	6E-08	5E-02	4E-08	2E-01	8E-08	6E-03	2E-06	6E-02	NC	7E-02	5E-07	2E-02	5E-07	2E-02	8E-12	4E-04
Landbay D	3750-2750	2E-08	3E-03	3E-10	9E-05	5E-09	2E-02	2E-09	6E-02	6E-09	2E-03	1E-07	2E-02	9E-08	2E-02	2E-08	1E-02	2E-08	1E-02	2E-09	1E-04
Landbay D	3750-2900	2E-08	3E-03	3E-10	9E-05	5E-09	2E-02	2E-09	6E-02	6E-09	2E-03	1E-07	2E-02	9E-08	2E-02	2E-08	1E-02	2E-08	1E-02	2E-09	1E-04
Landbay D	3900-2750	6E-07	3E-01	NC	NC	3E-07	3E-01	1E-07	6E-01	2E-07	2E-01	4E-06	**2E+00**	NC	NC	1E-06	6E-03	1E-06	6E-03	7E-10	2E-04
Landbay D	3900-2900	6E-07	3E-01	NC	NC	3E-07	3E-01	1E-07	6E-01	2E-07	2E-01	4E-06	**2E+00**	NC	NC	1E-06	6E-03	1E-06	6E-03	7E-10	2E-04
Landbay D	3TP1-7	2E-12	5E-03	NC	2E-08	3E-09	4E-03	8E-10	2E-02	5E-14	4E-03	1E-11	3E-02	NC	6E-06	NC	6E-01	NC	7E-02	1E-11	2E-06
Landbay D	3TP2-7	2E-12	4E-03	NC	4E-08	3E-09	3E-03	8E-10	1E-02	5E-14	3E-03	1E-11	2E-02	NC	9E-06	NC	1E-01	NC	6E-02	1E-11	2E-06
Landbay D	3TP3-7	NC	7E-04	NC	1E-08	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	3E-06	NC	8E-02	NC	2E-03	NC	1E-08
Landbay D	3TP4-7	NC	8E-04	NC	3E-08	NC	5E-04	NC	3E-03	NC	6E-04	NC	6E-03	NC	9E-06	NC	9E-05	NC	9E-05	NC	3E-08
Landbay D	4000-20	2E-06	2E-02	5E-10	3E-04	4E-07	2E-02	2E-07	6E-02	5E-07	2E-02	1E-05	2E-01	1E-07	5E-02	3E-06	2E-02	3E-06	2E-02	3E-09	2E-04
Landbay D	4050-2450	1E-08	1E-01	NC	NC	4E-09	7E-02	2E-09	1E-01	3E-09	8E-02	9E-08	8E-01	NC	NC	2E-08	9E-04	2E-08	9E-04	5E-12	5E-06
Landbay D	4050-2600	1E-08	1E-01	NC	NC	4E-09	7E-02	2E-09	1E-01	3E-09	8E-02	9E-08	8E-01	NC	NC	2E-08	9E-04	2E-08	9E-04	5E-12	5E-06
Landbay D	41B1	2E-08	7E-03	2E-10	2E-04	3E-09	1E-02	2E-09	5E-02	5E-09	5E-03	8E-08	5E-02	6E-08	3E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04
Landbay D	41B2	2E-08	7E-03	2E-10	2E-04	3E-09	1E-02	2E-09	5E-02	5E-09	5E-03	8E-08	5E-02	8E-08	3E-02	3E-08	5E-01	3E-08	2E-02	1E-09	2E-04
Landbay D	41B3	2E-08	7E-03	2E-10	2E-04	3E-09	1E-02	2E-09	5E-02	5E-09	5E-03	8E-08	5E-02	9E-08	3E-02	2E-08	1E+00	2E-08	4E-02	1E-09	2E-04
Landbay D	41B6	3E-09	5E-05	8E-09	6E-05	7E-10	3E-05	7E-10	8E-05	1E-10	2E-05	2E-08	2E-04	2E-06	2E-02	NC	5E-01	NC	2E-02	2E-08	1E-04
Landbay D	41G4	5E-10	8E-05	NC	NC	1E-10	4E-05	5E-11	2E-05	1E-10	6E-05	3E-09	4E-04	NC	NC	4E-09	7E-02	4E-09	1E-03	NC	NC
Landbay D	41G5	NC	8E-03	NC	NC	NC	5E-03	NC	3E-02	NC	6E-03	NC	6E-02	NC	NC	NC	**3E+03**	NC	**6E+01**	NC	NC
Landbay D	42 GP-01	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	9E-07	NC	2E-07	1E-02	2E-07	1E-02	2E-08	NC
Landbay D	42 GP-02	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	8E-02	4E-07	6E-02	6E-06	4E-01	5E-06	NC	1E-06	8E-02	1E-06	8E-02	9E-08	NC
Landbay D	42 GP-03	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-07	1E-02	2E-07	1E-02	2E-08	NC
Landbay D	42 GP-04	1E-07	1E-02	2E-09	NC	2E-08	4E-03	1E-08	8E-03	4E-08	7E-03	6E-07	4E-02	5E-07	NC	1E-07	8E-03	1E-07	8E-03	1E-08	NC
Landbay D	42 GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-06	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	1E-03	5E-09	8E-04	8E-08	4E-03	6E-08	NC	2E-08	9E-04	2E-08	9E-04	1E-09	NC
Landbay D	42 GP-07	5E-08	3E-03	6E-10	NC	9E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	3E-09	NC
Landbay D	42 GP-08	1E-05	7E-01	1E-07	NC	2E-06	3E-01	9E-07	6E-01	3E-06	5E-01	5E-05	**3E+00**	4E-05	NC	1E-05	6E-01	1E-05	6E-01	7E-07	NC
Landbay D	42 GP-09	3E-06	2E-01	4E-08	NC	5E-07	9E-02	2E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	42 GP-16	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	42 GP-17	2E-07	1E-02	3E-09	NC	4E-08	6E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	3E-08	2E-03	3E-08	2E-03	1E-08	NC
Landbay D	42 GP-18	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-19	2E-05	1E+00	2E-07	NC	3E-06	5E-01	2E-06	1E+00	5E-06	8E-01	8E-05	**5E+00**	7E-05	NC	2E-05	1E+00	2E-05	1E+00	1E-06	NC
Landbay D	42 GP-20	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-23	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-24	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	NC
Landbay D	42 GP-25	9E-06	6E-01	1E-07	NC	1E-06	3E-01	7E-07	5E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-06	5E-01	8E-06	5E-01	6E-07	NC
Landbay D	42 GP-26	1E-07	8E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	4E-07	NC	1E-07	7E-03	1E-07	7E-03	8E-09	NC
Landbay D	42 GP-27	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-28	2E-05	**2E+00**	3E-07	NC	4E-06	7E-01	2E-06	1E+00	6E-06	1E+00	1E-04	**6E+00**	8E-05	NC	2E-05	1E+00	2E-05	1E+00	2E-06	NC
Landbay D	42 GP-29	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42 GP-32	1E-06	8E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	7E-08	NC
Landbay D	42 GP-33	3E-06	2E-01	3E-08	NC	5E-07	8E-02	2E-07	1E-01	7E-07	1E-01	1E-05	7E-01	1E-05	NC	3E-06	1E-01	3E-06	1E-01	2E-07	NC
Landbay D	42 GP-34	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay D	42 GP-35	7E-06	5E-01	9E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	NC	7E-06	4E-01	7E-06	4E-01	5E-07	NC
Landbay D	42 GP-36	1E-06	8E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	8E-08	NC
Landbay D	42 GP-37	2E-06	1E-01	2E-08	NC	3E-07	5E-02	1E-07	9E-02	4E-07	7E-02	7E-06	4E-01	6E-06	NC	1E-06	9E-02	1E-06	9E-02	1E-07	NC
Landbay D	42 GP-38	5E-06	4E-01	7E-08	NC	9E-07	2E-01	5E-07	3E-01	1E-06	3E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	4E-07	NC
Landbay D	42 GP-39	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	NC	7E-06	4E-01	7E-06	4E-01	5E-07	NC
Landbay D	4200-1100	7E-07	7E-02	NC	1E-04	3E-07	1E-01	1E-07	3E-01	2E-07	5E-02	5E-06	5E-01	NC	2E-02	1E-06	2E-02	1E-06	2E-02	7E-10	2E-04
Landbay D	4200-1250	2E-08	2E-03	3E-10	2E-04	4E-09	1E-03	2E-09	4E-03	5E-09	2E-03	9E-08	1E-02	7E-08	4E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04
Landbay D	4200-1550	3E-12	1E-03	NC	1E-04	3E-09	2E-03	9E-10	4E-03	5E-14	1E-03	1E-11	1E-02	NC	3E-02	NC	5E-01	NC	2E-02	1E-11	1E-04
Landbay D	4200-47	2E-06	8E-02	NC	4E-05	5E-07	7E-02	3E-07	2E-01	6E-07	6E-02	1E-05	6E-01	NC	8E-03	4E-06	2E-02	4E-06	2E-02	7E-11	7E-05
Landbay D	4200-48	6E-08	2E-03	4E-10	2E-04	1E-08	1E-03	5E-09	2E-03	3E-08	2E-03	6E-07	9E-03	1E-07	5E-02	1E-07	2E-03	1E-07	2E-03	3E-09	2E-04
Landbay D	42B133	7E-08	5E-03	9E-10	NC	1E-08	2E-03	6E-09	4E-03	2E-08	3E-03	3E-07	2E-02	3E-07	NC	7E-08	**7E+00**	7E-08	1E-01	5E-09	NC
Landbay D	42B134	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	3E-08	1E-03	3E-08	1E-03	2E-09	NC
Landbay D	42B135	1E-06	1E-01	2E-08	NC	2E-07	4E-02	1E-07	8E-02	4E-07	7E-02	6E-06	4E-01	5E-06	NC	6E-07	**2E+00**	6E-07	7E-02	1E-07	NC
Landbay D	42G109	7E-10	1E-04	NC	NC	1E-10	6E-05	7E-11	4E-04	2E-10	7E-05	4E-09	7E-04	NC	NC	6E-09	4E-01	6E-09	8E-03	NC	NC
Landbay D	42G111	6E-07	6E-03	2E-13	NC	1E-07	1E-02	6E-08	5E-02	5E-07	4E-03	1E-05	4E-02	1E-11	NC	2E-06	2E-03	2E-06	2E-03	2E-08	1E-05
Landbay D	42G112	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	42G114	9E-06	3E-01	5E-08	NC	2E-06	1E-01	7E-07	3E-01	5E-06	2E-01	1E-04	1E+00	1E-05	NC	3E-05	2E-01	3E-05	2E-01	6E-07	1E-05
Landbay D	42G118	8E-07	1E-02	2E-09	NC	1E-07	2E-02	7E-08	5E-02	5E-07	1E-02	1E-05	8E-02	5E-07	NC	2E-06	**4E+00**	2E-06	8E-02	3E-08	1E-05
Landbay D	42G119	4E-06	3E-01	5E-08	NC	6E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	4E-06	1E+00	4E-06	2E-01	3E-07	NC
Landbay D	42G120	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	**8E+00**	3E-06	3E-01	2E-07	NC
Landbay D	42TP3-125	1E-12	6E-03	NC	NC	1E-09	1E-02	4E-10	5E-02	2E-14	5E-03	6E-12	5E-02	NC	NC	NC	8E-01	NC	2E-02	6E-12	1E-05
Landbay D	42TP3-175	4E-12	3E-03	NC	5E-07	4E-09	3E-03	1E-09	8E-03	7E-14	2E-03	2E-11	2E-02	NC	1E-04	NC	2E-01	NC	3E-02	2E-11	2E-06
Landbay D	42TP3-227	9E-13	7E-03	NC	NC	1E-09	1E-02	3E-10	6E-02	2E-14	5E-03	5E-12	5E-02	NC	NC	NC	**4E+01**	NC	9E-01	5E-12	1E-05
Landbay D	42TP3-75	5E-09	4E-03	NC	NC	4E-09	5E-03	2E-09	2E-02	1E-09	3E-03	3E-08	3E-02	NC	NC	4E-08	**8E+02**	4E-08	**2E+01**	1E-11	4E-06
Landbay D	42TP4-(-5)	4E-13	6E-03	NC	NC	5E-10	1E-02	1E-10	5E-02	9E-15	5E-03	2E-12	5E-02	NC	NC	NC	**4E+00**	NC	7E-02	2E-12	1E-05
Landbay D	42TP5-138	1E-06	3E-02	2E-11	4E-07	2E-07	3E-02	1E-07	1E-01	5E-07	2E-02	1E-05	2E-01	2E-08	1E-04	4E-06	8E-01	4E-06	1E-01	3E-08	1E-05
Landbay D	42TP5-150	3E-07	3E-02	NC	3E-08	7E-08	2E-02	4E-08	4E-02	9E-08	2E-02	2E-06	2E-01	NC	9E-06	6E-07	8E-01	6E-07	2E-02	9E-12	2E-06
Landbay D	42TP5-200	2E-07	8E-02	NC	1E-02	8E-08	6E-02	4E-08	1E-01	5E-08	6E-02	1E-06	6E-01	NC	**3E+00**	4E-07	8E-01	4E-07	3E-02	2E-10	4E-04
Landbay D	42TP5-25	2E-07	2E-02	3E-09	3E-08	4E-08	1E-02	2E-08	3E-02	6E-08	1E-02	1E-06	8E-02	8E-07	8E-06	2E-07	1E-01	2E-07	2E-02	2E-08	5E-06
Landbay D	42TP5-75	1E-09	6E-02	NC	5E-08	2E-07	9E-02	5E-08	2E-01	3E-10	5E-02	6E-09	5E-01	NC	1E-05	9E-09	**8E+00**	9E-09	2E-01	7E-10	8E-05
Landbay D	42TP6-125	2E-06	1E-01	2E-08	4E-07	3E-07	8E-02	1E-07	2E-01	4E-07	9E-02	7E-06	5E-01	6E-06	1E-04	2E-06	5E-01	2E-06	1E-01	1E-07	3E-05
Landbay D	42TP6-175	2E-12	1E-02	NC	4E-08	2E-09	2E-02	8E-10	9E-02	5E-14	8E-03	1E-11	8E-02	NC	1E-05	NC	1E-01	NC	6E-03	1E-11	2E-05
Landbay D	42TP6-185	7E-07	3E-01	NC	NC	6E-07	6E-01	2E-07	1E+00	2E-07	3E-01	5E-06	**3E+00**	NC	NC	1E-06	1E+00	1E-06	4E-02	2E-09	5E-04
Landbay D	42TP6-200	7E-13	6E-03	NC	NC	8E-10	1E-02	2E-10	5E-02	1E-14	5E-03	3E-12	5E-02	NC	NC	NC	5E-04	NC	5E-04	3E-12	1E-05
Landbay D	42TP6-215	NC	7E-04	NC	NC	NC	2E-03	NC	6E-03	NC	5E-04	NC	5E-03	NC	NC	NC	NC	NC	NC	NC	2E-06
Landbay D	42TP6-75	1E-11	9E-02	NC	1E-07	1E-08	9E-02	4E-09	3E-01	2E-13	7E-02	6E-11	7E-01	NC	3E-05	NC	6E-01	NC	2E-02	6E-11	5E-05
Landbay D	4350-0950	7E-07	7E-02	NC	1E-04	3E-07	1E-01	1E-07	3E-01	2E-07	5E-02	5E-06	5E-01	NC	2E-02	1E-06	2E-02	1E-06	2E-02	7E-10	2E-04
Landbay D	4350-1100	2E-08	2E-03	3E-10	2E-04	4E-09	1E-03	2E-09	4E-03	5E-09	2E-03	9E-08	1E-02	7E-08	4E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	4350-1250	2E-08	2E-03	3E-10	2E-04	4E-09	1E-03	2E-09	4E-03	5E-09	2E-03	9E-08	1E-02	7E-08	4E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04
Landbay D	4350-1400	3E-12	1E-03	NC	1E-04	3E-09	2E-03	9E-10	4E-03	5E-14	1E-03	1E-11	1E-02	NC	3E-02	NC	5E-01	NC	2E-02	1E-11	1E-04
Landbay D	43B132	4E-07	3E-02	5E-09	NC	6E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	1E-01	1E-06	NC	4E-07	4E-01	4E-07	3E-02	3E-08	NC
Landbay D	43G113	6E-07	4E-02	8E-09	NC	1E-07	2E-02	5E-08	4E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	4E-02	6E-07	4E-02	4E-08	NC
Landbay D	43G121	5E-08	4E-03	7E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	**2E+00**	5E-08	4E-02	4E-09	NC
Landbay D	43G122	9E-06	6E-01	1E-07	NC	2E-06	3E-01	7E-07	5E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-06	5E-01	8E-06	5E-01	6E-07	1E-05
Landbay D	43G123	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay D	43G124	2E-06	1E-01	2E-08	NC	3E-07	7E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	1E-05
Landbay D	43G125	4E-06	3E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	1E+00	1E-05	NC	1E-06	**2E+00**	1E-06	1E-01	2E-07	1E-05
Landbay D	43G126	2E-08	1E-03	2E-10	NC	3E-09	5E-04	1E-09	9E-04	4E-09	7E-04	7E-08	4E-03	6E-08	NC	1E-08	8E-04	1E-08	8E-04	1E-09	NC
Landbay D	43G127	4E-06	3E-01	5E-08	NC	7E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	4E-06	**3E+00**	4E-06	3E-01	3E-07	NC
Landbay D	43G128	3E-07	3E-02	4E-09	NC	6E-08	2E-02	3E-08	6E-02	9E-08	2E-02	1E-06	1E-01	1E-06	NC	1E-07	7E-03	1E-07	7E-03	2E-08	1E-05
Landbay D	43G129	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	**2E+01**	5E-08	4E-01	3E-09	NC
Landbay D	43G130	4E-06	3E-01	5E-08	NC	7E-07	1E-01	3E-07	2E-01	1E-06	2E-01	2E-05	1E+00	1E-05	NC	4E-06	2E-01	4E-06	2E-01	3E-07	NC
Landbay D	4500-0800	7E-07	7E-02	NC	1E-04	3E-07	1E-01	1E-07	3E-01	2E-07	5E-02	5E-06	5E-01	NC	2E-02	1E-06	2E-02	1E-06	2E-02	7E-10	2E-04
Landbay D	4500-0950	7E-07	7E-02	NC	1E-04	3E-07	1E-01	1E-07	3E-01	2E-07	5E-02	5E-06	5E-01	NC	2E-02	1E-06	2E-02	1E-06	2E-02	7E-10	2E-04
Landbay D	4500-1100	2E-08	2E-03	3E-10	2E-04	4E-09	1E-03	2E-09	4E-03	5E-09	2E-03	9E-08	1E-02	7E-08	4E-02	2E-08	1E-02	2E-08	1E-02	1E-09	2E-04
Landbay D	4500-1250	3E-12	1E-03	NC	1E-04	3E-09	2E-03	9E-10	4E-03	5E-14	1E-03	1E-11	1E-02	NC	3E-02	NC	5E-01	NC	2E-02	1E-11	1E-04
Landbay D	4500-1400	3E-08	3E-02	3E-10	4E-04	7E-08	2E-02	2E-08	3E-02	7E-09	2E-02	1E-07	2E-01	9E-08	8E-02	2E-08	2E-02	2E-08	2E-02	2E-09	4E-04
Landbay D	4500-2750	2E-08	8E-03	3E-10	NC	8E-09	1E-02	3E-09	5E-02	6E-09	6E-03	1E-07	5E-02	8E-08	NC	2E-08	4E-02	2E-08	4E-02	2E-09	1E-05
Landbay D	4500-57	NC	2E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay D	4600-58	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4650-1100	5E-07	3E-02	NC	2E-04	2E-07	9E-02	8E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	3E-02	9E-07	1E-02	9E-07	1E-02	3E-10	3E-04
Landbay D	4650-1250	3E-08	3E-02	3E-10	4E-04	7E-08	2E-02	2E-08	3E-02	7E-09	2E-02	1E-07	2E-01	9E-08	8E-02	2E-08	2E-02	2E-08	2E-02	2E-09	4E-04
Landbay D	4650-1400	3E-08	3E-02	3E-10	4E-04	7E-08	2E-02	2E-08	3E-02	7E-09	2E-02	1E-07	2E-01	9E-08	8E-02	2E-08	2E-02	2E-08	2E-02	2E-09	4E-04
Landbay D	4650-1550	3E-08	3E-02	3E-10	4E-04	7E-08	2E-02	2E-08	3E-02	7E-09	2E-02	1E-07	2E-01	9E-08	8E-02	2E-08	2E-02	2E-08	2E-02	2E-09	4E-04
Landbay D	4700-62	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4800-1250	7E-07	2E-02	3E-10	1E-04	2E-07	2E-02	9E-08	4E-02	2E-07	1E-02	5E-06	1E-01	9E-08	2E-02	1E-06	2E-02	1E-06	2E-02	2E-09	1E-04
Landbay D	4800-51	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	49-01	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	4E-04	NC	4E-04	NC	NC
Landbay D	49-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	4950-1550	8E-07	8E-02	NC	2E-05	4E-07	2E-01	2E-07	4E-01	2E-07	6E-02	6E-06	6E-01	NC	4E-03	2E-06	5E-02	2E-06	5E-02	8E-10	2E-04
Landbay D	4950-1700	8E-07	8E-02	NC	2E-05	4E-07	2E-01	2E-07	4E-01	2E-07	6E-02	6E-06	6E-01	NC	4E-03	2E-06	5E-02	2E-06	5E-02	8E-10	2E-04
Landbay D	4B1	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	5E-01	NC	1E-02	NC	NC
Landbay D	50B1	3E-07	7E-03	NC	NC	7E-08	1E-02	4E-08	4E-02	9E-08	5E-03	2E-06	5E-02	NC	NC	6E-07	2E-02	6E-07	2E-02	9E-12	1E-05
Landbay D	5100-1700	8E-07	8E-02	NC	2E-05	4E-07	2E-01	2E-07	4E-01	2E-07	6E-02	6E-06	6E-01	NC	4E-03	2E-06	5E-02	2E-06	5E-02	8E-10	2E-04
Landbay D	5100-1850	2E-08	2E-03	2E-10	NC	4E-09	1E-03	2E-09	4E-03	4E-09	1E-03	8E-08	7E-03	6E-08	NC	2E-08	7E-03	2E-08	7E-03	1E-09	1E-06
Landbay D	5100-2000	2E-08	2E-03	2E-10	NC	4E-09	1E-03	2E-09	4E-03	4E-09	1E-03	8E-08	7E-03	6E-08	NC	2E-08	7E-03	2E-08	7E-03	1E-09	1E-06
Landbay D	51B1	NC	2E-07	NC	NC	NC	1E-07	NC	8E-07	NC	1E-07	NC	2E-06	NC	NC	NC	8E-02	NC	2E-03	NC	NC
Landbay D	53B1	NC	1E-06	NC	NC	NC	7E-07	NC	4E-06	NC	8E-07	NC	8E-06	NC	NC	NC	4E-01	NC	9E-03	NC	NC
Landbay D	54-02	9E-08	7E-04	NC	NC	2E-08	5E-04	1E-08	1E-03	3E-08	5E-04	6E-07	4E-03	NC	NC	2E-07	3E-03	2E-07	3E-03	3E-12	1E-07
Landbay D	59B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	5B1	4E-06	3E-01	5E-08	1E-03	7E-07	1E-01	3E-07	3E-01	1E-06	2E-01	2E-05	1E+00	1E-05	3E-01	6E-06	3E-01	6E-06	3E-01	3E-07	1E-03
Landbay D	5B2	3E-08	1E-02	1E-11	1E-03	1E-08	2E-02	5E-09	8E-02	9E-09	8E-03	2E-07	8E-02	8E-09	3E-01	1E-07	8E-01	1E-07	4E-02	1E-11	1E-03
Landbay D	5B3	2E-08	1E-02	NC	1E-03	8E-09	2E-02	4E-09	8E-02	6E-09	8E-03	2E-07	8E-02	NC	3E-01	4E-08	2E-02	4E-08	2E-02	1E-11	1E-03
Landbay D	5B4	4E-08	1E-02	NC	1E-03	1E-08	2E-02	5E-09	8E-02	1E-08	8E-03	3E-07	8E-02	NC	3E-01	2E-07	**8E+00**	2E-07	2E-01	1E-11	1E-03
Landbay D	5B6	3E-09	3E-03	NC	2E-08	2E-09	7E-03	8E-10	3E-02	8E-10	3E-03	1E-08	3E-02	NC	4E-06	2E-08	1E-03	2E-08	1E-03	7E-12	8E-06
Landbay D	5G5	5E-08	5E-04	NC	NC	9E-09	2E-04	5E-09	2E-04	1E-08	3E-04	3E-07	2E-03	NC	NC	4E-07	7E-02	4E-07	5E-03	NC	NC
Landbay D	62B1	2E-07	8E-03	NC	NC	5E-08	1E-02	3E-08	5E-02	6E-08	6E-03	1E-06	6E-02	NC	NC	5E-07	1E-02	5E-07	1E-02	6E-12	1E-05
Landbay D	64B1	NC	2E-07	NC	NC	NC	1E-07	NC	9E-07	NC	2E-07	NC	2E-06	NC	NC	NC	9E-02	NC	2E-03	NC	NC
Landbay D	67B1	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	2E-01	NC	4E-03	NC	NC
Landbay D	68G65	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G66	NC	3E-06	NC	NC	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	NC	NC	1E+00	NC	2E-02	NC	NC
Landbay D	68G67	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G68	6E-08	2E-02	7E-10	NC	1E-08	1E-02	5E-09	6E-02	2E-08	1E-02	3E-07	1E-01	2E-07	NC	6E-08	6E-03	6E-08	6E-03	4E-09	4E-06
Landbay D	68G69	6E-08	2E-02	7E-10	NC	1E-08	1E-02	5E-09	6E-02	2E-08	1E-02	3E-07	1E-01	2E-07	NC	6E-08	6E-03	6E-08	6E-03	4E-09	4E-06
Landbay D	68G70	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G71	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G72	6E-08	2E-02	7E-10	2E-06	1E-08	1E-02	5E-09	6E-02	2E-08	1E-02	3E-07	1E-01	2E-07	5E-04	6E-08	6E-03	6E-08	6E-03	4E-09	5E-06
Landbay D	68G73	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G74	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	68G75	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	6B1	NC	2E-07	NC	NC	NC	1E-07	NC	6E-07	NC	1E-07	NC	1E-06	NC	NC	NC	6E-02	NC	1E-03	NC	NC
Landbay D	9 GP-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	9 GP-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	A6G197	9E-08	1E-02	1E-09	NC	2E-08	1E-02	7E-09	4E-02	2E-08	7E-03	4E-07	5E-02	3E-07	NC	8E-08	**4E+00**	8E-08	8E-02	6E-09	8E-06
Landbay D	A6S152	2E-06	2E-02	NC	NC	4E-07	2E-02	2E-07	7E-02	5E-07	1E-02	1E-05	1E-01	NC	NC	3E-06	2E-01	3E-06	7E-02	5E-11	2E-05
Landbay D	A6S153	3E-07	3E-02	3E-09	NC	5E-08	3E-02	2E-08	9E-02	7E-08	2E-02	1E-06	1E-01	1E-06	NC	3E-07	6E-01	3E-07	3E-02	2E-08	2E-05
Landbay D	A6S157	2E-08	9E-03	3E-10	NC	5E-09	2E-02	2E-09	6E-02	6E-09	6E-03	1E-07	6E-02	9E-08	NC	2E-08	**1E+01**	2E-08	3E-01	2E-09	2E-05
Landbay D	B11AEC-1S	NC	2E-03	NC	NC	NC	1E-03	NC	9E-03	NC	2E-03	NC	2E-02	NC	NC	NC	**1E+03**	NC	**2E+01**	NC	NC
Landbay D	B31AEC-1S	NC	7E-05	NC	NC	NC	4E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay D	B32AEC-1S	NC	2E-03	NC	NC	NC	1E-03	NC	7E-03	NC	1E-03	NC	1E-02	NC	NC	NC	**7E+02**	NC	**1E+01**	NC	NC
Landbay D	B41AEC-1S	NC	2E-01	NC	NC	NC	1E-01	NC	6E-01	NC	1E-01	NC	1E+00	NC	NC	NC	**7E+04**	NC	**1E+03**	NC	NC
Landbay D	B6AEC-1S	NC	2E-01	NC	NC	NC	1E-01	NC	6E-01	NC	1E-01	NC	1E+00	NC	NC	NC	**6E+04**	NC	**1E+03**	NC	NC
Landbay D	BW 10-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 14-02	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay D	BW 16-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 17-02	NC	3E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	3E-03	NC	NC	NC	**1E+02**	NC	**3E+00**	NC	NC
Landbay D	BW 21-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 21-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 21-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 32-01	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	2E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay D	BW 32-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 5-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 5-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 6-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	BW 9-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	CDP1	8E-08	7E-03	NC	NC	3E-08	1E-02	2E-08	6E-02	2E-08	5E-03	7E-07	5E-02	NC	NC	2E-07	1E+00	2E-07	3E-02	4E-11	1E-05
Landbay D	CDP2	2E-12	6E-03	NC	1E-04	2E-09	1E-02	6E-10	5E-02	4E-14	4E-03	9E-12	5E-02	NC	2E-02	NC	**2E+00**	NC	5E-02	9E-12	1E-04
Landbay D	CDP3	1E-12	5E-03	NC	NC	1E-09	1E-02	4E-10	4E-02	3E-14	4E-03	6E-12	4E-02	NC	NC	NC	**3E+01**	NC	6E-01	6E-12	1E-05
Landbay D	CDP4	7E-13	5E-03	NC	NC	8E-10	1E-02	3E-10	4E-02	2E-14	4E-03	4E-12	4E-02	NC	NC	NC	**3E+00**	NC	6E-02	4E-12	1E-05
Landbay D	CDP5	7E-13	5E-03	NC	NC	8E-10	1E-02	2E-10	4E-02	1E-14	4E-03	3E-12	4E-02	NC	NC	NC	6E-01	NC	1E-02	3E-12	1E-05
Landbay D	CDP6	1E-09	3E-03	3E-09	2E-03	2E-09	6E-03	6E-10	2E-02	4E-10	2E-03	7E-09	2E-02	6E-07	4E-01	1E-08	7E-01	1E-08	3E-02	9E-11	9E-05
Landbay D	CDP7	1E-12	6E-03	NC	NC	2E-09	1E-02	5E-10	5E-02	3E-14	5E-03	7E-12	5E-02	NC	NC	NC	4E-01	NC	2E-02	7E-12	1E-05
Landbay D	CDP8	6E-07	3E-02	3E-11	NC	1E-07	3E-02	5E-08	1E-01	5E-07	2E-02	1E-05	2E-01	2E-08	NC	3E-06	1E+00	3E-06	7E-02	3E-08	2E-05
Landbay D	DP-42	2E-08	7E-02	NC	NC	2E-08	6E-02	7E-09	3E-01	7E-09	5E-02	2E-07	5E-01	NC	NC	5E-08	**2E+04**	5E-08	**5E+02**	5E-11	3E-05
Landbay D	DW-17	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay D	DW-18	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay D	GP 10-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 1-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 11-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 12-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 13-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 150-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 15-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 151A-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 16-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 16-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay D	GP 17-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-07	5E-09	4E-04	NC	NC	3E-09	6E-04	1E-09	2E-03	1E-09	3E-04	4E-08	3E-03	NC	NC	1E-08	**8E+01**	1E-08	**2E+00**	7E-12	5E-07
Landbay D	GP 17-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 17-10	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	7E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay D	GP 17-11	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay D	GP 22-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 22-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 22-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 25-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 28-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 3-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay D	GP 31-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 32-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 32-03	2E-09	8E-06	5E-08	2E-04	4E-10	4E-06	4E-10	4E-05	2E-10	2E-06	1E-08	4E-05	2E-05	5E-02	NC	NC	NC	NC	7E-09	2E-05
Landbay D	GP 35-01	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay D	GP 4-01	NC	4E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 4-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 41-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 41-02	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay D	GP 41-05	NC	7E-05	NC	NC	NC	5E-05	NC	3E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	6E-01	NC	NC
Landbay D	GP 42-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 42-03	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	2E-01	NC	NC
Landbay D	GP 43-01	NC	5E-04	NC	NC	NC	3E-04	NC	2E-03	NC	4E-04	NC	4E-03	NC	NC	NC	**2E+02**	NC	**4E+00**	NC	NC
Landbay D	GP 49-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 50-01	NC	4E-06	NC	NC	NC	2E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	4E-04	NC	4E-04	NC	NC
Landbay D	GP 50-01A	NC	2E-04	NC	NC	NC	1E-04	NC	8E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 50-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 51-01	NC	7E-06	NC	NC	NC	5E-06	NC	9E-06	NC	5E-06	NC	5E-05	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay D	GP 51-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 52-01	NC	4E-06	NC	NC	NC	3E-06	NC	5E-06	NC	3E-06	NC	3E-05	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 52-02	NC	2E-05	NC	NC	NC	1E-05	NC	2E-05	NC	1E-05	NC	1E-04	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 52-04	NC	1E-02	NC	NC	NC	2E-02	NC	8E-02	NC	7E-03	NC	7E-02	NC	NC	NC	NC	NC	NC	NC	2E-05
Landbay D	GP 54-01	2E-07	1E-03	NC	NC	4E-08	9E-04	2E-08	1E-03	5E-08	9E-04	1E-06	8E-03	NC	NC	3E-07	4E-03	3E-07	4E-03	5E-12	2E-07
Landbay D	GP 56-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 58-01	NC	1E-03	NC	NC	NC	2E-03	NC	8E-03	NC	8E-04	NC	8E-03	NC	NC	NC	2E-03	NC	2E-03	NC	2E-06
Landbay D	GP 59-01	NC	7E-03	NC	NC	NC	2E-02	NC	6E-02	NC	6E-03	NC	6E-02	NC	NC	NC	NC	NC	NC	NC	2E-05
Landbay D	GP 59-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-02	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay D	GP 6-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 6-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 62-03	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	7E-06	NC	8E-05	NC	NC	NC	NC	NC	NC	NC	1E-09
Landbay D	GP 64-01	NC	1E-04	NC	NC	NC	9E-05	NC	6E-04	NC	1E-04	NC	1E-03	NC	NC	NC	NC	NC	NC	NC	1E-08
Landbay D	GP 64-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 65-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 66-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 67-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP 67-02	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**6E+01**	NC	1E+00	NC	NC
Landbay D	GP 68-01	NC	5E-06	NC	NC	NC	4E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	NC	NC	NC	NC	6E-10
Landbay D	GP 8-01	7E-08	9E-03	NC	NC	4E-08	1E-02	2E-08	4E-02	2E-08	7E-03	6E-07	7E-02	NC	NC	1E-07	1E-01	1E-07	1E-01	1E-10	1E-05
Landbay D	GP 8-02	5E-09	7E-04	NC	NC	5E-09	2E-03	2E-09	5E-03	1E-09	6E-04	4E-08	6E-03	NC	NC	1E-08	2E-03	1E-08	2E-03	2E-11	2E-06
Landbay D	GP 8-03	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	2E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay D	GP 9-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP BG-07	2E-06	6E-01	NC	NC	7E-07	6E-01	3E-07	1E+00	5E-07	5E-01	1E-05	**5E+00**	NC	NC	3E-06	2E-02	3E-06	2E-02	2E-09	3E-04
Landbay D	GP GS-01	5E-14	1E-02	NC	NC	5E-11	7E-03	2E-11	1E-02	1E-15	8E-03	2E-13	8E-02	NC	NC	NC	8E-04	NC	8E-04	2E-13	1E-08
Landbay D	GP GS-02	NC	4E-03	NC	NC	NC	8E-03	NC	3E-02	NC	3E-03	NC	3E-02	NC	NC	NC	NC	NC	NC	NC	8E-06
Landbay D	GP GS-03	6E-13	2E-04	NC	NC	7E-10	3E-04	2E-10	1E-03	1E-14	1E-04	3E-12	1E-03	NC	NC	NC	2E-03	NC	2E-03	3E-12	2E-07
Landbay D	GP GS-04	NC	3E-03	NC	NC	NC	6E-03	NC	2E-02	NC	2E-03	NC	2E-02	NC	NC	NC	NC	NC	NC	NC	6E-06
Landbay D	GP PBS-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	GP PBS-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	HA 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	HA 62-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	IM8-1	4E-06	3E-01	5E-08	NC	7E-07	1E-01	4E-07	2E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	4E-06	2E-01	4E-06	2E-01	3E-07	NC
Landbay D	IM8-2	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay D	IM8-3	2E-08	2E-03	3E-10	NC	4E-09	7E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	9E-08	NC	2E-08	1E-03	2E-08	1E-03	2E-09	NC
Landbay D	IM8-4	4E-07	2E-02	4E-09	NC	7E-08	1E-02	3E-08	2E-02	1E-07	1E-02	2E-06	8E-02	1E-06	NC	8E-07	2E-02	8E-07	2E-02	2E-08	NC
Landbay D	JT O-01B	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 2-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 43-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SB 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SR-4S	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-1	4E-07	3E-02	5E-09	NC	6E-08	1E-02	3E-08	2E-02	1E-07	2E-02	2E-06	9E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SRA4-10	6E-06	4E-01	7E-08	NC	1E-06	2E-01	5E-07	3E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	6E-06	3E-01	6E-06	3E-01	4E-07	NC
Landbay D	SRA4-11	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-16	1E-06	7E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	3E-07	4E-02	4E-06	3E-01	4E-06	NC	1E-07	8E-03	1E-07	8E-03	7E-08	NC
Landbay D	SRA4-17	1E-07	8E-03	1E-09	NC	2E-08	3E-03	1E-08	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	1E-07	6E-03	1E-07	6E-03	8E-09	NC
Landbay D	SRA4-18	9E-07	6E-02	1E-08	NC	2E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	5E-02	8E-07	5E-02	6E-08	NC
Landbay D	SRA4-19	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	6E-06	4E-01	6E-06	4E-01	5E-07	NC
Landbay D	SRA4-2	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	SRA4-20	4E-06	3E-01	5E-08	NC	8E-07	1E-01	4E-07	2E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	4E-06	2E-01	4E-06	2E-01	3E-07	NC
Landbay D	SRA4-21	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA4-23	3E-08	2E-03	3E-10	NC	5E-09	8E-04	2E-09	1E-03	7E-09	1E-03	1E-07	7E-03	1E-07	NC	3E-08	1E-03	3E-08	1E-03	2E-09	NC
Landbay D	SRA4-24	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	6E-03	3E-08	5E-03	4E-07	3E-02	4E-07	NC	9E-08	5E-03	9E-08	5E-03	7E-09	NC
Landbay D	SRA4-25	2E-07	1E-02	3E-09	NC	4E-08	6E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	SRA4-26	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	7E-07	4E-02	7E-07	4E-02	5E-08	NC
Landbay D	SRA4-27	1E-06	8E-02	1E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	5E-06	3E-01	4E-06	NC	1E-06	7E-02	1E-06	7E-02	8E-08	NC
Landbay D	SRA4-29	3E-06	2E-01	4E-08	NC	6E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA4-3	1E-07	7E-03	1E-09	NC	2E-08	3E-03	8E-09	5E-03	3E-08	4E-03	4E-07	3E-02	4E-07	NC	9E-08	5E-03	9E-08	5E-03	7E-09	NC
Landbay D	SRA4-30	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	7E-08	NC
Landbay D	SRA4-31	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	7E-07	4E-02	7E-07	4E-02	5E-08	NC
Landbay D	SRA4-32	5E-06	4E-01	7E-08	NC	1E-06	2E-01	5E-07	3E-01	1E-06	3E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	4E-07	NC
Landbay D	SRA4-33	1E-06	8E-02	1E-08	NC	2E-07	3E-02	1E-07	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	8E-08	NC
Landbay D	SRA4-34	1E-06	7E-02	1E-08	NC	2E-07	3E-02	9E-08	6E-02	3E-07	5E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	7E-08	NC
Landbay D	SRA4-35	2E-06	1E-01	2E-08	NC	3E-07	6E-02	2E-07	1E-01	5E-07	9E-02	9E-06	5E-01	7E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	SRA4-36	1E-07	7E-03	1E-09	NC	2E-08	3E-03	9E-09	6E-03	3E-08	5E-03	5E-07	3E-02	4E-07	NC	1E-07	6E-03	1E-07	6E-03	7E-09	NC
Landbay D	SRA4-38	8E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	4E-02	3E-06	2E-01	3E-06	NC	7E-07	4E-02	7E-07	4E-02	5E-08	NC
Landbay D	SRA4-4	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	9E-07	5E-02	7E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	SRA4-5	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SRA4-6	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA4-8	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	SRA4-9	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	7E-07	4E-02	7E-07	4E-02	5E-08	NC
Landbay D	SRA5-1	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	2E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA5-10	8E-07	6E-02	1E-08	NC	1E-07	2E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	5E-02	8E-07	5E-02	6E-08	NC
Landbay D	SRA5-11	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SRA5-13	7E-06	5E-01	9E-08	2E-04	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	3E-05	5E-02	7E-06	4E-01	7E-06	4E-01	5E-07	8E-05
Landbay D	SRA5-14	3E-08	2E-03	4E-10	NC	6E-09	1E-03	3E-09	2E-03	8E-09	1E-03	1E-07	8E-03	1E-07	NC	NC	NC	NC	NC	2E-09	NC
Landbay D	SRA5-16	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	1E-07	3E-02	3E-06	1E-01	2E-06	NC	5E-07	3E-02	5E-07	3E-02	4E-08	NC
Landbay D	SRA5-17	2E-08	1E-03	3E-10	NC	4E-09	6E-04	2E-09	1E-03	6E-09	1E-03	1E-07	6E-03	8E-08	NC	NC	NC	NC	NC	1E-09	NC
Landbay D	SRA5-18	9E-07	6E-02	1E-08	NC	1E-07	3E-02	7E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	8E-07	5E-02	8E-07	5E-02	6E-08	NC
Landbay D	SRA5-19	3E-06	2E-01	4E-08	NC	5E-07	9E-02	3E-07	2E-01	8E-07	1E-01	1E-05	8E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA5-2	1E-07	9E-03	2E-09	NC	2E-08	4E-03	1E-08	7E-03	3E-08	6E-03	6E-07	3E-02	5E-07	NC	1E-07	7E-03	1E-07	7E-03	9E-09	NC
Landbay D	SRA5-20	6E-07	4E-02	7E-09	NC	1E-07	2E-02	5E-08	3E-02	2E-07	3E-02	3E-06	2E-01	2E-06	NC	6E-07	3E-02	6E-07	3E-02	4E-08	NC
Landbay D	SRA5-21	3E-06	2E-01	3E-08	NC	5E-07	8E-02	2E-07	2E-01	7E-07	1E-01	1E-05	7E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA5-22	5E-06	4E-01	6E-08	NC	9E-07	2E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	4E-07	NC
Landbay D	SRA5-23	5E-06	3E-01	6E-08	NC	9E-07	2E-01	4E-07	3E-01	1E-06	2E-01	2E-05	1E+00	2E-05	NC	5E-06	3E-01	5E-06	3E-01	3E-07	NC
Landbay D	SRA5-24	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	NC	NC	NC	NC	2E-08	NC
Landbay D	SRA5-25	3E-08	2E-03	4E-10	NC	5E-09	9E-04	2E-09	2E-03	8E-09	1E-03	1E-07	7E-03	1E-07	NC	3E-08	2E-03	3E-08	2E-03	2E-09	NC
Landbay D	SRA5-26	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay D	SRA5-27	9E-07	6E-02	1E-08	NC	2E-07	3E-02	8E-08	5E-02	2E-07	4E-02	4E-06	2E-01	3E-06	NC	9E-07	5E-02	9E-07	5E-02	6E-08	NC
Landbay D	SRA5-28	8E-06	5E-01	1E-07	NC	1E-06	2E-01	7E-07	4E-01	2E-06	4E-01	4E-05	**2E+00**	3E-05	NC	8E-07	5E-02	8E-07	5E-02	5E-07	NC
Landbay D	SRA5-3	1E-06	8E-02	1E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	5E-06	3E-01	4E-06	NC	1E-06	6E-02	1E-06	6E-02	8E-08	NC
Landbay D	SRA5-30	7E-07	5E-02	9E-09	NC	1E-07	2E-02	6E-08	4E-02	2E-07	3E-02	3E-06	2E-01	3E-06	NC	7E-08	4E-03	7E-08	4E-03	5E-08	NC
Landbay D	SRA5-31	4E-08	3E-03	5E-10	NC	8E-09	1E-03	4E-09	2E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	3E-08	2E-03	3E-08	2E-03	3E-09	NC
Landbay D	SRA5-32	8E-08	6E-03	1E-09	NC	1E-08	2E-03	7E-09	5E-03	2E-08	4E-03	4E-07	2E-02	3E-07	NC	8E-08	5E-03	8E-08	5E-03	6E-09	NC
Landbay D	SRA5-34	7E-06	5E-01	8E-08	NC	1E-06	2E-01	6E-07	4E-01	2E-06	3E-01	3E-05	**2E+00**	2E-05	NC	6E-06	4E-01	6E-06	4E-01	5E-07	NC
Landbay D	SRA5-35	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	1E-02	5E-08	8E-03	8E-07	5E-02	6E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	SRA5-36	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	1E-06	7E-02	1E-06	7E-02	9E-08	NC
Landbay D	SRA5-5	5E-08	3E-03	6E-10	NC	8E-09	1E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	3E-09	NC
Landbay D	SRA5-6	1E-06	9E-02	2E-08	NC	2E-07	4E-02	1E-07	7E-02	3E-07	6E-02	6E-06	3E-01	5E-06	NC	1E-06	7E-02	1E-06	7E-02	9E-08	NC
Landbay D	SRA5-7	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA5-8	3E-07	2E-02	4E-09	NC	5E-08	9E-03	3E-08	2E-02	8E-08	1E-02	1E-06	8E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SRA5-9	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SRA6-1	5E-08	4E-03	7E-10	NC	9E-09	2E-03	4E-09	3E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	5E-08	3E-03	5E-08	3E-03	4E-09	NC
Landbay D	SRA6-10	3E-06	2E-01	4E-08	NC	6E-07	1E-01	3E-07	2E-01	9E-07	2E-01	1E-05	9E-01	1E-05	NC	3E-06	2E-01	3E-06	2E-01	2E-07	NC
Landbay D	SRA6-11	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	9E-03	4E-08	7E-03	7E-07	4E-02	6E-07	NC	2E-07	9E-03	2E-07	9E-03	1E-08	NC
Landbay D	SRA6-12	1E-06	1E-01	2E-08	NC	3E-07	4E-02	1E-07	8E-02	4E-07	7E-02	7E-06	4E-01	5E-06	NC	1E-06	8E-02	1E-06	8E-02	1E-07	NC
Landbay D	SRA6-2	2E-07	2E-02	3E-09	NC	4E-08	7E-03	2E-08	1E-02	6E-08	1E-02	1E-06	6E-02	8E-07	NC	2E-07	1E-02	2E-07	1E-02	2E-08	NC
Landbay D	SRA6-3	2E-07	1E-02	2E-09	NC	3E-08	5E-03	1E-08	9E-03	4E-08	8E-03	8E-07	4E-02	6E-07	NC	2E-07	9E-03	2E-07	9E-03	1E-08	NC
Landbay D	SRA6-4	1E-06	1E-01	2E-08	NC	3E-07	4E-02	1E-07	8E-02	4E-07	7E-02	7E-06	4E-01	5E-06	NC	1E-06	8E-02	1E-06	8E-02	1E-07	NC
Landbay D	SRA6-5	2E-06	1E-01	3E-08	NC	4E-07	6E-02	2E-07	1E-01	6E-07	1E-01	9E-06	5E-01	8E-06	NC	2E-06	1E-01	2E-06	1E-01	1E-07	NC
Landbay D	SRA6-6	2E-07	1E-02	2E-09	NC	3E-08	6E-03	2E-08	1E-02	5E-08	9E-03	9E-07	5E-02	7E-07	NC	2E-07	1E-02	2E-07	1E-02	1E-08	NC
Landbay D	SRA6-7	4E-07	3E-02	6E-09	NC	8E-08	1E-02	4E-08	3E-02	1E-07	2E-02	2E-06	1E-01	2E-06	NC	4E-07	2E-02	4E-07	2E-02	3E-08	NC
Landbay D	SRA6-8	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay D	SRA6-9	4E-07	2E-02	4E-09	NC	6E-08	1E-02	3E-08	2E-02	9E-08	2E-02	2E-06	9E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay D	SS-08A	6E-08	8E-04	NC	NC	2E-08	2E-03	1E-08	5E-03	2E-08	6E-04	6E-07	6E-03	NC	NC	1E-07	2E-03	1E-07	2E-03	4E-11	2E-06
Landbay D	SS-09A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SS-15A	1E-14	9E-04	NC	1E-04	1E-11	6E-04	4E-12	3E-03	2E-16	6E-04	6E-14	7E-03	NC	3E-02	NC	8E-04	NC	8E-04	6E-14	1E-04
Landbay D	SS-22A	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	**4E+00**	NC	7E-02	NC	NC
Landbay D	SS-35A	2E-08	6E-04	NC	NC	8E-09	1E-03	4E-09	3E-03	5E-09	4E-04	1E-07	4E-03	NC	NC	3E-08	4E-03	3E-08	4E-03	2E-11	1E-06
Landbay D	SS-43A	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	3E-06	NC	3E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay D	SS-60A	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay D	SS-67A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SS-68A	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	**1E+01**	NC	3E-01	NC	NC
Landbay D	SW 14-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 15-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 16-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 17-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 21-01	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**7E+00**	NC	1E-01	NC	NC
Landbay D	SW 27-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 35-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 41-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 43-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 43-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 45-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 5-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 5-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 6-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 7-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay D	SW 9-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	119B139	NC	1E-06	NC	NC	NC	8E-07	NC	5E-06	NC	9E-07	NC	9E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	119G36	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	120AB1	NC	6E-07	NC	NC	NC	4E-07	NC	3E-06	NC	5E-07	NC	5E-06	NC	NC	NC	3E-01	NC	5E-03	NC	NC
Landbay E	121B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	3E-07	NC	3E-06	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	200B1	3E-09	8E-03	NC	6E-03	2E-09	1E-02	8E-10	5E-02	8E-10	5E-03	2E-08	6E-02	NC	1E+00	5E-09	5E-01	5E-09	2E-02	5E-12	6E-03
Landbay E	200B2	3E-09	8E-03	NC	6E-03	2E-09	1E-02	8E-10	5E-02	8E-10	5E-03	2E-08	6E-02	NC	1E+00	5E-09	5E-01	5E-09	2E-02	5E-12	6E-03
Landbay E	200B3	3E-09	8E-03	NC	6E-03	2E-09	1E-02	8E-10	5E-02	8E-10	5E-03	2E-08	6E-02	NC	1E+00	5E-09	5E-01	5E-09	2E-02	5E-12	6E-03
Landbay E	207B1	NC	8E-07	NC	NC	NC	5E-07	NC	3E-06	NC	6E-07	NC	6E-06	NC	NC	NC	8E-02	NC	2E-03	NC	NC

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	208B1	9E-07	2E-02	NC	NC	2E-07	7E-02	1E-07	2E-01	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	4E-02	2E-06	4E-02	3E-11	8E-05
Landbay E	209B1	3E-11	1E-02	NC	NC	4E-08	2E-02	1E-08	2E-02	7E-13	1E-02	2E-10	1E-01	NC	NC	NC	1E-02	NC	1E-02	2E-10	1E-05
Landbay E	20TP1-7	2E-13	1E-02	NC	1E-08	3E-10	2E-02	8E-11	1E-01	5E-15	9E-03	1E-12	9E-02	NC	3E-06	NC	5E-01	NC	2E-02	1E-12	3E-05
Landbay E	212B1	1E-09	1E-02	NC	NC	5E-10	2E-02	3E-10	9E-02	4E-10	8E-03	1E-08	8E-02	NC	NC	3E-09	1E-01	3E-09	6E-03	5E-13	2E-05
Landbay E	214B1	4E-13	2E-04	NC	NC	5E-10	2E-04	1E-10	9E-04	8E-15	2E-04	2E-12	1E-03	NC	NC	NC	1E-01	NC	6E-03	2E-12	2E-07
Landbay E	214B2	4E-13	2E-04	NC	NC	5E-10	2E-04	1E-10	9E-04	8E-15	2E-04	2E-12	1E-03	NC	NC	NC	4E-03	NC	4E-03	2E-12	2E-07
Landbay E	214G3	4E-13	2E-04	NC	NC	5E-10	2E-04	1E-10	9E-04	8E-15	2E-04	2E-12	1E-03	NC	NC	NC	4E-03	NC	4E-03	2E-12	2E-07
Landbay E	214G4	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	217B1	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	3E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay E	219B1	NC	2E-06	NC	NC	NC	1E-06	NC	8E-06	NC	1E-06	NC	1E-05	NC	NC	NC	4E-01	NC	9E-03	NC	NC
Landbay E	21TP1-5	4E-13	6E-03	NC	5E-08	4E-10	1E-02	1E-10	5E-02	8E-15	4E-03	2E-12	4E-02	NC	1E-05	NC	**2E+00**	NC	4E-02	2E-12	1E-05
Landbay E	21TP2-7	NC	3E-03	NC	NC	NC	7E-03	NC	3E-02	NC	2E-03	NC	2E-02	NC	NC	NC	1E-01	NC	3E-03	NC	7E-06
Landbay E	230AEC-2	NC	2E-02	NC	NC	NC	1E-02	NC	8E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**8E+03**	NC	**2E+02**	NC	NC
Landbay E	230ANEC	NC	2E-04	NC	NC	NC	2E-04	NC	1E-03	NC	2E-04	NC	2E-03	NC	NC	NC	**1E+02**	NC	**2E+00**	NC	NC
Landbay E	230B1	NC	1E-02	NC	1E-03	NC	2E-02	NC	8E-02	NC	7E-03	NC	7E-02	NC	2E-01	NC	1E-02	NC	1E-02	NC	1E-03
Landbay E	230-BM	2E-06	4E-01	NC	2E-02	6E-07	2E-01	3E-07	4E-01	7E-07	3E-01	2E-05	**3E+00**	NC	**3E+00**	4E-06	2E-01	4E-06	2E-01	3E-10	2E-02
Landbay E	235B1	NC	6E-03	NC	NC	NC	1E-02	NC	6E-02	NC	5E-03	NC	5E-02	NC	NC	NC	4E-03	NC	4E-03	NC	1E-05
Landbay E	235B2	NC	1E-02	NC	NC	NC	3E-02	NC	1E-01	NC	9E-03	NC	9E-02	NC	NC	NC	8E-03	NC	8E-03	NC	3E-05
Landbay E	236B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	237B1	NC	1E-02	NC	NC	NC	9E-03	NC	6E-02	NC	1E-02	NC	1E-01	NC	NC	NC	**3E+03**	NC	**6E+01**	NC	NC
Landbay E	23TP1-7	6E-13	1E-02	NC	3E-08	7E-10	3E-02	2E-10	1E-01	1E-14	9E-03	3E-12	9E-02	NC	8E-06	NC	8E-01	NC	4E-02	3E-12	3E-05
Landbay E	253B1	NC	6E-03	NC	NC	NC	1E-02	NC	5E-02	NC	4E-03	NC	4E-02	NC	NC	NC	6E-02	NC	1E-03	NC	1E-05
Landbay E	253B2	6E-07	1E-02	NC	NC	1E-07	2E-02	8E-08	9E-02	2E-07	1E-02	5E-06	1E-01	NC	NC	1E-06	1E-01	1E-06	9E-03	2E-11	2E-05
Landbay E	253B3	2E-06	1E-02	NC	NC	3E-07	1E-02	2E-07	4E-02	4E-07	1E-02	1E-05	9E-02	NC	NC	3E-06	2E-02	3E-06	2E-02	4E-11	1E-05
Landbay E	253B5	2E-06	2E-02	NC	3E-08	4E-07	3E-02	2E-07	1E-01	5E-07	2E-02	1E-05	2E-01	NC	8E-06	3E-06	1E+00	3E-06	5E-02	5E-11	3E-05
Landbay E	253G4	NC	3E-05	NC	NC	NC	2E-05	NC	1E-04	NC	2E-05	NC	2E-04	NC	NC	NC	1E+00	NC	3E-02	NC	NC
Landbay E	253G5	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	3E-07	NC	3E-06	NC	NC	NC	1E-01	NC	2E-03	NC	NC
Landbay E	255B1	NC	4E-04	NC	NC	NC	2E-04	NC	1E-03	NC	3E-04	NC	3E-03	NC	NC	NC	**1E+02**	NC	**3E+00**	NC	NC
Landbay E	28B3	6E-08	8E-03	3E-10	2E-04	2E-08	1E-02	9E-09	4E-02	2E-08	6E-03	4E-07	5E-02	8E-08	5E-02	1E-07	2E-01	1E-07	9E-02	2E-09	2E-04
Landbay E	28B6	2E-07	5E-03	1E-09	5E-04	7E-08	9E-03	4E-08	4E-02	6E-08	3E-03	2E-06	3E-02	3E-07	8E-02	4E-07	8E-04	4E-07	8E-04	1E-10	3E-05
Landbay E	28G4	3E-08	4E-03	NC	2E-04	1E-08	7E-03	6E-09	3E-02	1E-08	3E-03	3E-07	3E-02	NC	5E-02	8E-08	**1E+01**	8E-08	3E-01	1E-11	2E-04
Landbay E	40AEC-2	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	5E-05	NC	5E-04	NC	NC	NC	**3E+01**	NC	5E-01	NC	NC
Landbay E	40ANEC	NC	2E-05	NC	NC	NC	1E-05	NC	7E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay E	40B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-10	3E-07	2E-02	4E-09	NC	5E-08	9E-03	2E-08	2E-02	8E-08	1E-02	1E-06	7E-02	1E-06	NC	3E-07	2E-02	3E-07	2E-02	2E-08	NC
Landbay E	42 GP-11	4E-08	3E-03	5E-10	NC	7E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay E	42 GP-12	1E-07	1E-02	2E-09	NC	3E-08	4E-03	1E-08	8E-03	4E-08	7E-03	7E-07	4E-02	5E-07	NC	1E-07	8E-03	1E-07	8E-03	1E-08	NC
Landbay E	42 GP-13	2E-08	1E-03	2E-10	NC	3E-09	6E-04	2E-09	1E-03	5E-09	9E-04	9E-08	5E-03	7E-08	NC	2E-08	1E-03	2E-08	1E-03	1E-09	NC
Landbay E	42 GP-14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-15	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	42 GP-30	4E-08	3E-03	5E-10	NC	6E-09	1E-03	3E-09	2E-03	1E-08	2E-03	2E-07	1E-02	1E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay E	42 GP-31	4E-08	3E-03	5E-10	NC	7E-09	1E-03	4E-09	2E-03	1E-08	2E-03	2E-07	1E-02	2E-07	NC	4E-08	2E-03	4E-08	2E-03	3E-09	NC
Landbay E	45B1	2E-07	6E-03	NC	NC	5E-08	1E-02	3E-08	4E-02	6E-08	4E-03	1E-06	4E-02	NC	NC	4E-07	**2E+01**	4E-07	5E-01	9E-12	9E-06
Landbay E	45B2	2E-07	6E-03	NC	NC	5E-08	1E-02	3E-08	4E-02	6E-08	4E-03	1E-06	4E-02	NC	NC	4E-07	1E-01	4E-07	3E-02	9E-12	9E-06
Landbay E	45B4	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay E	45B5	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay E	45B6	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay E	45G3	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay E	4650-0800	2E-06	1E-02	NC	8E-05	4E-07	8E-03	2E-07	1E-02	5E-07	8E-03	1E-05	7E-02	NC	2E-02	3E-06	3E-02	3E-06	3E-02	5E-11	7E-05
Landbay E	4650-0950	5E-07	3E-02	NC	2E-04	2E-07	9E-02	8E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	3E-02	9E-07	1E-02	9E-07	1E-02	3E-10	3E-04
Landbay E	46B1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	47B1	3E-07	9E-03	NC	6E-06	6E-08	2E-02	4E-08	6E-02	8E-08	6E-03	2E-06	6E-02	NC	1E-03	5E-07	1E-02	5E-07	1E-02	1E-11	2E-05
Landbay E	4800-0650	2E-06	1E-02	NC	8E-05	4E-07	8E-03	2E-07	1E-02	5E-07	8E-03	1E-05	7E-02	NC	2E-02	3E-06	3E-02	3E-06	3E-02	5E-11	7E-05
Landbay E	4800-0800	5E-07	3E-02	NC	2E-04	2E-07	9E-02	8E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	3E-02	9E-07	1E-02	9E-07	1E-02	3E-10	3E-04
Landbay E	4800-0950	5E-07	3E-02	NC	2E-04	2E-07	9E-02	8E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	3E-02	9E-07	1E-02	9E-07	1E-02	3E-10	3E-04
Landbay E	4800-1100	7E-07	2E-02	3E-10	1E-04	2E-07	2E-02	9E-08	4E-02	2E-07	1E-02	5E-06	1E-01	9E-08	2E-02	1E-06	2E-02	1E-06	2E-02	2E-09	1E-04
Landbay E	4800-60	6E-08	9E-03	NC	NC	2E-08	1E-02	1E-08	4E-02	2E-08	6E-03	5E-07	6E-02	NC	NC	1E-07	1E-03	1E-07	1E-03	3E-11	9E-06
Landbay E	4950-0500	2E-06	1E-02	NC	8E-05	4E-07	8E-03	2E-07	1E-02	5E-07	8E-03	1E-05	7E-02	NC	2E-02	3E-06	3E-02	3E-06	3E-02	5E-11	7E-05
Landbay E	4950-0650	2E-08	2E-03	2E-10	1E-04	3E-09	8E-04	2E-09	3E-03	5E-09	1E-03	8E-08	8E-03	7E-08	2E-02	2E-08	5E-03	2E-08	5E-03	1E-09	1E-04
Landbay E	4950-0800	2E-08	2E-03	2E-10	1E-04	3E-09	8E-04	2E-09	3E-03	5E-09	1E-03	8E-08	8E-03	7E-08	2E-02	2E-08	5E-03	2E-08	5E-03	1E-09	1E-04
Landbay E	4950-0950	7E-07	2E-02	3E-10	1E-04	2E-07	2E-02	9E-08	4E-02	2E-07	1E-02	5E-06	1E-01	9E-08	2E-02	1E-06	2E-02	1E-06	2E-02	2E-09	1E-04
Landbay E	4950-1100	7E-07	2E-02	3E-10	1E-04	2E-07	2E-02	9E-08	4E-02	2E-07	1E-02	5E-06	1E-01	9E-08	2E-02	1E-06	2E-02	1E-06	2E-02	2E-09	1E-04
Landbay E	5100-0350	2E-06	1E-02	NC	8E-05	4E-07	8E-03	2E-07	1E-02	5E-07	8E-03	1E-05	7E-02	NC	2E-02	3E-06	3E-02	3E-06	3E-02	5E-11	7E-05
Landbay E	5100-0500	2E-08	2E-03	2E-10	1E-04	3E-09	8E-04	2E-09	3E-03	5E-09	1E-03	8E-08	8E-03	7E-08	2E-02	2E-08	5E-03	2E-08	5E-03	1E-09	1E-04
Landbay E	5100-0650	2E-11	8E-03	NC	NC	2E-08	2E-02	7E-09	3E-02	4E-13	6E-03	1E-10	6E-02	NC	NC	NC	NC	NC	NC	1E-10	2E-05
Landbay E	5100-0800	2E-11	8E-03	NC	NC	2E-08	2E-02	7E-09	3E-02	4E-13	6E-03	1E-10	6E-02	NC	NC	NC	NC	NC	NC	1E-10	2E-05
Landbay E	5100-1250	2E-07	8E-02	3E-10	NC	2E-07	3E-01	8E-08	9E-01	5E-08	6E-02	1E-06	6E-01	1E-07	NC	3E-07	9E-03	3E-07	9E-03	3E-09	4E-04
Landbay E	5100-1400	2E-07	8E-02	4E-10	NC	2E-07	3E-01	9E-08	9E-01	8E-08	6E-02	2E-06	6E-01	1E-07	NC	5E-07	9E-03	5E-07	9E-03	4E-09	4E-04
Landbay E	5100-1550	8E-07	8E-02	NC	2E-05	4E-07	2E-01	2E-07	4E-01	2E-07	6E-02	6E-06	6E-01	NC	4E-03	2E-06	5E-02	2E-06	5E-02	8E-10	2E-04
Landbay E	5200-67	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	5250-0350	2E-08	2E-03	2E-10	1E-04	3E-09	8E-04	2E-09	3E-03	5E-09	1E-03	8E-08	8E-03	7E-08	2E-02	2E-08	5E-03	2E-08	5E-03	1E-09	1E-04
Landbay E	5250-0500	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	7E-03	6E-15	9E-04	1E-12	9E-03	NC	NC	NC	7E-03	NC	7E-03	1E-12	1E-06
Landbay E	5250-0650	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	7E-03	6E-15	9E-04	1E-12	9E-03	NC	NC	NC	7E-03	NC	7E-03	1E-12	1E-06
Landbay E	5400-0200	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	7E-03	6E-15	9E-04	1E-12	9E-03	NC	NC	NC	7E-03	NC	7E-03	1E-12	1E-06
Landbay E	5400-0350	8E-08	8E-02	NC	NC	2E-07	1E-01	6E-08	2E-01	2E-08	6E-02	7E-07	6E-01	NC	NC	2E-07	7E-02	2E-07	7E-02	7E-10	8E-05
Landbay E	5400-0500	8E-08	8E-02	NC	NC	2E-07	1E-01	6E-08	2E-01	2E-08	6E-02	7E-07	6E-01	NC	NC	2E-07	7E-02	2E-07	7E-02	7E-10	8E-05
Landbay E	5400-0650	8E-08	8E-02	NC	NC	2E-07	1E-01	6E-08	2E-01	2E-08	6E-02	7E-07	6E-01	NC	NC	2E-07	7E-02	2E-07	7E-02	7E-10	8E-05
Landbay E	5400-0800	3E-13	1E-03	NC	NC	3E-10	2E-03	1E-10	7E-03	6E-15	9E-04	1E-12	9E-03	NC	NC	NC	7E-03	NC	7E-03	1E-12	1E-06
Landbay E	5400-0950	5E-08	4E-02	3E-10	NC	3E-08	4E-02	1E-08	8E-02	1E-08	3E-02	3E-07	3E-01	9E-08	NC	7E-08	3E-02	7E-08	3E-02	2E-09	2E-05
Landbay E	5400-1100	5E-08	4E-02	3E-10	NC	3E-08	4E-02	1E-08	8E-02	1E-08	3E-02	3E-07	3E-01	9E-08	NC	7E-08	3E-02	7E-08	3E-02	2E-09	2E-05
Landbay E	5400-1250	2E-07	8E-02	4E-10	2E-08	2E-07	3E-01	8E-08	9E-01	7E-08	6E-02	2E-06	6E-01	1E-07	5E-06	4E-07	9E-03	4E-07	9E-03	4E-09	4E-04
Landbay E	5400-79	3E-06	8E-02	7E-10	NC	7E-07	2E-01	4E-07	5E-01	7E-07	6E-02	2E-05	5E-01	2E-07	NC	5E-06	3E-02	5E-06	3E-02	5E-09	2E-04
Landbay E	5400-86	NC	7E-04	NC	NC	NC	4E-04	NC	3E-03	NC	5E-04	NC	5E-03	NC	NC	NC	**3E+02**	NC	**6E+00**	NC	NC
Landbay E	5500-84-1	2E-06	5E-02	2E-10	NC	4E-07	4E-02	2E-07	1E-01	5E-07	4E-02	1E-05	4E-01	6E-08	NC	3E-06	8E-01	3E-06	3E-02	1E-09	2E-05
Landbay E	5500-84-2	8E-07	3E-02	NC	NC	2E-07	2E-02	1E-07	6E-02	2E-07	2E-02	6E-06	2E-01	NC	NC	1E-06	1E+00	1E-06	4E-02	3E-11	1E-05
Landbay E	5500-84-3	3E-06	1E-01	NC	NC	9E-07	3E-01	5E-07	7E-01	1E-06	9E-02	2E-05	9E-01	NC	NC	6E-06	**2E+00**	6E-06	7E-02	9E-10	3E-04
Landbay E	5550-0200	4E-08	2E-03	NC	NC	1E-08	5E-03	8E-09	2E-02	1E-08	2E-03	3E-07	2E-02	NC	NC	8E-08	9E-03	8E-08	9E-03	2E-11	5E-06
Landbay E	5550-0500	4E-08	2E-03	NC	NC	1E-08	5E-03	8E-09	2E-02	1E-08	2E-03	3E-07	2E-02	NC	NC	8E-08	9E-03	8E-08	9E-03	2E-11	5E-06
Landbay E	5550-0650	4E-08	2E-03	NC	NC	1E-08	5E-03	8E-09	2E-02	1E-08	2E-03	3E-07	2E-02	NC	NC	8E-08	9E-03	8E-08	9E-03	2E-11	5E-06
Landbay E	5550-0800	7E-08	3E-02	NC	NC	9E-08	3E-02	4E-08	6E-02	2E-08	2E-02	7E-07	2E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	3E-10	2E-05
Landbay E	5550-0950	5E-08	4E-02	3E-10	NC	3E-08	4E-02	1E-08	8E-02	1E-08	3E-02	3E-07	3E-01	9E-08	NC	7E-08	3E-02	7E-08	3E-02	2E-09	2E-05
Landbay E	5550-1100	5E-08	4E-02	3E-10	NC	3E-08	4E-02	1E-08	8E-02	1E-08	3E-02	3E-07	3E-01	9E-08	NC	7E-08	3E-02	7E-08	3E-02	2E-09	2E-05
Landbay E	5550-1250	4E-07	3E-02	NC	NC	2E-07	9E-02	7E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	7E-07	2E-02	7E-07	2E-02	3E-10	1E-04
Landbay E	5550-1400	4E-07	3E-02	NC	NC	2E-07	9E-02	7E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	7E-07	2E-02	7E-07	2E-02	3E-10	1E-04
Landbay E	5550-1550	4E-07	3E-02	NC	NC	2E-07	9E-02	7E-08	2E-01	1E-07	2E-02	3E-06	2E-01	NC	NC	7E-07	2E-02	7E-07	2E-02	3E-10	1E-04
Landbay E	5550-1700	1E-07	2E-02	1E-09	NC	6E-08	8E-02	2E-08	2E-01	3E-08	2E-02	5E-07	2E-01	3E-07	NC	1E-07	4E-02	1E-07	4E-02	6E-09	9E-05
Landbay E	5550-1850	2E-08	2E-02	NC	NC	5E-08	7E-02	2E-08	2E-01	6E-09	1E-02	2E-07	1E-01	NC	NC	4E-08	3E-02	4E-08	3E-02	2E-10	9E-05
Landbay E	5600-82	6E-08	6E-03	6E-10	2E-04	1E-08	6E-03	5E-09	2E-02	2E-08	4E-03	3E-07	3E-02	2E-07	4E-02	5E-08	3E-03	5E-08	3E-03	3E-09	2E-04
Landbay E	5600-83	NC	3E-07	NC	NC	NC	2E-07	NC	1E-06	NC	2E-07	NC	2E-06	NC	NC	NC	1E-01	NC	3E-03	NC	NC
Landbay E	5700-0650	4E-08	2E-03	NC	NC	1E-08	5E-03	8E-09	2E-02	1E-08	2E-03	3E-07	2E-02	NC	NC	8E-08	9E-03	8E-08	9E-03	2E-11	5E-06
Landbay E	5700-0800	7E-08	3E-02	NC	NC	9E-08	3E-02	4E-08	6E-02	2E-08	2E-02	7E-07	2E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	3E-10	2E-05
Landbay E	5700-0950	7E-08	3E-02	NC	NC	9E-08	3E-02	4E-08	6E-02	2E-08	2E-02	7E-07	2E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	3E-10	2E-05
Landbay E	5700-1100	3E-08	3E-02	NC	NC	4E-08	2E-02	1E-08	2E-02	1E-08	2E-02	3E-07	2E-01	NC	NC	7E-08	5E-04	7E-08	5E-04	1E-10	5E-06
Landbay E	5700-1250	3E-08	3E-02	NC	NC	4E-08	2E-02	1E-08	2E-02	1E-08	2E-02	3E-07	2E-01	NC	NC	7E-08	5E-04	7E-08	5E-04	1E-10	5E-06
Landbay E	5700-1400	3E-07	3E-02	NC	NC	1E-07	9E-02	6E-08	2E-01	9E-08	2E-02	2E-06	2E-01	NC	NC	6E-07	5E-03	6E-07	5E-03	3E-10	1E-04
Landbay E	5700-1550	3E-07	3E-02	NC	NC	1E-07	9E-02	6E-08	2E-01	9E-08	2E-02	2E-06	2E-01	NC	NC	6E-07	5E-03	6E-07	5E-03	3E-10	1E-04
Landbay E	5700-1700	7E-08	4E-02	NC	NC	1E-07	9E-02	4E-08	2E-01	2E-08	3E-02	5E-07	3E-01	NC	NC	1E-07	1E-02	1E-07	1E-02	5E-10	1E-04
Landbay E	5700-1850	7E-08	4E-02	NC	NC	1E-07	9E-02	4E-08	2E-01	2E-08	3E-02	5E-07	3E-01	NC	NC	1E-07	1E-02	1E-07	1E-02	5E-10	1E-04
Landbay E	5850-0950	7E-08	3E-02	NC	NC	9E-08	3E-02	4E-08	6E-02	2E-08	2E-02	7E-07	2E-01	NC	NC	1E-07	2E-03	1E-07	2E-03	3E-10	2E-05
Landbay E	5850-1100	3E-08	3E-02	NC	NC	4E-08	2E-02	1E-08	2E-02	1E-08	2E-02	3E-07	2E-01	NC	NC	7E-08	5E-04	7E-08	5E-04	1E-10	5E-06
Landbay E	5850-1250	3E-08	3E-02	NC	NC	4E-08	2E-02	1E-08	2E-02	1E-08	2E-02	3E-07	2E-01	NC	NC	7E-08	5E-04	7E-08	5E-04	1E-10	5E-06
Landbay E	5850-1400	3E-07	3E-02	NC	NC	1E-07	9E-02	6E-08	2E-01	9E-08	2E-02	2E-06	2E-01	NC	NC	6E-07	5E-03	6E-07	5E-03	3E-10	1E-04
Landbay E	5850-1550	3E-07	3E-02	NC	NC	1E-07	9E-02	6E-08	2E-01	9E-08	2E-02	2E-06	2E-01	NC	NC	6E-07	5E-03	6E-07	5E-03	3E-10	1E-04
Landbay E	5850-1700	4E-08	8E-03	NC	NC	2E-08	2E-02	8E-09	7E-02	1E-08	6E-03	3E-07	6E-02	NC	NC	7E-08	3E-03	7E-08	3E-03	3E-11	2E-05
Landbay E	5850-1850	7E-08	4E-02	NC	NC	1E-07	9E-02	4E-08	2E-01	2E-08	3E-02	5E-07	3E-01	NC	NC	1E-07	1E-02	1E-07	1E-02	5E-10	1E-04
Landbay E	6000-0950	1E-07	9E-02	NC	NC	2E-07	3E-01	7E-08	8E-01	4E-08	7E-02	1E-06	7E-01	NC	NC	3E-07	1E-03	3E-07	1E-03	7E-10	3E-04
Landbay E	6000-1100	9E-08	4E-02	NC	NC	1E-07	5E-02	5E-08	7E-02	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-10	4E-05
Landbay E	6000-1250	9E-08	4E-02	NC	NC	1E-07	5E-02	5E-08	7E-02	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-10	4E-05
Landbay E	6000-1400	1E-07	1E-01	7E-10	NC	3E-07	2E-01	9E-08	4E-01	3E-08	7E-02	8E-07	7E-01	2E-07	NC	2E-07	4E-02	2E-07	4E-02	5E-09	2E-04
Landbay E	6000-1550	1E-07	1E-01	7E-10	NC	3E-07	2E-01	9E-08	4E-01	3E-08	7E-02	8E-07	7E-01	2E-07	NC	2E-07	4E-02	2E-07	4E-02	5E-09	2E-04
Landbay E	6000-1700	6E-08	3E-02	NC	NC	8E-08	3E-02	3E-08	5E-02	2E-08	2E-02	5E-07	2E-01	NC	NC	1E-07	3E-03	1E-07	3E-03	3E-10	2E-05
Landbay E	6000-91	8E-07	5E-03	NC	NC	2E-07	3E-03	1E-07	3E-03	2E-07	3E-03	5E-06	3E-02	NC	NC	1E-06	5E-01	1E-06	2E-02	4E-11	8E-07
Landbay E	6100-101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6150-0050	7E-08	1E-02	3E-10	1E-06	5E-08	2E-02	2E-08	3E-02	2E-08	1E-02	5E-07	9E-02	8E-08	3E-04	1E-07	2E-02	1E-07	2E-02	2E-09	1E-05
Landbay E	6150-0950	1E-12	6E-03	NC	NC	1E-09	1E-02	4E-10	5E-02	2E-14	4E-03	6E-12	4E-02	NC	NC	NC	8E-04	NC	8E-04	6E-12	1E-05
Landbay E	6150-1100	9E-08	4E-02	NC	NC	1E-07	5E-02	5E-08	7E-02	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-10	4E-05
Landbay E	6150-1250	9E-08	4E-02	NC	NC	1E-07	5E-02	5E-08	7E-02	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	5E-10	4E-05
Landbay E	6150-1400	1E-07	1E-01	7E-10	NC	3E-07	2E-01	9E-08	4E-01	3E-08	7E-02	8E-07	7E-01	2E-07	NC	2E-07	4E-02	2E-07	4E-02	5E-09	2E-04
Landbay E	6150-1550	1E-07	1E-01	7E-10	NC	3E-07	2E-01	9E-08	4E-01	3E-08	7E-02	8E-07	7E-01	2E-07	NC	2E-07	4E-02	2E-07	4E-02	5E-09	2E-04
Landbay E	6150-1700	9E-08	4E-02	NC	NC	1E-07	1E-01	4E-08	3E-01	3E-08	3E-02	8E-07	3E-01	NC	NC	2E-07	5E-03	2E-07	5E-03	4E-10	1E-04
Landbay E	6150-9750	7E-08	1E-02	3E-10	1E-06	5E-08	2E-02	2E-08	3E-02	2E-08	1E-02	5E-07	9E-02	8E-08	3E-04	1E-07	2E-02	1E-07	2E-02	2E-09	1E-05
Landbay E	6150-9900	7E-08	1E-02	3E-10	1E-06	5E-08	2E-02	2E-08	3E-02	2E-08	1E-02	5E-07	9E-02	8E-08	3E-04	1E-07	2E-02	1E-07	2E-02	2E-09	1E-05
Landbay E	6300-0800	6E-07	1E-01	NC	NC	4E-07	2E-01	2E-07	5E-01	2E-07	9E-02	4E-06	9E-01	NC	NC	1E-06	5E-03	1E-06	5E-03	1E-09	2E-04
Landbay E	6300-0950	6E-07	1E-01	NC	NC	4E-07	2E-01	1E-07	4E-01	2E-07	8E-02	5E-06	8E-01	NC	NC	1E-06	7E-03	1E-06	7E-03	1E-09	2E-04
Landbay E	6300-1100	1E-07	8E-02	NC	NC	2E-07	1E-01	7E-08	3E-01	3E-08	6E-02	9E-07	6E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	8E-10	1E-04
Landbay E	6300-1250	1E-07	8E-02	NC	NC	2E-07	1E-01	7E-08	3E-01	3E-08	6E-02	9E-07	6E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	8E-10	1E-04
Landbay E	6300-1400	1E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	3E-08	1E-01	9E-07	1E+00	NC	NC	2E-07	4E-03	2E-07	4E-03	2E-09	3E-04
Landbay E	6300-1550	1E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	3E-08	1E-01	9E-07	1E+00	NC	NC	2E-07	4E-03	2E-07	4E-03	2E-09	3E-04
Landbay E	6300-1700	5E-08	7E-04	NC	NC	2E-08	1E-03	1E-08	5E-03	1E-08	5E-04	4E-07	5E-03	NC	NC	1E-07	2E-03	1E-07	2E-03	2E-11	1E-06
Landbay E	6300-9900	7E-08	1E-02	3E-10	1E-06	5E-08	2E-02	2E-08	3E-02	2E-08	1E-02	5E-07	9E-02	8E-08	3E-04	1E-07	2E-02	1E-07	2E-02	2E-09	1E-05
Landbay E	6400-103	2E-06	1E-01	NC	2E-08	5E-07	1E-01	3E-07	3E-01	6E-07	1E-01	2E-05	1E+00	NC	6E-06	4E-06	2E-02	4E-06	2E-02	1E-10	4E-05
Landbay E	6450-0050	4E-07	2E-01	2E-10	6E-05	5E-07	4E-01	2E-07	9E-01	1E-07	1E-01	3E-06	1E+00	7E-08	1E-02	7E-07	7E-02	7E-07	7E-02	3E-09	5E-04
Landbay E	6450-1100	1E-07	8E-02	NC	NC	2E-07	1E-01	7E-08	3E-01	3E-08	6E-02	9E-07	6E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	8E-10	1E-04
Landbay E	6450-1250	1E-07	8E-02	NC	NC	2E-07	1E-01	7E-08	3E-01	3E-08	6E-02	9E-07	6E-01	NC	NC	2E-07	1E-03	2E-07	1E-03	8E-10	1E-04
Landbay E	6450-1400	1E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	3E-08	1E-01	9E-07	1E+00	NC	NC	2E-07	4E-03	2E-07	4E-03	2E-09	3E-04
Landbay E	6450-1550	1E-07	2E-01	NC	NC	4E-07	3E-01	1E-07	7E-01	3E-08	1E-01	9E-07	1E+00	NC	NC	2E-07	4E-03	2E-07	4E-03	2E-09	3E-04
Landbay E	6600-0050	4E-07	2E-01	2E-10	6E-05	5E-07	4E-01	2E-07	9E-01	1E-07	1E-01	3E-06	1E+00	7E-08	1E-02	7E-07	7E-02	7E-07	7E-02	3E-09	5E-04
Landbay E	6600-0200	4E-07	2E-01	2E-10	6E-05	5E-07	4E-01	2E-07	9E-01	1E-07	1E-01	3E-06	1E+00	7E-08	1E-02	7E-07	7E-02	7E-07	7E-02	3E-09	5E-04
Landbay E	6600-0350	4E-07	2E-01	2E-10	6E-05	5E-07	4E-01	2E-07	9E-01	1E-07	1E-01	3E-06	1E+00	7E-08	1E-02	7E-07	7E-02	7E-07	7E-02	3E-09	5E-04
Landbay E	6600-1100	5E-08	1E-01	NC	NC	1E-07	1E-01	3E-08	2E-01	2E-08	1E-01	5E-07	1E+00	NC	NC	1E-07	4E-01	1E-07	9E-03	4E-10	4E-05
Landbay E	6600-112	3E-06	2E-01	NC	NC	1E-06	5E-01	5E-07	1E+00	7E-07	2E-01	2E-05	**2E+00**	NC	NC	5E-06	3E-02	5E-06	3E-02	2E-09	5E-04
Landbay E	6600-113	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	Location	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	6600-1250	5E-08	1E-01	NC	NC	1E-07	1E-01	3E-08	2E-01	2E-08	1E-01	5E-07	1E+00	NC	NC	1E-07	4E-01	1E-07	9E-03	4E-10	4E-05
Landbay E	6600-1400	4E-07	5E-02	NC	NC	2E-07	8E-02	8E-08	2E-01	1E-07	3E-02	3E-06	3E-01	NC	NC	8E-07	5E-03	8E-07	5E-03	3E-10	7E-05
Landbay E	6750-0050	6E-07	7E-02	3E-10	7E-07	3E-07	2E-01	1E-07	6E-01	2E-07	5E-02	4E-06	5E-01	7E-08	1E-04	1E-06	5E-02	1E-06	5E-02	2E-09	3E-04
Landbay E	6750-0200	6E-07	7E-02	3E-10	7E-07	3E-07	2E-01	1E-07	6E-01	2E-07	5E-02	4E-06	5E-01	7E-08	1E-04	1E-06	5E-02	1E-06	5E-02	2E-09	3E-04
Landbay E	6750-0350	2E-06	2E-01	3E-10	NC	7E-07	3E-01	3E-07	6E-01	5E-07	1E-01	1E-05	1E+00	8E-08	NC	3E-06	2E-02	3E-06	2E-02	3E-09	3E-04
Landbay E	6750-0500	8E-08	8E-03	3E-10	NC	3E-08	1E-02	1E-08	6E-02	2E-08	6E-03	6E-07	6E-02	8E-08	NC	1E-07	3E-03	1E-07	3E-03	1E-09	1E-05
Landbay E	6750-0650	8E-08	8E-02	2E-10	NC	2E-07	2E-01	7E-08	3E-01	2E-08	6E-02	6E-07	6E-01	7E-08	NC	1E-07	6E-02	1E-07	6E-02	2E-09	1E-04
Landbay E	6750-0800	8E-08	8E-02	2E-10	4E-07	2E-07	2E-01	7E-08	3E-01	2E-08	6E-02	6E-07	6E-01	7E-08	9E-05	1E-07	6E-02	1E-07	6E-02	2E-09	1E-04
Landbay E	6750-1100	5E-08	1E-01	NC	NC	1E-07	1E-01	3E-08	2E-01	2E-08	1E-01	5E-07	1E+00	NC	NC	1E-07	4E-01	1E-07	9E-03	4E-10	4E-05
Landbay E	6750-1250	5E-08	1E-01	NC	NC	1E-07	1E-01	3E-08	2E-01	2E-08	1E-01	5E-07	1E+00	NC	NC	1E-07	4E-01	1E-07	9E-03	4E-10	4E-05
Landbay E	6750-1400	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	6900-0050	6E-07	7E-02	3E-10	7E-07	3E-07	2E-01	1E-07	6E-01	2E-07	5E-02	4E-06	5E-01	7E-08	1E-04	1E-06	5E-02	1E-06	5E-02	2E-09	3E-04
Landbay E	6900-0200	9E-07	2E-01	3E-10	NC	6E-07	3E-01	3E-07	7E-01	3E-07	1E-01	7E-06	1E+00	8E-08	NC	2E-06	1E-02	2E-06	1E-02	3E-09	3E-04
Landbay E	6900-0350	6E-08	5E-02	3E-10	NC	1E-07	6E-02	5E-08	9E-02	2E-08	4E-02	4E-07	4E-01	8E-08	NC	9E-08	2E-03	9E-08	2E-03	2E-09	4E-05
Landbay E	6900-0500	8E-08	8E-02	2E-10	NC	2E-07	2E-01	7E-08	3E-01	2E-08	6E-02	6E-07	6E-01	7E-08	NC	1E-07	6E-02	1E-07	6E-02	2E-09	1E-04
Landbay E	6900-0650	8E-08	8E-02	2E-10	NC	2E-07	2E-01	7E-08	3E-01	2E-08	6E-02	6E-07	6E-01	7E-08	NC	1E-07	6E-02	1E-07	6E-02	2E-09	1E-04
Landbay E	6900-9900	6E-07	7E-02	3E-10	7E-07	3E-07	2E-01	1E-07	6E-01	2E-07	5E-02	4E-06	5E-01	7E-08	1E-04	1E-06	5E-02	1E-06	5E-02	2E-09	3E-04
Landbay E	7000-126	4E-06	1E-01	NC	NC	1E-06	2E-01	6E-07	3E-01	1E-06	1E-01	3E-05	1E+00	NC	NC	7E-06	4E-02	7E-06	4E-02	1E-09	1E-04
Landbay E	7000-127	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7050-0050	3E-07	2E-03	NC	NC	8E-08	3E-03	4E-08	5E-03	1E-07	2E-03	2E-06	1E-02	NC	NC	6E-07	3E-03	6E-07	3E-03	9E-12	2E-06
Landbay E	7050-0200	2E-08	5E-02	2E-10	NC	1E-07	2E-01	4E-08	6E-01	6E-09	4E-02	1E-07	4E-01	7E-08	NC	2E-08	4E-01	2E-08	4E-02	2E-09	3E-04
Landbay E	7050-0350	2E-08	5E-02	2E-10	NC	1E-07	2E-01	4E-08	6E-01	6E-09	4E-02	1E-07	4E-01	7E-08	NC	2E-08	4E-01	2E-08	4E-02	2E-09	3E-04
Landbay E	7050-0500	2E-08	5E-02	2E-10	NC	1E-07	2E-01	4E-08	6E-01	6E-09	4E-02	1E-07	4E-01	7E-08	NC	2E-08	4E-01	2E-08	4E-02	2E-09	3E-04
Landbay E	7050-0650	2E-08	5E-02	2E-10	NC	1E-07	2E-01	4E-08	6E-01	6E-09	4E-02	1E-07	4E-01	7E-08	NC	2E-08	4E-01	2E-08	4E-02	2E-09	3E-04
Landbay E	7050-0800	4E-14	8E-06	NC	NC	4E-11	1E-05	1E-11	5E-05	7E-16	6E-06	2E-13	6E-05	NC	NC	NC	7E-06	NC	7E-06	2E-13	9E-09
Landbay E	7050-0950	1E-06	2E-02	NC	NC	3E-07	2E-02	1E-07	2E-02	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	2E-10	1E-05
Landbay E	7050-1100	1E-06	2E-02	NC	NC	3E-07	2E-02	1E-07	2E-02	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	2E-10	1E-05
Landbay E	7200-0200	3E-07	2E-03	NC	NC	8E-08	3E-03	4E-08	5E-03	1E-07	2E-03	2E-06	1E-02	NC	NC	6E-07	3E-03	6E-07	3E-03	9E-12	2E-06
Landbay E	7200-0350	6E-07	4E-03	NC	NC	1E-07	3E-03	7E-08	4E-03	2E-07	3E-03	4E-06	2E-02	NC	NC	1E-06	2E-02	1E-06	2E-02	2E-11	1E-06
Landbay E	7200-0500	6E-07	4E-03	NC	NC	1E-07	3E-03	7E-08	4E-03	2E-07	3E-03	4E-06	2E-02	NC	NC	1E-06	2E-02	1E-06	2E-02	2E-11	1E-06
Landbay E	7200-0650	4E-14	8E-06	NC	NC	4E-11	1E-05	1E-11	5E-05	7E-16	6E-06	2E-13	6E-05	NC	NC	NC	7E-06	NC	7E-06	2E-13	9E-09
Landbay E	7200-0800	4E-14	8E-06	NC	NC	4E-11	1E-05	1E-11	5E-05	7E-16	6E-06	2E-13	6E-05	NC	NC	NC	7E-06	NC	7E-06	2E-13	9E-09
Landbay E	7200-0950	1E-06	2E-02	NC	NC	3E-07	2E-02	1E-07	2E-02	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	2E-10	1E-05
Landbay E	7200-1100	1E-06	2E-02	NC	NC	3E-07	2E-02	1E-07	2E-02	3E-07	2E-02	7E-06	2E-01	NC	NC	2E-06	9E-03	2E-06	9E-03	2E-10	1E-05
Landbay E	7200-130	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-132	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-133	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7200-1400	6E-07	1E-02	NC	NC	2E-07	3E-02	8E-08	6E-02	2E-07	1E-02	4E-06	1E-01	NC	NC	1E-06	6E-03	1E-06	6E-03	1E-10	3E-05
Landbay E	7350-0500	6E-07	4E-03	NC	NC	1E-07	3E-03	7E-08	4E-03	2E-07	3E-03	4E-06	2E-02	NC	NC	1E-06	2E-02	1E-06	2E-02	2E-11	1E-06
Landbay E	7350-0650	6E-07	4E-03	NC	NC	1E-07	3E-03	7E-08	4E-03	2E-07	3E-03	4E-06	2E-02	NC	NC	1E-06	2E-02	1E-06	2E-02	2E-11	1E-06
Landbay E	7350-0800	4E-14	8E-06	NC	NC	4E-11	1E-05	1E-11	5E-05	7E-16	6E-06	2E-13	6E-05	NC	NC	NC	7E-06	NC	7E-06	2E-13	9E-09
Landbay E	7350-1400	6E-07	1E-02	NC	NC	2E-07	3E-02	8E-08	6E-02	2E-07	1E-02	4E-06	1E-01	NC	NC	1E-06	6E-03	1E-06	6E-03	1E-10	3E-05
Landbay E	7500-0650	8E-08	6E-04	NC	NC	2E-08	4E-04	1E-08	7E-04	2E-08	4E-04	6E-07	4E-03	NC	NC	2E-07	9E-04	2E-07	9E-04	4E-12	2E-07
Landbay E	7500-0800	8E-08	6E-04	NC	NC	2E-08	4E-04	1E-08	7E-04	2E-08	4E-04	6E-07	4E-03	NC	NC	2E-07	9E-04	2E-07	9E-04	4E-12	2E-07
Landbay E	7500-0950	8E-08	6E-04	NC	NC	2E-08	4E-04	1E-08	7E-04	2E-08	4E-04	6E-07	4E-03	NC	NC	2E-07	9E-04	2E-07	9E-04	4E-12	2E-07
Landbay E	7500-1100	8E-08	6E-04	NC	NC	2E-08	4E-04	1E-08	7E-04	2E-08	4E-04	6E-07	4E-03	NC	NC	2E-07	9E-04	2E-07	9E-04	4E-12	2E-07
Landbay E	7500-1400	NC	1E-03	NC	NC	NC	2E-02	NC	8E-02	NC	8E-04	NC	8E-03	NC	NC	NC	3E-04	NC	3E-04	NC	3E-05
Landbay E	7500-1550	NC	1E-03	NC	NC	NC	2E-02	NC	8E-02	NC	8E-04	NC	8E-03	NC	NC	NC	3E-04	NC	3E-04	NC	3E-05
Landbay E	7650-0800	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-0950	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1100	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1250	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7650-1550	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-04	NC	3E-04	8E-13	4E-08
Landbay E	7700-150	2E-06	4E-02	NC	NC	4E-07	2E-02	2E-07	3E-02	5E-07	3E-02	1E-05	3E-01	NC	NC	3E-06	**2E+01**	3E-06	3E-01	5E-11	2E-06
Landbay E	7700-151	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7800-1100	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7800-1250	NC	1E-05	NC	8E-04	NC	6E-06	NC	5E-05	NC	2E-06	NC	5E-05	NC	2E-01	NC	9E-05	NC	9E-05	NC	4E-05
Landbay E	7800-1400	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-04	NC	3E-04	8E-13	4E-08
Landbay E	7800-1550	2E-13	4E-05	NC	NC	2E-10	5E-05	6E-11	2E-04	3E-15	3E-05	8E-13	3E-04	NC	NC	NC	3E-04	NC	3E-04	8E-13	4E-08
Landbay E	7950-1250	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7950-1400	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	7950-1550	4E-08	5E-04	NC	6E-05	1E-08	4E-04	5E-09	1E-03	1E-08	4E-04	3E-07	3E-03	NC	1E-02	7E-08	8E-04	7E-08	8E-04	3E-12	6E-05
Landbay E	8100-1400	4E-08	5E-04	NC	6E-05	1E-08	4E-04	5E-09	1E-03	1E-08	4E-04	3E-07	3E-03	NC	1E-02	7E-08	8E-04	7E-08	8E-04	3E-12	6E-05
Landbay E	8100-1550	4E-08	5E-04	NC	6E-05	1E-08	4E-04	5E-09	1E-03	1E-08	4E-04	3E-07	3E-03	NC	1E-02	7E-08	8E-04	7E-08	8E-04	3E-12	6E-05
Landbay E	A7G191	8E-07	9E-03	NC	5E-05	2E-07	1E-02	1E-07	4E-02	2E-07	7E-03	6E-06	6E-02	NC	1E-02	1E-06	9E-01	1E-06	4E-02	2E-11	6E-05
Landbay E	A7G192	7E-13	3E-03	NC	NC	8E-10	6E-03	3E-10	2E-02	2E-14	2E-03	4E-12	2E-02	NC	NC	NC	3E-02	NC	3E-02	4E-12	6E-06
Landbay E	A7S160	9E-07	1E-01	2E-10	NC	4E-07	3E-01	2E-07	9E-01	3E-07	1E-01	6E-06	1E+00	7E-08	NC	2E-06	8E-02	2E-06	3E-02	2E-09	4E-04
Landbay E	A7S161	2E-08	1E-01	2E-10	NC	2E-07	3E-01	6E-08	9E-01	5E-09	1E-01	9E-08	1E+00	7E-08	NC	2E-08	5E-03	2E-08	5E-03	2E-09	4E-04
Landbay E	AAMARKB1-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	AAN-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	B227AEC-1S	NC	1E-03	NC	NC	NC	8E-04	NC	5E-03	NC	1E-03	NC	1E-02	NC	NC	NC	**6E+02**	NC	**1E+01**	NC	NC
Landbay E	DP-223	3E-13	6E-05	NC	NC	3E-10	8E-05	9E-11	4E-04	5E-15	4E-05	1E-12	4E-04	NC	NC	NC	5E-05	NC	5E-05	1E-12	6E-08
Landbay E	DP-223A	7E-13	2E-04	NC	NC	8E-10	2E-04	3E-10	1E-03	2E-14	1E-04	4E-12	1E-03	NC	NC	NC	1E-04	NC	1E-04	4E-12	2E-07
Landbay E	DP-223B	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	F-234	NC	3E-06	NC	1E-08	NC	2E-06	NC	1E-05	NC	2E-06	NC	2E-05	NC	3E-06	NC	1E+00	NC	2E-02	NC	8E-09
Landbay E	F-6	4E-08	9E-03	NC	NC	1E-08	2E-02	7E-09	8E-02	1E-08	7E-03	4E-07	7E-02	NC	NC	7E-08	7E-02	7E-08	8E-03	1E-11	2E-05
Landbay E	GP 200-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 200-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 201-03	NC	9E-06	NC	NC	NC	6E-06	NC	4E-05	NC	7E-06	NC	7E-05	NC	NC	NC	**4E+00**	NC	8E-02	NC	NC
Landbay E	GP 201-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 202-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 202-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 203-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 203-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 204-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 204-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 205-03	NC	7E-06	NC	NC	NC	4E-06	NC	3E-05	NC	5E-06	NC	5E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay E	GP 208-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-09	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-10	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-12	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 211-15	6E-13	1E-04	NC	NC	7E-10	2E-04	2E-10	9E-04	1E-14	1E-04	3E-12	1E-03	NC	NC	NC	1E-04	NC	1E-04	3E-12	2E-07
Landbay E	GP 211-16	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 212-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 212-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 213-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 213-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 214-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 215-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 220-07	1E-13	3E-05	NC	NC	1E-10	4E-05	5E-11	2E-04	3E-15	2E-05	7E-13	2E-04	NC	NC	NC	3E-05	NC	3E-05	7E-13	3E-08
Landbay E	GP 221-10	2E-08	1E-04	NC	NC	7E-09	1E-04	4E-09	6E-04	6E-09	9E-05	2E-07	9E-04	NC	NC	4E-08	1E-04	4E-08	1E-04	8E-12	1E-07
Landbay E	GP 221-11	4E-08	9E-05	NC	NC	1E-08	1E-04	8E-09	4E-04	1E-08	7E-05	4E-07	7E-04	NC	NC	8E-08	1E-04	8E-08	1E-04	1E-11	8E-08
Landbay E	GP 221-13	6E-08	1E-04	NC	NC	2E-08	2E-04	1E-08	6E-04	2E-08	1E-04	6E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	GP 221-14	1E-07	3E-04	NC	NC	5E-08	4E-04	3E-08	1E-03	4E-08	3E-04	1E-06	3E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	5E-11	3E-07
Landbay E	GP 223-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 223-06	5E-08	1E-04	NC	NC	2E-08	1E-04	8E-09	4E-04	1E-08	8E-05	4E-07	8E-04	NC	NC	9E-08	1E-04	9E-08	1E-04	1E-11	9E-08
Landbay E	GP 223-07	3E-08	7E-05	NC	NC	1E-08	8E-05	6E-09	2E-04	9E-09	5E-05	3E-07	5E-04	NC	NC	6E-08	1E-04	6E-08	1E-04	1E-11	5E-08
Landbay E	GP 223-08	6E-08	1E-04	NC	NC	2E-08	2E-04	1E-08	6E-04	2E-08	1E-04	5E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	GP 223-09	2E-08	4E-05	NC	NC	6E-09	4E-05	3E-09	1E-04	6E-09	3E-05	2E-07	3E-04	NC	NC	4E-08	6E-05	4E-08	6E-05	6E-12	2E-08
Landbay E	GP 223-10	3E-08	7E-05	NC	NC	1E-08	9E-05	6E-09	3E-04	1E-08	6E-05	3E-07	6E-04	NC	NC	7E-08	1E-04	7E-08	1E-04	1E-11	6E-08
Landbay E	GP 223-11	NC	4E-06	NC	NC	NC	1E-05	NC	4E-05	NC	3E-06	NC	3E-05	NC	NC	NC	NC	NC	NC	NC	1E-08
Landbay E	GP 223-12	5E-08	1E-04	NC	NC	2E-08	1E-04	9E-09	4E-04	1E-08	8E-05	4E-07	8E-04	NC	NC	9E-08	1E-04	9E-08	1E-04	2E-11	9E-08
Landbay E	GP 223-13	6E-08	1E-04	NC	NC	2E-08	2E-04	1E-08	5E-04	2E-08	1E-04	5E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	GP 223-14	5E-08	1E-04	NC	NC	2E-08	1E-04	9E-09	4E-04	2E-08	9E-05	5E-07	9E-04	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	GP 225-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 225-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 226-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 227-01	NC	8E-06	NC	NC	NC	5E-06	NC	3E-05	NC	6E-06	NC	6E-05	NC	NC	NC	**3E+00**	NC	6E-02	NC	NC
Landbay E	GP 227-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 228-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 230-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 234-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 234-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 235-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 235-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 236-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 236-02	NC	2E-05	NC	NC	NC	1E-05	NC	8E-05	NC	1E-05	NC	1E-04	NC	NC	NC	**8E+00**	NC	2E-01	NC	NC
Landbay E	GP 237-01	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay E	GP 237-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 240-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 244-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 250-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 252-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 252-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 253-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 253-08	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-07	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 40-11	NC	4E-05	NC	NC	NC	3E-05	NC	2E-04	NC	3E-05	NC	3E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay E	GP 45-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 46-01	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	1E-04	NC	1E-03	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay E	GP 47-03	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	**5E+01**	NC	1E+00	NC	NC
Landbay E	GP 47-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-07	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	5E-01	NC	NC
Landbay E	GP 47-09	NC	5E-05	NC	NC	NC	3E-05	NC	2E-04	NC	4E-05	NC	4E-04	NC	NC	NC	**2E+01**	NC	4E-01	NC	NC
Landbay E	GP 47-12	NC	6E-05	NC	NC	NC	4E-05	NC	2E-04	NC	5E-05	NC	5E-04	NC	NC	NC	3E-02	NC	5E-04	NC	NC
Landbay E	GP 47-14	NC	1E-04	NC	NC	NC	8E-05	NC	5E-04	NC	9E-05	NC	9E-04	NC	NC	NC	5E-02	NC	1E-03	NC	NC

Table 4-9a: Upper-Bound Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, Virginia

		Routine Worker				Maint. Worker		Constr. Worker		Recreator		On-Site Resident								Off-Site Resident	
		Outdoor Activities		Vapor Intrusion		Maint. Activities		Redevel. Activities		Outdoor Activities		Outdoor Activities		Vapor Intrusion		Plant Uptake No Depl.		Plant Uptake		Outdoor Air Inhalation	
Landbay	**Location**	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI	Risk	HI
Landbay E	GP 47-15	NC	1E-04	NC	NC	NC	6E-05	NC	4E-04	NC	7E-05	NC	8E-04	NC	NC	NC	**4E+01**	NC	8E-01	NC	NC
Landbay E	GP 47-17	NC	1E-05	NC	NC	NC	7E-06	NC	4E-05	NC	8E-06	NC	8E-05	NC	NC	NC	**5E+00**	NC	9E-02	NC	NC
Landbay E	GP 47-19	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP 47-22	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP BG-04	3E-07	5E-02	NC	NC	6E-08	3E-02	4E-08	5E-02	8E-08	4E-02	2E-06	4E-01	NC	NC	5E-07	3E-03	5E-07	3E-03	8E-12	3E-07
Landbay E	GP BG-05	2E-06	9E-02	NC	2E-05	4E-07	6E-02	2E-07	8E-02	5E-07	7E-02	1E-05	7E-01	NC	5E-03	3E-06	2E-02	3E-06	2E-02	5E-11	2E-05
Landbay E	GP BG-06	6E-07	3E-01	NC	5E-05	3E-07	3E-01	1E-07	6E-01	2E-07	2E-01	4E-06	**2E+00**	NC	1E-02	1E-06	1E-02	1E-06	1E-02	9E-10	2E-04
Landbay E	GP PBS-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP PBS-04	NC	1E-05	NC	NC	NC	8E-06	NC	5E-05	NC	9E-06	NC	9E-05	NC	NC	NC	**5E+00**	NC	1E-01	NC	NC
Landbay E	GP PBS-05	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	GP PBS-06	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	HA 211-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	HA 211-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	IM12-1	2E-05	1E-01	9E-12	1E-05	4E-06	1E-01	2E-06	1E-01	5E-06	1E-01	1E-04	9E-01	7E-09	2E-03	4E-05	2E-01	4E-05	2E-01	2E-09	4E-05
Landbay E	IM12-2	4E-07	3E-03	NC	NC	9E-08	2E-03	5E-08	4E-03	1E-07	2E-03	3E-06	2E-02	NC	NC	7E-07	7E-03	7E-07	7E-03	2E-11	1E-06
Landbay E	IM12-3	3E-06	2E-02	NC	NC	8E-07	1E-02	4E-07	1E-02	1E-06	2E-02	2E-05	1E-01	NC	NC	6E-06	4E-02	6E-06	4E-02	1E-10	4E-06
Landbay E	IM12-4	5E-13	2E-04	NC	NC	6E-10	5E-04	2E-10	2E-03	1E-14	1E-04	3E-12	1E-03	NC	NC	NC	3E-03	NC	3E-03	3E-12	5E-07
Landbay E	IM12-5	2E-06	1E-02	NC	NC	4E-07	8E-03	2E-07	7E-03	5E-07	8E-03	1E-05	7E-02	NC	NC	3E-06	2E-02	3E-06	2E-02	5E-11	2E-06
Landbay E	IM14-1	NC	8E-07	NC	6E-05	NC	5E-07	NC	2E-06	NC	4E-07	NC	5E-06	NC	1E-02	NC	1E-04	NC	1E-04	NC	1E-06
Landbay E	IM14-2	3E-10	9E-05	4E-08	1E-02	6E-11	5E-05	6E-11	2E-04	2E-11	1E-05	2E-09	4E-04	9E-06	**2E+00**	NC	NC	NC	NC	1E-09	3E-04
Landbay E	IM14-3	9E-10	1E-05	1E-07	1E-03	2E-10	6E-06	2E-10	4E-05	1E-10	4E-06	4E-08	6E-05	8E-05	2E-01	2E-10	5E-04	2E-10	5E-04	7E-09	3E-05
Landbay E	IM14-4	1E-09	2E-05	2E-07	3E-03	3E-10	1E-05	3E-10	7E-05	2E-10	6E-06	6E-08	1E-04	1E-04	4E-01	3E-10	3E-04	3E-10	3E-04	1E-08	6E-05
Landbay E	IM14-5	4E-09	1E-03	5E-07	1E-01	8E-10	6E-04	8E-10	2E-03	4E-10	2E-04	5E-08	5E-03	**2E-04**	**2E+01**	6E-08	6E-03	6E-08	6E-03	2E-08	4E-03
Landbay E	IM14-6	NC	2E-06	NC	4E-04	NC	9E-07	NC	9E-06	NC	2E-07	NC	7E-06	NC	6E-02	NC	1E-04	NC	1E-04	NC	6E-06
Landbay E	IM14-7	7E-10	2E-04	9E-08	3E-02	1E-10	1E-04	1E-10	7E-04	4E-11	2E-05	4E-09	8E-04	2E-05	**5E+00**	9E-09	8E-04	9E-09	8E-04	3E-09	7E-04
Landbay E	JT I-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JT O-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JT O-01C	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	JTF-0101	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	MARKH-1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	MCD-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	S-234	NC	5E-07	NC	NC	NC	3E-07	NC	2E-06	NC	4E-07	NC	4E-06	NC	NC	NC	2E-01	NC	4E-03	NC	NC
Landbay E	SB 211-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SR-200S	5E-10	3E-04	7E-08	2E-02	5E-10	2E-04	2E-10	1E-03	3E-11	1E-04	2E-09	1E-03	1E-05	**3E+00**	6E-09	1E-03	6E-09	1E-03	2E-09	5E-04
Landbay E	SR-235	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-219A	NC	5E-06	NC	NC	NC	3E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	**2E+00**	NC	4E-02	NC	NC
Landbay E	SS-227A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-227B	NC	1E-03	NC	NC	NC	7E-04	NC	3E-04	NC	1E-03	NC	6E-03	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SS-236A	NC	6E-06	NC	NC	NC	4E-06	NC	2E-05	NC	4E-06	NC	4E-05	NC	NC	NC	**2E+00**	NC	5E-02	NC	NC
Landbay E	SS-244A	NC	7E-04	NC	NC	NC	1E-03	NC	6E-03	NC	5E-04	NC	5E-03	NC	NC	NC	NC	NC	NC	NC	2E-06
Landbay E	SS-250A	4E-08	5E-02	NC	4E-03	2E-08	3E-02	8E-09	5E-02	1E-08	4E-02	4E-07	4E-01	NC	8E-01	8E-08	2E-03	8E-08	2E-03	2E-11	4E-03
Landbay E	SS-255A	NC	2E-05	NC	NC	NC	1E-05	NC	9E-05	NC	2E-05	NC	2E-04	NC	NC	NC	**9E+00**	NC	2E-01	NC	NC
Landbay E	SS-40A	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 205-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 221-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 252-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 45-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 47-02	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	SW 47-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-01	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 219-04	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 221-01	1E-08	2E-03	NC	NC	9E-09	3E-03	4E-09	1E-02	4E-09	2E-03	1E-07	2E-02	NC	NC	3E-08	2E-02	3E-08	2E-02	3E-11	2E-06
Landbay E	TP 221-03	2E-08	1E-03	NC	NC	1E-08	2E-03	4E-09	6E-03	5E-09	8E-04	1E-07	8E-03	NC	NC	3E-08	4E-03	3E-08	4E-03	3E-11	2E-06
Landbay E	TP 223-01	6E-08	1E-04	NC	NC	2E-08	2E-04	1E-08	6E-04	2E-08	1E-04	6E-07	1E-03	NC	NC	1E-07	2E-04	1E-07	2E-04	2E-11	1E-07
Landbay E	TP 223-03	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Landbay E	TP 223-04	2E-12	5E-04	NC	NC	3E-09	1E-03	8E-10	3E-03	5E-14	4E-04	1E-11	4E-03	NC	NC	NC	2E-03	NC	2E-03	1E-11	1E-06

Notes:

1. Landbay Use Designation:
   - Landbay A - industrial/commercial use
   - Landbay B - mixed use
   - Landbay C - industrial/commercial use
   - Landbay D - residential use
   - Landbay E - residential use
2. Cumulative cancer risk and HI estimates in excess of 1E-4 and 1, respectively, are shaded gray and in bold font.
3. Cumulative cancer risk and HI estimates are based on the highest concentration for each chemical at each location.
4. Cumulative cancer risk and HI estimates are calculated using site-related concentrations, which are those in excess of site-specific background for inorganics.
5. NC - risk estimates could not be calculated since either no toxicity value exists for the detected constituents at this location or no constituents were detected at this location.

Table 4-9b: Refined Site-Related Cumulative Cancer Risks and Noncancer HIs for Soil with Thallium Risk Estimates
ARC Gainesville, Gainesville, VA

Land Use	Soil Exposure Area	Area Type	Routine Worker		Constr. Worker		Resident	
			Outdoor Activities		Redevel. Activities		Outdoor Activities	
			Risk	HI	Risk	HI	Risk	HI
Residential	42GP28-42GP19 Area	Non-Debris Area	NR	1E+00	NR	NR	NR	**4E+00**
Residential	42TP6-185 Area	Non-Debris Area	NR	NR	NR	NR	NR	**2E+00**
Non-Residential	IM-3	Non-Debris Area	NR	NR	NR	NR	**4E-04**	NR
Residential	SRA 3	Debris Area	NR	NR	NR	NR	NR	**2E+00**
Residential	SRA 4	Non-Debris Area	NR	NR	NR	NR	NR	1E+00
Residential	SRA 5	Non-Debris Area	NR	NR	NR	NR	NR	1E+00
Residential	SRA 6 (Mid)	Non-Debris Area	NR	NR	NR	NR	NR	1E+00
Residential	SRA 6 (North)	Non-Debris Area	NR	NR	NR	NR	NR	1E+00
Residential	SRA 6 (South)	Non-Debris Area	NR	6E-01	NR	NR	NR	**2E+00**
Mixed Use	SRA 9	Non-Debris Area	NR	NR	NR	**2E+00**	NR	**6E+00**

Notes:

1. Only exposure areas with at least one location with an unnacceptable risk from exposure during outdoor activities are shown.
2. Cumulative cancer risk and HI estimates in excess of 1E-4 and 1, respectively, are shaded gray and in bold.
3. Cumulative cancer risk and HI estimates are based on the reasonable maximum exposure concentration for each chemical in presented exposure areas.
4. NR - No refinements were necessary based on the upper-bound risk estimates.

Table 5-1: Threatened and Endangered Species
ARC Gainesville, Gainesville, Virginia

Taxon	Common Name	Scientific Name	Federal Status	State Status	Source	Habitat	Habitat Available on Site?
Bird	Bald Eagle	*Haliaeetus leucocephalus*	SoC	T	VNH, VaFWIS	Breeding habitat most commonly includes areas close to (within 4 km) coastal areas, bays, rivers, lakes, reservoirs, or other bodies of water that reflect the general availability of primary food sources including fish, waterfowl, or seabirds. Nests usually are in tall trees or on pinnacles or cliffs near water. In winter, bald eagles may associate with waterfowl concentrations or congregate in areas with abundant dead fish or other food resources. Wintering areas are commonly associated with open water though in some regions some bald eagles use habitats with little or no open water if upland food resources are readily available. (a)	Unlikely
Bird	Upland Sandpiper	*Bartramia longicauda*		T	VaFWIS	Preferred habitat includes large areas of short grass for feeding and courtship with interspersed or adjacent taller grasses for nesting and brood cover; in the northeastern U.S., airfields currently provide the majority of suitable habitat, though grazed pastures and grassy fields also are used. Nests on ground among grasses; sometimes along prairie sloughs. (a)	Unlikely
Bird	Loggerhead Shrike	*Lanius ludovicianus*		T	VaFWIS	Prefers open country with scattered trees and shrubs, savanna, desert scrub, and, occasionally, open woodland; often perches on poles, wires or fence posts. Suitable hunting perches are an important part of the habitat. For nesting, prefers shortgrass pastures. Nests in shrubs or small trees. Nests often in isolated woody plants but also commonly along fencelines or hedgerows, in an open area in a wooded area or in open country. Tends to nest in areas with several potential suitable nesting trees/shrubs. (a)	Possible
Bird	Henslow's Sparrow	*Ammodramus henslowii*		T	VaFWIS	In migration and winter also occurs in grassy areas adjacent to pine woods or second-growth woods. No detailed descriptions or studies of the habitat requirements of the winter range are available. Breeding habitat includes open fields and meadows with grass interspersed with weeds or shrubby vegetation, especially in damp or low-lying areas, adjacent to salt marsh in some areas. Uses unmowed hayfields. Found in a variety of habitats that contain tall, dense grass and herbaceous vegetation. This bird may use a variety of preferred habitats: upland weedy hayfields or pastures without shrubs, wet meadows, drier areas of saltmarshes, grassy fields, and sedgy hillsides with recently planted pine seedlings. (a)	Unlikely
Reptile	Wood Turtle	*Glyptemys insculpta*		T	VaFWIS	Wood turtles live along permanent streams during much of each year but in summer may roam widely overland and can be found in a variety of terrestrial habitats adjacent to streams, including deciduous woods, cultivated fields, and woodland bogs, marshy pastures. Use of woodland bogs and marshy fields is most common in the northern part of the range. Wood turtles are often associated with the margins of woods. Wood turtles use wet mesic forest in river bottom and riparian shrub/forest ecotones and are often found in ecotones between alder thickets and grassy openings. Within activity areas, wood turtles selected nonforested locations close to water with low canopy cover; within a watershed, they selected activity areas close to streams with moderate forest cover and little open water; overall they appeared to select forest edges to balance thermoregulatory and feeding needs.	Unlikely
Fish	Atlantic Sturgeon	*Acipenser oxyrinchus*	E		VaFWIS	Primarily marine, but close to shore, when not breeding; migrates to rivers for spawning, moves downstream afterward (may stay upstream in winter in some northern areas). May be in nearshore waters as shallow as 2-4 m deep in winter and spring; individuals usually remained within small areas (which typically had sandy substrate containing benthic crustaceans and annelids) for several weeks but sometimes moved long distances. Juveniles spend winter and spring mainly in river mouths. In some rivers, juveniles may spend several years continuously in freshwater; in others, they may move downstream to brackish water when temperatures drop in the fall. Spawns in fresh water (sometimes tidal) usually over bottom of hard clay, rubble, gravel, or shell. May spawn in brackish water. Has been reported as spawning in relatively slow current in turbid water over substrates of sand and silt. (a)	Extremely Unlikely

Table 5-1: Threatened and Endangered Species
ARC Gainesville, Gainesville, Virginia

Taxon	Common Name	Scientific Name	Federal Status	State Status	Source	Habitat	Habitat Available on Site?
Bivalve	Brook Floater	*Alasmidonta varicosa*		E	VNH, VaFWIS	Considered to be a species of creeks and small rivers where it is found among rocks in gravel substrates and in sandy shoals, the brook floater inhabits flowing-water habitats only. It occurs in running water and although typically found in riffles and moderate rapids with sandy shoals or riffles with gravel bottoms, it can also be found in a range of flow conditions (usually not in very slow flow conditions). There is no apparent substrate preference but it is thought to prefer stable habitats such as coarse sand and gravel. It is more common in small to mid-sized streams or creeks than in large rivers and is more common in upper portions of large watersheds with intact upland forest but is absent from headwater streams. Reproduction depends on larvae parasitizing fish hosts. (a)	Unlikely
Bivalve	Dwarf wedgemussel	*Alasmidonta heterodon*	E		iPAC	The dwarf wedge mussel lives in shallow to deep rivers and creeks of various sizes where the current is slow to moderate. This mussel lives on muddy sand, sandy, and gravel stream bottoms that are nearly silt free. Like other freshwater mussels, this species is a filter feeder. It feeds on plankton collected from water that is passed over its gills. Reproduction depends on larvae parasitizing fish hosts. (b)	Unlikely
Bivalve	Yellow Lance	*Elliptio lanceolata*	SoC		VNH, VaFWIS	This species is found in sandy substrates, rocks and in mud, in slack water areas, but apparently is absent from lakes. It is also found buried deep in sand and may migrate with shifting sands. Although it prefers clean, coarse to medium sized sands as substrate, on occasion, specimens are also found in gravel substrates. This species is found in the main channels of drainages down to streams as small as a meter across. Reproduction depends on larvae parasitizing fish hosts. (a)	Unlikely
Insect	Persius Duskywing Butterfly	*Erynnis persius persius*	SoC		VaFWIS	The habitats include jack pine barrens, pitch pine-scrub oak barrens, oak savannas, scrubby ridgetops, or powerlines within such settings. It has also been found around these plants on powerlines in sandy or gravelly wooded areas. There have been collections near boggy places, and perhaps some of the older claims of this occurring in wetlands were correct. It is at least equally possible such collections were of adults that entered wet areas to sip moisture from soil, as duskywings commonly do, or were in search of nectar. Occasionally has turned up in seemingly unexceptional patches of foodplant not in pristine natural communities.	Unlikely
Insect	Regal Fritillary	*Speyeria idalia idalia*	SoC		VaFWIS	Habitats were open grassy situations, ranging from xeric to quite hydric, completely flat to hilly. Found mostly in anthropogenic habitats such as wet meadows, pastures, hayfields, old fields, along streams in open areas. Damp meadows or pastures with boggy or marshy areas are frequently utilized but dry mountain pastures are also selected in some areas. In the east, this species is associated with moist, wetland, or streamside habitats. This species can occur in savanna if trees are sparse or clumped. May prefer recently or currently grazed areas. This species may require relatively large habitats on the order of perhaps 50 hectares for a marginally viable occurrence.	Possible
Insect	Appalachian Grizzled Skipper	*Pyrgus wyandot*	SoC	T	VaFWIS	Habitat is openings within jack pine or pine-oak barrens, including trap rock glades and associated woodland. Shale barrens, pastures and powerlines on south to west facing shale slopes, always with much bare rock or soil also are frequent habitat. Key features were plentiful Potentially canadensis, the larval food plant, and nectar flowers, and also some source of moisture such as a streamlet at the base of the hill, or even deep wheel ruts. Adults seldom occur more than about 30 meters from woods and sometimes occur in the woods. Shale barrens and other habitats tend to be surrounded by scrubby oak woodland or forest with some to a lot of Virginia pine. Oaks in such xeric habitats leaf out late, leaving no canopy for much of the flight season making these woods less of a barrier to adults than one would expect. When the trees are bare adults can be found in the forest occasionally. Colonies occasionally occurred as high as about 700-900 meters in elevation, but most colonies are at lower elevations and some older ones were below 100 meters.	Possible

Table 5-1: Threatened and Endangered Species
ARC Gainesville, Gainesville, Virginia

Taxon	Common Name	Scientific Name	Federal Status	State Status	Source	Habitat	Habitat Available on Site?
Insect	Dotted Skipper	*Hesperia attalus slossonae*	SoC		VaFWIS	Somewhat versatile but restricted to xeric to ultaxeric sandy situations or very nearly so. Reports from wetter habitats almost certainly indicate nectaring sites and not breeding areas, with the possible exception of some mesic reedgrass savannas. May occur in in old or active railroad beds, powerlines and airport runway areas. Both sexes can basically be found where there is nectar available which shifts every week or so. Males usually do their territorial activities on old sand roads or scrapes in artificial grasslands dominated by grasses but have been observed defending areas within mesic reedgrass savannas. Sparse stunted grasses and patches of xeric bare white sand appear to be constant habitat feature. Can move considerable distances for nectar (at least a kilometer). Nectar is rarely available in the immediate xeric grassy areas.	Unlikely
Insect	Virginia Piedmont Water Boatman	*Sigara depressa*	SoC	E	VNH	Historical and recent collections were made in fairly deep pools found in streams with a matrix of riffles, runs, and pools. Riparian vegetation included grasses, forbs, and blackberries.	Unlikely
Plant	Harperella	*Ptilimnium nodosum*	E		iPAC	Occurs in three habitat types: rocky/gravelly shoals or cracks in bedrock outcrops beneath the water surface in clear, swift-flowing streams (usually in microsites that are sheltered from rapidly moving water); edges of intermittent pineland ponds or low, wet savannah meadows on the Coastal Plain; and granite outcrop seeps. In all habitat-types, the species occurs in a narrow range of water depths; it is intolerant of deep water and of conditions that are too dry. However, the plants readily tolerate periodic, moderate flooding - something to which few potential competitors are adapted. Seeds generally germinate during short-duration spring floods and the plants have completed their life cycle by late summer or fall, just as water levels are lowest and competing species are moving in.	Unlikely
Plant	Small Whorled pogonia	*Isotria medeoloides*	T	E	iPAC, VNH	In Virginia, the small whorled pogonia is found in ordinary looking third-growth upland forests with an open understory and a closed canopy where the topography is typically moderately sloping or almost level. The plants are usually associated with decaying vegetative matter such as fallen trunks and limbs, leaf litter, bark, and tree roots. The pogonia is found in soils that are acidic sandy loams with low nutrient content. The flowers appear in late April to mid-May. The small whorled pogonia reproduces primarily through self-pollination and occasionally vegetatively.	Unlikely
Plant	Torey's Mountain Mint	*Pycnanthemum torrei*	SoC		VNH	Dry, rocky, deciduous woods, along roadsides, and in thickets near streams. One occurrence has been found on the western slope of an exposed ledge with associated herbaceous xerophytes. At another occurrence in an open right-of-way through an extensive oak-hickory forest, plants were found on the southwest slope of a small diabase knob in dry, rocky silt loam. Occurrences in Virginia have been found at elevations ranging from 35-1400 feet. (a)	Unlikely

E Endangered
iPAC USFWS, Information, Planning and Conservation System. http://ecos.fws.gov/ipac/
SoC Species of Concern.
T Threatened.
VaFWIS Virginia Fish and Wildlife Information System, 3 mile radius. http://vafwis.org/fwis/
VNH Virginia Natural Heritage Database for Prince William County. http://www.dcr.virginia.gov/natural_heritage/dbsearchtool.shtml
(a) http://www.natureserve.org/explorer/index.htm
(b) http://www.fws.gov/northeast/virginiafield/pdf/endspecies/fact_sheets/dwarf%20wedge.pdf
(c) http://bewildvirginia.org/wildlife-action-plan/chapter-5.pdf
(d) http://www.fws.gov/northeast/virginiafield/pdf/endspecies/fact_sheets/pogonia.pdf

Table 5-2: Surface Water Data Summary
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Number of Analyses	Number of Detects	Freq of Detects	Maximum Detected Conc (mg/L)	Maximum Analytical Limit (mg/L)	Average Analytical Limit (mg/L)
VOC	Acetone	67-64-1	47	1	2.1%	8.0E-03	6.0E-03	6.0E-03
VOC	Carbon Disulfide	75-15-0	45	1	2.2%	1.0E-03	1.0E-03	1.0E-03
VOC	1,1-Dichloroethene	75-35-4	57	3	5.3%	7.0E-03	5.0E-03	1.3E-03
VOC	cis-1,2-Dichloroethene	156-59-2	55	7	12.7%	1.9E-02	5.0E-03	1.3E-03
VOC	Tetrachloroethene	127-18-4	55	9	16.4%	2.4E-02	5.0E-03	1.4E-03
VOC	Trichloroethene	79-01-6	55	4	7.3%	6.0E-03	5.0E-03	1.5E-03
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	28	4	14.3%	1.5E-02	2.0E-03	2.0E-03
VOC	Vinyl Chloride	75-01-4	57	2	3.5%	2.0E-03	5.0E-03	1.5E-03
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	6	1	16.7%	5.00E-03	2.00E-02	5.60E-03
SVOC	2-Methylnaphthalene	91-57-6	6	1	16.7%	2.00E-03	1.00E-02	2.78E-03
INORG	Aluminum	7429-90-5	28	27	96.4%	6.02E+00	8.34E-02	8.34E-02
INORG	Barium	7440-39-3	10	10	100.0%	7.50E-02		
INORG	Boron	7440-42-8	9	9	100.0%	1.66E-01		
INORG	Copper	7440-50-8	21	8	38.1%	6.38E-02	5.00E-03	3.86E-03
INORG	Iron	7439-89-6	25	25	100.0%	9.10E+00		
INORG	Manganese	7439-96-5	3	3	100.0%	3.16E-01		
INORG	Nitrogen	7727-37-9	4	4	100.0%	1.40E+00		
INORG	Perchlorate	14797-73-0	94	69	73.4%	2.35E-01	1.00E-01	5.18E-03
INORG	Phosphorus (total)	7723-14-0	4	2	50.0%	3.40E-01	8.00E-02	8.00E-02
INORG	Strontium	7440-24-6	6	6	100.0%	2.19E-01		
INORG	Vanadium	7440-62-2	3	3	100.0%	1.47E-02		
INORG	Zinc	7440-66-6	28	17	60.7%	7.02E-02	5.00E-02	3.43E-02
EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	32	2	6.3%	4.90E-04	6.00E-04	2.37E-04
EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	32	3	9.4%	5.35E-03	2.00E-03	7.26E-04

Notes:
Based upon most recent 2 years of analyses conducted at each location.
Only those chemicals detected in surface water are included above.
Analytical limits are based on the quantitation limit if available; otherwise the reporting detection limit is used.

mg/L Miligrams per liter.

Table 5-3: Sediment Data Summary
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Number of Analyses	Number of Detects	Freq of Detects	Maximum Detect (mg/kg)	Maximum Analytical Limit (mg/kg)	Average Analytical Limit (mg/kg)
VOC	Acetone	67-64-1	21	10	47.6%	4.2E-01	3.5E+00	1.6E+00
VOC	2-Butanone	78-93-3	21	3	14.3%	2.9E-02	2.0E+00	5.6E-01
VOC	Carbon Disulfide	75-15-0	21	9	42.9%	4.8E-02	5.0E-01	2.1E-01
SVOC	Benzo(a)anthracene	56-55-3	8	1	12.5%	8.9E-02	9.7E-02	6.2E-02
SVOC	Benzo(a)pyrene	50-32-8	8	1	12.5%	8.6E-02	9.7E-02	6.2E-02
SVOC	Benzo(b)fluoranthene	205-99-2	8	1	12.5%	9.2E-02	9.7E-02	6.2E-02
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	8	2	25.0%	3.9E+00	1.5E-01	1.0E-01
SVOC	Chrysene	218-01-9	8	1	12.5%	7.6E-02	9.7E-02	6.2E-02
SVOC	Fluoranthene	206-44-0	8	1	12.5%	9.4E-02	9.7E-02	6.2E-02
SVOC	Pyrene	129-00-0	8	1	12.5%	1.4E-01	9.7E-02	6.2E-02
PHYS	Organic Carbon (total)	C-012	29	29	100.0%	4.8E+04		
PCB	PCBs (total)	1336-36-3	44	36	81.8%	3.0E+00	1.2E-02	5.6E-03
INORG	Aluminum	7429-90-5	9	9	100.0%	6.0E+04		
INORG	Arsenic	7440-38-2	18	13	72.2%	1.2E+01		
INORG	Barium	7440-39-3	9	9	100.0%	3.0E+02		
INORG	Boron	7440-42-8	9	9	100.0%	1.7E+01		
INORG	Chromium (total)	7440-47-3	7	7	100.0%	1.4E+02		
INORG	Chromium III	16065-83-1	11	11	100.0%	1.6E+02		
INORG	Chromium VI	18540-29-9	11	4	36.4%	3.4E+00		
INORG	Cobalt	7440-48-4	9	9	100.0%	6.3E+01		
INORG	Copper	7440-50-8	18	18	100.0%	1.4E+02		
INORG	Iron	7439-89-6	9	9	100.0%	1.2E+05		
INORG	Lead	7439-92-1	18	18	100.0%	4.2E+01		
INORG	Manganese	7439-96-5	9	9	100.0%	4.9E+03		
INORG	Nickel	7440-02-0	18	18	100.0%	4.4E+01		
INORG	Perchlorate	14797-73-0	37	3	8.1%	1.4E-02	1.0E-01	1.4E-02
INORG	Silver	7440-22-4	18	6	33.3%	3.8E+01	2.5E+00	1.8E+00
INORG	Strontium	7440-24-6	9	9	100.0%	3.8E+01		
INORG	Vanadium	7440-62-2	9	9	100.0%	4.2E+02		
INORG	Zinc	7440-66-6	18	15	83.3%	1.7E+02	2.5E+01	2.5E+01

Notes:
Only chemicals detected in sediment are included above.
Analytical limits are based on the quantitation limit if available; otherwise the reporting detection limit is used.

mg/kg Miligrams per kilogram.

Table 5-4: Surface Soil Data Summary
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Number of Analyses	Number of Detects	Freq of Detects	Maximum Detect (mg/kg)	Maximum Analytical Limit (mg/kg)	Average Analytical Limit (mg/kg)
VOC	Acetone	67-64-1	346	136	39.3%	6.5E-01	8.2E+00	5.2E-01
VOC	2-Butanone	78-93-3	346	43	12.4%	3.6E-02	4.7E+00	2.1E-01
VOC	Carbon Disulfide	75-15-0	326	15	4.6%	1.2E-02	1.2E+00	4.3E-02
VOC	Methyl Acetate	79-20-9	134	15	11.2%	5.0E-02	4.0E-03	2.2E-03
VOC	Methyl tert-butyl ether	1634-04-4	267	1	0.4%	1.1E+00	1.5E+00	1.8E-01
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	257	2	0.8%	3.0E-03	2.5E-01	5.2E-02
SVOC	Acenaphthene	83-32-9	716	7	1.0%	3.4E+00	4.3E-01	5.1E-02
SVOC	Acenaphthylene	208-96-8	902	6	0.7%	1.9E-01	4.3E-01	5.0E-02
SVOC	Anthracene	120-12-7	902	12	1.3%	6.0E+00	4.3E-01	5.0E-02
SVOC	Benzaldehyde	100-52-7	474	3	0.6%	3.5E-01	4.0E-01	8.6E-02
SVOC	Benzo(a)anthracene	56-55-3	902	18	2.0%	1.1E+01	4.3E-01	5.0E-02
SVOC	Benzo(a)pyrene	50-32-8	902	19	2.1%	7.1E+00	4.3E-01	5.0E-02
SVOC	Benzo(b)fluoranthene	205-99-2	902	28	3.1%	9.7E+00	3.3E-01	5.0E-02
SVOC	Benzo(g,h,i)perylene	191-24-2	902	20	2.2%	3.3E+00	4.3E-01	5.1E-02
SVOC	Benzo(k)fluoranthene	207-08-9	902	19	2.1%	4.8E+00	4.3E-01	5.0E-02
SVOC	Biphenyl	92-52-4	488	1	0.2%	1.0E-01	2.0E-01	4.2E-02
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	902	83	9.2%	6.9E+01	2.7E+00	9.8E-02
SVOC	Butylbenzylphthalate	85-68-7	902	4	0.4%	4.4E+03	6.4E-01	9.5E-02
SVOC	Caprolactam	105-60-2	474	1	0.2%	2.3E-01	2.0E-01	4.3E-02
SVOC	Carbazole	86-74-8	880	7	0.8%	3.6E+00	4.3E-01	4.4E-02
SVOC	Dibenz(a,h)anthracene	53-70-3	716	9	1.3%	1.4E+00	4.3E-01	5.1E-02
SVOC	Dibenzofuran	132-64-9	715	4	0.6%	1.4E+00	4.3E-01	5.2E-02
SVOC	Di-n-butylphthalate	84-74-2	716	2	0.3%	9.2E+02	6.4E-01	9.5E-02
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	716	1	0.1%	2.4E-01	2.1E+00	2.4E-01
SVOC	Di-n-octylphthalate	117-84-0	716	2	0.3%	7.4E+00	6.4E-01	9.5E-02
SVOC	Di(2-ethylhexyl) adipate	103-23-1	1	1	100.0%	3.2E-01		
SVOC	Fluoranthene	206-44-0	913	30	3.3%	3.1E+01	4.3E-01	5.0E-02
SVOC	Fluorene	86-73-7	902	7	0.8%	2.5E+00	4.3E-01	5.0E-02
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	902	17	1.9%	3.4E+00	4.3E-01	5.0E-02
SVOC	2-Methylnaphthalene	91-57-6	901	8	0.9%	1.3E+00	3.3E-01	5.0E-02
SVOC	Methylphenol (total)	1319-77-3	903	2	0.2%	2.4E+00	4.0E-01	9.2E-02
SVOC	3-Nitroaniline	99-09-2	715	2	0.3%	2.8E+00	8.3E-01	1.1E-01
SVOC	Nitrobenzene	98-95-3	1221	3	0.2%	1.1E-01	4.3E-01	7.8E-02
SVOC	N-Nitrosodiphenylamine	86-30-6	716	1	0.1%	5.4E-02	4.3E-01	5.2E-02
SVOC	Phenanthrene	85-01-8	902	24	2.7%	2.7E+01	4.3E-01	5.0E-02
SVOC	Phenol	108-95-2	916	6	0.7%	2.8E+02	3.3E-01	5.0E-02
SVOC	Pyrene	129-00-0	902	39	4.3%	2.3E+01	4.3E-01	5.1E-02
PHYS	Organic Carbon (total)	C-012	4	4	100.0%	3.7E+04		
PCB	PCBs (total)	1336-36-3	1070	414	38.7%	2.4E+01	5.0E-01	1.0E-02
INORG	Aluminum	7429-90-5	937	937	100.0%	7.7E+04		
INORG	Arsenic	7440-38-2	914	852	93.2%	5.7E+01		
INORG	Barium	7440-39-3	941	941	100.0%	1.1E+03		
INORG	Boron	7440-42-8	406	151	37.2%	1.8E+02	1.9E+01	3.1E+00
INORG	Chromium III	16065-83-1	1018	1016	99.8%	3.3E+02		
INORG	Chromium VI	18540-29-9	1021	864	84.6%	1.1E+01		
INORG	Cobalt	7440-48-4	701	701	100.0%	1.6E+02		
INORG	Copper	7440-50-8	943	943	100.0%	3.5E+02		
INORG	Iron	7439-89-6	694	694	100.0%	1.3E+05		
INORG	Lead	7439-92-1	986	980	99.4%	2.4E+02		
INORG	Manganese	7439-96-5	696	696	100.0%	1.3E+04		
INORG	Molybdenum	7439-98-7	22	6	27.3%	2.2E+00	4.7E-01	4.5E-01
INORG	Nickel	7440-02-0	736	736	100.0%	1.6E+02		
INORG	Nitrate	14797-55-8	29	18	62.1%	8.7E+00	1.0E+00	9.8E-01
INORG	Perchlorate	14797-73-0	1513	527	34.8%	2.3E+02	2.4E-01	5.6E-03
INORG	Strontium	7440-24-6	628	628	100.0%	1.7E+02		
INORG	Vanadium	7440-62-2	694	694	100.0%	5.1E+02		
INORG	Zinc	7440-66-6	761	751	98.7%	1.1E+03	2.5E+01	2.5E+01
EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	1044	13	1.2%	3.9E+02	2.6E+01	1.6E-01
EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	1044	38	3.6%	6.8E+02	9.6E-01	2.7E-01
CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	11	11	100.0%	7.2E-07		

Notes:
Surface soil data based upon samples collected from 0-2 feet below ground surface (bgs).
If no samples collected from 0-2 ft bgs data from the shallowest sample at the location assumed to characterize surface soil.
Only chemicals detected in surface soil are included above.
Analytical limits are based on the quantitation limit if available; otherwise the reporting detection limit is used.

mg/kg Miligrams per kilogram.

Table 5-5A: Surface Water Ecological Screening Values
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Freshwater Aquatic Life - Chronic (a) (mg/L)	Freshwater Aquatic Life - Acute (a) (mg/L)	Freshwater Surface Water Screening Benchmark (b) (mg/L)	Criteria Used In SLERA (mg/L)	Basis
VOC	Acetone	67-64-1			1.5E+00	1.5E+00	USEPA R3
VOC	Carbon Disulfide	75-15-0			9.2E-04	9.2E-04	USEPA R3
VOC	1,1-Dichloroethene	75-35-4			2.5E-02	2.5E-02	USEPA R3
VOC	cis-1,2-Dichloroethene	156-59-2			5.9E-01	5.9E-01	USEPA R3
VOC	Tetrachloroethene	127-18-4			1.1E-01	1.1E-01	USEPA R3
VOC	Trichloroethene	79-01-6			2.1E-02	2.1E-02	USEPA R3
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1					NC
VOC	Vinyl Chloride	75-01-4			9.3E-01	9.3E-01	USEPA R3
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7			1.6E-02	1.6E-02	USEPA R3
SVOC	2-Methylnaphthalene	91-57-6			4.7E-03	4.7E-03	USEPA R3
INORG	Aluminum	7429-90-5			8.7E-02	8.7E-02	USEPA R3
INORG	Barium	7440-39-3			4.0E-03	4.0E-03	USEPA R3
INORG	Boron	7440-42-8			1.6E-03	1.6E-03	USEPA R3
INORG	Copper	7440-50-8	1.2E-02	1.8E-02	1.1E-02	1.2E-02	VADEQ (Chronic)
INORG	Iron	7439-89-6			3.0E-01	3.0E-01	USEPA R3
INORG	Manganese	7439-96-5			1.2E-01	1.2E-01	USEPA R3
INORG	Nitrogen	7727-37-9			2.7E+00	2.7E+00	VADEQ (Chronic)
INORG	Perchlorate	14797-73-0					NC
INORG	Phosphorus (total)	7723-14-0			4.0E-02	4.0E-02	VADEQ (Chronic)
INORG	Strontium	7440-24-6			1.5E+00	1.5E+00	USEPA R3
INORG	Vanadium	7440-62-2			2.0E-02	2.0E-02	USEPA R3
INORG	Zinc	7440-66-6	1.5E-01	1.5E-01	1.5E-01	1.5E-01	VADEQ (Chronic)
EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4			3.6E-01	3.6E-01	USEPA R3
EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0			1.5E-01	1.5E-01	USEPA R3

Notes:
Only chemicals detected in surface water are included above.
(a) Virginia Water Quality Standards. 2011. 9 VAC 25-260. January.
(b) USEPA Region 3. 2011. Freshwater Screening Benchmarks for Ecological Risk Assessment.

mg/L Miligrams per liter.
SLERA Screening Level Ecological Risk Assessment.

Table 5-5B: Calculation of Hardness-Based Surface Water Ecological Screening Values
ARC Gainesville, Gainesville, Virginia

			VADEQ				USEPA R3	
			Freshwater Aquatic Life - Acute		Freshwater Aquatic Life - Chronic		Freshwater Surface Water Screening Benchmark	
Chem Group	**Chemical Name**	**CASRN**	**Formula**	**Criteria** (mg/L)	**Formula**	**Criteria** (mg/L)	**Formula**	**Criteria** (mg/L)
INORG	Copper	7440-50-8	= exp(0.9422*LN(H)-1.7)/1000	1.8E-02	= exp(0.8545*LN(H)-1.702)/1000	1.2E-02	= 0.96*exp(0.8545*LN(H)-1.702)/1000	1.1E-02
INORG	Zinc	7440-66-6	= exp(0.8473*LN(H)+0.884)/1000	1.5E-01	= exp(0.8473*LN(H)+0.884)/1000	1.5E-01	= 0.986*exp(0.8473*LN(H)+0.884)/1000	1.5E-01

Notes:
Only chemicals detected in surface water that also have hardness-dependent criteria are included above.
Criteria are based on a site-wide average surface water hardness value (H) of 133 mg/L as CaCO3.

mg/L Miligrams per liter.

Table 5-6: Surface Water SLERA Screening
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Criteria Used In SLERA (mg/L)	Basis	Maximum Detect (mg/L)	Hazard Quotient	Retain for BERA?	Reason
VOC	Acetone	67-64-1	1.5E+00	USEPA R3	8.0E-03	0.005	No	HQ ≤ 1
VOC	Carbon Disulfide	75-15-0	9.2E-04	USEPA R3	1.0E-03	1	No	HQ ≤ 1
VOC	1,1-Dichloroethene	75-35-4	2.5E-02	USEPA R3	7.0E-03	0.3	No	HQ ≤ 1
VOC	cis-1,2-Dichloroethene	156-59-2	5.9E-01	USEPA R3	1.9E-02	0.03	No	HQ ≤ 1
VOC	Tetrachloroethene	127-18-4	1.1E-01	USEPA R3	2.4E-02	0.2	No	HQ ≤ 1
VOC	Trichloroethene	79-01-6	2.1E-02	USEPA R3	6.0E-03	0.3	No	HQ ≤ 1
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		NC	1.5E-02	--	Yes	Detect But No Criterion
VOC	Vinyl Chloride	75-01-4	9.3E-01	USEPA R3	2.0E-03	0.002	No	HQ ≤ 1
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	1.6E-02	USEPA R3	5.0E-03	0.3	No	HQ ≤ 1
SVOC	2-Methylnaphthalene	91-57-6	4.7E-03	USEPA R3	2.0E-03	0.4	No	HQ ≤ 1
INORG	Aluminum	7429-90-5	8.7E-02	USEPA R3	6.0E+00	70	Yes	HQ > 1
INORG	Barium	7440-39-3	4.0E-03	USEPA R3	7.5E-02	20	Yes	HQ > 1
INORG	Boron	7440-42-8	1.6E-03	USEPA R3	1.7E-01	100	Yes	HQ > 1
INORG	Copper	7440-50-8	1.2E-02	VADEQ (Chronic)	6.4E-02	5	Yes	HQ > 1
INORG	Iron	7439-89-6	3.0E-01	USEPA R3	9.1E+00	30	Yes	HQ > 1
INORG	Manganese	7439-96-5	1.2E-01	USEPA R3	3.2E-01	3	Yes	HQ > 1
INORG	Nitrogen	7727-37-9	2.7E+00	VADEQ (Chronic)	1.4E+00	0.5	No	HQ ≤ 1
INORG	Perchlorate	14797-73-0		NC	2.4E-01	--	Yes	Detect But No Criterion
INORG	Phosphorus (total)	7723-14-0	4.0E-02	VADEQ (Chronic)	3.4E-01	9	Yes	HQ > 1
INORG	Strontium	7440-24-6	1.5E+00	USEPA R3	2.2E-01	0.1	No	HQ ≤ 1
INORG	Vanadium	7440-62-2	2.0E-02	USEPA R3	1.5E-02	0.7	No	HQ ≤ 1
INORG	Zinc	7440-66-6	1.5E-01	VADEQ (Chronic)	7.0E-02	0.5	No	HQ ≤ 1
EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	3.6E-01	USEPA R3	4.9E-04	0.001	No	HQ ≤ 1
EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	1.5E-01	USEPA R3	5.4E-03	0.04	No	HQ ≤ 1

Notes:

BERA Baseline Ecological Risk Assessment.
HQ Hazard Quotient.
mg/L Miligrams per liter.
SLERA Screening Level Ecological Risk Assessment.

Table 5-7: Sediment SLERA Screening
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Criteria Used In SLERA (mg/kg)	Basis	Max Detected Conc (mg/kg)	Hazard Quotient	Retain for BERA?	Reason
VOC	Acetone	67-64-1	9.9E-03	USEPA R5	4.2E-01	40	Yes	HQ > 1
VOC	2-Butanone	78-93-3	4.2E-02	USEPA R5	2.9E-02	0.7	No	HQ ≤ 1
VOC	Carbon Disulfide	75-15-0	8.5E-04	USEPA R3	4.8E-02	60	Yes	HQ > 1
SVOC	Benzo(a)anthracene	56-55-3	1.1E-01	USEPA R3	8.9E-02	0.8	No	HQ ≤ 1
SVOC	Benzo(a)pyrene	50-32-8	1.5E-01	USEPA R3	8.6E-02	0.6	No	HQ ≤ 1
SVOC	Benzo(b)fluoranthene	205-99-2	1.0E+01	USEPA R5	9.2E-02	0.009	No	HQ ≤ 1
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	1.8E-01	USEPA R3	3.9E+00	20	Yes	HQ > 1
SVOC	Chrysene	218-01-9	1.7E-01	USEPA R3	7.6E-02	0.5	No	HQ ≤ 1
SVOC	Fluoranthene	206-44-0	4.2E-01	USEPA R3	9.4E-02	0.2	No	HQ ≤ 1
SVOC	Pyrene	129-00-0	2.0E-01	USEPA R3	1.4E-01	0.7	No	HQ ≤ 1
PHYS	Organic Carbon (total)	C-012		NC	4.8E+04	--	No	Not a contaminant
PCB	PCBs (total)	1336-36-3	6.0E-02	USEPA R3	3.0E+00	50	Yes	HQ > 1
INORG	Aluminum	7429-90-5	5.8E+04	ARCS	6.0E+04	1	No	HQ ≤ 1
INORG	Arsenic	7440-38-2	9.8E+00	USEPA R3	1.2E+01	1	No	HQ ≤ 1
INORG	Barium	7440-39-3		NC	3.0E+02	--	Yes	Detect But No Criterion
INORG	Boron	7440-42-8		NC	1.7E+01	--	Yes	Detect But No Criterion
INORG	Chromium (total)	7440-47-3	4.3E+01	USEPA R3	1.4E+02	3	Yes	HQ > 1
INORG	Chromium III	16065-83-1	4.3E+01	USEPA R3	1.6E+02	4	Yes	HQ > 1
INORG	Chromium VI	18540-29-9	4.3E+01	USEPA R3	3.4E+00	0.08	No	HQ ≤ 1
INORG	Cobalt	7440-48-4	5.0E+01	USEPA R3	6.3E+01	1	No	HQ ≤ 1
INORG	Copper	7440-50-8	3.2E+01	USEPA R3	1.4E+02	4	Yes	HQ > 1
INORG	Iron	7439-89-6	2.0E+04	USEPA R3	1.2E+05	6	Yes	HQ > 1
INORG	Lead	7439-92-1	3.6E+01	USEPA R3	4.2E+01	1	No	HQ ≤ 1
INORG	Manganese	7439-96-5	4.6E+02	USEPA R3	4.9E+03	10	Yes	HQ > 1
INORG	Nickel	7440-02-0	2.3E+01	USEPA R3	4.4E+01	2	Yes	HQ > 1
INORG	Perchlorate	14797-73-0		NC	1.4E-02	--	Yes	Detect But No Criterion
INORG	Silver	7440-22-4	1.0E+00	USEPA R3	3.8E+01	40	Yes	HQ > 1
INORG	Strontium	7440-24-6		NC	3.8E+01	--	Yes	Detect But No Criterion
INORG	Vanadium	7440-62-2		NC	4.2E+02	--	Yes	Detect But No Criterion
INORG	Zinc	7440-66-6	1.2E+02	USEPA R3	1.7E+02	1	No	HQ ≤ 1

Notes:

BERA Baseline Ecological Risk Assessment.
HQ Hazard Quotient.
mg/kg Miligrams per kilogram.
SLERA Screening Level Ecological Risk Assessment.

Table 5-8: Surface Soil SLERA Screening
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Criteria Used In SLERA (mg/kg)	Basis	Max Detected Conc (mg/kg)	Hazard Quotient	Retain for BERA?	Reason
VOC	Acetone	67-64-1	2.5E+00	USEPA R5	6.5E-01	0.3	No	HQ ≤ 1
VOC	2-Butanone	78-93-3	9.0E+01	USEPA R5	3.6E-02	0.0004	No	HQ ≤ 1
VOC	Carbon Disulfide	75-15-0	9.4E-02	USEPA R5	1.2E-02	0.1	No	HQ ≤ 1
VOC	Methyl Acetate	79-20-9	7.5E+01	Dutch	5.0E-02	0.0007	No	HQ ≤ 1
VOC	Methyl tert-butyl ether	1634-04-4	1.3E+02	Dutch	1.1E+00	0.009	No	HQ ≤ 1
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1			3.0E-03	--	Yes	Detect But No Criterion
SVOC	Acenaphthene	83-32-9	6.8E+02	USEPA R5	3.4E+00	0.005	No	HQ ≤ 1
SVOC	Acenaphthylene	208-96-8	6.8E+02	USEPA R5	1.9E-01	0.0003	No	HQ ≤ 1
SVOC	Anthracene	120-12-7	1.5E+03	USEPA R5	6.0E+00	0.004	No	HQ ≤ 1
SVOC	Benzaldehyde	100-52-7	1.0E-01	Dutch	3.5E-01	4	Yes	HQ > 1
SVOC	Benzo(a)anthracene	56-55-3	5.2E+00	USEPA R5	1.1E+01	2	Yes	HQ > 1
SVOC	Benzo(a)pyrene	50-32-8	1.5E+00	USEPA R5	7.1E+00	5	Yes	HQ > 1
SVOC	Benzo(b)fluoranthene	205-99-2	6.0E+01	USEPA R5	9.7E+00	0.2	No	HQ ≤ 1
SVOC	Benzo(g,h,i)perylene	191-24-2	1.2E+02	USEPA R5	3.3E+00	0.03	No	HQ ≤ 1
SVOC	Benzo(k)fluoranthene	207-08-9	1.5E+02	USEPA R5	4.8E+00	0.03	No	HQ ≤ 1
SVOC	Biphenyl	92-52-4	6.0E+01	USEPA R4	1.0E-01	0.002	No	HQ ≤ 1
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	9.3E-01	USEPA R5	6.9E+01	70	Yes	HQ > 1
SVOC	Butylbenzylphthalate	85-68-7	2.4E-01	USEPA R5	4.4E+03	20,000	Yes	HQ > 1
SVOC	Caprolactam	105-60-2			2.3E-01	--	Yes	Detect But No Criterion
SVOC	Carbazole	86-74-8			3.6E+00	--	Yes	Detect But No Criterion
SVOC	Dibenz(a,h)anthracene	53-70-3	1.8E+01	USEPA R5	1.4E+00	0.07	No	HQ ≤ 1
SVOC	Dibenzofuran	132-64-9	2.0E+03	Oregon DEQ - Mammal	1.4E+00	0.0007	No	HQ ≤ 1
SVOC	Di-n-butylphthalate	84-74-2	1.5E-01	USEPA R5	9.2E+02	6,000	Yes	HQ > 1
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	1.4E-01	USEPA R5	2.4E-01	2	Yes	HQ > 1
SVOC	Di-n-octylphthalate	117-84-0	7.1E+02	USEPA R5	7.4E+00	0.01	No	HQ ≤ 1
SVOC	Di(2-ethylhexyl) adipate	103-23-1			3.2E-01	--	Yes	Detect But No Criterion
SVOC	Fluoranthene	206-44-0	1.2E+02	USEPA R5	3.1E+01	0.3	No	HQ ≤ 1
SVOC	Fluorene	86-73-7	1.2E+02	USEPA R5	2.5E+00	0.02	No	HQ ≤ 1
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	1.1E+02	USEPA R5	3.4E+00	0.03	No	HQ ≤ 1
SVOC	2-Methylnaphthalene	91-57-6	3.2E+00	USEPA R5	1.3E+00	0.4	No	HQ ≤ 1
SVOC	Methylphenol (total)	1319-77-3	5.0E-01	USEPA R4	2.4E+00	5	Yes	HQ > 1
SVOC	3-Nitroaniline	99-09-2	3.2E+00	USEPA R5	2.8E+00	0.9	No	HQ ≤ 1
SVOC	Nitrobenzene	98-95-3	1.3E+00	USEPA R5	1.1E-01	0.08	No	HQ ≤ 1
SVOC	N-Nitrosodiphenylamine	86-30-6	5.5E-01	USEPA R5	5.4E-02	0.1	No	HQ ≤ 1
SVOC	Phenanthrene	85-01-8	4.6E+01	USEPA R5	2.7E+01	0.6	No	HQ ≤ 1
SVOC	Phenol	108-95-2	1.2E+02	USEPA R5	2.8E+02	2	Yes	HQ > 1
SVOC	Pyrene	129-00-0	7.9E+01	USEPA R5	2.3E+01	0.3	No	HQ ≤ 1
PHYS	Organic Carbon (total)	C-012			3.7E+04	--	No	Not a contaminant.
PCB	PCBs (total)	1336-36-3	3.3E-04	USEPA R5	2.4E+01	70,000	Yes	HQ > 1
INORG	Aluminum	7429-90-5	5.0E+01	USEPA R4	7.7E+04	2,000	Yes	HQ > 1
INORG	Arsenic	7440-38-2	1.8E+01	USEPA Eco SSL - Plant	5.7E+01	3	Yes	HQ > 1
INORG	Barium	7440-39-3	3.3E+02	USEPA Eco SSL - Invertebra	1.1E+03	3	Yes	HQ > 1
INORG	Boron	7440-42-8	5.0E-01	USEPA R4	1.8E+02	400	Yes	HQ > 1
INORG	Chromium III	16065-83-1	2.6E+01	USEPA Eco SSL - Avian	3.3E+02	10	Yes	HQ > 1
INORG	Chromium VI	18540-29-9	1.3E+02	USEPA Eco SSL - Mammal	1.1E+01	0.09	No	HQ ≤ 1
INORG	Cobalt	7440-48-4	1.3E+01	USEPA Eco SSL - Plant	1.6E+02	10	Yes	HQ > 1

Table 5-8: Surface Soil SLERA Screening
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Criteria Used In SLERA (mg/kg)	Basis	Max Detected Conc (mg/kg)	Hazard Quotient	Retain for BERA?	Reason
INORG	Copper	7440-50-8	2.8E+01	USEPA Eco SSL - Avian	3.5E+02	10	Yes	HQ > 1
INORG	Iron	7439-89-6	2.0E+02	USEPA R4	1.3E+05	700	Yes	HQ > 1
INORG	Lead	7439-92-1	1.1E+01	USEPA Eco SSL - Avian	2.4E+02	20	Yes	HQ > 1
INORG	Manganese	7439-96-5	2.2E+02	USEPA Eco SSL - Plant	1.3E+04	60	Yes	HQ > 1
INORG	Molybdenum	7439-98-7	2.0E+00	USEPA R4	2.2E+00	1	No	HQ ≤ 1
INORG	Nickel	7440-02-0	3.8E+01	USEPA Eco SSL - Plant	1.6E+02	4	Yes	HQ > 1
INORG	Nitrate	14797-55-8			8.7E+00	--	Yes	Detect But No Criterion
INORG	Perchlorate	14797-73-0			2.3E+02	--	Yes	Detect But No Criterion
INORG	Strontium	7440-24-6	3.3E+04	Oregon DEQ - Mammal	1.7E+02	0.005	No	HQ ≤ 1
INORG	Vanadium	7440-62-2	7.8E+00	USEPA Eco SSL - Avian	5.1E+02	70	Yes	HQ > 1
INORG	Zinc	7440-66-6	4.6E+01	USEPA Eco SSL - Avian	1.1E+03	20	Yes	HQ > 1
EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	2.1E+01	Kuperman	3.9E+02	20	Yes	HQ > 1
EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	6.0E+00	Kuperman	6.8E+02	100	Yes	HQ > 1
CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ			7.2E-07	--	Yes	Detect But No Criterion

Notes:

BERA Baseline Ecological Risk Assessment.
HQ Hazard Quotient.
mg/kg Miligrams per kilogram.
SLERA Screening Level Ecological Risk Assessment.

5-9: Summary of Uncertainties for the SLERA
ARC Gainesville, Gainesville, Virginia

Source of Uncertainty	SLERA Management Approach	Effect on SLERA Results
Analytical Sampling and Data Analysis		
Limited number of samples - biased sampling	Typically, only a limited number of samples are used in ERAs, and very often they are collected in a biased manner (i.e., targeting "hot spots"). This type of sampling often lacks statistical power and does not likely represent the concentrations in the environment in which wildlife exposure occurs.	Overestimate of exposure and risk
Use of maximum concentrations	The use of the maximum detected concentrations overestimates exposure and risk.	Overestimate of exposure and risk
Non detections, with detection limits that exceed ecotoxicity screening values	There are occasions when analytical detection limits exceed ecotoxicity screening values (ESVs). This can be due to instrument and method limitations and/or due to interference from unrelated chemicals (e.g., dilutions required to bring some other chemical within a calibration range).	Underestimate of exposure and risk
Selection of Constituents of Potential Concern (COPECs)		
Background concentrations	Chemicals may be identified as COPECs despite the fact that the detected concentrations are less than background concentrations. This occurs because the ERA Process does not permit use of background until Step 3a of the BERA (USEPA 2001).	Overestimate of exposure and risk
Toxicology and Ecotoxicity Screening Values		
Toxicity data	Toxicity data are only available for a limited number of species (most of them laboratory test species) under a strictly defined set of test conditions that deviate from natural conditions (Sample et al. 1996; Suter 1996).	Effect on risk estimate unknown
Laboratory toxicity testing	Simplistic extrapolations from laboratory species to wildlife species and testing conditions to field conditions are not likely accurate, and are rarely, if ever, validated against natural conditions (Power 1996; Tannenbaum 2003).	Overestimate of exposure and risk
Adaptation and tolerance	Consideration of bioavailability (and, thereby, diminished toxicity) tolerance and adaptation are intentionally not considered directly in a SLERA. Further, there is little consistency and no quantitative methodology for the consideration of the bioavailability (and, thereby, diminished toxicity) even though this process is well documented (e.g. Alexander 2000). Similarly, tolerance and adaptation is well documented (Millward and Klerks 2002; Grant 2002).	Overestimate of exposure and risk
Hazard Quotients (HQs)		
HQs based on maximum concentrations	The SLERA HQ is based on the maximum detected concentrations and the most conservative ecotoxicity screening value available (USEPA 1997).	Overestimate of exposure and risk
Elevated HQs for background concentrations	HQs may exceed a value of 1 for background concentrations of naturally occurring metals (Tannenbaum 2003). This is due to many of the toxicology and ESV uncertainties already discussed. Also, background HQs greater than 1 indicate that indigenous wildlife would have adapted to these COPECs.	Overestimate of exposure and risk
Interpretation of HQs	An HQ less than or equal to a value of 1 indicates that adverse impacts to wildlife are considered unlikely (USEPA 2001b). However, there is no clear guidance for interpreting the HQs that exceed a value of 1, except that this point of departure may indicate that adverse effects of some kind may have occurred or may occur in the future.	Overestimate of exposure and risk

5-9: Summary of Uncertainties for the SLERA
ARC Gainesville, Gainesville, Virginia

Source of Uncertainty	SLERA Management Approach	Effect on SLERA Results
HQs for individual used to evaluate risks to populations	Although intentionally conservative in a SLERA, HQs are based on the types of impacts that could occur to individuals (i.e., those individuals exposed to maximum concentrations), and they completely fail to address ecological exposure and risk at spatial scale of populations (Tannenbaum 2003; Durda and Preziosi 1999).	Overestimate of exposure and risk
HQs with unrealistic magnitudes	HQs are seen at magnitudes that suggest acute toxicity. Often, conditions at a site document that this is not the case.	Overestimate of exposure and risk

Notes:

BERA	Baseline ecological risk assessment.
COPEC	Constituent of potential concern.
ERA	Ecological risk assessment.
ESV	Ecotoxicity Screening Value.
HQ	Hazard quotient.
SLERA	Screening level ecological risk assessment.

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Table 5-10: Summary of Constituents Retained as COPECs for the BERA
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Surface Water COPEC	Reason	Sediment COPEC	Reason	Surface Soil COPEC	Reason	Retain for BERA	Listed Bio-accumulative Compound?	Detected at least once?	Do FWM analysis?
VOC	Acetone	67-64-1	No	HQ ≤ 1	Yes	HQ > 1	No	HQ ≤ 1	Yes	No	Yes	No
VOC	Carbon Disulfide	75-15-0	No	HQ ≤ 1	Yes	HQ > 1	No	HQ ≤ 1	Yes	No	Yes	No
VOC	1,2-Dichlorobenzene	95-50-1	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
VOC	1,3-Dichlorobenzene	541-73-1	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
VOC	1,4-Dichlorobenzene	106-46-7	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
VOC	cis-1,2-Dichloroethene	156-59-2	No	HQ ≤ 1	No	Not Detected	No	Not Detected	Yes	Yes	Yes	Yes
VOC	1,2,4-Trichlorobenzene	120-82-1	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Yes	Detect But No Criterion	No	Not Detected	Yes	Detect But No Criterion	Yes	No	Yes	No
VOC	1,2,4-Trimethylbenzene	95-63-6	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
SVOC	Acenaphthene	83-32-9	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Acenaphthylene	208-96-8	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Anthracene	120-12-7	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Benzaldehyde	100-52-7	No	Not Detected	No	Not Detected	Yes	HQ > 1	Yes	No	Yes	No
SVOC	Benzo(a)anthracene	56-55-3	No	Not Detected	No	HQ ≤ 1	Yes	HQ > 1	Yes	Yes	Yes	Yes
SVOC	Benzo(a)pyrene	50-32-8	No	Not Detected	No	HQ ≤ 1	Yes	HQ > 1	Yes	Yes	Yes	Yes
SVOC	Benzo(g,h,i)perylene	191-24-2	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Benzo(k)fluoranthene	207-08-9	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	No	HQ ≤ 1	Yes	HQ > 1	Yes	HQ > 1	Yes	No	Yes	No
SVOC	4-Bromophenyl-phenyl ether	101-55-3	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
SVOC	Butylbenzylphthalate	85-68-7	No	Not Detected	No	Not Detected	Yes	HQ > 1	Yes	No	Yes	No
SVOC	Caprolactam	105-60-2	No	Not Detected	No	Not Detected	Yes	Detect But No Criterion	Yes	No	Yes	No
SVOC	Carbazole	86-74-8	No	Not Detected	No	Not Detected	Yes	Detect But No Criterion	Yes	No	Yes	No
SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
SVOC	Chrysene	218-01-9	No	Not Detected	No	HQ ≤ 1	No	Not Detected	Yes	Yes	Yes	Yes
SVOC	Dibenz(a,h)anthracene	53-70-3	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Di-n-butylphthalate	84-74-2	No	Not Detected	No	Not Detected	Yes	HQ > 1	Yes	No	Yes	No
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	No	Not Detected	No	Not Detected	Yes	HQ > 1	Yes	No	Yes	No
SVOC	Di(2-ethylhexyl) adipate	103-23-1	--	--	--	--	Yes	Detect But No Criterion	Yes	No	Yes	No
SVOC	Fluoranthene	206-44-0	No	Not Detected	No	HQ ≤ 1	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Fluorene	86-73-7	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Hexachlorobenzene	118-74-1	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
SVOC	Hexachlorobutadiene	87-68-3	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
SVOC	Hexachlorocyclopentadiene	77-47-4	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
SVOC	Hexachloroethane	67-72-1	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Methylphenol (total)	1319-77-3	No	Not Detected	No	Not Detected	Yes	HQ > 1	Yes	No	Yes	No
SVOC	Pentachlorophenol	87-86-5	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
SVOC	Phenanthrene	85-01-8	No	Not Detected	No	Not Detected	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	Phenol	108-95-2	No	Not Detected	No	Not Detected	Yes	HQ > 1	Yes	Yes	Yes	Yes
SVOC	Pyrene	129-00-0	No	Not Detected	No	HQ ≤ 1	No	HQ ≤ 1	Yes	Yes	Yes	Yes
SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
PCB	PCBs (total)	1336-36-3	No	Not Detected	Yes	HQ > 1	Yes	HQ > 1	Yes	Yes	Yes	Yes
INORG	Aluminum	7429-90-5	Yes	HQ > 1	No	HQ ≤ 1	Yes	HQ > 1	Yes	No	Yes	No
INORG	Arsenic	7440-38-2	No	Not Detected	No	HQ ≤ 1	Yes	HQ > 1	Yes	Yes	Yes	Yes
INORG	Barium	7440-39-3	Yes	HQ > 1	Yes	ect But No Crite	Yes	HQ > 1	Yes	No	Yes	No
INORG	Boron	7440-42-8	Yes	HQ > 1	Yes	ect But No Crite	Yes	HQ > 1	Yes	No	Yes	No
INORG	Cadmium	7440-43-9	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
INORG	Chromium (total)	7440-47-3	No	Not Detected	Yes	HQ > 1	--	--	Yes	No	Yes	No
INORG	Chromium III	16065-83-1	--	--	Yes	HQ > 1	Yes	HQ > 1	Yes	No	Yes	No
INORG	Cobalt	7440-48-4	No	Not Detected	No	HQ ≤ 1	Yes	HQ > 1	Yes	No	Yes	No
INORG	Copper	7440-50-8	Yes	HQ > 1	Yes	HQ > 1	Yes	HQ > 1	Yes	Yes	Yes	Yes
INORG	Iron	7439-89-6	Yes	HQ > 1	Yes	HQ > 1	Yes	HQ > 1	Yes	No	Yes	No
INORG	Lead	7439-92-1	No	Not Detected	No	HQ ≤ 1	Yes	HQ > 1	Yes	Yes	Yes	Yes
INORG	Manganese	7439-96-5	Yes	HQ > 1	Yes	HQ > 1	Yes	HQ > 1	Yes	No	Yes	No
INORG	Nickel	7440-02-0	No	Not Detected	Yes	HQ > 1	Yes	HQ > 1	Yes	Yes	Yes	Yes
INORG	Nitrate	14797-55-8	--	--	--	--	Yes	Detect But No Criterion	Yes	No	Yes	No
INORG	Perchlorate	14797-73-0	Yes	Detect But No Criterion	Yes	ect But No Crite	Yes	Detect But No Criterion	Yes	No	Yes	Yes
INORG	Phosphorus (total)	7723-14-0	Yes	HQ > 1	--	--	--	--	Yes	No	Yes	No

Table 5-10: Summary of Constituents Retained as COPECs for the BERA
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Surface Water COPEC	Reason	Sediment COPEC	Reason	Surface Soil COPEC	Reason	Retain for BERA	Listed Bio-accumulative Compound?	Detected at least once?	Do FWM analysis?
INORG	Selenium	7782-49-2	No	Not Detected	No	Not Detected	No	Not Detected	Yes	Yes	No	No
INORG	Silver	7440-22-4	No	Not Detected	Yes	HQ > 1	No	Not Detected	Yes	Yes	Yes	Yes
INORG	Strontium	7440-24-6	No	HQ ≤ 1	Yes	ect But No Crite	No	HQ ≤ 1	Yes	No	Yes	No
INORG	Vanadium	7440-62-2	No	HQ ≤ 1	Yes	ect But No Crite	Yes	HQ > 1	Yes	No	Yes	No
INORG	Zinc	7440-66-6	No	HQ ≤ 1	No	HQ ≤ 1	Yes	HQ > 1	Yes	Yes	Yes	Yes
EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	No	HQ ≤ 1	No	Not Detected	Yes	HQ > 1	Yes	No	Yes	No
EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	No	HQ ≤ 1	No	Not Detected	Yes	HQ > 1	Yes	No	Yes	No
CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	--	--	--	--	Yes	Detect But No Criterion	Yes	No	Yes	Yes

Notes:
Only those chemicals retained for the BERA in at least one medium are shown.

Table 5-11: BERA Surface Water Screening
ARC Gainesville, Gainesville, Virginia

			Site Sampling Data							Background		Criteria				
Chem Group	Chemical Name	CASRN	Analyses	Detects	Freq of Detects	Maximum Detect (mg/L)	UCL on Mean (mg/L)	Average of Detects and Half Limits (mg/L)	Median of Detects and Half Limits (mg/L)	Maximum BG Conc (mg/L)	Average of BG Detects and Half Limits (mg/L)	Criterion (mg/L)	Basis	HQ Based on UCL	Retain for Further Analysis?	Reason
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	28	4	14.3%	0.015	4.8E-03	1.9E-03	1.0E-03			4.6E-01	USEPA R6	0.01	No	UCL HQ ≤ 1
INORG	Aluminum	7429-90-5	28	27	96.4%	6.02	4.0E+00	2.9E+00	2.2E+00	1.0E+01	4.0E+00	8.7E-02	USEPA R3	NA	No	UCL ≤ 2X BG
INORG	Barium	7440-39-3	10	10	100.0%	0.075	4.4E-02	3.4E-02	2.9E-02	6.3E-02		4.0E-03	USEPA R3	NA	No	UCL ≤ 2X BG
INORG	Boron	7440-42-8	9	9	100.0%	0.166	1.3E-01	1.0E-01	8.9E-02	6.5E-02		7.0E+00	ORNL 1996	0.02	No	UCL ≤ 2X BG
INORG	Copper	7440-50-8	21	8	38.1%	0.0638	1.9E-02	9.5E-03	4.1E-03	2.8E-02		1.2E-02	VADEQ (Chronic)	NA	No	UCL ≤ 2X BG
INORG	Iron	7439-89-6	25	25	100.0%	9.1	5.5E+00	4.0E+00	3.6E+00	1.1E+01	5.0E+00	3.0E-01	USEPA R3	NA	No	UCL ≤ 2X BG
INORG	Manganese	7439-96-5	3	3	100.0%	0.316	3.2E-01	2.9E-01	2.7E-01	3.0E-01		1.1E+00	ORNL 1996	0.3	No	UCL ≤ 2X BG
INORG	Perchlorate	14797-73-0	94	69	73.4%	0.235	6.6E-02	3.4E-02	1.1E-02			9.3E+00	Dean 2004	0.007	No	UCL HQ ≤ 1
INORG	Phosphorus (total)	7723-14-0	4	2	50.0%	0.34	3.4E-01	1.5E-01	1.2E-01			4.0E-02	VADEQ (Chronic)	NA	No	Nutrient

Notes:

Only those chemicals retained for the BERA are shown.

BG Background

mg/L Miligrams per liter.

NA Not applicable.

Hazard quotient (HQ) based upon a comparison of the UCL on the Mean to the noted Criterion.

Background concentrations represent those observed at location Infalls 001 and 002.

Region 6 criterion for CFC113: Texas Natural Resource Conservation Commission. 2001. Guidance for Conducting Ecological Risk Assessments at Remediation Sites in Texas. Toxicology and Risk Assessment Section, Texas Natural Resource Conservation Commission, Austin, TX. RG-263 (revised). As cited in RAIS, Risk Assessment Information System. http://rais.ornl.gov/tools/eco_search.php

Dean KE, Palachek RM, Noel JM, Warbritton R, Aufderheide J, and Wireman J. 2004. Development Of Freshwater Water-Quality Criteria For Perchlorate. Environmental Toxicology and Chemistry, Vol. 23, No. 6, pp. 1441–1451.

ORNL. 1996. Toxicological benchmarks for screening potential contaminants of concern for effects on aquatic biota: 1996 revision. Suter, G.W. II and C.L. Tsao. ES/ER/TM-96/R2. Oak Ridge National Laboratory, Oak Ridge, TN. http://www.esd.ornl.gov/programs/ecorisk/documents/tm96r2.pdf These values are the EC20 values for daphnids. There is no fish study for boron and daphnids are are more sensitive than fish to manganese.

Table 5-12: BERA Sediment Screening
ARC Gainesville, Gainesville, Virginia

			Site Sampling Data							Background		Criteria				
Chem Group	**Chemical Name**	**CASRN**	**Analyses**	**Detects**	**Freq of Detects**	**Maximum Detect** (mg/kg)	**UCL on Mean** (mg/kg)	**Average of Detects and Half Limits** (mg/kg)	**Median of Detects and Half Limits** (mg/kg)	**Maximum BG Conc** (mg/kg)	**Average of BG Detects and Half Limits** (mg/kg)	**Criterion** (mg/kg)	**Basis**	**HQ Based on UCL**	**Retain for Further Analysis?**	**Reason**
VOC	Acetone	67-64-1	21	10	47.6%	4.2E-01	2.2E-01	4.8E-01	4.2E-01			3.2E-01	EqP	0.7	No	UCL HQ ≤ 1
VOC	Carbon Disulfide	75-15-0	21	9	42.9%	4.8E-02	2.5E-02	6.6E-02	6.0E-02			6.3E+00	EqP	0.004	No	UCL HQ ≤ 1
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	8	2	25.0%	3.9E+00	3.9E+00	5.6E-01	4.9E-02			7.5E+03	EqP	0.0005	No	UCL HQ ≤ 1
PCB	PCBs (total)	1336-36-3	44	36	81.8%	3.0E+00	1.3E+00	5.5E-01	1.8E-01			1.0E+00	EqP	1	No	UCL HQ ≤ 1
INORG	Barium	7440-39-3	9	9	100.0%	3.0E+02	2.1E+02	1.6E+02	1.3E+02	2.2E+02	1.1E+02			NA	No	UCL ≤ Max BG
INORG	Boron	7440-42-8	9	9	100.0%	1.7E+01	1.4E+01	1.0E+01	1.3E+01	1.7E+01	3.5E+00			NA	No	UCL ≤ Max BG
INORG	Chromium (total)	7440-47-3	7	7	100.0%	1.4E+02	1.1E+02	5.4E+01	4.0E+01	2.7E+02	9.8E+01	8.1E+01	NOAA ERL	1	No	UCL HQ ≤ 1
INORG	Chromium III	16065-83-1	11	11	100.0%	1.6E+02	1.2E+02	9.3E+01	9.6E+01	2.6E+02	9.4E+01	8.1E+01	NOAA ERL	1	No	UCL HQ ≤ 1
INORG	Copper	7440-50-8	18	18	100.0%	1.4E+02	7.4E+01	5.6E+01	4.1E+01	1.3E+02	3.6E+01	3.2E+01	USEPA R3	NA	No	UCL ≤ Max BG
INORG	Iron	7439-89-6	9	9	100.0%	1.2E+05	8.2E+04	6.8E+04	7.0E+04	9.5E+04	5.5E+04	2.0E+04	USEPA R3	NA	No	UCL ≤ Max BG
INORG	Manganese	7439-96-5	9	9	100.0%	4.9E+03	3.2E+03	2.3E+03	2.2E+03	4.3E+03	1.9E+03	4.6E+02	USEPA R3	NA	No	UCL ≤ Max BG
INORG	Nickel	7440-02-0	18	18	100.0%	4.4E+01	2.7E+01	2.4E+01	2.2E+01	7.3E+01	2.5E+01	2.3E+01	USEPA R3	NA	No	UCL ≤ Max BG
INORG	Perchlorate	14797-73-0	37	3	8.1%	1.4E-02	8.3E-03	8.8E-03	5.0E-03					NA	No	Exposure is via surface water.
INORG	Silver	7440-22-4	18	6	33.3%	3.8E+01	1.8E+01	3.5E+00	9.6E-01	3.0E+00	5.7E-01	1.0E+00	USEPA R3	20	Yes	HQ > 1
INORG	Strontium	7440-24-6	9	9	100.0%	3.8E+01	3.4E+01	3.0E+01	3.0E+01	3.8E+01	1.5E+01			NA	No	UCL ≤ Max BG
INORG	Vanadium	7440-62-2	9	9	100.0%	4.2E+02	3.0E+02	2.4E+02	2.3E+02	2.8E+02	1.8E+02			NA	No	UCL ≤ Max BG

Notes:
Only those chemicals retained for the BERA are shown.
BG Background
mg/kg Milligrams per kilogram.
NA Not applicable.

Hazard quotient (HQ) based upon a comparison of the UCL on the Mean to the noted Criterion.
Background concentrations based upon site-specific background data for soil.

Table 5-13: BERA Surface Soil Screening
ARC Gainesville, Gainesville, Virginia

			Site Sampling Data							Background		Criteria				
Chem Group	Chemical Name	CASRN	Analyses	Detects	Freq of Detects	Maximum Detect (mg/kg)	UCL on Mean (mg/kg)	Average of Detects and Half Limits (mg/kg)	Median of Detects and Half Limits (mg/kg)	Maximum BG Conc (mg/kg)	Average of BG Detects and Half Limits (mg/kg)	Criterion (mg/kg)	Basis	HQ Based on UCL	Retain for Further Analysis?	Reason
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	257	2	0.8%	3.0E-03	2.0E-03	2.3E-02	1.0E-03				NC	NA	No	Freq,
SVOC	Benzaldehyde	100-52-7	474	3	0.6%	3.5E-01	1.2E-01	4.4E-02	4.2E-02			1.0E-01	Dutch	1	No	UCL HQ ≤ 1
SVOC	Benzo(a)anthracene	56-55-3	902	18	2.0%	1.1E+01	6.0E-02	5.3E-02	2.2E-02			5.2E+00	USEPA R5	0.01	No	UCL HQ ≤ 1
SVOC	Benzo(a)pyrene	50-32-8	902	19	2.1%	7.1E+00	9.0E-02	4.5E-02	2.2E-02			1.5E+00	USEPA R5	0.06	No	UCL HQ ≤ 1
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	902	83	9.2%	6.9E+01	4.3E-01	2.2E-01	4.3E-02			9.3E-01	USEPA R5	0.5	No	UCL HQ ≤ 1
SVOC	Butylbenzylphthalate	85-68-7	902	4	0.4%	4.4E+03	4.3E+01	5.3E+00	4.3E-02			2.4E-01	USEPA R5	NA	No	Freq,
SVOC	Caprolactam	105-60-2	474	1	0.2%	2.3E-01	2.3E-01	2.2E-02	2.1E-02				NC	NA	No	Freq,
SVOC	Carbazole	86-74-8	880	7	0.8%	3.6E+00	6.9E-02	2.8E-02	2.2E-02				NC	NA	No	Freq,
SVOC	Di-n-butylphthalate	84-74-2	716	2	0.3%	9.2E+02	1.4E+01	1.4E+00	4.3E-02			1.5E-01	USEPA R5	NA	No	Freq,
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	716	1	0.1%	2.4E-01	2.4E-01	1.2E-01	1.1E-01			1.4E-01	USEPA R5	NA	No	Freq,
SVOC	Di(2-ethylhexyl) adipate	103-23-1	1	1	100.0%	3.2E-01	3.2E-01	3.2E-01	3.2E-01			5.6E+01	Environment Canada, 2011	0.006	No	UCL HQ ≤ 1
SVOC	Methylphenol (total)	1319-77-3	903	2	0.2%	2.4E+00	8.6E-02	4.9E-02	4.3E-02			5.0E-01	USEPA R4	0.2	No	UCL HQ ≤ 1
SVOC	Phenol	108-95-2	916	6	0.7%	2.8E+02	2.6E+00	3.5E-01	2.2E-02			1.2E+02	USEPA R5	0.02	No	UCL HQ ≤ 1
PCB	PCBs (total)	1336-36-3	1070	414	38.7%	2.4E+01	5.6E-01	3.4E-01	3.5E-03			4.0E+01	ORNL 1997	0.01	Yes	Food web
INORG	Aluminum	7429-90-5	937	937	100.0%	7.7E+04	3.3E+04	3.2E+04	3.1E+04	5.3E+04	2.9E+04	5.0E+01	USEPA R4	NA	No	UCL ≤ Max BG
INORG	Arsenic	7440-38-2	914	852	93.2%	5.7E+01	5.3E+00	5.1E+00	4.8E+00	1.0E+01	5.1E+00	1.8E+01	USEPA Eco SSL - Plant	NA	No	UCL ≤ Max BG
INORG	Barium	7440-39-3	941	941	100.0%	1.1E+03	1.1E+02	1.1E+02	1.0E+02	2.2E+02	1.1E+02	3.3E+02	USEPA Eco SSL - Invertebrate	NA	No	UCL ≤ Max BG
INORG	Boron	7440-42-8	406	151	37.2%	1.8E+02	6.3E+00	5.8E+00	2.2E+00	1.7E+01	3.5E+00	5.0E-01	USEPA R4	NA	No	UCL ≤ Max BG
INORG	Chromium III	16065-83-1	1018	1016	99.8%	3.3E+02	1.1E+02	1.0E+02	9.3E+01	2.6E+02	9.4E+01	2.6E+01	USEPA Eco SSL - Avian	4	Yes	UCL ≤ Max BG
INORG	Cobalt	7440-48-4	701	701	100.0%	1.6E+02	5.2E+01	4.8E+01	4.5E+01	8.6E+01	4.4E+01	1.3E+01	USEPA Eco SSL - Plant	NA	No	UCL ≤ Max BG
INORG	Copper	7440-50-8	943	943	100.0%	3.5E+02	5.1E+01	4.6E+01	4.0E+01	1.3E+02	3.6E+01	2.8E+01	USEPA Eco SSL - Avian	NA	No	UCL ≤ Max BG
INORG	Iron	7439-89-6	694	694	100.0%	1.3E+05	5.7E+04	5.6E+04	5.6E+04	9.5E+04	5.5E+04	2.0E+02	USEPA R4	NA	No	UCL ≤ Max BG
INORG	Lead	7439-92-1	986	980	99.4%	2.4E+02	2.2E+01	2.1E+01	2.0E+01	4.1E+01	2.1E+01	1.1E+01	USEPA Eco SSL - Avian	NA	No	UCL ≤ Max BG
INORG	Manganese	7439-96-5	696	696	100.0%	1.3E+04	2.2E+03	2.0E+03	1.8E+03	4.3E+03	1.9E+03	2.2E+02	USEPA Eco SSL - Plant	NA	No	UCL ≤ Max BG
INORG	Nickel	7440-02-0	736	736	100.0%	1.6E+02	3.1E+01	3.0E+01	2.8E+01	7.3E+01	2.5E+01	3.8E+01	USEPA Eco SSL - Plant	NA	No	UCL ≤ Max BG
INORG	Nitrate	14797-55-8	29	18	62.1%	8.7E+00	3.2E+00	1.9E+00	1.4E+00				NC	--	No	Nutrient
INORG	Perchlorate	14797-73-0	1513	527	34.8%	2.3E+02	2.5E+00	8.9E-01	1.0E-03				NC	--	Yes	Food web
INORG	Vanadium	7440-62-2	694	694	100.0%	5.1E+02	1.8E+02	1.8E+02	1.8E+02	2.8E+02	1.8E+02	7.8E+00	USEPA Eco SSL - Avian	NA	No	UCL ≤ Max BG
INORG	Zinc	7440-66-6	761	751	98.7%	1.1E+03	6.5E+01	6.1E+01	5.3E+01	1.7E+02	5.3E+01	4.6E+01	USEPA Eco SSL - Avian	NA	No	UCL ≤ Max BG
EXPLOSIVE	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	1044	13	1.2%	3.9E+02	3.6E+00	7.6E-01	5.0E-02			2.1E+01	Kuperman	0.2	No	UCL HQ ≤ 1
EXPLOSIVE	Octahydro-1,3,7,5-tetranitro-1,3,7,5-tetrazocine (HMX)	2691-41-0	1044	38	3.6%	6.8E+02	7.3E+00	2.0E+00	1.3E-01			6.0E+00	Kuperman	1	No	UCL HQ ≤ 1
CDDF	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TEQ)	1746-01-6-TEQ	11	11	100.0%	7.2E-07	7.2E-07	3.7E-07	3.9E-07				NC	NA	Yes	Food web

Notes:

Only those chemicals retained for the BERA are shown.

BG Background

mg/kg Milligrams per kilogram.

NA Not applicable.

Hazard quotient (HQ) based upon a comparison of the UCL on the Mean to the noted Criterion.

Table 5-14: Sediment Background versus Soil Background
ARC Gainesville, Gainesville, Virginia

			Infall 001 and 002 Data		Soil		
Chem Group	**Chemical Name**	**CASRN**	**Maximum Detect** (mg/kg)	**Average Detect or Half Limit** (mg/kg)	**95% UCL on the Mean** (mg/kg)	**Maximum BG Conc** (mg/kg)	**Average of BG Detects and Half Limits** (mg/kg)
INORG	Aluminum	7429-90-5	25,300	19,450	30,176	53,400	28,860
INORG	Antimony	7440-36-0	ND	0.6	1.2	2.0	0.9
INORG	Arsenic	7440-38-2	12.1	7.5	5.5	10.1	5.1
INORG	Barium	7440-39-3	289	173	115	224	109
INORG	Beryllium	7440-41-7	0.7	0.5	0.7	1.2	0.7
INORG	Boron	7440-42-8	8.4	5.8	4.5	17.0	3.5
INORG	Cadmium	7440-43-9	ND	0.4	0.9	3.8	0.8
INORG	Cobalt	7440-48-4	58	38	48	86	44
INORG	Copper	7440-50-8	52	50	47	131	36
INORG	Iron	7439-89-6	80,800	60,000	57,635	95,200	55,105
INORG	Manganese	7439-96-5	4,160	2,528	2,094	4,270	1,937
INORG	Mercury	7439-97-6	ND	0.007	0.040	0.113	0.036
INORG	Nickel	7440-02-0	19	17	28	73	25
INORG	Selenium	7782-49-2	ND	0.63	1.40	3.55	0.81
INORG	Silver	7440-22-4	0.63	0.36	0.70	3.00	0.57
INORG	Strontium	7440-24-6	30	26	20	38	15
INORG	Thallium	7440-28-0	2.12	1.94	1.83	6.87	1.31
INORG	Vanadium	7440-62-2	242	196	190	283	178
INORG	Zinc	7440-66-6	119	80	58	171	53

Notes:

mg/kg Miligrams per kilogram.

ND Constituent was not detected at either Infall 001 or Infall 002

5-15: Calculation of EqP-Based Sediment Criteria
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	SLERA SW Criterion µg/L	Source	Log Koc		SD Crit µg/gOC	SD Crit µg/kg @ average TOC	SD Crit mg/kg @ average TOC
VOC	Acetone	67-64-1	23,714	Suter 1996 Population EC20	-0.24	Princeton DB	14	319	0.32
VOC	Carbon Disulfide	75-15-0	1,000	Suter 1996 Population EC20	2.43136	HSDB	270	6,308	6.31
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	16	USEPA R3	7.3	Princeton DB	319,242	7,458,587	7,459
PCB	PCBs (total)	1336-36-3	0.014	Fuschman 2006	6.5	Geomean of homologues, Fuschman 2006	44	1,034	1.03

Average TOC mg/kg	23,363
Average TOC g/kg	23.4

References:

Fuchsman, P.C., Barber, T.R., Lawton, J.C., and Leigh, K.B. 2006. An evaluation of cause-effect relationships between polychlorinated biphenyls concentrations and sediment toxicity to benthic invertebrates. Environ. Toxicol. Chem. 25(10):2601-2612.

Suter, GW and Tsao, CL. 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ES/ER/TM-96/R2. http://rais.ornl.gov/documents/tm96r2.pdf

5-16: Location-Specific BERA Sediment Screening
ARC Gainesville, Gainesville, Virginia

			Criterion		1	mg/kg
			Silver			
Location	Sample ID	Sample Date	Result (mg/kg)		Analytical Limit (mg/kg)	HQ
2 SED-01	2 SED-01-20110216-N_SE	2/16/2011	4.49E-01	U	8.97E-01	0.4
Infall 001	Infall 001-20090505-N_SE	5/5/2009	9.45E-02	U	1.89E-01	0.09
Infall 002	Infall 002-20090505-N_SE	5/5/2009	6.29E-01	J	2.46E-01	0.6
POND 03 EFF	POND 03 EFF-20090506-N_SE	5/6/2009	5.85E-01	U	1.17E+00	0.6
POND 03-02	POND 03-02-20090506-N_SE	5/6/2009	3.65E-01	U	7.30E-01	0.4
POND 03-03	POND 03-03-20090506-N_SE	5/6/2009	4.60E-01	J	2.25E-01	0.5
PONSED 1	PONSED 1-20020815-N_SE	8/15/2002	3.80E+01		2.50E+00	40
PONSED 2	PONSED 2-20020815-N_SE	8/15/2002	1.25E+00	U	2.50E+00	1
PONSED 3	PONSED 3-20020815-N_SE	8/15/2002	1.30E+01		2.50E+00	10
PONSED 4	PONSED 4-20020815-N_SE	8/15/2002	1.25E+00	U	2.50E+00	1
SED 52-01	SED 52-01-20090506-N_SE	5/6/2009	6.61E-01	J	2.33E-01	0.7
SEDA 11	SEDA 11-20110216-N_SE	2/16/2011	4.43E-01	U	8.86E-01	0.4
SEDA 12	SEDA 12-20020815-N_SE	8/15/2002	1.25E+00	U	2.50E+00	1
SEDA 13	SEDA 13-20020815-N	8/15/2002	1.25E+00	U	2.50E+00	1
SEDP 01 CTR	SEDP 01 CTR-20020807-N_SE	8/7/2002	1.25E+00	U	2.50E+00	1
SEDP 01 EFF	SEDP 01 EFF-20020807-N_SE	8/7/2002	1.25E+00	U	2.50E+00	1
SEDP 01 INF	SEDP 01 INF-20020807-N_SE	8/7/2002	1.25E+00	U	2.50E+00	1
TTU SED-03	TTU SED-03-20090505-N_SE	5/5/2009	4.23E-01	J	2.15E-01	0.4

HQ	Hazard Quotient.
J	Estimated concentration.
mg/kg	Miligrams per kilogram.
U	Not detected. The result column is 1/2 of the analytical limit.

5-17: Media Concentrations for Use in the Food Web Models
ARC Gainesville, Gainesville, Virginia

			Surface Water (mg/L)				Sediment (mg/kg)				Surface Soil (mg/kg)			
Chem Group	Chemical Name	CASRN	Max-imum Detect	UCL on Mean	Average of Detects and Half Limits	Median of Detects and Half Limits	Max-imum Detect	UCL on Mean	Average of Detects and Half Limits	Median of Detects and Half Limits	Max-imum Detect	UCL on Mean	Average of Detects and Half Limits	Median of Detects and Half Limits
VOC	cis-1,2-Dichloroethene	156-59-2	1.90E-02	5.62E-03	1.90E-03	4.00E-04	0	0	0	0	0	0	0	0
SVOC	Acenaphthene	83-32-9	0	0	0	0	0	0	0	0	3.41E+00	2.60E-02	3.50E-02	2.10E-02
SVOC	Acenaphthylene	208-96-8	0	0	0	0	0	0	0	0	1.90E-01	3.83E-02	2.57E-02	2.15E-02
SVOC	Anthracene	120-12-7	0	0	0	0	0	0	0	0	6.04E+00	2.98E-02	3.76E-02	2.15E-02
SVOC	Benzo(a)anthracene	56-55-3	0	0	0	0	8.90E-02	0	0	0	1.12E+01	5.98E-02	5.32E-02	2.15E-02
SVOC	Benzo(a)pyrene	50-32-8	0	0	0	0	8.60E-02	0	0	0	7.11E+00	9.03E-02	4.46E-02	2.15E-02
SVOC	Benzo(g,h,i)perylene	191-24-2	0	0	0	0	0	0	0	0	3.26E+00	2.63E-02	3.66E-02	2.15E-02
SVOC	Benzo(k)fluoranthene	207-08-9	0	0	0	0	0	0	0	0	4.79E+00	4.97E-02	3.83E-02	2.15E-02
SVOC	Chrysene	218-01-9	0	0	0	0	7.60E-02	0	0	0	0	0	0	0
SVOC	Dibenz(a,h)anthracene	53-70-3	0	0	0	0	0	0	0	0	1.36E+00	1.33E-01	3.08E-02	2.10E-02
SVOC	Fluoranthene	206-44-0	0	0	0	0	9.40E-02	0	0	0	3.09E+01	3.38E-01	9.38E-02	2.15E-02
SVOC	Fluorene	86-73-7	0	0	0	0	0	0	0	0	2.46E+00	1.95E-02	3.22E-02	2.15E-02
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	0	0	0	0	0	0	0	0	3.41E+00	6.36E-02	3.67E-02	2.15E-02
SVOC	Phenanthrene	85-01-8	0	0	0	0	0	0	0	0	2.72E+01	2.95E-01	8.17E-02	2.15E-02
SVOC	Phenol	108-95-2	0	0	0	0	0	0	0	0	2.80E+02	2.60E+00	3.53E-01	2.15E-02
SVOC	Pyrene	129-00-0	0	0	0	0	1.40E-01	0	0	0	2.33E+01	2.66E-01	8.21E-02	2.15E-02
PCB	PCBs (total)	1336-36-3	0	0	0	0	3.04E+00	1.34E+00	5.54E-01	1.76E-01	2.42E+01	5.63E-01	3.41E-01	3.50E-03
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	0	0	0	0	0	0	0	Acetone	7.21E-07	7.17E-07	3.69E-07	3.93E-07
INORG	Arsenic	7440-38-2	0	0	0	0	1.21E+01	5.64E+00	4.29E+00	2.91E+00	5.71E+01	5.26E+00	5.05E+00	4.83E+00
INORG	Chromium III	16065-83-1	0	0	0	0	1.60E+02	1.16E+02	9.33E+01	9.62E+01	3.26E+02	1.14E+02	1.02E+02	9.26E+01
INORG	Copper	7440-50-8	6.38E-02	1.87E-02	9.52E-03	4.05E-03	1.38E+02	7.39E+01	5.62E+01	4.13E+01	3.51E+02	5.10E+01	4.61E+01	3.95E+01
INORG	Lead	7439-92-1	0	0	0	0	4.20E+01	2.49E+01	2.15E+01	2.08E+01	2.43E+02	2.22E+01	2.13E+01	1.97E+01
INORG	Nickel	7440-02-0	0	0	0	0	4.43E+01	2.74E+01	2.37E+01	2.19E+01	1.61E+02	3.06E+01	2.97E+01	2.84E+01
INORG	Perchlorate	14797-73-0	2.35E-01	6.62E-02	3.45E-02	1.10E-02	1.40E-02	8.33E-03	8.77E-03	5.00E-03	2.30E+02	2.53E+00	8.93E-01	1.00E-03
INORG	Silver	7440-22-4	0	0	0	0	3.80E+01	1.76E+01	3.55E+00	9.55E-01	0	0	0	0
INORG	Zinc	7440-66-6	7.02E-02	3.57E-02	2.64E-02	2.50E-02	1.71E+02	1.25E+02	9.71E+01	1.14E+02	1.10E+03	6.52E+01	6.09E+01	5.25E+01

mg/kg Miligrams per kilogram.
mg/L Miligrams per liter.

5-18: Food Chain Input Variables and Receptor Parameters
ARC Gainesville, Gainesville, Virginia

Taxon	Name	Species	IR w (L/day)	IR f (kg WW/day)	IR ss (kg dW/day)	IR sd (kg dW/day)	Aquatic Invertebrate Proportion	Fish Proportion	Terrestrial Invertebrat Proportion	Mammals Proportion	BW (kg)	Range (ha)	AUF (unitless)
Bird	Great Blue Heron	*Ardea herodias*	0.1058	0.42	0	0	0.3	0.3	0.3	0.1	2.39	555	1
Bird	Red-Tailed Hawk	*Buteo jamaicensis*	0.064	0.109	0	0	0	0	0.05	0.95	1.126	1,085	1
Mammal	Mink	*Mustela vison*	0.099	0.137	0	0	0.28	0.16	0	0.56	1	770	1

Data from ORNL 1994, Estimating Exposure of Terrestrial Wildlife to Contaminants. ES/ER/TM-125 http://www.esd.ornl.gov/programs/ecorisk/documents/tm125.pdf Chapter 4.

AUF	Area Use Factor.
BW	Body weight.
ha	Hectares.
IR f	Ingestion rate of food.
IR sd	Ingestion rate of sediment
IR ss	Ingestion rate of surface soil.
IR w	Ingestion rate of water.
kg	Kilograms.
kg dw/day	Kilograms dry weight per day.
kg ww/day	Kilograms wet weight per day.
L/day	Liters per day.

5-19: Uptake into Aquatic Invertebrates
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Log (Kow)	Surface Water to Aquatic Invertebrate (a) BCF		Sediment to Aquatic Invertebrate (b) BCF		Surface Water Concentration Max (mg/kg)	Surface Water Concentration Avg (mg/kg)	Sediment Concentration Max (mg/L)	Sediment Concentration Avg (mg/L)	Aquatic Invertebrate From Surface Water Max (mg/kg ww)	Aquatic Invertebrate From Surface Water Avg (mg/kg ww)	Aquatic Invertebrate From Sediment Max (mg/kg ww)	Aquatic Invertebrate From Sediment Avg (mg/kg ww)	Aquatic Invertebrate SW + SD Max (mg/kg ww)	Aquatic Invertebrate SW + SD Avg (mg/kg ww)
VOC	cis-1,2-Dichloroethene	156-59-2	1.86	2.38	a)	2.38	(b)	1.90E-02	5.62E-03	0	0	7.24E-03	2.14E-03	0	0	7.24E-03	2.14E-03
SVOC	Acenaphthene	83-32-9	3.92	4,697	(a)	1.47	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Acenaphthylene	208-96-8	3.94	4,697	(a)	22.9	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Anthracene	120-12-7	4.55	4,697	(a)	2.42	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Benzo(a)anthracene	56-55-3	5.7	12,299	(a)	1.59	(c)	0	0	8.90E-02	0	0	0	2.26E-02	0	2.26E-02	0
SVOC	Benzo(a)pyrene	50-32-8	6.11	4,697	(a)	1.33	(c)	0	0	8.60E-02	0	0	0	1.83E-02	0	1.83E-02	0
SVOC	Benzo(g,h,i)perylene	191-24-2	7.23	4,697	(a)	2.94	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Benzo(k)fluoranthene	207-08-9	6.2	13,225	(a)	2.6	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Chrysene	218-01-9	5.7	980	(a)	2.29	(c)	0	0	7.60E-02	0	0	0	2.78E-02	0	2.78E-02	0
SVOC	Dibenz(a,h)anthracene	53-70-3	6.69	710	(a)	0.13	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Fluoranthene	206-44-0	5.12	4,697	(a)	3.04	(c)	0	0	9.40E-02	0	0	0	4.57E-02	0	4.57E-02	0
SVOC	Fluorene	86-73-7	4.21	4,697	(a)	9.57	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	6.65	4,697	(a)	2.86	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Phenanthrene	85-01-8	4.46	4,697	(a)	1.72	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Phenol	108-95-2	1.48	4,697	(a)	1.16	(b)	0	0	0	0	0	0	0	0	0	0
SVOC	Pyrene	129-00-0	5.11	4,697	(a)	1.75	(c)	0	0	1.40E-01	0	0	0	3.92E-02	0	3.92E-02	0
PCB	PCBs (total)	1336-36-3	NA	9269	(a)	0.23	(d)	0	0	3.04E+00	1.34E+00	0	0	6.98E-01	3.08E-01	6.98E-01	3.08E-01
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	NA	1,560	(a)	1.59	(e)	0	0	0	0	0	0	0	0	0	0
INORG	Arsenic	7440-38-2	NA	73	(a)	ln(Ci) = 0.706 * ln(Cs) - 1.421	(f)	0	0	1.21E+01	5.64E+00	0	0	2.25E-01	1.31E-01	2.25E-01	1.31E-01
INORG	Chromium III	16065-83-1	NA	3000	(a)	0.306	(f)										
INORG	Copper	7440-50-8	NA	3,718	(a)	0.515	(f)	6.38E-02	1.87E-02	1.38E+02	7.39E+01	3.80E+01	1.11E+01	1.14E+01	6.09E+00	4.93E+01	1.72E+01
INORG	Lead	7439-92-1	NA	5,059	(a)	ln(Ci) = 0.807 * ln(Cs) - 0.218	(f)	0	0	4.20E+01	2.49E+01	0	0	2.63E+00	1.72E+00	2.63E+00	1.72E+00
INORG	Nickel	7440-02-0	NA	28	(a)	0.02	(e)	0	0	4.43E+01	2.74E+01	0	0	1.42E-01	8.76E-02	1.42E-01	8.76E-02
INORG	Perchlorate	14797-73-0	NA	1.85	(g)	2.26	(h)										
INORG	Silver	7440-22-4	NA	298	(a)	2.045	(f)	0	0	3.80E+01	1.76E+01	0	0	1.24E+01	5.77E+00	1.24E+01	5.77E+00
INORG	Zinc	7440-66-6	NA	4,578	(a)	ln(Ci) = 0.328 * ln(Cs) + 4.449	(f)	7.02E-02	3.57E-02	1.71E+02	1.25E+02	5.14E+01	2.61E+01	7.39E+01	6.66E+01	1.25E+02	9.28E+01

Invertebrates are assumed to be 16% solids. The dry weight is multiplied by 0.16 to convert to wet weight except for the Blankenship value for PCBs which is already in wet weight.

(a) USEPA Region 6, 1999. Table C-3. BaP used as a surrogate for other PAHs and phenol. Chloroform is used as a surrogate for dichloroethene. PCB value is average of Aroclors.
(b) USEPA Region 6, 1999. Table C-1. The BCF was calculated as: log BCF = 0.819 x log Kow - 1.146 (Southworth, Beauchamp, and Schmieder 1978).
(c) USEPA EcoSSL Guidance. http://www.epa.gov/ecotox/ecossl/pdf/ecossl_attachment_4-1.pdf Table 4b.
(d) Blankenship, 2005. They reported a BAF of 0.23 for invertebrates (PCB concentration in invertebrates 1.5 mg/kg/ in soil 6.5 mg/kg).
(e) USEPA Region 6, 1999. Table C-1.
(f) USEPA EcoSSL Guidance. http://www.epa.gov/ecotox/ecossl/pdf/ecossl_attachment_4-1.pdf Table 4a.
(g) Dean 2004. Development Of Freshwater Water-Quality Criteria For Perchlorate.Environmental Toxicology and Chemistry, Vol. 23, No. 6, pp. 1441–1451. Clam bioconcentration test value.
(h) Johnson 2005. Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates. Table 3.2-1. Average earthworm uptake value from soil. http://www.denix.osd.mil/cmrmd/upload/TECHNICALMEMORANDUM-PLANTANDSOILINVERTBIOACCUMULATION.PDF

Avg Average concentration.
BCF Bioconcentration factor.
Ci Concentration in aquatic invertibrate (mg/kg dry weight).
Cs Concentration in sediment (mg/kg).
Kow Octanol-water partitioning coefficient.
ln Natural log.
Max Maximum concentration.
mg/kg Miligrams per kilogram.
mg/L Miligrams per liter.
SD Sediment.
SW Surface water.
ww Wet weight.

5-20: Uptake into Fish
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Log (Kow)	Surface Water to Fish (a) BCF		Sediment to Fish (b) BSAF		Surface Water Concentration Max (mg/kg)	Surface Water Concentration Avg (mg/kg)	Sediment Concentration Max (mg/L)	Sediment Concentration Avg (mg/L)	Fish From Surface Water Max (mg/kg ww)	Fish From Surface Water Avg (mg/kg ww)	Fish From Sediment Max (mg/kg ww)	Fish From Sediment Avg (mg/kg ww)	Fish SW + SD Max (mg/kg ww)	Fish SW + SD Avg (mg/kg ww)
VOC	cis-1,2-Dichloroethene	156-59-2	1.86	3.59	(a)	0	(b)	1.90E-02	5.62E-03	0	0	1.71E-02	5.04E-03	0	0	1.71E-02	5.04E-03
SVOC	Acenaphthene	83-32-9	3.92	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Acenaphthylene	208-96-8	3.94	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Anthracene	120-12-7	4.55	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Benzo(a)anthracene	56-55-3	5.7	500	(a)	0.2715	(c)	0	0	8.90E-02	0	0	0	4.14E-03	0	4.14E-03	0
SVOC	Benzo(a)pyrene	50-32-8	6.11	500	(a)	0.2715	(c)	0	0	8.60E-02	0	0	0	4.00E-03	0	4.00E-03	0
SVOC	Benzo(g,h,i)perylene	191-24-2	7.23	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Benzo(k)fluoranthene	207-08-9	6.2	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Chrysene	218-01-9	5.7	500	(a)	0.2715	(c)	0	0	7.60E-02	0	0	0	3.53E-03	0	3.53E-03	0
SVOC	Dibenz(a,h)anthracene	53-70-3	6.69	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Fluoranthene	206-44-0	5.12	500	(a)	0.2715	(c)	0	0	9.40E-02	0	0	0	4.37E-03	0	4.37E-03	0
SVOC	Fluorene	86-73-7	4.21	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	6.65	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Phenanthrene	85-01-8	4.46	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Phenol	108-95-2	1.48	500	(a)	0.2715	(c)	0	0	0	0	0	0	0	0	0	0
SVOC	Pyrene	129-00-0	5.11	500	(a)	0.2715	(c)	0	0	1.40E-01	0	0	0	6.51E-03	0	6.51E-03	0
PCB	PCBs (total)	1336-36-3	NA	126,522	(a)	1.8355	(c)	0	0	3.04E+00	1.34E+00	0	0	9.54E-01	4.21E-01	9.54E-01	4.21E-01
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	NA	4,235	(a)	0.588	(c)	0	0	0	0	0	0	0	0	0	0
INORG	Arsenic	7440-38-2	NA	114	(a)	0	(b)	0	0	1.21E+01	5.64E+00	0	0	0	0	0	0
INORG	Chromium III	16065-83-1	NA	19	(a)	0	(b)	0	0	1.60E+02	1.16E+02	0	0	0	0	0	0
INORG	Copper	7440-50-8	NA	710	(a)	0	(b)	6.38E-02	1.87E-02	1.38E+02	7.39E+01	1.13E+01	3.32E+00	0	0	1.13E+01	3.32E+00
INORG	Lead	7439-92-1	NA	0.09	(a)	0	(b)	0	0	4.20E+01	2.49E+01	0	0	0	0	0	0
INORG	Nickel	7440-02-0	NA	78	(a)	0	(b)	0	0	4.43E+01	2.74E+01	0	0	0	0	0	0
INORG	Perchlorate	14797-73-0	NA	0.7	(d)	0	(b)	2.35E-01	6.62E-02	1.40E-02	8.33E-03	4.11E-02	1.16E-02	0	0	4.11E-02	1.16E-02
INORG	Silver	7440-22-4	NA	87.71	(a)	0	(b)	0	0	3.80E+01	1.76E+01	0	0	0	0	0	0
INORG	Zinc	7440-66-6	NA	2,059	(a)	0	(b)	7.02E-02	3.57E-02	1.71E+02	1.25E+02	3.61E+01	1.84E+01	0	0	3.61E+01	1.84E+01

Notes:

(a) USEPA, 1999. Screening-level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Appendix C Media-To-Receptor Bioconcentration Factors (BCFs). http://www.epa.gov/earth1r6/6pd/rcra_c/protocol/slerap.htm Table C-5. Uses BaP as a surrogate for other PAHs, also used as a surrogate for phenol. PCB value is average of Aroclors. Chloroform used as a surrogate for dichloroethene.

(b) Fish are assumed to bioaccumulate this compound primarily from water (not sediment).

(c) USACOE BSAF database, 2012. http://el.erdc.usace.army.mil/bsafnew/BSAF.html Average lab studies for PCDD/Fs (no field studies available). Average of lab and field studies for PCBs and PAHs. PAHs used as a surrogate for phenol.

(d) Dean 2004. Development Of Freshwater Water-Quality Criteria For Perchlorate.Environmental Toxicology and Chemistry, Vol. 23, No. 6, pp. 1441–1451. Bluegill bioconcentration test value.

Fish are assumed to be 25% solids. The dry weight is multipled by 0.25 to convert to wet weight.

f oc sed Fraction of organic carbon in sediment. Sitewide average is 23,363 mg/kg (2.34 %).

f lipid fish Estimated average fraction fish lipid. Liber 1999. Bluegill lipid content is 0.72% ± 0.46%. Ankley 2001. Fathead minnow lipid content is 1.45% ± 0.2% for males and 2.73% ± 0.05% for females. A fish lipid fraction of 1.6% was chosen to represent the communities of small forage fishes at this site.

Liber, K., Gangl, JA., Corry, TD., Heinis, LJ., Stay, FS. 1999. Lethality and bioaccumulation of 4-nonylphenol in bluegill sunfish in littoral enclosures. Environmental Toxicology and Chemistry, Vol. 18, No. 3, pp. 394–400.

Ankley, GT., Jensen, KM., Kahl, MD., Korte, JJ., Makynen, EA. 2001. Description and evaluation of a short-term reproduction test with the fathead minnow (Pimephales promelas). Environmental Toxicology and Chemistry, Vol. 20, No. 6, pp. 1276–1290.

Avg Average concentration.
BCF Bioconcentration factor.
BSAF Biota sediment accumulation factor.
Ci Concentration in aquatic invertibrate (mg/kg dry weight).
Cs Concentration in sediment (mg/kg).
Kow Octanol-water partitioning coefficient.
ln Natural log.
Max Maximum concentration.
mg/kg Miligrams per kilogram.
mg/L Miligrams per liter.
SD Sediment.
SW Surface water.
ww Wet weight.

5-21: Uptake into Terrestrial Invertebrates
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Log (Kow)	Surface Soil to Terrestrial Invertebrate BCF		Surface Soil Concentration Max (mg/kg)	Surface Soil Concentration Avg (mg/kg)	Terrestrial Invertebrate From Surface Soil Max (mg/kg ww)	Terrestrial Invertebrate From Surface Soil Avg (mg/kg ww)
VOC	cis-1,2-Dichloroethene	156-59-2	1.86	2.38	(a)	0	0	0	0
SVOC	Acenaphthene	83-32-9	3.92	1.47	(b)	3.41E+00	2.60E-02	8.02E-01	6.12E-03
SVOC	Acenaphthylene	208-96-8	3.94	22.9	(b)	1.90E-01	3.83E-02	6.96E-01	1.40E-01
SVOC	Anthracene	120-12-7	4.55	2.42	(b)	6.04E+00	2.98E-02	2.34E+00	1.15E-02
SVOC	Benzo(a)anthracene	56-55-3	5.7	1.59	(b)	1.12E+01	5.98E-02	2.84E+00	1.52E-02
SVOC	Benzo(a)pyrene	50-32-8	6.11	1.33	(b)	7.11E+00	9.03E-02	1.51E+00	1.92E-02
SVOC	Benzo(g,h,i)perylene	191-24-2	7.23	2.94	(b)	3.26E+00	2.63E-02	1.53E+00	1.24E-02
SVOC	Benzo(k)fluoranthene	207-08-9	6.2	2.6	(b)	4.79E+00	4.97E-02	1.99E+00	2.07E-02
SVOC	Chrysene	218-01-9	5.7	2.29	(b)	0	0	0	0
SVOC	Dibenz(a,h)anthracene	53-70-3	6.69	2.31	(b)	1.36E+00	1.33E-01	5.03E-01	4.92E-02
SVOC	Fluoranthene	206-44-0	5.12	3.04	(b)	3.09E+01	3.38E-01	1.50E+01	1.64E-01
SVOC	Fluorene	86-73-7	4.21	9.57	(b)	2.46E+00	1.95E-02	3.77E+00	2.99E-02
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	6.65	2.86	(b)	3.41E+00	6.36E-02	1.56E+00	2.91E-02
SVOC	Phenanthrene	85-01-8	4.46	1.72	(b)	2.72E+01	2.95E-01	7.49E+00	8.12E-02
SVOC	Phenol	108-95-2	1.48	1.16	(a)	2.80E+02	2.60E+00	5.20E+01	4.82E-01
SVOC	Pyrene	129-00-0	5.11	1.75	(b)	2.33E+01	2.66E-01	6.53E+00	7.45E-02
PCB	PCBs (total)	1336-36-3	NA	0.23	(c)	2.42E+01	5.63E-01	5.56E+00	1.29E-01
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	NA	1.59	(d)	7.21E-07	7.17E-07	1.84E-07	1.82E-07
INORG	Arsenic	7440-38-2	NA	ln(Ce) = 0.706 * ln(Cs) - 1.421	(e)	5.71E+01	5.26E+00	6.72E-01	1.25E-01
INORG	Chromium III	16065-83-1	NA	0.306	(e)	3.26E+02	1.14E+02	1.59E+01	5.60E+00
INORG	Copper	7440-50-8	NA	0.515	(e)	3.51E+02	5.10E+01	2.89E+01	4.20E+00
INORG	Lead	7439-92-1	NA	ln(Ce) = 0.807 * ln(Cs) - 0.218	(e)	2.43E+02	2.22E+01	1.08E+01	1.57E+00
INORG	Nickel	7440-02-0	NA	0.02	(d)	1.61E+02	3.06E+01	5.15E-01	9.79E-02
INORG	Perchlorate	14797-73-0		2.26	(f)	2.30E+02	2.53E+00	8.32E+01	9.14E-01
INORG	Silver	7440-22-4	NA	2.045	(e)	0	0	0	0
INORG	Zinc	7440-66-6	NA	ln(Ce) = 0.328 * ln(Cs) + 4.449	(e)	1.10E+03	6.52E+01	1.36E+02	5.39E+01

Notes:

Invertebrates are assumed to be 16% solids. The dry weight is multiplied by 0.16 to convert to wet weight except for the Blankenship value for PCBs which is already in wet weight.

(a) USEPA, 1999. Screening-level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Appendix C Media-To-Receptor Bioconcentration Factors (BCFs). http://www.epa.gov/earth1r6/6pd/rcra_c/protocol/slerap.htm Table C-1. The BCF was calculated as: log BCF = 0.819 x log Kow - 1.146 (Southworth, Beauchamp, and Schmieder 1978).

(b) USEPA. 2007. EcoSSL Guidance. http://www.epa.gov/ecotox/ecossl/pdf/ecossl_attachment_4-1.pdf Table 4b.

(c) Blankenship AL, Zwiernik MJ Coady KK, Kay DP, Newsted JL, Strause K, Park C, Bradley PW, Neigh AM, Millsap SD, Jones PD, Giesy JP. 2005. Differential Accumulation of Polychlorinated Biphenyl Congeners in the Terrestrial Food Web of the Kalamazoo River Superfund Site, Michigan. Environ. Sci. Technol.3 9, 5954-5963. They reported a BAF of 0.23 for invertebrates (PCB concentration in invertebrates 1.5 mg/kg/ in soil 6.5 mg/kg).

(d) USEPA, 1999. Screening-level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Appendix C Media-To-Receptor Bioconcentration Factors (BCFs). http://www.epa.gov/earth1r6/6pd/rcra_c/protocol/slerap.htm Table C-1.

(e) USEPA EcoSSL Guidance. http://www.epa.gov/ecotox/ecossl/pdf/ecossl_attachment_4-1.pdf Table 4a.

(f) Tsao A and Sample B. 2005. Literature-derived Bioaccumulation Models for Energetic Compounds in Plants and Soil Invertebrates. CH2M Hill Technical Memo prepared for Mark S. Johnson, US Army Center for Health Promotion and Preventive Medicine. http://www.denix.osd.mil/cmrmd/upload/TECHNICALMEMORANDUM-PLANTANDSOILINVERTBIOACCUMULATION.PDF Table 3.2-1. Average earthworm uptake value from soil. http://www.denix.osd.mil/cmrmd/upload/TECHNICALMEMORANDUM-PLANTANDSOILINVERTBIOACCUMULATION.PDF

Avg Average concentration.
BCF Bioconcentration factor.
Ce Concentration in earthworm (mg/kg dry weight).
Cs Concentration in soil (mg/kg).
Kow Octanol-water partitioning coefficient.
ln Natural log.
Max Maximum concentration.
mg/kg Miligrams per kilogram.
ww Wet weight.

5-22: Uptake into Prey Mammals
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Surface Soil to Prey Mammal BCF		Surface Soil Concentration Max (mg/kg)	Surface Soil Concentration Avg (mg/kg)	Prey Mammal From Surface Soil Max (mg/kg ww)	Prey Mammal From Surface Soil Avg (mg/kg ww)
VOC	cis-1,2-Dichloroethene	156-59-2	0	(a)	0	0	0	0
SVOC	Acenaphthene	83-32-9	0	(b)	3.41E+00	2.60E-02	0	0
SVOC	Acenaphthylene	208-96-8	0	(b)	1.90E-01	3.83E-02	0	0
SVOC	Anthracene	120-12-7	0	(b)	6.04E+00	2.98E-02	0	0
SVOC	Benzo(a)anthracene	56-55-3	0	(b)	1.12E+01	5.98E-02	0	0
SVOC	Benzo(a)pyrene	50-32-8	0	(b)	7.11E+00	9.03E-02	0	0
SVOC	Benzo(g,h,i)perylene	191-24-2	0	(b)	3.26E+00	2.63E-02	0	0
SVOC	Benzo(k)fluoranthene	207-08-9	0	(b)	4.79E+00	4.97E-02	0	0
SVOC	Chrysene	218-01-9	0	(b)	0	0	0	0
SVOC	Dibenz(a,h)anthracene	53-70-3	0	(b)	1.36E+00	1.33E-01	0	0
SVOC	Fluoranthene	206-44-0	0	(b)	3.09E+01	3.38E-01	0	0
SVOC	Fluorene	86-73-7	0	(b)	2.46E+00	1.95E-02	0	0
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	0	(b)	3.41E+00	6.36E-02	0	0
SVOC	Phenanthrene	85-01-8	0	(b)	2.72E+01	2.95E-01	0	0
SVOC	Phenol	108-95-2	0	(b)	2.80E+02	2.60E+00	0	0
SVOC	Pyrene	129-00-0	0	(b)	2.33E+01	2.66E-01	0	0
PCB	PCBs (total)	1336-36-3	0.2	(c)	2.42E+01	5.63E-01	4.84E+00	1.13E-01
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	ln(Cm) =1.0993 * ln(Cs) + 0.8113	(d)	7.21E-07	7.17E-07	1.28E-07	1.27E-07
INORG	Arsenic	7440-38-2	ln(Cm) = 0.8188 * ln(Cs) - 4.8471	(e)	5.71E+01	5.26E+00	6.89E-02	9.78E-03
INORG	Chromium III	16065-83-1	ln(Cm) = 0.7338 * ln(Cs) - 1.4599	(e)	3.26E+02	1.14E+02	5.19E+00	2.41E+00
INORG	Copper	7440-50-8	ln(Cm) = 0.1444 * ln(Cs) + 2.042	(e)	3.51E+02	5.10E+01	5.75E+00	4.35E+00
INORG	Lead	7439-92-1	ln(Cm) = 0.4422 * ln(Cs) + 0.0761	(e)	2.43E+02	2.22E+01	3.92E+00	1.36E+00
INORG	Nickel	7440-02-0	ln(Cm) = 0.4658 * ln(Cs) - 0.2462	(e)	1.61E+02	3.06E+01	2.67E+00	1.23E+00
INORG	Perchlorate	14797-73-0			2.30E+02	2.53E+00		
INORG	Silver	7440-22-4	0.004	(e)	0	0	0	0
INORG	Zinc	7440-66-6	ln(Cm) = 0.0706 * ln(Cs) + 4.3632	(e)	1.10E+03	6.52E+01	4.12E+01	3.37E+01

Notes:

Small mammals are assumed to be 32% solids. The dry weight is multiplied by 0.32 to convert to wet weight except for the Blankenship value for PCBs which is already in wet weight.

(a) Assumed no uptake because volatile.

(b) USEPA. 2007. EcoSSL Guidance. http://www.epa.gov/ecotox/ecossl/pdf/ecossl_attachment_4-1.pdf No uptake, as indicated in USEPA EcoSSL Guidance because metabolized.

(c) Blankenship AL, Zwiernik MJ Coady KK, Kay DP, Newsted JL, Strause K, Park C, Bradley PW, Neigh AM, Millsap SD, Jones PD, Giesy JP. 2005. Differential Accumulation of Polychlorinated Biphenyl Congeners in the Terrestrial Food Web of the Kalamazoo River Superfund Site, Michigan. Environ. Sci. Technol.3 9, 5954-5963. They reported a BAF of 0.02 for shrews (PCB concentration in shrews 1.3 mg/kg/ in soil 6.5 mg/kg).

(d) ORNL. 1998. Development and Validation of Bioaccumulation Models for Small Mammals. Sample BE, Beauchamp JJ, Efroymson RA, Suter II GA. ES/ER/TM-219. http://rais.ornl.gov/documents/tm219.pdf General regression for all mammals, Table 8.

(e) USEPA EcoSSL Guidance. http://www.epa.gov/ecotox/ecossl/pdf/ecossl_attachment_4-1.pdf Table 4a. Uptake Equations for Inorganics

(f) USEPA 2002 Draft Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization, page 8-15 and 8-15 show that detected concentrations in small mammals are generally an order of magnitude lower than in vegitation, so vegitation is considered the primary pathway. http://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=36247

Avg Average concentration.
BCF Bioconcentration factor.
Cm Concentration in small mammal tissue (mg/kg dry weight).
Cs Concentration in soil (mg/kg).
ln Natural log.
Max Maximum concentration.
mg/kg Miligrams per kilogram.
ww Wet weight.

5-23: Uptake Summary
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Aquatic Invertebrate SW + SD Max (mg/kg ww)	Aquatic Invertebrate SW + SD Avg (mg/kg ww)	Fish SW + SD Max (mg/kg ww)	Fish SW + SD Avg (mg/kg ww)	Terrestrial Invertebrate SS Max (mg/kg ww)	Terrestrial Invertebrate SS Avg (mg/kg ww)	Prey Mammal SS Max (mg/kg)	Prey Mammal SS Avg (mg/kg)
VOC	cis-1,2-Dichloroethene	156-59-2	7.24E-03	2.14E-03	1.71E-02	5.04E-03	0	0	(mg/kg ww)	(mg/kg ww)
SVOC	Acenaphthene	83-32-9	0	0	0	0	8.02E-01	6.12E-03	0	0
SVOC	Acenaphthylene	208-96-8	0	0	0	0	6.96E-01	1.40E-01	0	0
SVOC	Anthracene	120-12-7	0	0	0	0	2.34E+00	1.15E-02	0	0
SVOC	Benzo(a)anthracene	56-55-3	2.26E-02	0	4.14E-03	0	2.84E+00	1.52E-02	0	0
SVOC	Benzo(a)pyrene	50-32-8	1.83E-02	0	4.00E-03	0	1.51E+00	1.92E-02	0	0
SVOC	Benzo(g,h,i)perylene	191-24-2	0	0	0	0	1.53E+00	1.24E-02	0	0
SVOC	Benzo(k)fluoranthene	207-08-9	0	0	0	0	1.99E+00	2.07E-02	0	0
SVOC	Chrysene	218-01-9	2.78E-02	0	3.53E-03	0	0	0	0	0
SVOC	Dibenz(a,h)anthracene	53-70-3	0	0	0	0	5.03E-01	4.92E-02	0	0
SVOC	Fluoranthene	206-44-0	4.57E-02	0	4.37E-03	0	1.50E+01	1.64E-01	0	0
SVOC	Fluorene	86-73-7	0	0	0	0	3.77E+00	2.99E-02	0	0
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	0	0	0	0	1.56E+00	2.91E-02	0	0
SVOC	Phenanthrene	85-01-8	0	0	0	0	7.49E+00	8.12E-02	0	0
SVOC	Phenol	108-95-2	0	0	0	0	5.20E+01	4.82E-01	0	0
SVOC	Pyrene	129-00-0	3.92E-02	0	6.51E-03	0	6.53E+00	7.45E-02	0	0
PCB	PCBs (total)	1336-36-3	6.98E-01	3.08E-01	9.54E-01	4.21E-01	5.56E+00	1.29E-01	4.84E+00	1.13E-01
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	0	0	0	0	1.84E-07	1.82E-07	1.28E-07	1.27E-07
INORG	Arsenic	7440-38-2	2.25E-01	1.31E-01	0	0	6.72E-01	1.25E-01	6.89E-02	9.78E-03
INORG	Chromium III	16065-83-1	0	0	0	0	1.59E+01	5.60E+00	5.19E+00	2.41E+00
INORG	Copper	7440-50-8	4.93E+01	1.72E+01	1.13E+01	3.32E+00	2.89E+01	4.20E+00	5.75E+00	4.35E+00
INORG	Lead	7439-92-1	2.63E+00	1.72E+00	0	0	1.08E+01	1.57E+00	3.92E+00	1.36E+00
INORG	Nickel	7440-02-0	1.42E-01	8.76E-02	0	0	5.15E-01	9.79E-02	2.67E+00	1.23E+00
INORG	Perchlorate	14797-73-0	0	0	4.11E-02	1.16E-02	8.32E+01	9.14E-01	0	0
INORG	Silver	7440-22-4	1.24E+01	5.77E+00	0	0	0	0	0	0
INORG	Zinc	7440-66-6	1.25E+02	9.28E+01	3.61E+01	1.84E+01	1.36E+02	5.39E+01	4.12E+01	3.37E+01

Notes:

Avg	Food item concentration based on average media concentration(s).
Max	Food item concentration based on maximum media concentration(s).
mg/kg	Miligrams per kilogram.
SS	Food item concentration considers uptake from soil.
SW+SD	Food item concentration considers uptake from surface water and sediment.
ww	Wet weight.

5-24: Calculation of Total Daily Intakes
ARC Gainesville, Gainesville, Virginia

			Great Blue Heron		Red Tailed Hawk		Mink	
			Max	Avg	Max	Avg	Max	Avg
Chem Group	Chemical Name	CASRN	(mg/kg-bw/d)	(mg/kg-bw/d)	(mg/kg-bw/d)	(mg/kg-bw/d)	(mg/kg-bw/d)	(mg/kg-bw/d)
VOC	cis-1,2-Dichloroethene	156-59-2	2.12E-03	6.28E-04	1.08E-03	3.19E-04	2.53E-03	7.49E-04
SVOC	Acenaphthene	83-32-9	4.23E-02	3.22E-04	3.88E-03	2.96E-05	0	0
SVOC	Acenaphthylene	208-96-8	3.67E-02	7.40E-03	3.37E-03	6.79E-04	0	0
SVOC	Anthracene	120-12-7	1.23E-01	6.08E-04	1.13E-02	5.58E-05	0	0
SVOC	Benzo(a)anthracene	56-55-3	1.51E-01	8.02E-04	1.37E-02	7.36E-05	9.59E-04	0
SVOC	Benzo(a)pyrene	50-32-8	8.09E-02	1.01E-03	7.32E-03	9.30E-05	7.90E-04	0
SVOC	Benzo(g,h,i)perylene	191-24-2	8.07E-02	6.52E-04	7.41E-03	5.99E-05	0	0
SVOC	Benzo(k)fluoranthene	207-08-9	1.05E-01	1.09E-03	9.64E-03	1.00E-04	0	0
SVOC	Chrysene	218-01-9	1.65E-03	0	0	0	1.15E-03	0
SVOC	Dibenz(a,h)anthracene	53-70-3	2.65E-02	2.59E-03	2.43E-03	2.38E-04	0	0
SVOC	Fluoranthene	206-44-0	7.94E-01	8.67E-03	7.27E-02	7.96E-04	1.85E-03	0
SVOC	Fluorene	86-73-7	1.99E-01	1.57E-03	1.82E-02	1.45E-04	0	0
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	8.21E-02	1.53E-03	7.54E-03	1.41E-04	0	0
SVOC	Phenanthrene	85-01-8	3.95E-01	4.28E-03	3.62E-02	3.93E-04	0	0
SVOC	Phenol	108-95-2	2.74E+00	2.54E-02	2.52E-01	2.33E-03	0	0
SVOC	Pyrene	129-00-0	3.47E-01	3.93E-03	3.16E-02	3.60E-04	1.65E-03	0
PCB	PCBs (total)	1336-36-3	4.65E-01	4.73E-02	4.72E-01	1.10E-02	4.19E-01	2.97E-02
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	1.19E-08	1.18E-08	1.26E-08	1.25E-08	9.79E-09	9.72E-09
INORG	Arsenic	7440-38-2	4.85E-02	1.37E-02	9.59E-03	1.50E-03	1.39E-02	5.78E-03
INORG	Chromium III	16065-83-1	9.32E-01	3.37E-01	5.54E-01	2.48E-01	3.98E-01	1.85E-01
INORG	Copper	7440-50-8	4.83E+00	1.38E+00	6.72E-01	4.21E-01	2.59E+00	1.07E+00
INORG	Lead	7439-92-1	7.78E-01	1.97E-01	4.13E-01	1.33E-01	4.01E-01	1.70E-01
INORG	Nickel	7440-02-0	8.15E-02	3.14E-02	2.48E-01	1.14E-01	2.10E-01	9.78E-02
INORG	Perchlorate	14797-73-0	4.40E+00	5.18E-02	4.16E-01	8.19E-03	2.42E-02	6.81E-03
INORG	Silver	7440-22-4	6.55E-01	3.04E-01	0	0	4.77E-01	2.21E-01
INORG	Zinc	7440-66-6	1.64E+01	9.29E+00	4.45E+00	3.37E+00	8.77E+00	6.55E+00

Notes:

Avg	Food item concentration based on average media concentration(s).
Max	Food item concentration based on maximum media concentration(s).
mg/kg-bw/day	Miligrams per kilogram bodyweight per day.

5-25: Toxicity Reference Values
ARC Gainesville, Gainesville, Virginia

			Mammal TRV (mg/kg-bw/day)				Avian TRV (mg/kg-bw/day)			
Chem Group	**Chemical Name**	**CASRN**	**NOAEL**		**LOAEL**		**NOAEL**		**LOAEL**	
VOC	cis-1,2-Dichloroethene	156-59-2	45.2	(a)	452	(a)	17.2	(b)	34.4	(b)
SVOC	Acenaphthene	83-32-9	65.6	(c)	328	(d)	1653	(e)	16530	(f)
SVOC	Acenaphthylene	208-96-8	65.6	(c)	328	(d)	1653	(e)	16530	(f)
SVOC	Anthracene	120-12-7	65.6	(c)	328	(d)	1653	(e)	16530	(f)
SVOC	Benzo(a)anthracene	56-55-3	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Benzo(a)pyrene	50-32-8	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Benzo(g,h,i)perylene	191-24-2	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Benzo(k)fluoranthene	207-08-9	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Chrysene	218-01-9	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Dibenz(a,h)anthracene	53-70-3	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Fluoranthene	206-44-0	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Fluorene	86-73-7	65.6	(c)	328	(d)	1653	(e)	16530	(f)
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Phenanthrene	85-01-8	0.615	(g)	3.01	(h)	2	(i)	20	(i)
SVOC	Phenol	108-95-2	65.6	(j)	328	(j)	1653	(j)	16530	(j)
SVOC	Pyrene	129-00-0	0.615	(g)	3.01	(h)	2	(i)	20	(i)
PCB	PCBs (total)	1336-36-3	0.440	(k)	1.49	(k)	7.43	(k)	74.3	(k)
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	7.75E-06	(l)	3.31E-05	(l)	0.005	(m)	0.025	(m)
INORG	Arsenic	7440-38-2	1.04	(n)	1.66	(o)	2.24	(p)	6.32	(q)
INORG	Chromium III	16065-83-1	2.4	(ak)	58.2	(al)	2.66	(ai)	15.6	(aj)
INORG	Copper	7440-50-8	5.6	(r)	9.34	(s)	4.05	(t)	12.1	(u)
INORG	Lead	7439-92-1	4.7	(v)	8.9	(w)	1.63	(x)	3.26	(y)
INORG	Nickel	7440-02-0	1.7	(z)	3.4	(aa)	6.71	(ab)	21.66	(ac)
INORG	Perchlorate	14797-73-0	6.4	(ah)	32	(ah)	13	(ah)	26	(ah)
INORG	Silver	7440-22-4	6.02	(ad)	60.2	(ad)	2.02	(ae)	20.2	(ae)
INORG	Zinc	7440-66-6	160	(af)	320	(af)	14.5	(ag)	131	(ag)

Notes:

NOAEL	No observed apparent effects level.
LOAEL	Lowest observed apparent effects level.
TRV	Toxicity reference value.
mg/kg-bw/day	Miligrams per kilogram body weight per day.
(a)	Palmer et al. 1979 as reported in ORNL 1996. No LOAEL reported, so it is assumed to be 10x the NOAEL.
(b)	Alumot at al. 1976b as reported in ORNL 1996. 1,2,-Dichloroethane used as a surrogate.
(c)	USEPA 2007. LMW PAH EcoSSL TRV for mammals is a NOAEL value.
(d)	Verschuuren et al., 1976 as reported in USEPA 2007. LOAEL from same study as EcoSSL HMW PAH TRV.
(e)	Landis Assoc.Inc, 1985 as reported in USEPA 2007. Only avian study for LMW PAHs (naphthalene). No LOAEL from that study.
(f)	No LOAEL available, so 10x the NOAEL was used as a surrogate.
(g)	USEPA 2007. HMW PAH EcoSSL TRV for mammals is a NOAEL value.
(h)	Culp et al., 1998 as reported in USEPA 2007. LOAEL from same study as mammal EcoSSL LMW PAH TRV.
(i)	Trust et al, 1994 as reported in USEPA 2007. Only avian study for HMW PAHs.
(j)	LMW PAHs used as a surrogate for phenol.
(k)	Average of several studies. See text and Table 5-25.
(l)	Blankenship et al., 2008 TRV for mink. See text for calculations.
(m)	Hoffman et al. 1996. See text for explanation.
(n)	USEPA 2007. Arsenic EcoSSL TRV for mammals is a NOAEL value.
(o)	Neiger and Osweiler 1989 as reported in USEPA 2007. LOAEL from same study as mammal EcoSSL for arsenic.
(p)	USEPA 2007. Arsenic EcoSSL TRV for avians is a NOAEL value.
(q)	Geometric mean of 8 all LOAELs for all endpoints from avian data for arsenic (USEPA 2007 Table 5.1).
(r)	USEPA 2007. Copper EcoSSL TRV for mammals is a NOAEL value.
(s)	Allcroft et al, 1961 as reported in USEPA 2007. LOAEL from same study as mammal EcoSSL for copper.
(t)	USEPA 2007. Copper EcoSSL TRV for avians is a NOAEL value.
(u)	Ankari et al, 1998 as reported in USEPA 2007. LOAEL from same study as avian EcoSSL for copper.
(v)	USEPA 2007. Lead EcoSSL TRV for mammals is a NOAEL value.
(w)	Kimmel et al., 1980 as reported in USEPA 2007. LOAEL from same study as mammal EcoSSL for lead.
(x)	USEPA 2007. Lead EcoSSL TRV for avians is a NOAEL value.
(y)	Edens and Garlich, 1983 as reported in USEPA 2007. LOAEL from same study as avian EcoSSL for lead.
(z)	USEPA 2007. Nickel EcoSSL TRV for mammals is a NOAEL value.
(aa)	Pandey and Srivastava, 2000 as reported in USEPA 2007. LOAEL from same study as mammal EcoSSL for nickel.
(ab)	USEPA 2007. Nickel EcoSSL TRV for avians is a NOAEL value.
(ac)	Geometric mean of 11 LOAELs for reproduction, growth, and survival from avian data for nickel (USEPA 2007 Table 5.1).
(ad)	USEPA 2007. Silver EcoSSL TRV for mammals is a NOAEL value. It was derived by dividing an appropriate LOAEL by 10. Use that LOAEL value.
(ae)	USEPA 2007. Silver EcoSSL TRV for avians is a NOAEL value. It was derived by dividing an appropriate LOAEL by 10. Use that LOAEL value.
(af)	Schlicker and Cox 1968 as reported in ORNL 1996.
(ag)	Stahl et al. 1990 as reported in ORNL 1996.
(ah)	CHPPM 2007 Wildlife Toxicity Assessment for Perchlorate. Tables 6 and 7. http://usaphcapps.amedd.army.mil/erawg/tox/files/WTAPerchlorate(Final)07v2.pdf
(ai)	USEPA 2007. Chromum EcoSSL TRV for birds is a geomean of the NOAELs for growth and reproduction.
(aj)	USEPA 2007. Chromum EcoSSL geomean of the LOAELs for growth and reproduction for birds.
(ak)	USEPA 2007. Chromum III EcoSSL TRV for mammals is a geomean of the NOAELs for growth and reproduction.
(al)	USEPA 2007. Chromum EcoSSL geomean of the LOAELs for growth and reproduction for mammals.

5-26: PCB Toxicity Reference Values
ARC Gainesville, Gainesville, Virginia

Use factor of 10 to estimate

Chemical Form	Test Species	Exposure Route	Exposure Duration (days)	Study Endpoint	NOAEL (mg/kg bw-day)	LOAEL (mg/kg bw-day)	Reference	Source	NOAEL (mg/kg bw-day)	LOAEL (mg/kg bw-day)
Aroclor 1016	Mink	Oral	540	reproduction	1.37	3.43	Aulerich and Ringer 1980	Sample et al. 1996	1.37	3.43
Aroclor 1242	Mink	Oral	210	reproduction	0.069	0.69	Bleavins et al. 1980	Sample et al. 1996	0.069	0.69
Aroclor 1248	Monkey	Oral	420	reproduction	0.01	0.1	Barsotti et al. 1976	Sample et al. 1996	0.01	0.1
Aroclor 1254	Mink	Oral	135	reproduction	0.14	0.69	Aulerich and Ringer 1977	Sample et al. 1996	0.14	0.69
Aroclor 1254	Rat	Oral	multi-generation	reproduction	0.32	1.5	Linder et al. 1974		0.32	1.5
Aroclor 1254	Mouse	Oral		reproduction	NR	1.4	Linzey 1988		0.14	1.4
Aroclor 1254	Mouse	Oral	365	reproduction	0.068	0.68	McCoy et al. 1995	Sample et al. 1996	0.068	0.68
Aroclor 1254	Mouse	Oral		reproduction	1.4	3.4	Voltura and French 2007		1.4	3.4
				Average of these studies:	0.48	1.49			0.44	1.49
Aroclor 1242	Mallard			reproduction	42	NR	Haseltine and Prouty 1980		42	420
Aroclor 1248	Screech owl	Oral	360	reproduction	0.41	NR	McLane and Hughes 1980	Sample et al. 1996	0.41	4.1
Aroclor 1254	Mallard	Oral	30	reproduction	8.1	NR	Custer and Heinz 1980		8.1	81
Aroclor 1254	Pheasants	Oral	112	egg hatchability	0.18	1.8	Dahlgren et al. 1972	Sample et al. 1996	0.18	1.8
Aroclor 1254	Chicken	Oral	63	reproduction/ growth	NR	0.12	Lillie et al. 1974		0.012	0.12
Aroclor 1254	Mourning dove	Oral	42	courting and nesting behavior	NR	2.6	Tori and Peterle 1983		0.26	2.6
Aroclors 1248, 1254, 1260 (1:1:1 mixture)	American kestrel	Oral	100	reproduction	NR	7	Fernie et al. 2001a,b		0.7	7
Total PCBs	Robins	Oral	Breeding season	reproduction	7.8	NR	Henning et al. 2003		7.8	78
				Average of these studies:	11.70	2.88			7.43	74.33

Note:
If a NOAEL was not reported, it was assumed to be 1/10 of the LOAEL. If a LOAEL was not reported, it was assumed to be 10x the NOAEL.

Abbreviations:

LOAEL	Lowest observed apparent effects level.
mg/kg bw-day	Milligrams per kilogram of body weight per day.
NOAEL	No observed apparent effects level.
NR	Not reported.

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5-27: Food Web Model Hazard Quotient Calculations
Atlantic Research Corporation, Gainesville, VA

Chem Group	Chemical Name	CASRN	Great Blue Heron					
			Worst Case			Realistic Case		
			Max TDI (mg/kg bw/d)	NOAEL TRV (mg/kg bw/d)	HQ	Avg TDI (mg/kg bw/d)	LOAEL TRV (mg/kg bw/d)	HQ
VOC	cis-1,2-Dichloroethene	156-59-2	2.12E-03	17.2	0.0001	6.28E-04	34.4	0.00002
SVOC	Acenaphthene	83-32-9	4.23E-02	1653	0.00003	3.22E-04	16530	2E-08
SVOC	Acenaphthylene	208-96-8	3.67E-02	1653	0.00002	7.40E-03	16530	4E-07
SVOC	Anthracene	120-12-7	1.23E-01	1653	0.00007	6.08E-04	16530	4E-08
SVOC	Benzo(a)anthracene	56-55-3	1.51E-01	2	0.08	8.02E-04	20	0.00004
SVOC	Benzo(a)pyrene	50-32-8	8.09E-02	2	0.04	1.01E-03	20	0.00005
SVOC	Benzo(g,h,i)perylene	191-24-2	8.07E-02	2	0.04	6.52E-04	20	0.00003
SVOC	Benzo(k)fluoranthene	207-08-9	1.05E-01	2	0.05	1.09E-03	20	0.00005
SVOC	Chrysene	218-01-9	1.65E-03	2	0.0008	0	20	--
SVOC	Dibenz(a,h)anthracene	53-70-3	2.65E-02	2	0.01	2.59E-03	20	0.0001
SVOC	Fluoranthene	206-44-0	7.94E-01	2	0.4	8.67E-03	20	0.0004
SVOC	Fluorene	86-73-7	1.99E-01	1653	0.0001	1.57E-03	16530	1E-07
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	8.21E-02	2	0.04	1.53E-03	20	0.00008
SVOC	Phenanthrene	85-01-8	3.95E-01	2	0.2	4.28E-03	20	0.0002
SVOC	Phenol	108-95-2	2.74E+00	1653	0.002	2.54E-02	16530	0.000002
SVOC	Pyrene	129-00-0	3.47E-01	2	0.2	3.93E-03	20	0.0002
PCB	PCBs (total)	1336-36-3	4.65E-01	7.43	0.06	4.73E-02	74.3	0.0006
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	1.19E-08	0.005	2E-06	1.18E-08	0.025	5E-07
INORG	Arsenic	7440-38-2	4.85E-02	2.24	0.02	1.37E-02	6.32	0.002
INORG	Chromium III	16065-83-1	9.32E-01	2.66	0.4	3.37E-01	15.6	0.02
INORG	Copper	7440-50-8	4.83E+00	4.05	1	1.38E+00	12.1	0.1
INORG	Lead	7439-92-1	7.78E-01	1.63	0.5	1.97E-01	3.26	0.06
INORG	Nickel	7440-02-0	8.15E-02	6.71	0.01	3.14E-02	21.66	0.001
INORG	Perchlorate	14797-73-0	4.40E+00	13	0.3	5.18E-02	26	0.002
INORG	Silver	7440-22-4	6.55E-01	2.02	0.3	3.04E-01	20.2	0.02
INORG	Zinc	7440-66-6	1.64E+01	14.5	1	9.29E+00	131	0.07

5-27: Food Web Model Hazard Quotient Calculations
Atlantic Research Corporation, Gainesville, VA

Chem Group	Chemical Name	CASRN	Red-Tailed Hawk					
			Worst Case			Realistic Case		
			Max TDI (mg/kg bw/d)	NOAEL TRV (mg/kg bw/d)	HQ	Avg TDI (mg/kg bw/d)	LOAEL TRV (mg/kg bw/d)	HQ
VOC	cis-1,2-Dichloroethene	156-59-2	1.08E-03	17.2	0.00006	3.19E-04	34.4	0.000009
SVOC	Acenaphthene	83-32-9	3.88E-03	1653	2E-06	2.96E-05	16530	2E-09
SVOC	Acenaphthylene	208-96-8	3.37E-03	1653	2E-06	6.79E-04	16530	4E-08
SVOC	Anthracene	120-12-7	1.13E-02	1653	7E-06	5.58E-05	16530	3E-09
SVOC	Benzo(a)anthracene	56-55-3	1.37E-02	2	0.007	7.36E-05	20	0.000004
SVOC	Benzo(a)pyrene	50-32-8	7.32E-03	2	0.004	9.30E-05	20	0.000005
SVOC	Benzo(g,h,i)perylene	191-24-2	7.41E-03	2	0.004	5.99E-05	20	0.000003
SVOC	Benzo(k)fluoranthene	207-08-9	9.64E-03	2	0.005	1.00E-04	20	0.000005
SVOC	Chrysene	218-01-9	0	2	--	0	20	--
SVOC	Dibenz(a,h)anthracene	53-70-3	2.43E-03	2	0.001	2.38E-04	20	0.00001
SVOC	Fluoranthene	206-44-0	7.27E-02	2	0.04	7.96E-04	20	0.00004
SVOC	Fluorene	86-73-7	1.82E-02	1653	0.00001	1.45E-04	16530	9E-09
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	7.54E-03	2	0.004	1.41E-04	20	0.000007
SVOC	Phenanthrene	85-01-8	3.62E-02	2	0.02	3.93E-04	20	0.00002
SVOC	Phenol	108-95-2	2.52E-01	1653	0.0002	2.33E-03	16530	0.0000001
SVOC	Pyrene	129-00-0	3.16E-02	2	0.02	3.60E-04	20	0.00002
PCB	PCBs (total)	1336-36-3	4.72E-01	7.43	0.06	1.10E-02	74.3	0.0001
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	1.26E-08	0.005	3E-06	1.25E-08	0.025	0.0000005
INORG	Arsenic	7440-38-2	9.59E-03	2.24	0.004	1.50E-03	6.32	0.0002
INORG	Chromium III	16065-83-1	5.54E-01	2.66	0.2	2.48E-01	15.6	0.02
INORG	Copper	7440-50-8	6.72E-01	4.05	0.2	4.21E-01	12.1	0.03
INORG	Lead	7439-92-1	4.13E-01	1.63	0.3	1.33E-01	3.26	0.04
INORG	Nickel	7440-02-0	2.48E-01	6.71	0.04	1.14E-01	21.66	0.005
INORG	Perchlorate	14797-73-0	4.16E-01	13	0.03	8.19E-03	26	0.0003
INORG	Silver	7440-22-4	0	2.02	--	0	20.2	--
INORG	Zinc	7440-66-6	4.45E+00	14.5	0.3	3.37E+00	131	0.03

5-27: Food Web Model Hazard Quotient Calculations
Atlantic Research Corporation, Gainesville, VA

Chem Group	Chemical Name	CASRN	Mink					
			Worst Case			Realistic Case		
			Max TDI (mg/kg bw/d)	NOAEL TRV (mg/kg bw/d)	HQ	Avg TDI (mg/kg bw/d)	LOAEL TRV (mg/kg bw/d)	HQ
VOC	cis-1,2-Dichloroethene	156-59-2	2.53E-03	45.2	6E-05	7.49E-04	452	0.000002
SVOC	Acenaphthene	83-32-9	0	65.6	--	0	328	--
SVOC	Acenaphthylene	208-96-8	0	65.6	--	0	328	--
SVOC	Anthracene	120-12-7	0	65.6	--	0	328	--
SVOC	Benzo(a)anthracene	56-55-3	9.59E-04	0.615	0.002	0	3.01	--
SVOC	Benzo(a)pyrene	50-32-8	7.90E-04	0.615	0.001	0	3.01	--
SVOC	Benzo(g,h,i)perylene	191-24-2	0	0.615	--	0	3.01	--
SVOC	Benzo(k)fluoranthene	207-08-9	0	0.615	--	0	3.01	--
SVOC	Chrysene	218-01-9	1.15E-03	0.615	0.002	0	3.01	--
SVOC	Dibenz(a,h)anthracene	53-70-3	0	0.615	--	0	3.01	--
SVOC	Fluoranthene	206-44-0	1.85E-03	0.615	0.003	0	3.01	--
SVOC	Fluorene	86-73-7	0	65.6	--	0	328	--
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	0	0.615	--	0	3.01	--
SVOC	Phenanthrene	85-01-8	0	0.615	--	0	3.01	--
SVOC	Phenol	108-95-2	0	65.6	--	0	328	--
SVOC	Pyrene	129-00-0	1.65E-03	0.615	0.003	0	3.01	--
PCB	PCBs (total)	1336-36-3	4.19E-01	0.439625	1	2.97E-02	1.48625	0.02
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	9.79E-09	0.00000775	0.001	9.72E-09	0.0000331	0.0003
INORG	Arsenic	7440-38-2	1.39E-02	1.04	0.01	5.78E-03	1.66	0.003
INORG	Chromium III	16065-83-1	3.98E-01	2.4	0.2	1.85E-01	58.2	0.003
INORG	Copper	7440-50-8	2.59E+00	5.6	0.5	1.07E+00	9.34	0.1
INORG	Lead	7439-92-1	4.01E-01	4.7	0.09	1.70E-01	8.9	0.02
INORG	Nickel	7440-02-0	2.10E-01	1.7	0.1	9.78E-02	3.4	0.03
INORG	Perchlorate	14797-73-0	2.42E-02	6.4	0.004	6.81E-03	32	0.0002
INORG	Silver	7440-22-4	4.77E-01	6.02	0.08	2.21E-01	60.2	0.004
INORG	Zinc	7440-66-6	8.77E+00	160	0.05	6.55E+00	320	0.02

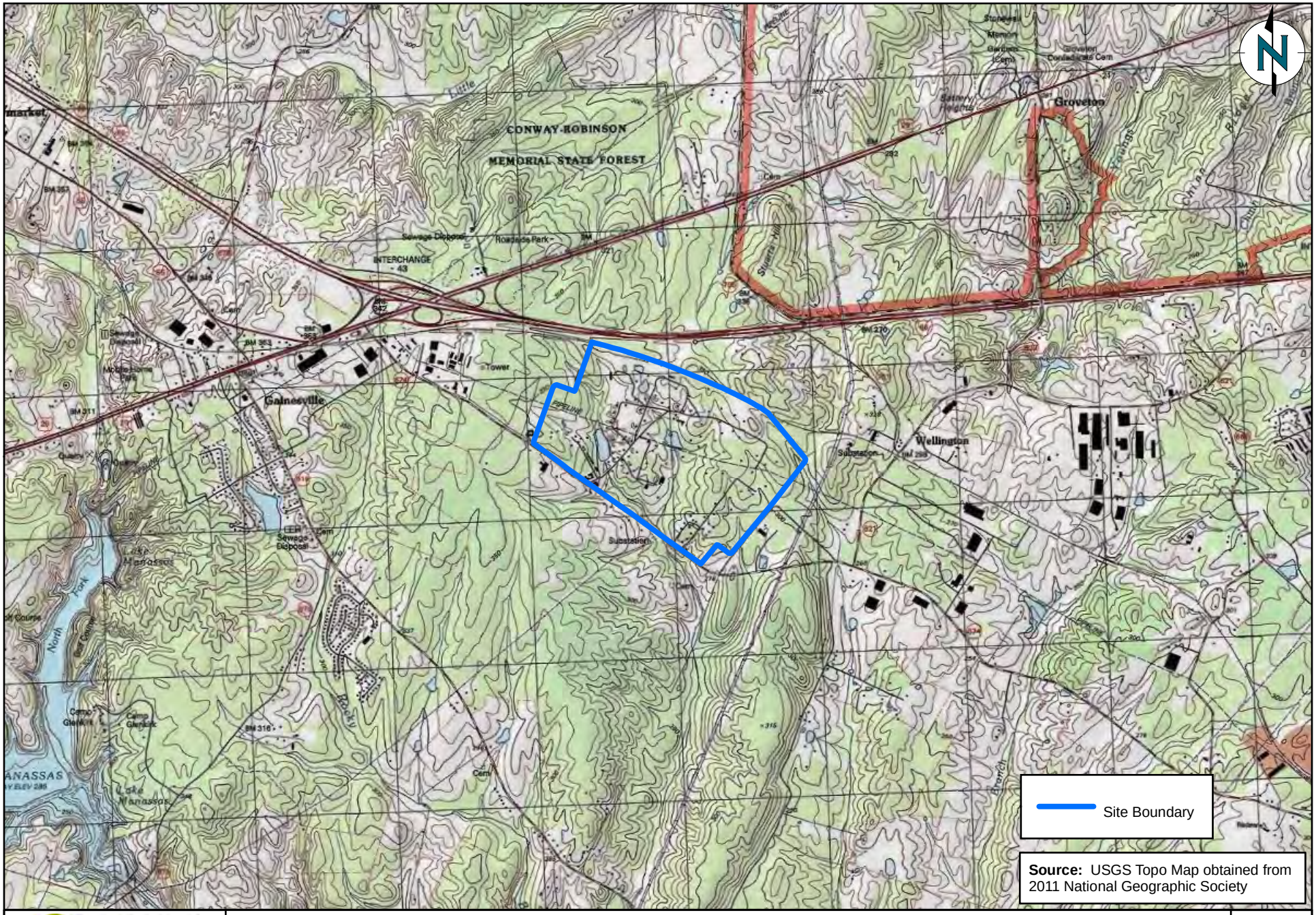
Avg	Average concentration.
HQ	Hazard Quotient.
LOAEL	Lowest observed apparent effects level.
Max	Maximum concentration.
mg/kg bw/D	Miligrams per kilogram bodyweight per day.
NOAEL	No observed apparent effects level.
TDI	Total daily intake.
TRV	Toxicity reference value.

5-28: Food Web Model Hazard Quotient Summary
ARC Gainesville, Gainesville, Virginia

Chem Group	Chemical Name	CASRN	Great Blue Heron		Red-Tailed Hawk		Mink	
			Worst	Realistic	Worst	Realistic	Worst	Realistic
			HQ	HQ	HQ	HQ	HQ	HQ
VOC	cis-1,2-Dichloroethene	156-59-2	0.0001	0.00002	0.00006	0.000009	0.00006	0.000002
SVOC	Acenaphthene	83-32-9	0.00003	0.00000002	0.000002	0.000000002	--	--
SVOC	Acenaphthylene	208-96-8	0.00002	0.0000004	0.000002	0.00000004	--	--
SVOC	Anthracene	120-12-7	0.00007	0.00000004	0.000007	0.000000003	--	--
SVOC	Benzo(a)anthracene	56-55-3	0.08	0.00004	0.007	0.000004	0.002	--
SVOC	Benzo(a)pyrene	50-32-8	0.04	0.00005	0.004	0.000005	0.001	--
SVOC	Benzo(g,h,i)perylene	191-24-2	0.04	0.00003	0.004	0.000003	--	--
SVOC	Benzo(k)fluoranthene	207-08-9	0.05	0.00005	0.005	0.000005	--	--
SVOC	Chrysene	218-01-9	0.0008	--	--	--	0.002	--
SVOC	Dibenz(a,h)anthracene	53-70-3	0.01	0.0001	0.001	0.00001	--	--
SVOC	Fluoranthene	206-44-0	0.4	0.0004	0.04	0.00004	0.003	--
SVOC	Fluorene	86-73-7	0.0001	0.0000001	0.00001	0.000000009	--	--
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	0.04	0.00008	0.004	0.000007	--	--
SVOC	Phenanthrene	85-01-8	0.2	0.0002	0.02	0.00002	--	--
SVOC	Phenol	108-95-2	0.002	0.000002	0.0002	0.0000001	--	--
SVOC	Pyrene	129-00-0	0.2	0.0002	0.02	0.00002	0.003	--
PCB	PCBs (total)	1336-36-3	0.06	0.0006	0.06	0.0001	1	0.02
CDDF	2,3,7,8-TCDD (TEQ)	1746-01-6-TEQ	0.000002	0.0000005	0.000003	0.0000005	0.001	0.0003
INORG	Arsenic	7440-38-2	0.02	0.002	0.004	0.0002	0.01	0.003
INORG	Chromium III	16065-83-1	0.4	0.02	0.2	0.02	0.2	0.003
INORG	Copper	7440-50-8	1	0.1	0.2	0.03	0.5	0.1
INORG	Lead	7439-92-1	0.5	0.06	0.3	0.04	0.09	0.02
INORG	Nickel	7440-02-0	0.01	0.001	0.04	0.005	0.1	0.03
INORG	Perchlorate	14797-73-0	0.3	0.002	0.03	0.0003	0.004	0.0002
INORG	Silver	7440-22-4	0.3	0.02	--	--	0.08	0.004
INORG	Zinc	7440-66-6	1	0.07	0.3	0.03	0.05	0.02

Worst Case	Maximum concentration and NOAEL TRV (no observed apparent effects level toxicity reference value).
Realistic Case	Average concentration and LOAEL TRV (lowest observed apparent effects level toxicity reference value).
HQ	Hazard quotient.

Figures



ENVIRON

DRAWN BY: HMN | DATE: 11/1/2012

SITE LOCATION
ARC GAINESVILLE, VIRGINIA

0 1,200 2,400
Scale in Feet

Figure 1-1

Source: Aerial Imagery obtained from Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

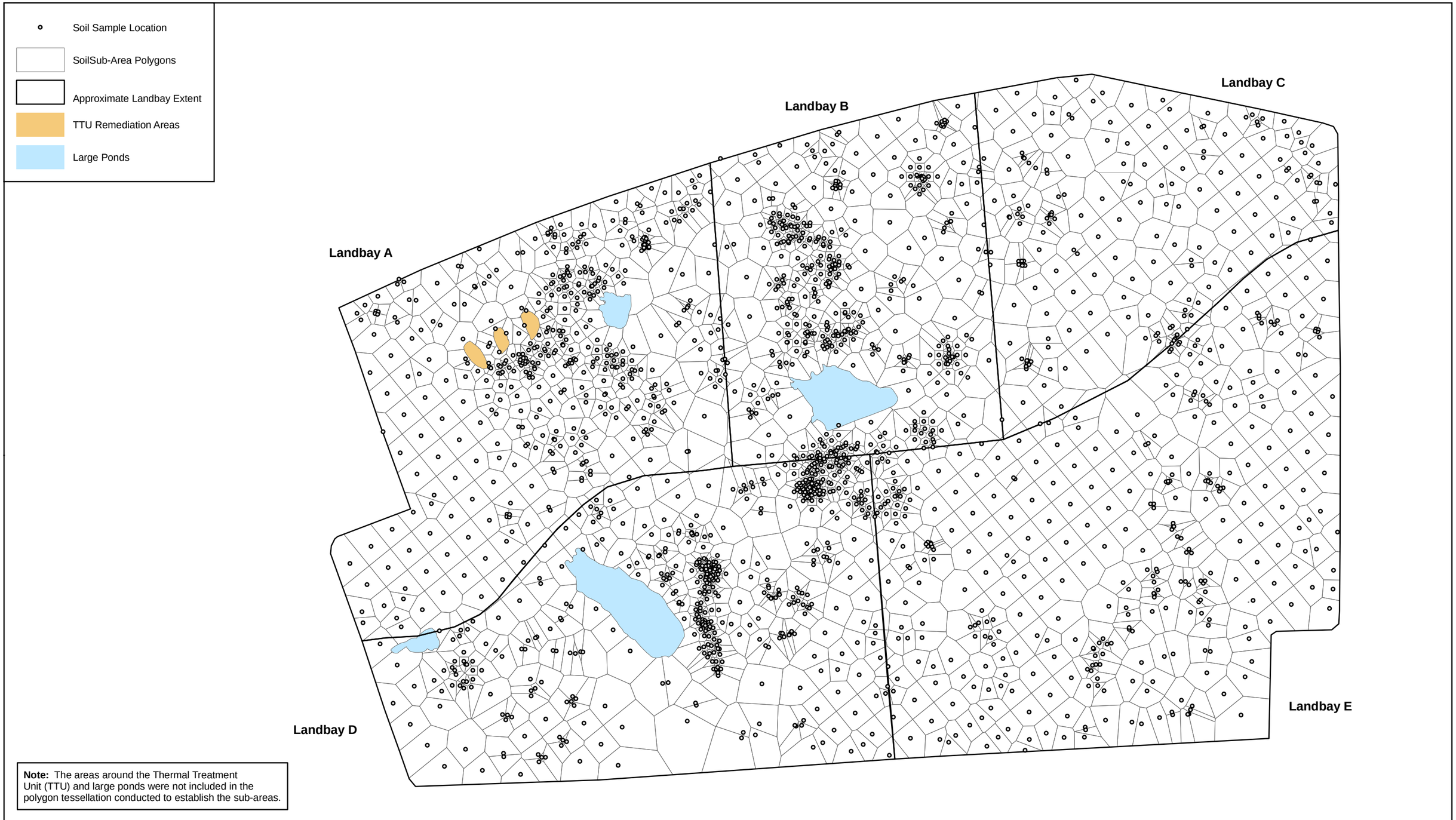
ENVIRON

DRAWN BY: HMN | DATE: 11/1/2012

OVERVIEW OF SITE AND SURROUNDING AREA
ARC GAINESVILLE, VIRGINIA

0 600 1,200
Scale in Feet

Figure 2-1

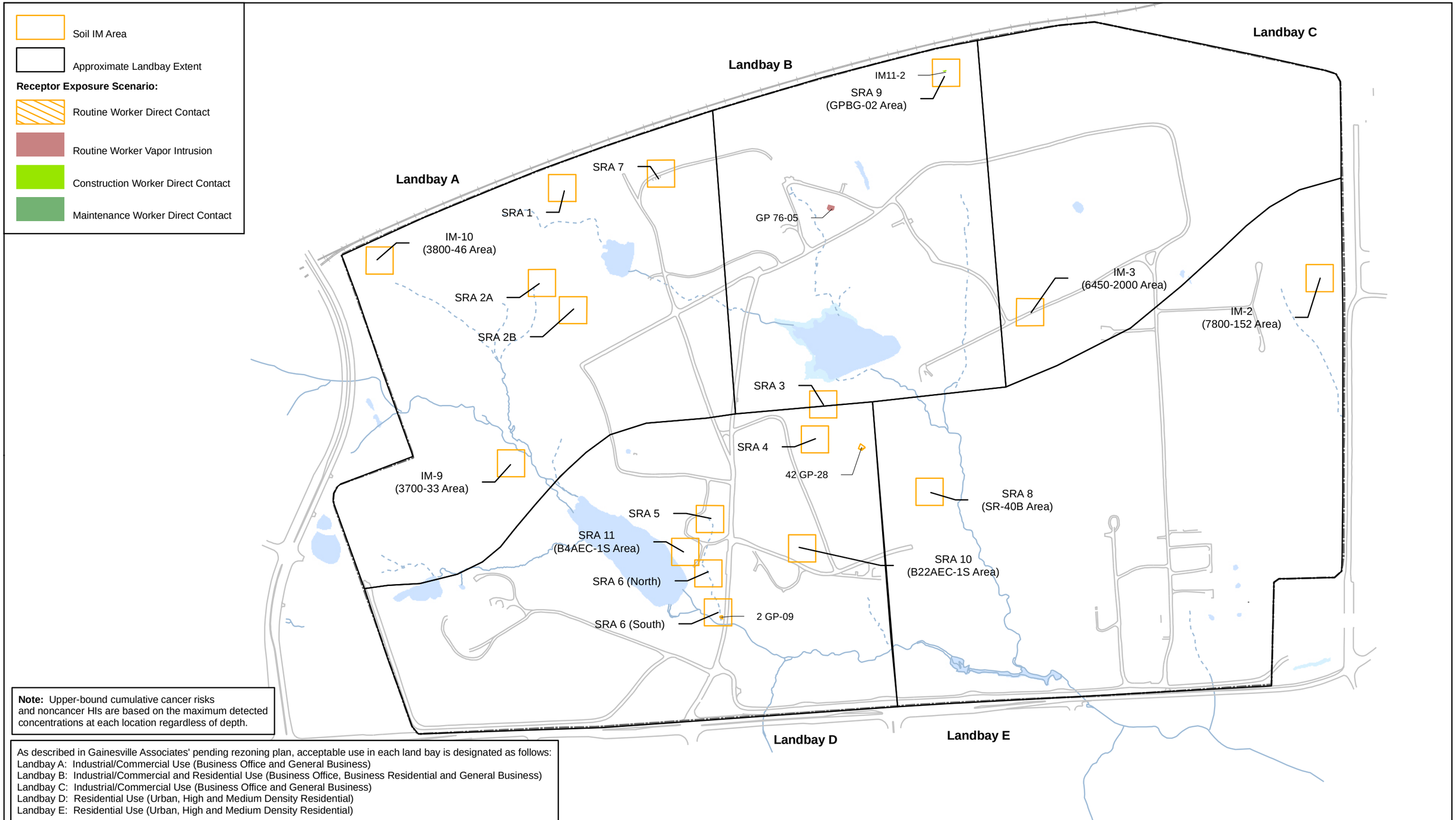


ENVIRON

DRAWN BY: HMN | DATE: 11/1/2012

SOIL SAMPLING LOCATIONS AND ASSOCIATED SUB-AREAS
ARC GAINESVILLE, VIRGINIA

Figure 4-1A



Note: Upper-bound cumulative cancer risks and noncancer HIs are based on the maximum detected concentrations at each location regardless of depth.

As described in Gainesville Associates' pending rezoning plan, acceptable use in each land bay is designated as follows:
Landbay A: Industrial/Commercial Use (Business Office and General Business)
Landbay B: Industrial/Commercial and Residential Use (Business Office, Business Residential and General Business)
Landbay C: Industrial/Commercial Use (Business Office and General Business)
Landbay D: Residential Use (Urban, High and Medium Density Residential)
Landbay E: Residential Use (Urban, High and Medium Density Residential)

ENVIRON

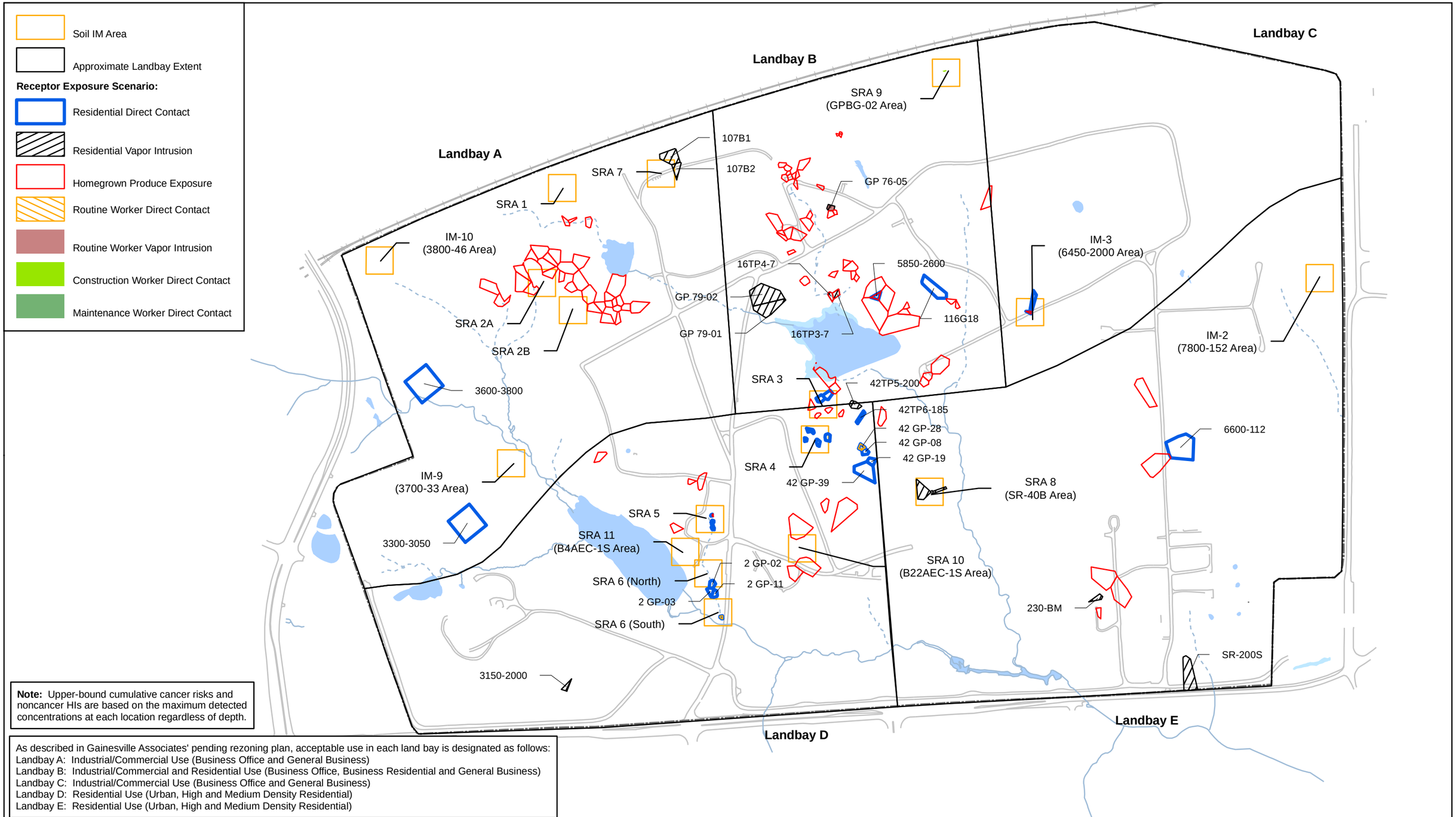
DRAWN BY: HMN | DATE: 11/2/2012

LOCATIONS WITH UPPER-BOUND SITE-RELATED CUMULATIVE CANCER RISKS ABOVE 10^{-4} OR NONCANCER HIs ABOVE 1 FOR SOIL (ASSUMING INDUSTRIAL/COMMERCIAL LAND USE) ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

N E S W

Figure 4-1B



Note: Upper-bound cumulative cancer risks and noncancer HIs are based on the maximum detected concentrations at each location regardless of depth.

As described in Gainesville Associates' pending rezoning plan, acceptable use in each land bay is designated as follows:
Landbay A: Industrial/Commercial Use (Business Office and General Business)
Landbay B: Industrial/Commercial and Residential Use (Business Office, Business Residential and General Business)
Landbay C: Industrial/Commercial Use (Business Office and General Business)
Landbay D: Residential Use (Urban, High and Medium Density Residential)
Landbay E: Residential Use (Urban, High and Medium Density Residential)

ENVIRON

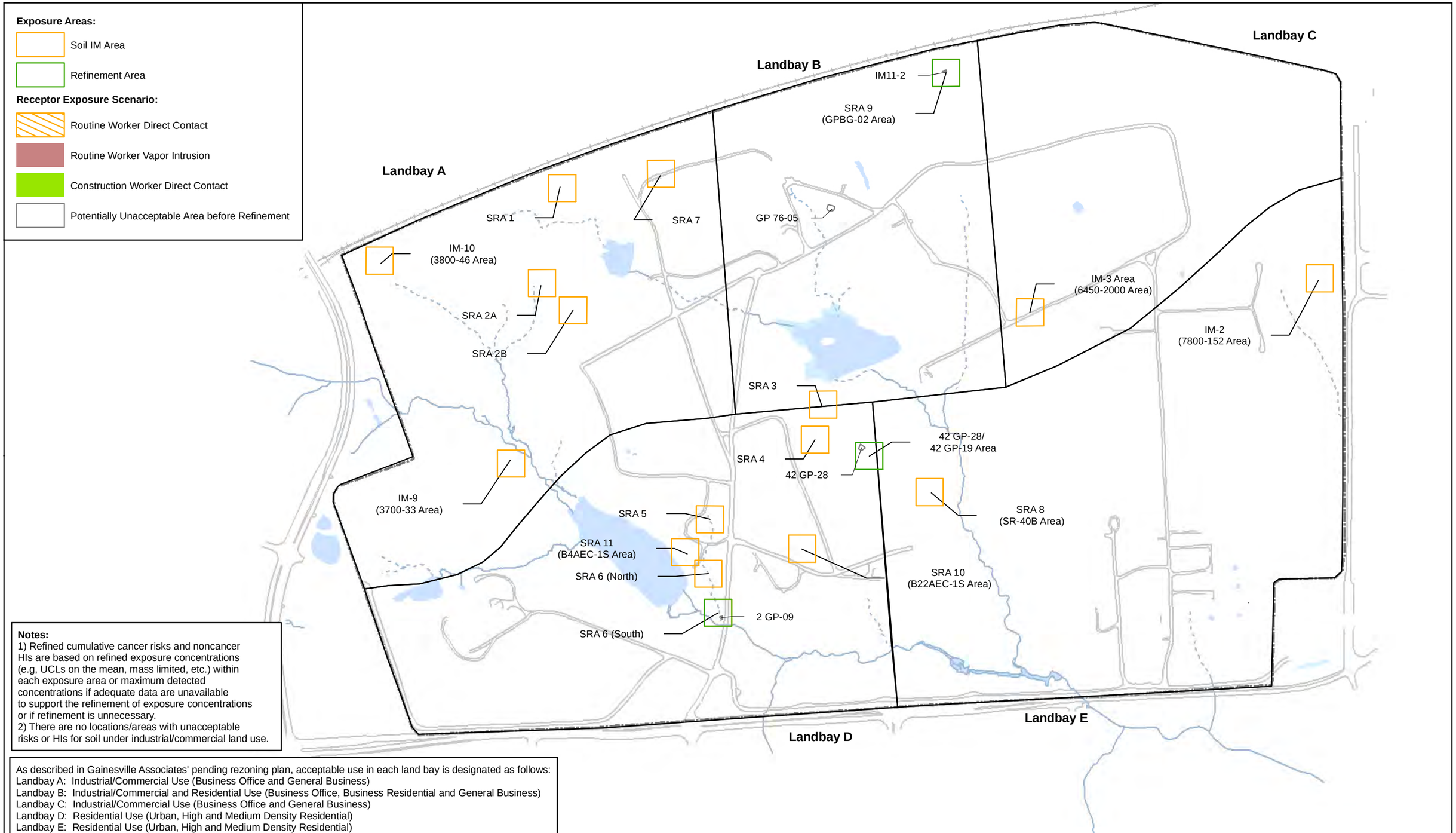
DRAWN BY: HMN | DATE: 11/2/2012

LOCATIONS WITH UPPER-BOUND SITE-RELATED CUMULATIVE CANCER RISKS ABOVE 10^{-4} OR NONCANCER HIs ABOVE 1 FOR SOIL (ASSUMING RESIDENTIAL LAND USE) ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

N E S W

Figure 4-1C



Notes:
1) Refined cumulative cancer risks and noncancer HIs are based on refined exposure concentrations (e.g, UCLs on the mean, mass limited, etc.) within each exposure area or maximum detected concentrations if adequate data are unavailable to support the refinement of exposure concentrations or if refinement is unnecessary.
2) There are no locations/areas with unacceptable risks or HIs for soil under industrial/commercial land use.

As described in Gainesville Associates' pending rezoning plan, acceptable use in each land bay is designated as follows:
Landbay A: Industrial/Commercial Use (Business Office and General Business)
Landbay B: Industrial/Commercial and Residential Use (Business Office, Business Residential and General Business)
Landbay C: Industrial/Commercial Use (Business Office and General Business)
Landbay D: Residential Use (Urban, High and Medium Density Residential)
Landbay E: Residential Use (Urban, High and Medium Density Residential)

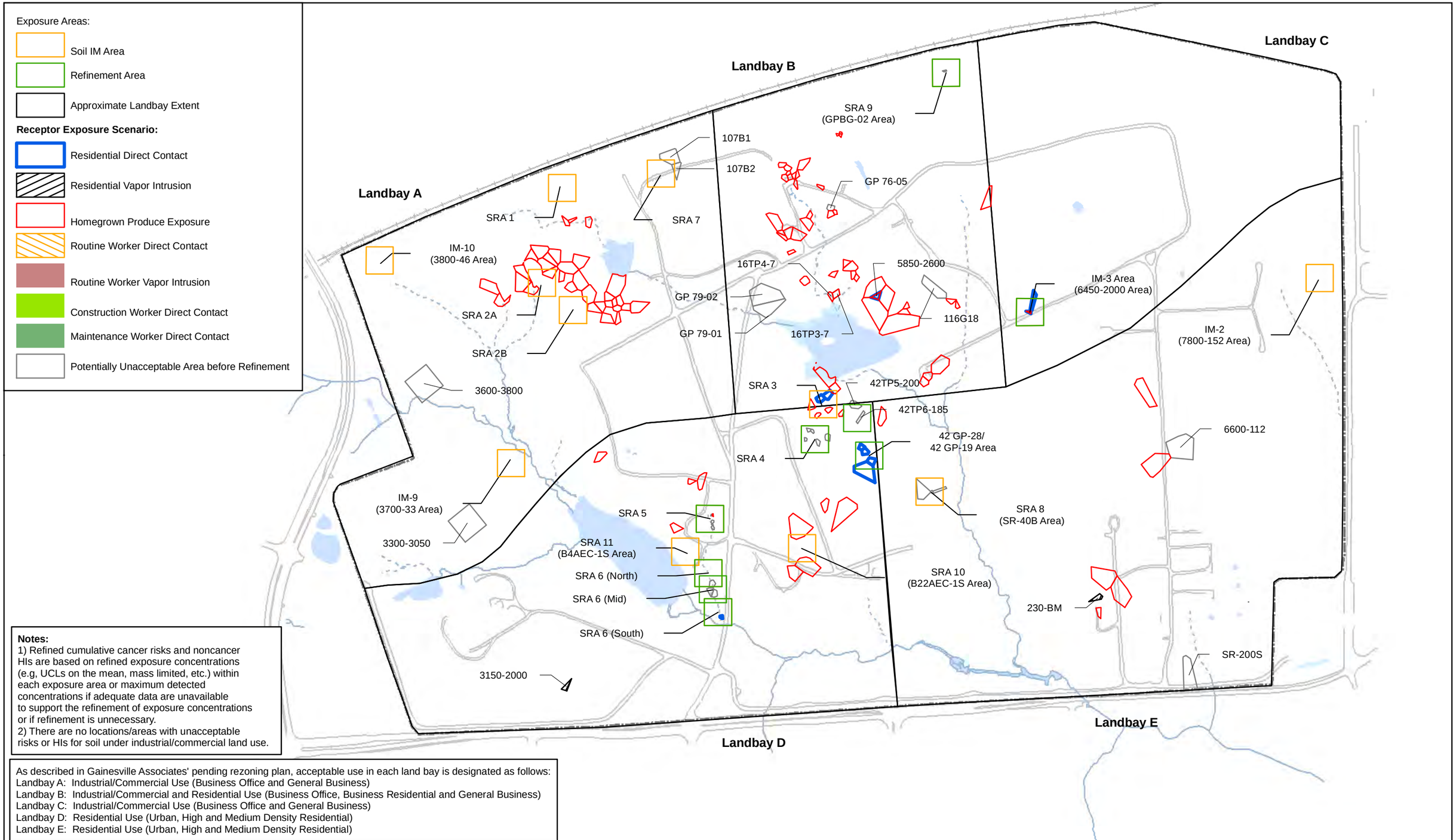
ENVIRON

DRAWN BY: HMN | DATE: 11/2/2012

LOCATIONS WITH REFINED SITE-RELATED CUMULATIVE CANCER RISKS ABOVE 10^{-4} OR NONCANCER HIs FOR SOIL (ASSUMING INDUSTRIAL/COMMERCIAL LAND USE) ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

Figure 4-1D



Notes:
1) Refined cumulative cancer risks and noncancer HIs are based on refined exposure concentrations (e.g, UCLs on the mean, mass limited, etc.) within each exposure area or maximum detected concentrations if adequate data are unavailable to support the refinement of exposure concentrations or if refinement is unnecessary.
2) There are no locations/areas with unacceptable risks or HIs for soil under industrial/commercial land use.

As described in Gainesville Associates' pending rezoning plan, acceptable use in each land bay is designated as follows:
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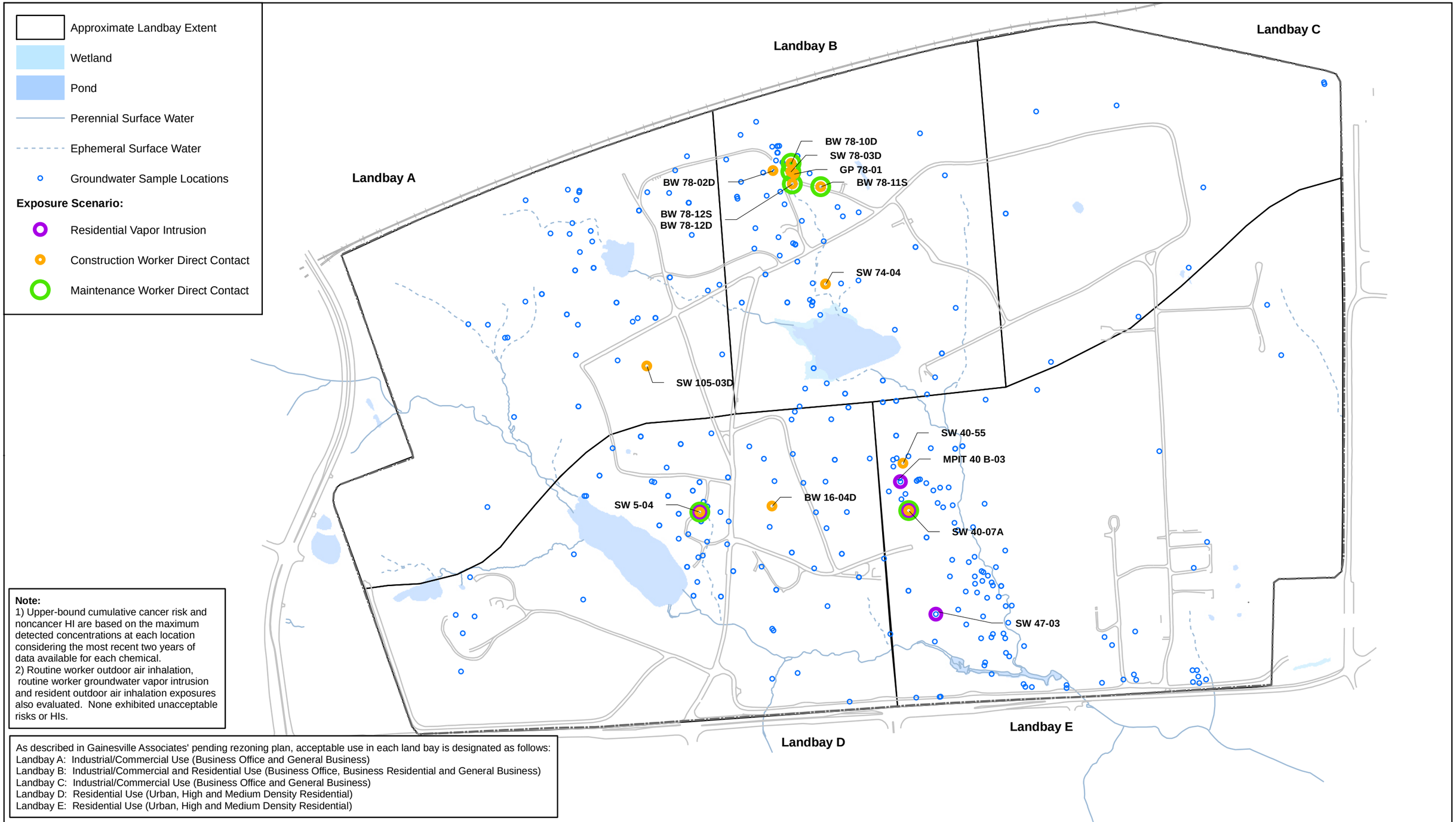
Landbay B: Industrial/Commercial and Residential Use (Business Office, Business Residential and General Business)
Landbay C: Industrial/Commercial Use (Business Office and General Business)
Landbay D: Residential Use (Urban, High and Medium Density Residential)
Landbay E: Residential Use (Urban, High and Medium Density Residential)

ENVIRON

DRAWN BY: HMN | DATE: 11/2/2012

LOCATIONS WITH REFINED SITE-RELATED CUMULATIVE CANCER RISKS ABOVE 10^{-4} OR NONCANCER HIs FOR SOIL (ASSUMING RESIDENTIAL LAND USE) ARC GAINESVILLE, VIRGINIA

Figure 4-1E



Note:
1) Upper-bound cumulative cancer risk and noncancer HI are based on the maximum detected concentrations at each location considering the most recent two years of data available for each chemical.
2) Routine worker outdoor air inhalation, routine worker groundwater vapor intrusion and resident outdoor air inhalation exposures also evaluated. None exhibited unacceptable risks or HIs.

As described in Gainesville Associates' pending rezoning plan, acceptable use in each land bay is designated as follows:
Landbay A: Industrial/Commercial Use (Business Office and General Business)
Landbay B: Industrial/Commercial and Residential Use (Business Office, Business Residential and General Business)
Landbay C: Industrial/Commercial Use (Business Office and General Business)
Landbay D: Residential Use (Urban, High and Medium Density Residential)
Landbay E: Residential Use (Urban, High and Medium Density Residential)

ENVIRON

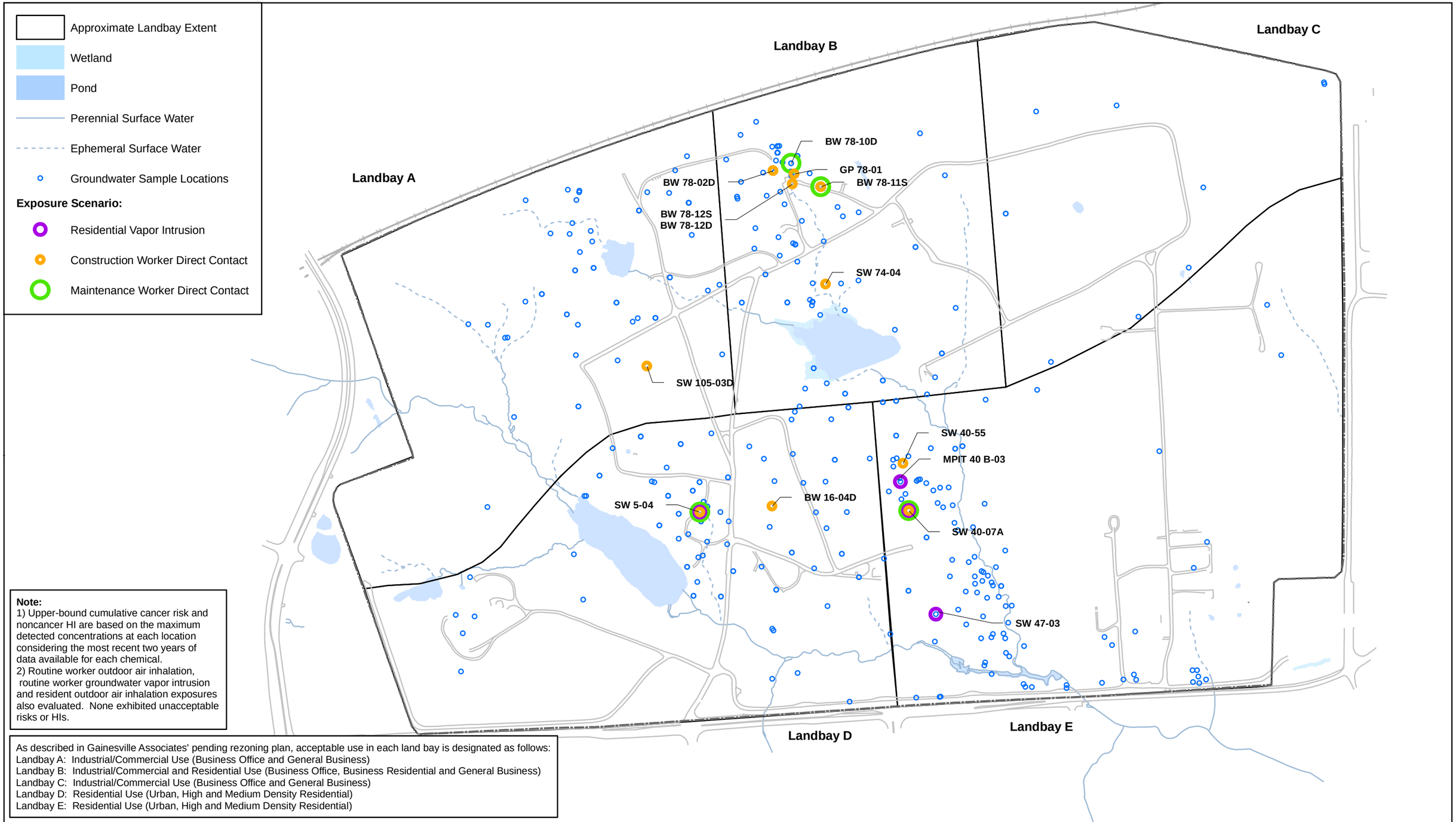
DRAWN BY: HMN | DATE: 11/2/2012

LOCATIONS WITH UPPER-BOUND CUMULATIVE CANCER RISKS ABOVE 10^{-4} OR NONCANCER HIs ABOVE 1 FOR GROUNDWATER
ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

N E S W

Figure 4-2A



Note:
1) Upper-bound cumulative cancer risk and noncancer HI are based on the maximum detected concentrations at each location considering the most recent two years of data available for each chemical.
2) Routine worker outdoor air inhalation, routine worker groundwater vapor intrusion and resident outdoor air inhalation exposures also evaluated. None exhibited unacceptable risks or HIs.

As described in Gainesville Associates' pending rezoning plan, acceptable use in each land bay is designated as follows:
Landbay A: Industrial/Commercial Use (Business Office and General Business)
Landbay B: Industrial/Commercial and Residential Use (Business Office, Business Residential and General Business)
Landbay C: Industrial/Commercial Use (Business Office and General Business)
Landbay D: Residential Use (Urban, High and Medium Density Residential)
Landbay E: Residential Use (Urban, High and Medium Density Residential)

ENVIRON

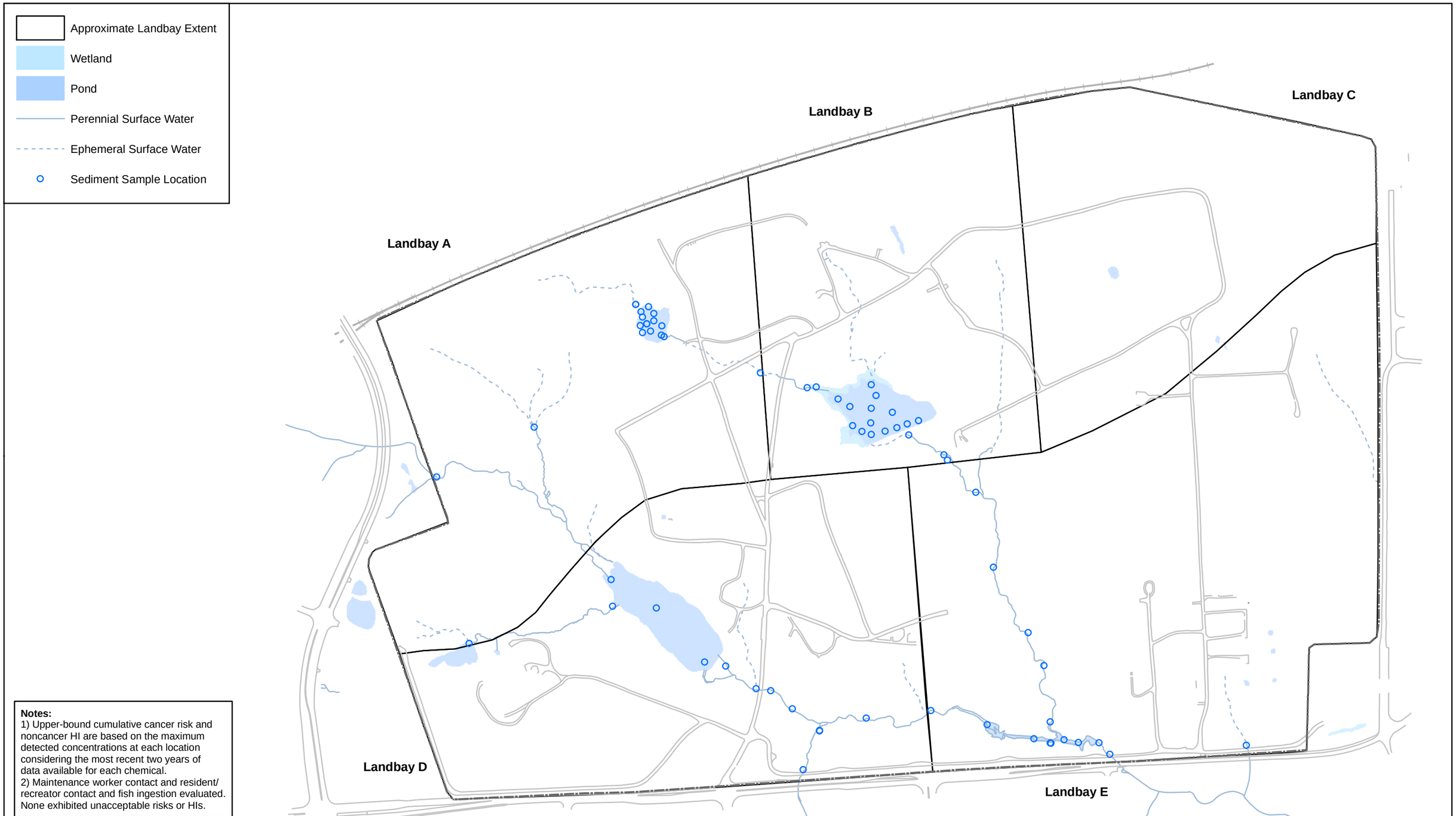
DRAWN BY: HMN | DATE: 11/2/2012

LOCATIONS WITH REFINED SITE-RELATED CUMULATIVE CANCER RISKS ABOVE 10^{-4} OR NONCANCER HIs ABOVE 1 FOR GROUNDWATER
ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

N E S W

Figure 4-2B



Notes:
1) Upper-bound cumulative cancer risk and noncancer HI are based on the maximum detected concentrations at each location considering the most recent two years of data available for each chemical.
2) Maintenance worker contact and resident/ recreator contact and fish ingestion evaluated. None exhibited unacceptable risks or HIs.

ENVIRON

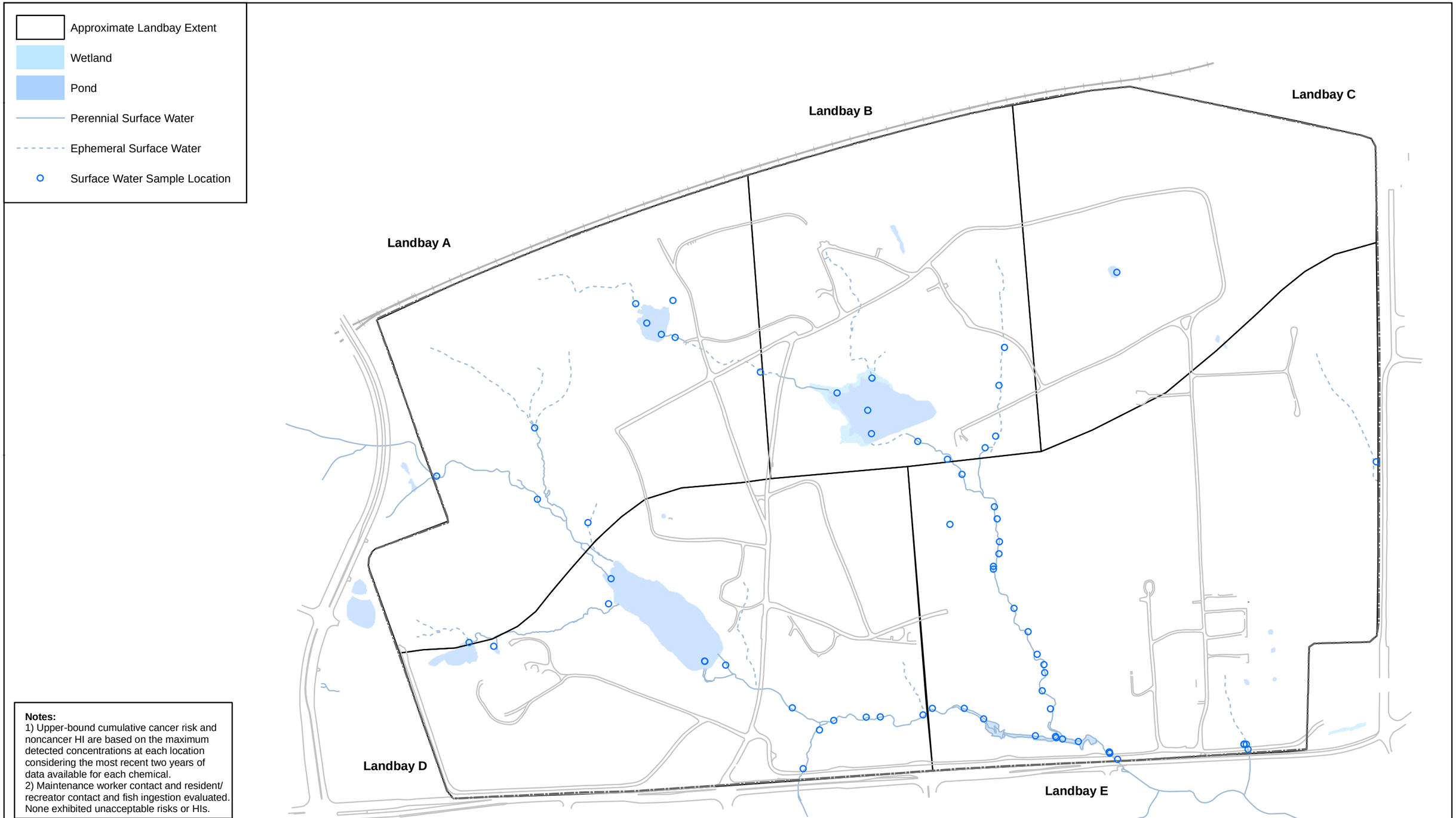
DRAWN BY: HMN | DATE: 11/1/2012

LOCATIONS WITH UPPER-BOUND CUMULATIVE CANCER RISKS ABOVE 10^{-4} OR NONCANCER HIs ABOVE 1 FOR SEDIMENT
ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

N E S W

Figure 4-3



Notes:
1) Upper-bound cumulative cancer risk and noncancer HI are based on the maximum detected concentrations at each location considering the most recent two years of data available for each chemical.
2) Maintenance worker contact and resident/ recreator contact and fish ingestion evaluated. None exhibited unacceptable risks or HIs.

ENVIRON

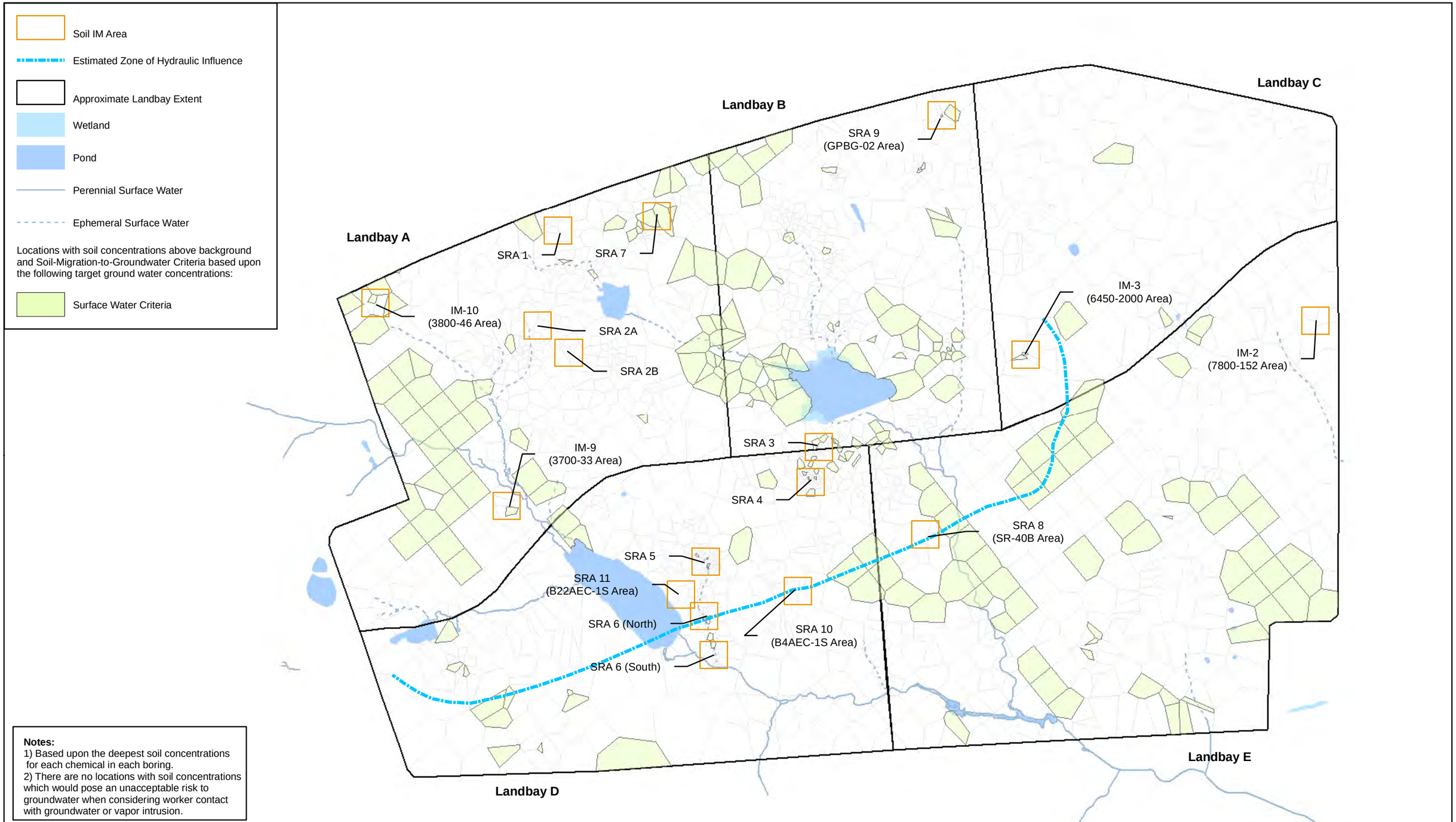
DRAWN BY: HMN | DATE: 11/1/2012

LOCATIONS WITH UPPER-BOUND CUMULATIVE CANCER RISKS ABOVE 10^{-4} OR NONCANCER HIs ABOVE 1 FOR SURFACE WATER
ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

N E S W

Figure 4-4



Notes:
1) Based upon the deepest soil concentrations for each chemical in each boring.
2) There are no locations with soil concentrations which would pose an unacceptable risk to groundwater when considering worker contact with groundwater or vapor intrusion.

ENVIRON

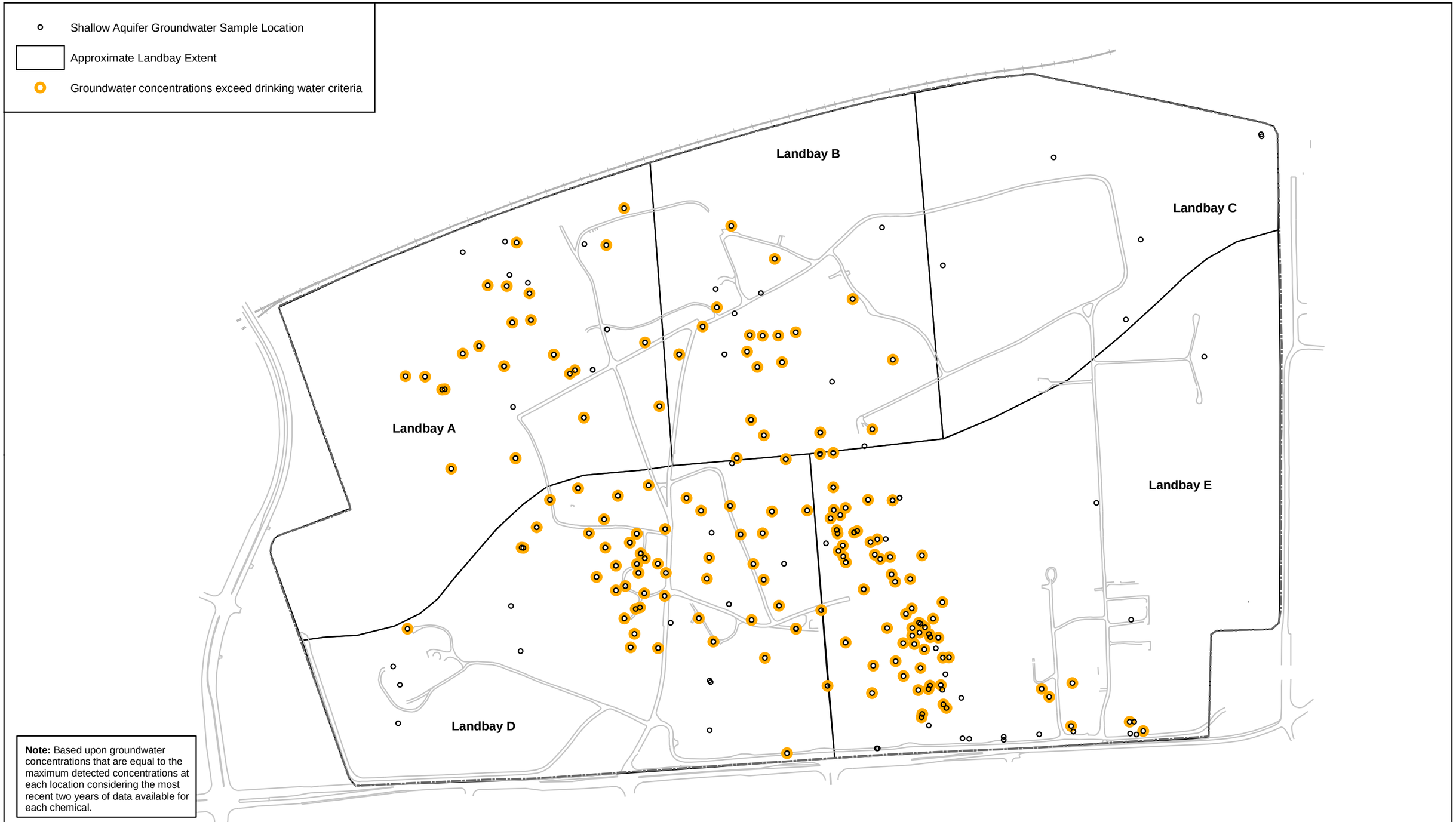
DRAWN BY: HMN | DATE: 11/1/2012

SOIL-MIGRATION-TO-GROUNDWATER CRITERIA EVALUATION RESULTS SUMMARY
ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

N E S W

Figure 4-5

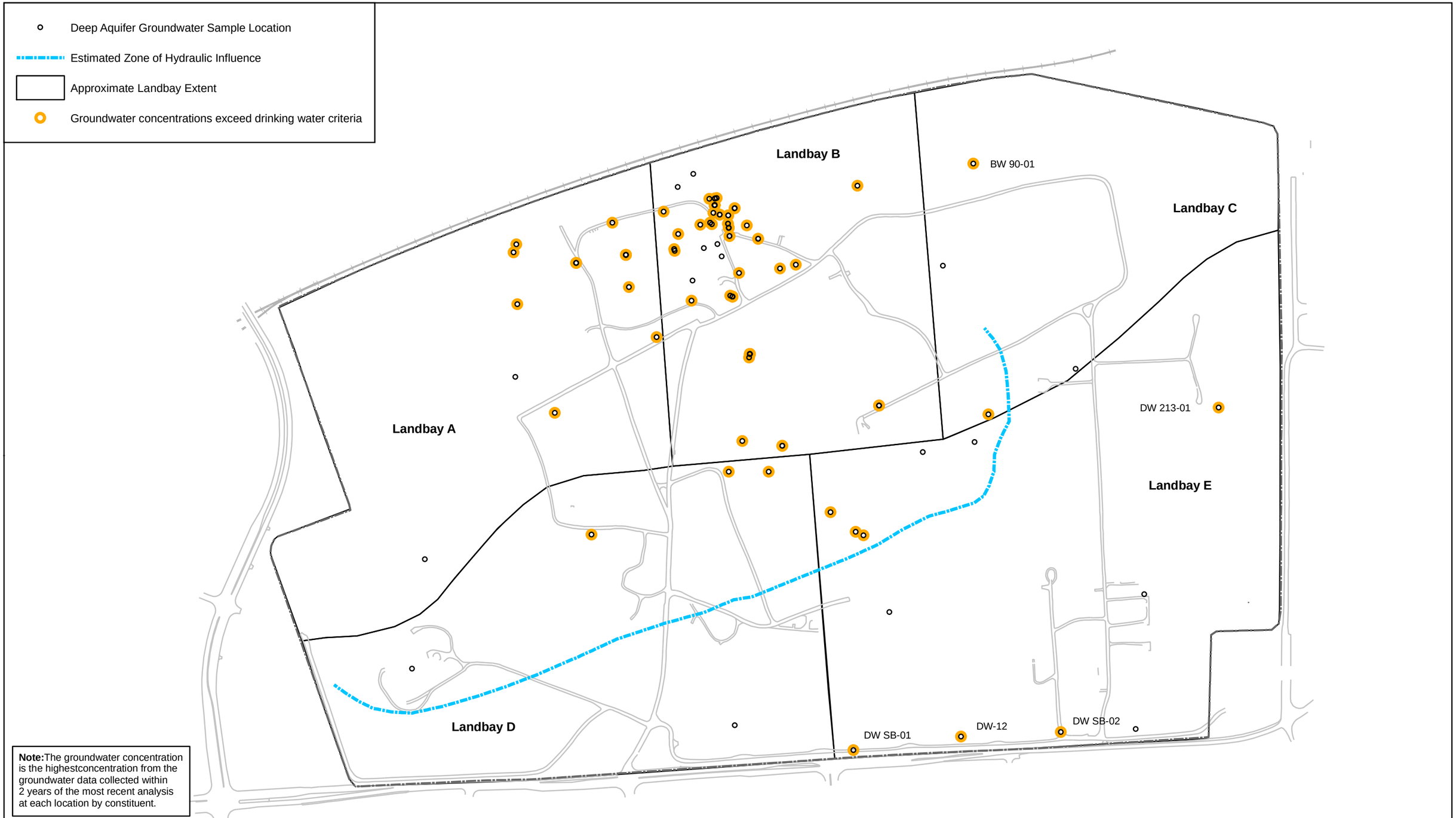


ENVIRON

DRAWN BY: HMN | DATE: 11/1/2012

SHALLOW AQUIFER LOCATIONS WHERE GROUNDWATER CONCENTRATIONS EXCEED DRINKING WATER CRITERIA
ARC GAINESVILLE, VIRGINIA

Figure 4-6A



Note: The groundwater concentration is the highestconcentration from the groundwater data collected within 2 years of the most recent analysis at each location by constituent.

ENVIRON

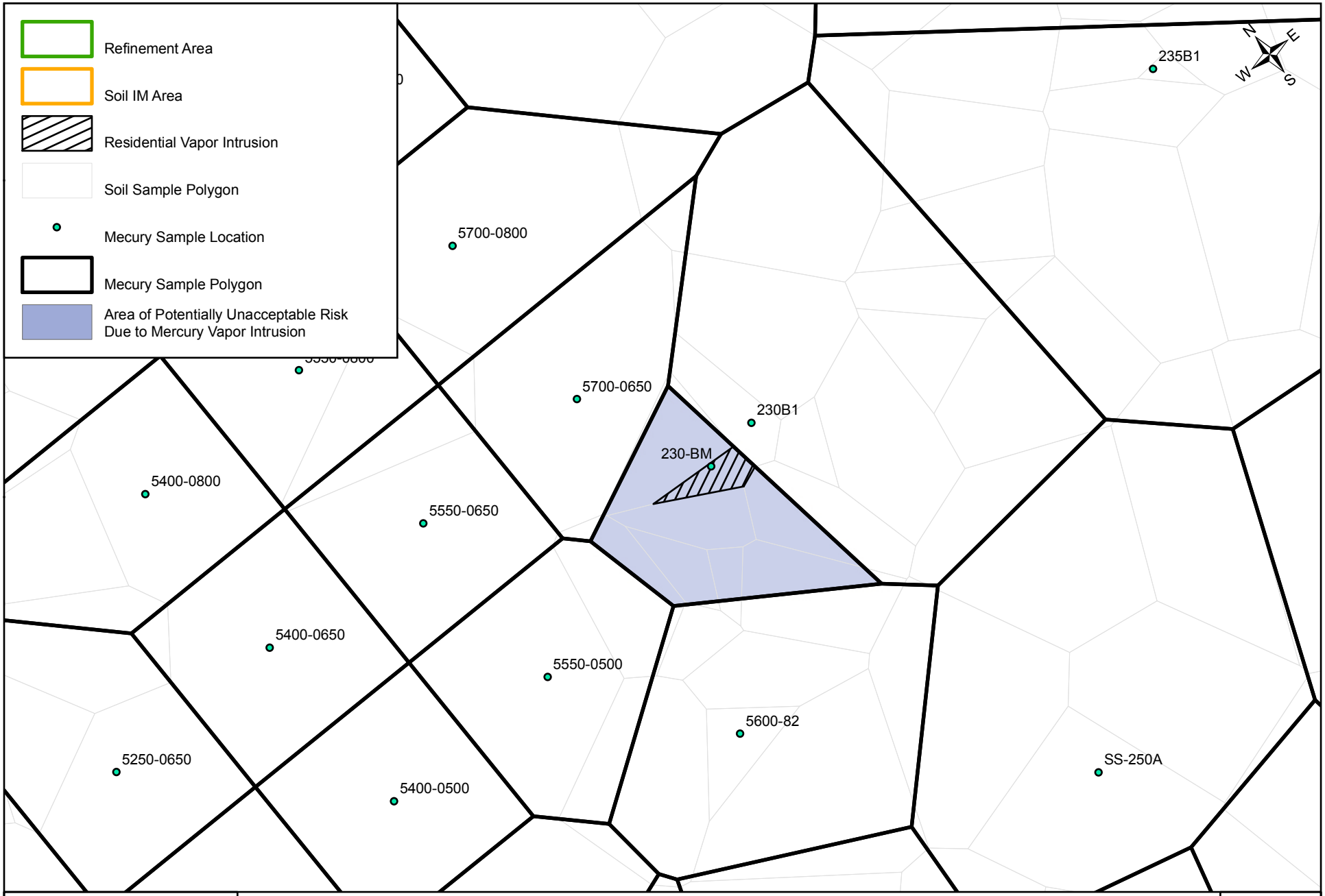
DRAWN BY: HMN | DATE: 11/1/2012

DEEP AQUIFER LOCATIONS WHERE GROUNDWATER CONCENTRATIONS EXCEED DRINKING WATER CRITERIA
ARC GAINESVILLE, VIRGINIA

0 500
SCALE IN FEET

N E S W

Figure 4-6B



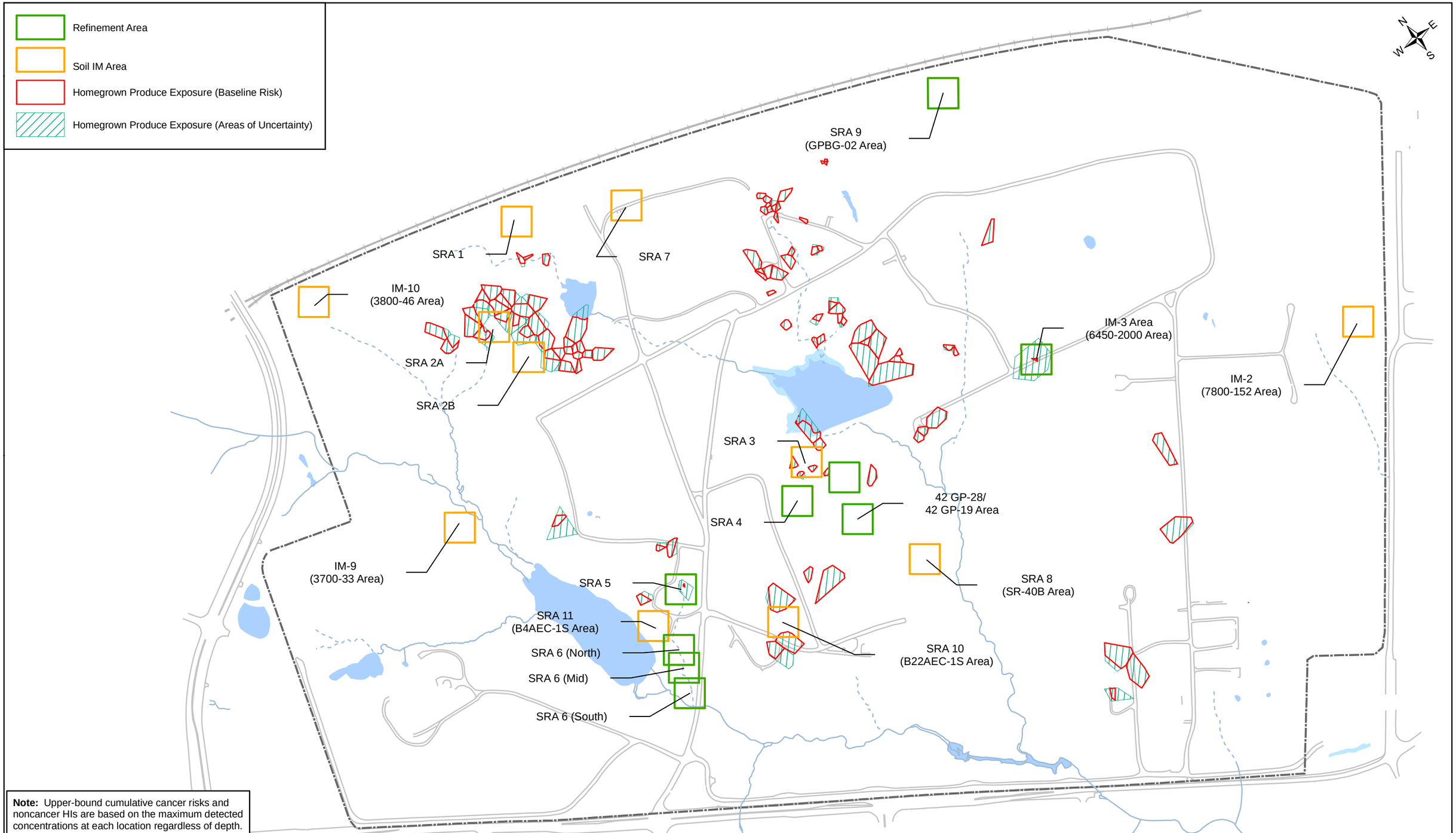
ENVIRON

DRAWN BY: HMN | DATE: 11/1/2012

UNCERTAINTY ANALYSIS OF UNACCEPTABLE RISK
230-BM, Mercury
ARC GAINESVILLE, VIRGINIA

0 120
SCALE IN FEET

Figure 4-7



Note: Upper-bound cumulative cancer risks and noncancer HIs are based on the maximum detected concentrations at each location regardless of depth.

ENVIRON

DRAWN BY: HMN | DATE: 11/1/2012

UNCERTAINTY ANALYSIS OF POTENTIALLY UNACCEPTABLE HOMEGROWN PRODUCE EXPOSURE
ARC GAINESVILLE, VIRGINIA

0 400
SCALE IN FEET

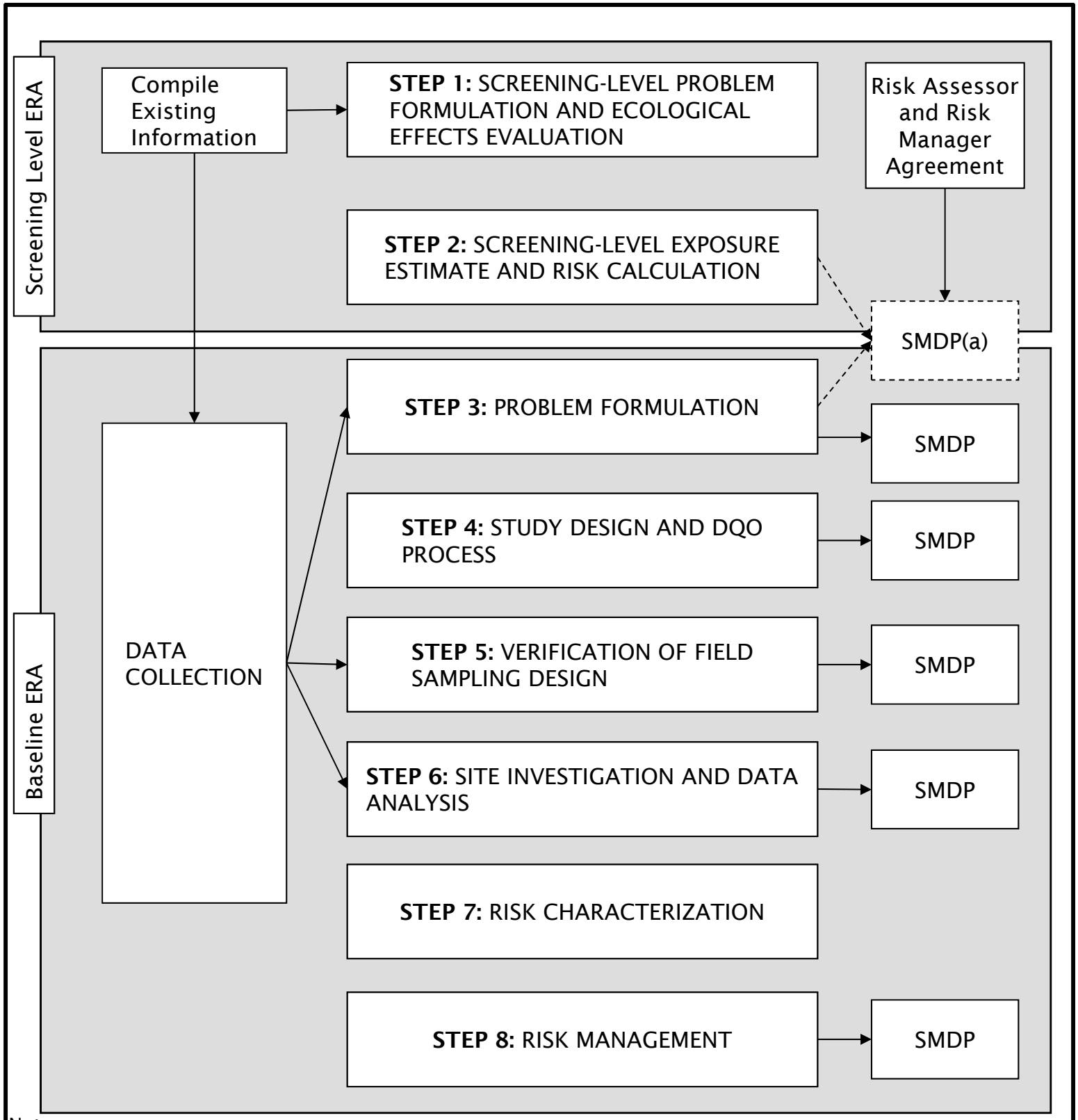
Figure 4-8

USEPA Eight-Step Ecological Risk Assessment Process

Atlantic Research Corporation, Gainesville, VA

ENVIRON

Figure 5-1A



Notes:

(a) SDMP occurs EITHER after Step 2 or after Step 3a.

ERA Ecological Risk Assessment.

SMDP Scientific Management Decision Point.

Source: Adapted from USEPA, 2000a.

Expanded USEPA Eight-Step Ecological Risk Assessment Process

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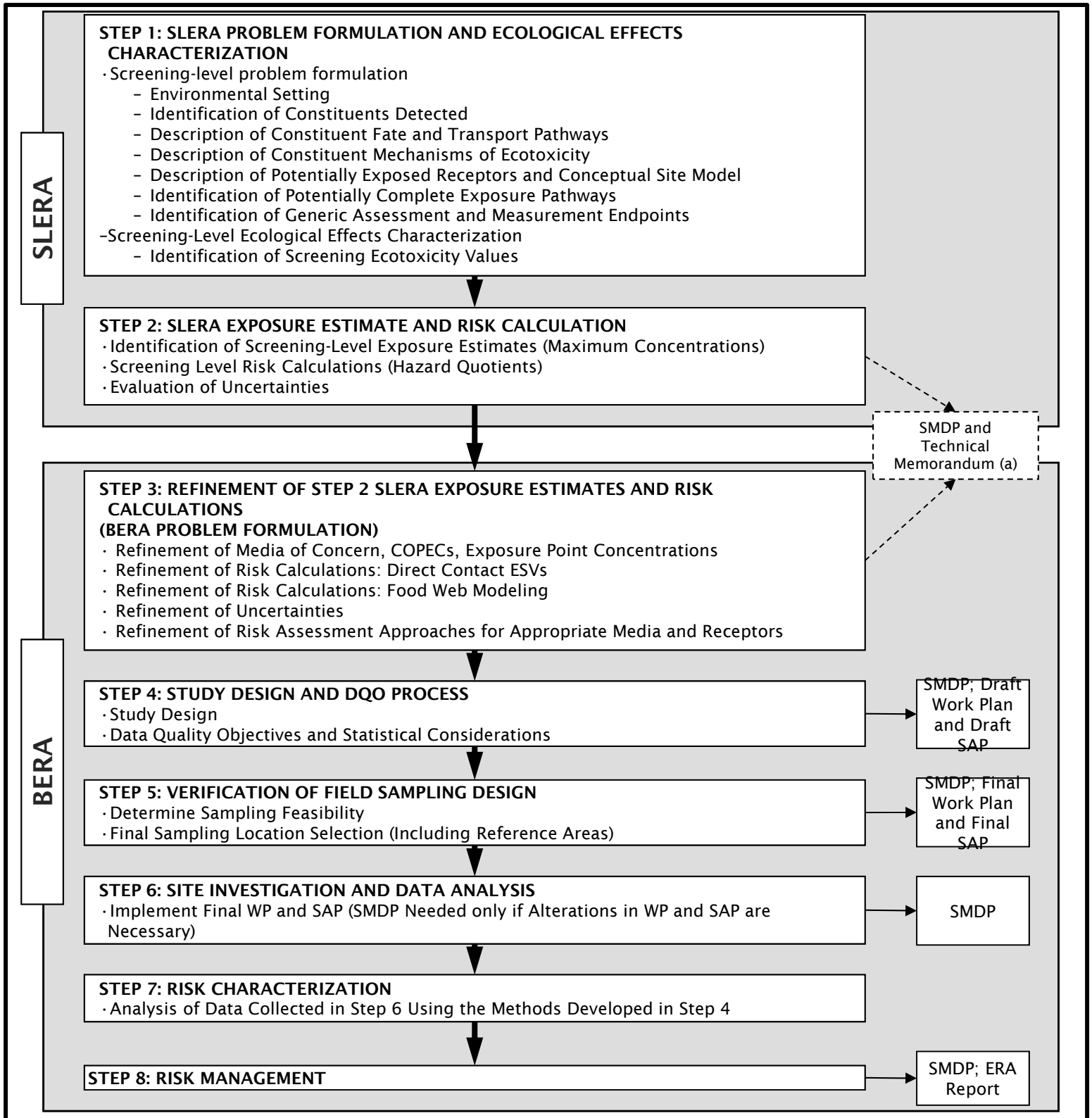
Figure 5-1B



Notes:

(a) SMDP occurs EITHER after Step 2 or after Step 3a.

COPEC Chemical of Potential Ecological Concern.

SAP Sampling and Analysis Plan.

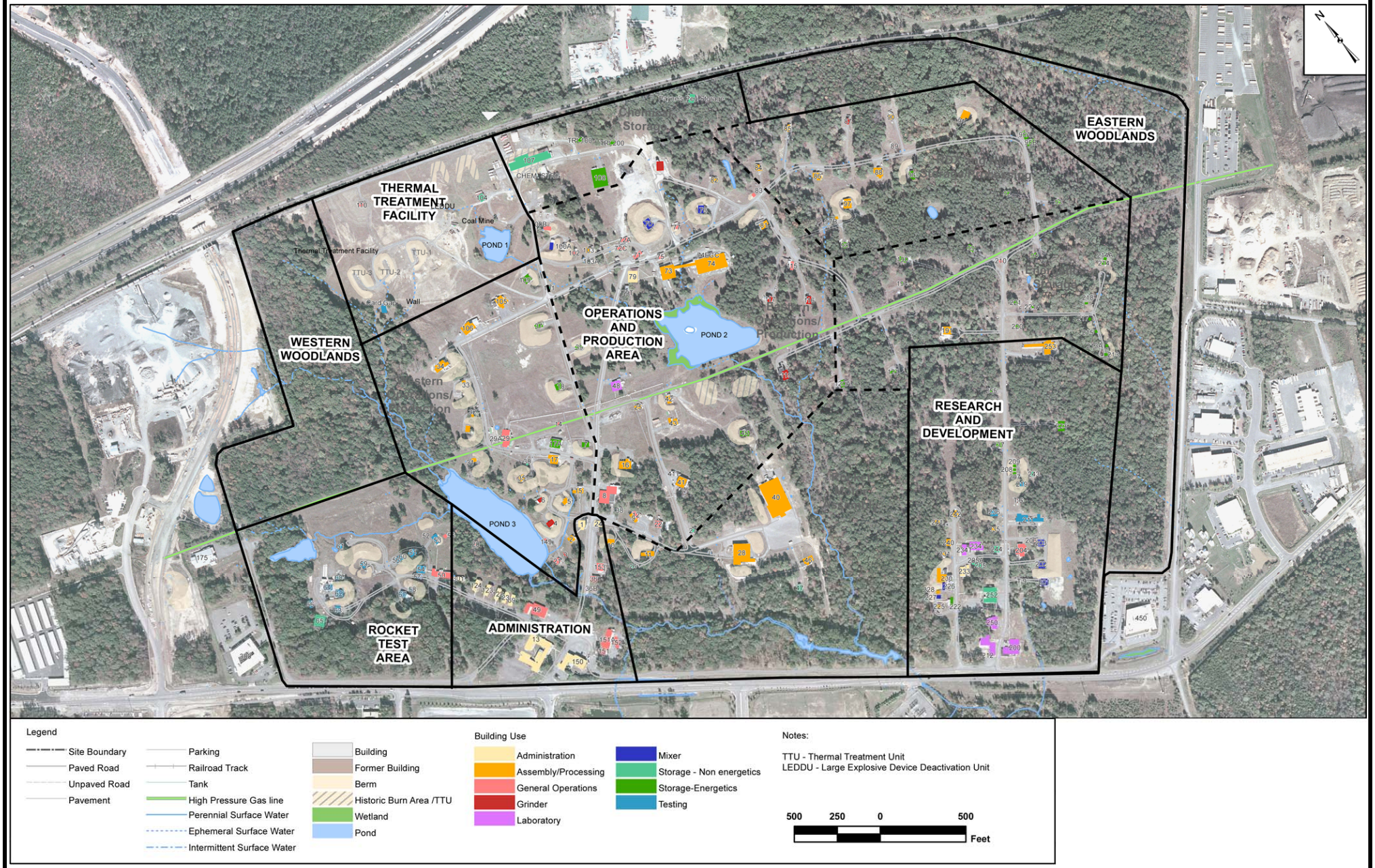
SMDP Scientific Management Decision Point.

WP Work Plan.

BERA Baseline ERA.

SLERA Screening-level ERA.

Source: Adapted from Figure 1-2 of USEPA 1997.



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Site Layout

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Figure 5-2

U.S. Fish and Wildlife Service

National Wetlands Inventory

ARC Gainesville

Jul 23, 2012

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Riparian

- Herbaceous
- Forested/Shrub

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

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National Wetlands Inventory Map (Large Scale)

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Figure 5-3A

U.S. Fish and Wildlife Service

National Wetlands Inventory

ARC Gainesville

Jul 23, 2012

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Riparian

- Herbaceous
- Forested/Shrub

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

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National Wetlands Inventory Map (Smaller Scale)

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Figure 5-3B

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Figure 5-4

Food Web

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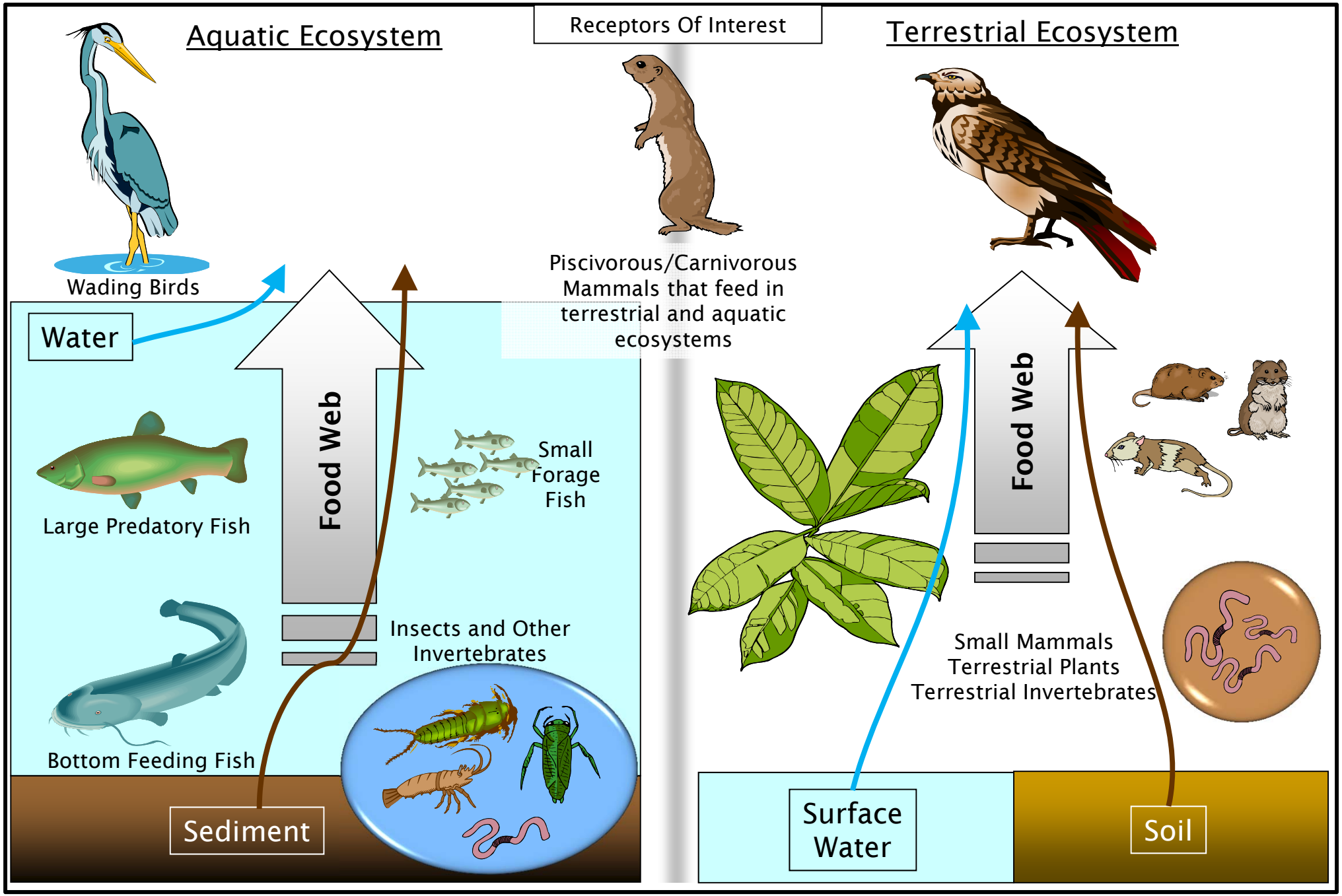

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Figure 5-5

Conceptual Site Model

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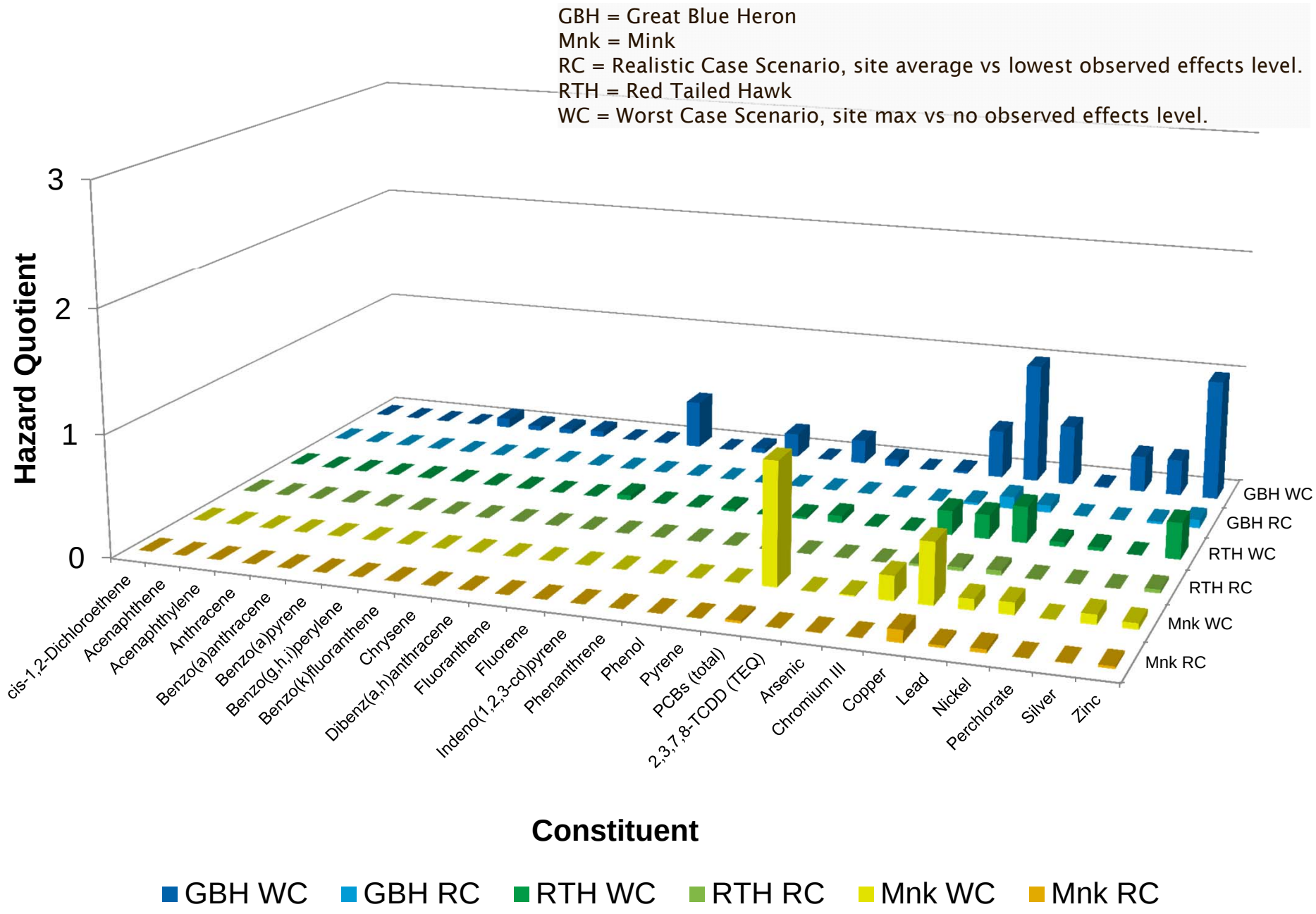
■ Potentially complete exposure pathway exists that will be addressed quantitatively in the ERA.

O Potentially complete exposure pathway exists that will not be addressed quantitatively in the ERA.

EXPOSURE MEDIA	EXPOSURE ROUTE	RECEPTORS: Current				Future Industrial				Future Mixed Use			
		Soil Invertebrates	Reptiles & Amphibians	Aquatic Organisms	Birds and Mammals	Soil Invertebrates	Reptiles & Amphibians	Aquatic Organisms	Birds and Mammals	Soil Invertebrates	Reptiles & Amphibians	Aquatic Organisms	Birds and Mammals
Surface Soil	Ingestion	O	O		■	O	O		■	O	O		■
	Respiration												
	Contact	O	O		O	O	O		O	O	O		O
	Food Web		O		■				■				■
Sediment	Ingestion				■				■				
	Respiration												
	Contact		O	■	O		O	■	O				
	Food Web		O		■		O		■				
Groundwater													
Surface Water	Ingestion				■				■				
	Respiration												
	Contact		O	■	O		O	■	O				
	Food Web		O		■		O		■				



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Hazard Quotients for Two Scenarios

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Figure 5-6