FINAL TECHNICAL MEMORANDUM

Tier II Ecological Risk Assessment Site 74, Naval Weapons Station, Seal Beach, Seal Beach, Orange County, California

Prepared by

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Executive Summary

Screening-level ecological risk assessments (ERAs) conducted for the Old Skeet Range (OSR) (Installation Restoration Program [IRP] Site 74) as part of the Focused Site Inspection (FSI) Phase II Report (Naval Facilities Engineering Command, Southwest Division [SWDIV]; 2002) for Naval Weapons Station (NAVWPNSTA) Seal Beach identified potential ecological risks. These risks were attributed to lead and antimony in soil and sediment from lead shot generated from former skeet range activities. A removal action was recommended by the FSI Phase II Report; however, because portions of Site 74 lie within the Seal Beach National Wildlife Refuge (NWR) and provide habitat for the federally endangered light-footed clapper rail (*Rallus longirostris levipes*), habitat loss due to physical removal activities was a concern. Therefore, the objective of this Tier II ERA for Site 74 is to provide a more detailed site-specific evaluation of ecological risk on which to base risk management decisions and develop preliminary remediation goals (PRGs) for lead and antimony that would be protective of ecological receptors.

In support of this Tier II ERA, additional data were collected at Site 74 (see SWDIV, 2003 and 2004 for the detailed sampling plans). These data included collection of co-located soil or sediment and biota samples (15 marsh plant, 15 marsh invertebrate, 15 terrestrial plant, and 12 invertebrate samples), collection of soil and sediment (3 samples each) for bioaccessibility analyses (simulated gastric digestion to determine the fraction of lead and antimony in soil or sediment that is bioavailable), and collection of bird and mammal liver tissue (10 Site 74 and 5 reference meadowlarks, and 10 Site 74 and 10 reference small mammals). Additionally, site-specific plant bioassays were conducted using Site 74 and reference soil (12 and 3 samples, respectively), and site-specific plant and sediment invertebrate bioassays were conducted using Site 74 and reference sediment (12 and 3 samples, respectively).

Assessment endpoints (and representative receptors) selected for Site 74 included marsh plants, sediment invertebrates, terrestrial plants, soil invertebrates, threatened and endangered species (light-footed clapper rail and Belding's savannah sparrow), aquatic birds (mallard), terrestrial birds (western meadowlark), and terrestrial mammals (California vole and ornate shrew).

Based on the results of the screening ERAs and given the high concentrations of lead measured in soil and sediment (up to 154,000 milligrams per kilogram [mg/kg] dry weight), the presence of some level of risk from lead (and possibly antimony) to ecological receptors was assumed. Consequently, the purpose of this Tier II ERA was to delineate the spatial extent of these risks and to identify potential cleanup levels for protection of exposed biota, rather than to determine the presence or absence of risks. Lines of evidence for this assessment included both site-specific (e.g., bioassay results or lead concentrations in bird or mammal liver tissue) and literature (e.g., literature-based toxicity values) measures. The decision rules developed in the data quality objectives (DQOs) provided a set of criteria for the determination of the presence or absence of risk for each line of evidence for each assessment endpoint. Integration of the site data with the decision rules resulted in the following risk conclusions:

- Risk conclusions based on available lines of evidence for birds and mammals (e.g., literature-derived toxicity data, site-specific tissue concentrations, estimated tissue concentrations, or lead shot exposure [birds only]) are as follows:
  - For all bird and mammal receptors, concentrations of lead and antimony exceeded toxicity thresholds for dietary dose in some samples.
  - Measured concentrations of lead in livers of meadowlarks and small mammals suggest that exposure, although elevated relative to background, is insufficient to present a risk. Although the low levels observed in these data serve to mitigate the concerns for meadowlarks and small mammals, the limited sample size for these data and the mobility of the receptors limit the ability of these data to support a definitive conclusion of no risk. Additionally, no shorebirds were sampled (i.e., the species planned for collection were not present onsite during several collection attempts) and no year-round residents were sampled. Therefore, definitive conclusions for avian species that feed in wetland portions of the site or are year-round residents (e.g., the clapper rail) cannot be made.
  - Estimated concentrations of lead in livers of mallards and small mammals suggest that exposure is sufficient to present risk at some sampling locations. Although lead concentrations in less than 10 percent of samples exceeded effects levels for the mallard and California vole, 16 and 20 percent of sediment and soil samples exceeded effects levels for ornate shrews.
  - Lead as shot exists in concentrations that present risks to birds.

  The weight of evidence conclusion is that lead and antimony in sediment and soil at Site 74 exist in concentrations that present risks to resident birds and mammals.

- Given that there were exceedances of the site-specific effects concentrations that were developed from the bioassay results, the weight-of-evidence conclusion is that lead and antimony are at concentrations in sediment that may present risks to sediment invertebrates. Because lead and antimony concentrations explain toxicity better than the other metals considered, other analytes are not considered to contribute significantly to sediment toxicity to invertebrates. However, this is not to say that other analytes and/or sediment conditions (e.g., pH) have no effect.

- Although concentrations of lead and antimony exceeded literature-based toxicity values in some samples, these analytes were not associated with effects observed in the plant bioassays. Therefore, the weight-of-evidence conclusion is that lead and antimony in sediment and soil do not present a risk to plants. However, this conclusion is not definitive. Observed results in the site-specific bioassays were driven by sodium (salinity) toxicity, which may have masked contaminant-related effects. Collection of plant samples in locations with high lead and antimony concentrations (e.g., pickleweed collected in areas with lead as high as 55,200 mg/kg and antimony up to 2,300 mg/kg) support the conclusion that plants are not at risk.

- Because concentrations of lead and antimony in some samples exceeded toxicity thresholds, the weight-of-evidence conclusion is that lead and antimony concentrations in soil may present risk to soil invertebrates.

To support risk management options and target areas for remediation, PRGs were developed and specific locations that present risk were identified using a point-by-point risk evaluation. From this evaluation, two remediation footprints were identified, one based on the most sensitive receptor (Belding's savannah sparrow) with an area of approximately 13.5 acres and a reduced footprint of approximately 8.1 acres based on the next most sensitive set of receptors (light-footed clapper rail for lead and lead as shot in sediment, the ornate shrew for lead in soil, and the western meadowlark for lead as shot in soil). Based on several considerations (e.g., potential for significant habitat disruption and destruction), comparative analyses of the effects and benefits of different remedial alternatives are recommended. In particular, an evaluation weighing the relative benefits of different remediation strategies against the damage to sensitive habitat due to remedial actions is warranted.

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5-1 Potential Cleanup Footprints for Site 74

Acronyms and Abbreviations

<	less than
>	greater than
°F	degrees Fahrenheit
μm	micrometer
AET	Apparent Effects Threshold
ASTM	American Society for Testing and Materials
BAF	bioaccumulation factor
BERA	baseline ecological risk assessment
bgs	below ground surface
BTAG	Biological Technical Advisory Group
CD	compact disc
CEC	cation exchange capacity
CFR	Code of Federal Regulations
CLP	Contract Laboratory Program
CN	cyanide
COPEC	chemical of potential ecological concern
CSM	conceptual site model
DET	detect
DQO	data quality objective
DTSC	Department of Toxic Substances Control
dw	dry weight
DWR	Department of Water Resources
EC_{50}	Median Effects Concentration
EcoSSL	Ecological Soil Screening Levels
EFA	Engineering Field Activity
EPC	exposure point concentration
ERA	ecological risk assessments
ER-L	Effects Range – Low

ER-M	Effects Range – Medium
FIR	food ingestion rate
FSI	Focused Site Inspection
GI	gastrointestinal
Hg	mercury
HQ	hazard quotient
ICP	inductively coupled plasma
IRP	Installation Restoration Program
LC_{50}	median lethal concentration
LD_{50}	median lethal dose
LOAEL	lowest observed adverse effect level
LOEC	lowest observed effect concentration
MDL	method detection limit
meq	milliequivalent
mg/kg	milligrams per kilograms
mg/kg/day	milligrams per kilogram receptor body weight per day
mg/L	milligrams per liter
MS	matrix spike
MSD	matrix spike duplicate
NAVWPNSTA	Naval Weapons Station
ND	nondetect
NEESA	Naval Energy and Environmental Support Activity
NOAA	National Oceanic and Atmospheric Administration
NOAEL	no observed adverse effects level
NOEC	no observed effect concentration
NPDES	National Pollutant Discharge Elimination System
NWR	National Wildlife Refuge
OCEMA	Orange County Environmental Management Agency
OCWD	Orange County Water District
ORNL	Oak Ridge National Library

OSR	Old Skeet Range
p	probability
PAH	polycyclic aromatic hydrocarbon
Pb	lead
pH	hydrogen ion concentration
POLB	Port of Long Beach
ppm	parts per million
PRG	preliminary remediation goal
QA	quality assurance
Refbio	bioassay sample collected at a reference area
SAP	sampling and analysis plan
Sb	antimony
SBRC	Solubility/Bioavailability Research Consortium
SIR	soil ingestion rate
SQuiRT	screening quick reference table
SRA	Screening Risk Assessment
STD	standard deviation
SWDIV	Naval Facilities Engineering Command, Southwest Division,
TAL	target analyte list
TOC	total organic carbon
TRV	toxicity reference value
ULBV	upper limit background values
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
WPNSUPPFAC	Weapons Support Facility

Tier II Ecological Risk Assessment for Site 74, Naval Weapons Station, Seal Beach

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1.0 Introduction

Screening-level ecological risk assessments (ERAs) conducted for the Old Skeet Range (OSR) (Installation Restoration Program [IRP] Site 74) as part of the Focused Site Inspection (FSI) Phase II Report (Naval Facilities Engineering Command, Southwest Division [SWDIV]; 2002) for Naval Weapons Station (NAVWPNSTA) Seal Beach identified potential ecological risks. These risks were attributed to lead and antimony in soil and sediment from lead shot. The FSI Phase II Report recommended that a removal action was warranted at Site 74. However, portions of Site 74 lie within the Seal Beach National Wildlife Refuge (NWR) and provide habitat for the federally endangered light-footed clapper rail (*Rallus longirostris levipes*) and other wildlife. Removal actions within this site could result in significant habitat loss to these species. Therefore, this Tier II ERA for Site 74 was requested by the Navy to provide a more detailed site-specific evaluation of ecological risk on which to base risk management decisions and develop preliminary remediation goals (PRGs) for lead and antimony that would be protective of ecological receptors.

1.1 Site Description

Site 74, also known as the OSR, is a former skeet and trap range located at the NAVWPNSTA Seal Beach (Figures 1-1 and 1-2). Site 74, which consists of two skeet houses, a trap house, a concrete pad with approximately six shooting stations, and a trailer, was constructed in the late 1960s and was in use for about 25 years. A photograph of Site 74 is presented in Figure 1-3. The skeet and trap shooting activities have resulted in a widespread distribution of solid lead shot and broken clay targets within Site 74. Site contamination includes lead and antimony from shot and polycyclic aromatic hydrocarbon (PAHs) from the clay targets. Because of concern for risks from lead shot to waterfowl and other wildlife foraging at the site, the range was closed in the early 1990s.

Site 74 is located immediately south of the pistol range off Bolsa Avenue and west of the skeet range entrance road. The extent of the site to the west and south has not yet been delineated clearly. The site is bisected by Case Road, with the portion of the site to the west

of Case Road falling within the NWR. The area east of Case Road consists of sandy upland habitat vegetated with tall grass and shrubs. Some areas are devoid of vegetation. Upland birds such as western meadowlarks (*Sturnella neglecta*) and various small mammals such as brush rabbits (*Sylvilagus bachmani*) utilize this area. West of Case Road, the area is southern coastal salt marsh habitat dominated by estuarine plants such as cordgrass (*Spartina foliosa*). This area is utilized by a variety of waterfowl and shorebirds, including the endangered light-footed clapper rail (*Rallus longirostris levipes*).

1.2 Summary of Previous Ecological Risk Assessments

The FSI Phase II was conducted at the site in 2000 as a follow-up to past IRP investigations at NAVWPNSTA Seal Beach (SWDIV, 2002). The FSI Phase II was used to screen for ecological and human health risks at eight sites, including Site 74. The objective of the sampling at Site 74 was to assess the extent of lead and antimony contamination from the spent pellets and the extent of PAH contamination from the clay targets at the site. Two screening-level ERAs were conducted for Site 74.

The first screening-level ERA presented PRGs considered protective for exposure of ecological receptors to lead, antimony, and PAHs, and then compared the measured soil and sediment analytical results to these PRGs and to upper limit background values (ULBVs), as available. (Note: ULBVs were not available for antimony and are not appropriate for PAHs.) The four wildlife receptors evaluated included the clapper rail, American kestrel (*Falco sparverius*), mourning dove (*Zenaida macroura*), and California ground squirrel (*Spermophilus beecheyi*). Lead concentrations at Site 74 (up to 154,000 milligrams per kilogram [mg/kg]) were greater than both the ULBV and the PRGs considered protective for the four receptors (range: 0.64 to 5.02 mg/kg). Antimony was detected at concentrations greater than the PRG protective for ground squirrels (2.95 mg/kg). It was noted that the antimony PRG value was less than the method detection limits (MDLs) reported for antimony, and an antimony PRG could be developed only for the ground squirrel. Avian toxicity data for antimony were lacking; therefore, development of an avian PRG for antimony was not possible.

Of 16 PAHs evaluated, only 2 exceeded some PRGs. The maximum concentrations of benzo(a)pyrene and dibenzo(a,h)anthracene exceeded the PRGs for the American kestrel and ground squirrel, respectively. Additionally, maximum concentrations of benzo(a)pyrene exceeded the PRG for the mourning dove. However, mean concentrations of these PAHs did not exceed PRGs. Further evaluation indicated that the home ranges of the American kestrel and the mourning dove were greater than the total area with concentrations of PAHs greater the PRGs. For the ground squirrel, the total area with PAH concentrations greater than the PRGs was equivalent to the home range of the species. However, the total area represented two separate locations at Site 74 and the magnitude of exceedance of the PRG was low (1.5 and 2 times for maximum values of benzo(a)pyrene and dibenzo(a,h)anthracene, respectively). Therefore, potential risk to these receptors from exposure to PAHs in soil was considered to be insignificant. In contrast, lead and antimony concentrations in soil and sediment were found to present potential risk to receptors.

A second screening-level ERA was conducted and was also included in the FSI Phase II Report (SWDIV, 2002). Due to the high lead concentrations at Site 74, risks to wildlife were assumed to be present, and the focus of the second assessment was to develop and propose protective lead limits in soil and sediment. Exposure and effects data for mallards (*Anas*

platyrhynchos) and clapper rails were used to estimate potentially protective concentrations of lead (3.03 and 1.38 mg/kg, respectively) and shot (443 and 214 mg/kg, respectively) in soil. Recommendations were based on consideration of these protective values, as well as consideration of background lead values and the potential impact of remediation on the receptors from loss of habitat. Because the potentially protective concentrations (as determined from screening-level information) for lead were below background for NAVWPNSTA Seal Beach (35.7 mg/kg) and contamination due to lead shot was expected to persist for many years, it was recommended that a removal action was warranted for contaminated areas identified for the site.

The FSI Phase II Report concluded that exposure to lead and antimony concentrations in soil and sediment posed a possible threat to the representative ecological receptors used, but exposure to PAHs did not pose a threat to ecological receptors. The FSI Phase II Report also concluded that a removal action was warranted based on the screening risk assessment results.

1.3 Summary of Tier II Ecological Risk Assessment Sampling and Analysis Plans

Two sampling and analysis plans (SAPs) were developed for the collection of additional data at Site 74 for use in this Tier II ERA. The first SAP included collection of co-located soil or sediment and biota samples, collection of soil and sediment for bioaccessibility analyses, and collection of bird and mammal tissues (SWDIV, 2003). The second SAP was an addendum that included collection of soil and sediment for site-specific plant and sediment invertebrate bioassays (SWDIV, 2004). The focus of the initial SAP was development of PRGs for the protection of avian and mammalian wildlife. The focus of the addendum was the development of data to determine PRGs protective of directly exposed biota (plants and sediment invertebrates). Sediment and soil bioassays were expected to contribute to the Tier II ERA because they represent actual site conditions and account for the synergistic and/or antagonistic effects of chemical mixtures present at the site, as well as provide site-specific toxicity information.

A brief description of each SAP and a summary of the data collected are provided below. Information regarding the selection of data sampled is included in the data quality objectives (DQOs) presented in Section 2.5.1. For detailed descriptions of the development of the sampling design and the data collected, please refer to the final SAPs (SWDIV, 2003; 2004).

1.3.1 SAP Descriptions

1.3.1.1 Tier II Ecological Risk Assessment Sampling and Analysis Plan

Sampling related to the Tier II ERA SAP was conducted in August and December 2003 (SWDIV, 2003). Two types of environmental matrices, biota and soil or sediment, were sampled. The sampling program involved the collection of co-located soil or sediment, plants, and invertebrates both east and west of Case Road, representing low to high lead and antimony concentrations. These data were used to develop site-specific bioaccumulation relationships between soil or sediment and plants or invertebrates (described in Section 3.1.2.1). No reference samples were collected during this sampling

event because samples were collected from a gradient of concentrations (low to high, based on previous sampling) to support development of site-specific bioaccumulation/ bioavailability relationships.

Bird (western meadowlarks) and mammal (deer mice [*Peromyscus maniculatus*], western harvest mice [*Reithrodontomys megalotis*], and house mice [*Mus musculus*]) livers also were collected east of Case Road. Additionally, liver samples were collected from birds (western meadowlarks) and mammals (western harvest mice) from reference areas at Kesterson NWR and Seal Beach, respectively. It should be noted that shorebirds were planned for collection, but none were present at the site during collection and observation periods; therefore, no shorebirds were collected. Data from the collection of birds and mammals from Site 74 were used to compare concentrations to literature-based toxicity data and to data collected from the reference areas (Section 3.1.2.2).

Bioaccessibility is defined as the fraction of a chemical solubilized from a soil or sediment sample under simulated gastrointestinal conditions, and is considered to be an important determinant of bioavailability (Department of Toxic Substance Control [DTSC], 1999). Prior bioaccessibility analysis of lead in soils containing mine waste resulted in bioaccessibility values that were similar to bioavailability values obtained through rodent feeding studies using the same soils (Ruby et al., 1993). To determine the bioaccessibility of lead and antimony at Site 74, three soil and three sediment samples (one from each of the low, medium, and high lead areas east and west of Case Road, respectively) were collected and analyzed. These data provide site-specific bioavailability information and were used in the bird and mammal exposure calculations to obtain a more realistic exposure estimate.

1.3.1.2 Tier II Ecological Risk Assessment Sampling and Analysis Plan, Bioassay Addendum

Sampling related to the Tier II ERA SAP, Bioassay Addendum was conducted in December 2003 (SWDIV, 2004). Soil was collected east of Case Road and sediment was collected west of Case Road, representing low to high lead and antimony concentrations in each of those areas. Soil and sediment sample collection was performed over 1 square meter. Cores to 1 foot deep were collected at the center and at each corner of the 1-meter-square quadrant at each sampling location. These cores were placed in a 5-gallon container to create a single soil or sediment sample. In addition, six water samples (three filtered, three unfiltered) were to be collected from the sediment decant water at the three high lead areas west of Case Road. However, due to insufficient decant water, these samples were not collected. Plant bioassays were conducted with each soil sample, and plant and sediment invertebrate bioassays were conducted with each sediment sample to determine direct risks to these lower trophic-level organisms utilizing Site 74.

1.3.2 Data Collected

Descriptions of the data collected are provided below for each data use (bioaccumulation, bioaccessibility, target organs, and bioassays). Table 1-1 provides a list of data planned for collection and those data actually collected (including collection date).

It should be noted that in all cases discussed below, low, medium, and high lead areas are defined as follows: low is where lead concentrations were less than (<) 61 mg/kg dry weight (dw); medium is 61 to 829 mg/kg dw; and high is greater than (>) 829 mg/kg dw. The methods and data used to determine these designations are detailed in both the Site 74

SAPs (SWDIV, 2003; 2004). Because the distributions of lead and antimony were found to covary (see either SAP for details), areas with low levels of lead were expected to also have low levels of antimony, areas with medium concentrations of lead were expected to have medium levels of antimony, and areas of high lead concentrations were expected to have correspondingly high antimony levels.

1.3.2.1 Site-Specific Bioaccumulation

For development of site-specific bioaccumulation values for Site 74, co-located soil or sediment and biota samples were collected and are described below. Results of the analysis of these data are presented in Section 3.1.2.1.

Soil

In August 2003, a total of 18 soil samples also were collected from Site 74 east of Case Road and analyzed. The 18 samples included 5 samples each from the low, medium, and high lead concentration areas for lead and antimony bioaccumulation analysis; 2 duplicates; and 1 matrix spike/matrix spike duplicate (MS/MSD) sample. Soil sampling locations are shown in Figure 1-4.

Laboratory analyses for these samples generally were restricted to the primary chemicals of concern (lead and antimony), using inductively coupled plasma (ICP) (United States Environmental Protection Agency [USEPA] Methods 6010 and 6020, respectively). However, a subset of soil samples (three samples) also was analyzed for Contract Laboratory Program (CLP) Target Analyte List (TAL) metals (excluding mercury and cyanide) using ICP (USEPA Method 6010). Only risks from lead and antimony are evaluated in this ERA, but the concentrations for the other metals are reported in Section 2.6.1. Moisture content was determined in all collected soil samples. Additionally, grain size and percent total organic carbon (TOC) were determined in six soil samples (two each from low, medium, and high lead concentration areas east of Case Road), and hydrogen ion concentration (pH) was measured in the three samples that were analyzed for CLP TAL metals (excluding mercury and cyanide).

Sediment

In August 2003, a total of 18 sediment samples also were collected from Site 74 west of Case Road and analyzed. The 18 samples included 5 samples each from the low, medium, and high lead concentration areas for lead and antimony bioaccumulation analysis; 2 duplicates; and 1 MS/MSD sample. Sediment sampling locations are shown in Figure 1-4.

Laboratory analyses for these samples generally were restricted to the primary chemicals of concern (lead and antimony), using ICP (USEPA Methods 6010 and 6020, respectively). However, a subset of sediment samples (three samples) also was analyzed for CLP TAL metals (excluding mercury and cyanide) using ICP (USEPA Method 6010). Only risks from lead and antimony are evaluated in this ERA, but the concentrations for the other metals are reported in Section 2.6.1. Moisture content was determined in all collected sediment samples. Additionally, grain size and percent TOC were determined in six sediment samples (two each from low, medium, and high lead concentration areas west of Case Road), and pH was measured in the three samples that were analyzed for CLP TAL metals (excluding mercury and cyanide).

Biota

A total of up to 35 plant and 35 invertebrate samples were planned for collection at Site 74 as part of the Tier II sampling. The 35 plant samples were to include 15 terrestrial, 15 marsh, 3 duplicate, and 2 MS/MSD samples. Assuming adequate biomass was available, the 35 invertebrate samples were to include 15 terrestrial, 15 marsh, 3 duplicate, and 2 MS/MSD samples. All plant samples and all marsh invertebrate samples were collected as planned in August 2003; however, very few terrestrial invertebrates were available for collection at that time. Therefore, attempts were made during the December 2003 sampling event to collect additional terrestrial invertebrates at each sampling location. Pitfall traps at the same locations as sampled in August were used for this second collection attempt (see SWDIV, 2003 for details on terrestrial invertebrate collection methods). Despite this additional sampling, only 12 terrestrial invertebrate samples (representing six sampling locations) were collected due to inadequate biomass. Terrestrial plants and invertebrates were collected east of Case Road, and marsh plants and invertebrates were collected west of Case Road (Figure 1-4). In all cases, plant and invertebrate samples were co-located with sediment and soil samples. The plant and invertebrate samples were analyzed for lead, antimony, and moisture content.

1.3.2.2 Site-Specific Bioaccessibility

During the December 2003 sampling, three soil samples were collected for simulated gastric bioavailability (bioaccessibility) analysis for lead and antimony. Of these, one each was collected from the low, medium, and high lead sampling locations. Likewise, three sediment samples were collected for bioavailability analysis for lead and antimony, one each from the low, medium, and high lead areas. Bioaccessibility sampling locations are shown in Figure 1-4. These samples were analyzed using methods from Ruby et al. (1996).

Results of the bioaccessibility analysis and development of values for the ERA are presented in Section 3.1.2.1.

1.3.2.3 Site-Specific Target Organ Concentrations

A total of 63 bird and mammal samples to include 3 MS/MSD samples were planned for collection during the Tier II sampling. These samples were to include 10 small mammals from Site 74 and 10 small mammals from a reference area; 10 western meadowlarks from Site 74 and 10 from a reference area; and 10 shorebirds (willets and/or plovers) from Site 74 and 10 from a reference area. Because shorebirds were expected to be present only during the winter, sampling of birds and small mammals was included in the December 2003 sampling event. All small mammals (from Site 74 and a reference area at Seal Beach) were collected, as were 10 meadowlarks from Site 74. Because a suitable reference area for meadowlarks was not available at Seal Beach, reference birds were collected at Kesterson NWR, an uncontaminated area with respect to lead and antimony. Only five meadowlarks were collected from this reference area because it was distant from Site 74 and lead levels were expected to be low and consistent among individuals. These reference birds were collected in January 2004. Shorebirds were not present at the site during two separate collection attempts or during periodic observation during January 2004. Therefore, no shorebirds were collected. The bird and mammal liver samples were analyzed for lead and moisture content.

These data are presented in Section 3.1.2.2.

1.3.2.4 Site-Specific Bioassays

Soil and sediment samples were collected to conduct site-specific bioassays. Additionally, collection of decant water samples at the high lead sediment sampling locations also was planned. Results of the site-specific bioassays are presented in Section 3.2.1.2.

Soil

Nine soil samples were collected from Site 74 upland areas east of Case Road and 3 soil samples were collected from an upland reference site (located adjacent to Site 74, but outside the contaminated area) for a total of 12 samples for the plant bioassays. Soil bioassay sampling locations are shown in Figure 1-4. An aliquot of each homogenized sample was analyzed, as were 3 additional samples to include 2 field duplicates and 1 MS/MSD for a total of 15 analytical chemistry samples. These soil samples were analyzed for CLP TAL metals (including lead and antimony, but excluding mercury and cyanide), PAHs, pH, grain size, TOC, and cation exchange capacity (CEC).

Standard American Society for Testing and Materials (ASTM) methods were used for the plant bioassays (ASTM, 2002). The SAP indicated that cordgrass (a native plant) would be used as the test species for the plant bioassays; however, bioassays using this species could not be conducted due to low germination (even among controls). Therefore, plant bioassays were completed using barley (*Hordeum distichon*), a standard test species. No invertebrate bioassays were conducted for soil because the saline nature of the soils supports few terrestrial invertebrates. This condition was confirmed during field sampling, and the soil conditions are described in Appendix A.

Sediment

Nine sediment samples were collected from Site 74 tidal marsh areas west of Case Road, and 3 sediment samples were collected from a tidal marsh reference site (located adjacent to Site 74, but outside the contaminated area) for a total of 12 samples for the plant and sediment invertebrate bioassays. Sediment bioassay sampling locations are shown in Figure 1-4. An aliquot of each homogenized sample was analyzed, as were 3 additional samples to include 2 field duplicates and 1 MS/MSD for a total of 15 analytical chemistry samples. These sediment samples were analyzed for CLP TAL metals (including lead and antimony, but excluding mercury and cyanide), pH, grain size, TOC, and CEC. Because the FSI Phase II concluded that the distribution of PAHs was centered around the shooting platforms and does not extend to the salt marsh west of Case Road, analyses of PAHs were restricted to soil samples collected east of Case Road.

As indicated above, plant bioassays were conducted according to ASTM standards using barley (ASTM, 2002). The 28-day *Leptocheirus plumulosus* test was used for the sediment invertebrate bioassays (USEPA, 2001).

Decant Water

The Bioassay SAP included collection of six water samples (three filtered and three unfiltered) from the sediment decant water at the three high lead sampling areas west of Case Road during the collections for the bioassays (SWDIV, 2004). These water samples were to be analyzed for lead and antimony only. However, there was insufficient decant water for collection, so these samples were not collected or analyzed.

1.4 Technical Memorandum Approach

Before Site 74 was added to the IRP list for NAVWPNSTA Seal Beach, the United States Fish and Wildlife Service (USFWS) expressed concern for the waterfowl that would forage near the site. The concern was for possible poisoning of the waterfowl (which are protected under the Migratory Bird Treaty Act) by their ingestion of lead shots associated with the target shooting. In addition, endangered or threatened species, or species of special concern have been identified at the NWR adjacent to NAVWPNSTA Seal Beach, although not specifically at Site 74. These species are protected under the Endangered Species Act of 1973 (16 United States Code [USC] 1531 et seq. 50 Code of Federal Regulations [CFR] 402) that establishes requirements to protect species threatened by extinction and habitats critical to their survival. It was consideration of these two regulations that provided the impetus for the Site 74 ERAs.

This ERA incorporates the phased approach as recommended by the USEPA (USEPA, 1997 and 1998), Department of Toxic Substances Control (DTSC, 1996), and United States Navy ERA Guidance (Navy, 1999). Each phase is more detailed and focused than the one preceding it. The approach for Site 74 is modeled mainly after that developed by the Navy (1999) but is consistent with guidance from USEPA (1997, 1998) and DTSC (1996) and was used to assess ecological risks from chemicals of potential ecological concern (COPECs). The following text briefly describes the potential phases for an ERA.

Tier 1 Screening Risk Assessment. This phase of the ERA identifies pathways and compares exposure point concentrations (EPCs) to benchmarks. It has two steps that include a site visit, pathway identification/problem formulation, toxicity evaluation, exposure estimation, and risk calculation. It represents a screening evaluation for complete exposure pathways and a risk estimation that is based on existing site data, conservative exposure models, and literature-based data. The Tier 1 Screening Risk Assessment (SRA) was completed previously for Site 74. Further evaluation and data collection are proposed in this phase of the ERA process if potential exposure pathways are likely to be complete, but existing data are inadequate for the risk assessment. Based on the results of the screening ERAs for Site 74, it was concluded in the FSI Phase II Report that a removal action was required (SWDIV, 2002). A PRG for lead of 35.7 mg/kg (the ULBV) was recommended as the basis for soil removal. The Navy cost model projected a $20 million cost for remediating to the ULBV. Subsequently, the Navy requested the collection of additional site-specific data to provide a more site-specific evaluation of ecological risk on which to base risk management decisions and to develop PRGs for lead and antimony. This combined phase is equivalent to Steps 1 through 4 in the Ecological Risk Assessment Guidance for Superfund Sites (USEPA, 1997) and the Scoping Assessment and Phase I Predictive ERA of DTSC (1996).

Tier 2 Baseline Ecological Risk Assessment. If necessary, the next phase of the ERA is a Tier 2 Baseline Ecological Risk Assessment (BERA) (referred to as the Phase II Validation Study by DTSC [1996]), which includes detailed assessment of exposure and hazard to assessment endpoints (ecological qualities to be protected). It is used to develop site-specific values that are protective of the environment. This phase represents Steps 3 through 7 of the Navy ERA guidance (Navy, 1999). Within the Tier 2 BERA, the conservative exposure assumptions of the Tier 1 SRA are refined. If unacceptable risk is still predicted, then the

BERA proceeds through the remaining steps. Typically, this phase involves the collection of additional site-specific data and the determination of risks on the basis of a weight-of-evidence approach. Sampling could include additional abiotic and biotic media in sub-areas of concern. Laboratory bioassay testing might also be undertaken to assess site-specific toxicity and bioaccumulation, thus quantifying acceptable levels of chemicals in media to which ecological receptors may be exposed under current and future conditions. The Tier 2 BERA compares to Tiers II and III (validation and impact assessments) of DTSC (1996) and Steps 5 through 7 in USEPA (1997).

Tier 3 Evaluation of Remedial Alternative. This tier includes remedy development and evaluation. This is a two-step process in which site-specific, risk-based cleanup values (i.e., PRGs) are developed and remedial alternatives are evaluated.

This technical memorandum serves as the Tier II ERA as defined for this project. It also includes the development of potential PRGs (part a of Tier 3 [Navy, 1999]). The procedures followed for conducting the Tier II ERA at Site 74 are consistent with those described in the following guidance documents:

- *Navy Policy for Conducting Ecological Risk Assessments* (Navy, 1999)
- *Ecological Risk Assessment Guidance for Superfund* (USEPA, 1997)
- *Final Guidelines for Ecological Risk Assessment* (USEPA, 1998)
- *Framework for Ecological Risk Assessment* (USEPA, 1992a)
- *Guidance for Ecological Risk Assessment at Hazardous Waste Sites and Permitted Facilities* (DTSC, 1996)

Ecological risks were evaluated on a weight-of-evidence basis. The ERA is built upon the conceptual site model (CSM) described in Section 2.3 and data collected as part of the FSI Phase II and Tier II ERA sampling plans. Additional information concerning the ecology of Site 74 and the resident biota was obtained from available literature.

1.5 Technical Memorandum Organization

This report is organized following ERA framework (EPA, 1992a) and includes the following sections:

Section 1: Introduction—Describes the purpose of this analysis and provides a brief site description, a summary of the results of the screening ERAs, a summary of the SAPs developed in support of this Tier II ERA (SWDIV, 2003; 2004), the ERA approach including the guidance for the methods used to perform the risk analysis, and the organization of the ERA report.

Section 2: Problem Formulation—Describes the site as well as the physical and ecological setting; develops the ecological CSM; provides an evaluation of contaminant sources and discusses selection of the COPECs; identifies the assessment endpoints and measures, including identification of representative species; presents the DQOs developed in the SAP reports (SWDIV, 2003; 2004); and provides summaries of the available data.

Section 3: Analysis—Presents the exposure assessment and the ecological effects assessment. The exposure assessment identifies exposure pathways to be quantitatively evaluated and EPCs for soil and sediment. The ecological effects assessment presents available toxicity information (literature-based and site-specific) on COPECs to determine potential adverse effects for ecological receptors.

Section 4: Risk Characterization—Integrates the problem formulation and the exposure/effects analyses to estimate the likelihood of impacts to ecological receptors from exposure to COPECs. Discussion of uncertainties and limitations associated with the risk assessment data and methodology are also presented.

Section 5: Risk Conclusions—Summarizes the overall conclusions concerning potential ecological risks at Site 74. PRGs and areas recommended for consideration for remedial are also presented in this section.

Section 6: References—Lists references cited in the document**.**

Appendixes—These contain the field notes, photographs of the sampling locations, the complete project database (on compact disk [CD]), the avian radiographs, and the bioaccessibility report in Appendix A; the supporting data for the Analysis section in Appendix B; the sediment bioassay report from the bioassay laboratory and the associated dose-response figures in Appendix C; the plant bioassay report from the bioassay laboratory and the associated dose-response figures in Appendix D; the data and description of the development of the lead shot toxicity reference value (TRV) in Appendix E; and the agency comments and responses are in Appendix F.

2.0 Problem Formulation

Problem formulation is one of the most critical components of any risk assessment. Problem formulation includes describing the affected site; identifying the physical and ecological setting; identifying the COPECs, including contaminant source evaluation; developing the CSM; identifying assessment endpoints and measures and representative species; discussing the DQOs (developed in SWDIV, 2003 and 2004); and providing a summary of the available data. The problem formulation provides direction and focus to the assessment process and ensures that relevant data will be collected or evaluated.

2.1 Site Description

The site description provides information about the location and history, as well as the physical and ecological setting, of the particular site. This information helps establish the spatial context of the assessment, select the appropriate assessment endpoints, and identify the COPECs. Lists of receptors at the site further determine potential assessment endpoints.

2.1.1 Site Location

NAVWPNSTA Seal Beach is located 26 miles south of the Los Angeles urban center, as shown in Figure 1-1. The station consists of 5,000 acres of land located on the Pacific Coast within the City of Seal Beach in Orange County, California. The major urban areas that surround the base are the Cities of Westminster, Huntington Beach, Los Alamitos, and Seal Beach.

The predominant land use in the surrounding area is medium-density residential and scattered parcels of high-density residential, commercial, industrial, or recreational development (Naval Energy and Environmental Support Activity [NEESA], 1990). The approximate latitude and longitude of NAVWPNSTA Seal Beach are as follows:

- Latitude: 33° 43′ 45″ N to 33° 48′ 0″ N
- Longitude: 118° 2′ 30″ W to 118° 5′ 30″ W

NAVWPNSTA Seal Beach lies within Township 5 South, Ranges 11 and 12 West, using the San Bernardino Baseline and Meridian.

2.1.2 Facility and Site Background

NAVWPNSTA Seal Beach is one of several weapons stations maintained by the Navy to provide fleet combatants with ready-for-use ordnance. Because of its geographic location, this base serves as a supply point for more than half of the operating Navy and Marine Corps forces in the Pacific.

NAVWPNSTA Seal Beach is one of several weapons support facilities on the west coast of the United States. The City of Seal Beach is the location of NAVWPNSTA Seal Beach headquarters and central administrative and support departments, as well as waterfront, storage, and test facilities.

The naval facility at Seal Beach originally was commissioned in 1944 at the height of World War II as the Naval Ammunition and Net Depot. In 1962, the Naval Ammunition and Net Depot was redesignated as the Naval Weapons Station. With the disestablishment of the Naval Ordnance Center Pacific Division at Seal Beach, the base was designated as the lead Weapons Support Facility (WPNSUPPFAC) Seal Beach in October 1997. In October 1998, the base was redesignated as "Naval Weapons Station, Seal Beach." Currently, the NAVWPNSTA Seal Beach, Detachment Concord (California); NAVWPNSTA Seal Beach, Detachment San Diego (California); and NAVWPNSTA Seal Beach, Detachment Fallbrook (California) all report to the NAVWPNSTA Seal Beach Commanding Officer.

Site 74, located east of the Seal Beach NWR and south of the small arms range, was once an active skeet and trap range (Figure 1-2). According to NAVWPNSTA personnel, station and nonstation skeet range members constructed Site 74 in the late 1960s. The range consisted of two skeet houses, a trap house, a concrete pad with approximately six stations, and a trailer. Figure 1-3 shows a photograph of Site 74, but the trailer is no longer present. For approximately 25 years, Site 74 was used regularly on the weekends and occasionally during the week. Shooters typically used 12-gauge shotguns and lead shot to shoot the clay targets exiting the skeet or trap houses. Maximum ranges of pellets were estimated at approximately 250 yards from the concrete pad area (personal communication with Chris Wayland and Darrell Wallace/NAVWPNSTA Seal Beach, 1999). This was confirmed by the FSI Phase II sampling results (SWDIV, 2002).

Because of the concern for waterfowl and other wildlife foraging at Site 74 and ingesting the residual lead and antimony from the spent pellets, the range was closed down in the early 1990s.

2.1.3 Physical Setting

This subsection summarizes the land uses, climatology, geology, hydrology, and hydrogeology of the NAVWPNSTA Seal Beach in general and Site 74 in particular as appropriate.

2.1.3.1 Land Use

NAVWPNSTA Seal Beach occupies approximately 5,000 acres of land. This land is used for a variety of functions including military, agricultural, petroleum production, recreation, and wildlife management. Site 74 is approximately 23 acres in size.

Military Use

NAVWPNSTA Seal Beach serves as a replenishment point by receiving, storing, maintaining, and issuing conventional ammunition and surface- and air-launched guided missiles to Navy and Marine Corps operating forces. The existing land use at the NAVWPNSTA Seal Beach is dedicated mostly to ordnance operations. Additionally, NAVWPNSTA provides exercise ammunition for fleet training within Southern California and supports a variety of ordnance control functions for the Navy (SWDIV, 1990).

Buildings, magazines, and other structures occupy 357 acres of the NAVWPNSTA. The surrounding grounds cover an additional 1,200 acres. Housing and personnel support, public works, and supply facilities are located at the southwest corner of the NAVWPNSTA (SWDIV, 1990).

Agriculture

Agricultural outleases on the NAVWPNSTA total 2,171 acres; consisting of about 1,385 acres of irrigable farm area; 760 acres of dry-land farm area; and 26 acres of maintenance and storage area. Recent crops grown include cauliflower, cabbage, cucumber, lettuce, parsley, strawberries, pumpkins, barley, collard greens, mustard greens, turnip greens, turnips, beets, kale, Swiss chard, kohlrabi, bok choy, dill, cilantro, lima beans, black-eyed peas, basil, leeks, and green onions (SWDIV, 1990).

Irrigation water is pumped from onsite wells and is applied by sprinklers or furrow irrigation. Irrigation is provided in quantities and at frequencies that meet the needs of the particular crops being raised. Irrigation water reportedly is applied in a manner that provides proper penetration without causing erosion (SWDIV, 1990).

Weeds in and around the fields are controlled with herbicides used in accordance with local and federal government regulations; no soil sterilants are used. State or county permits required for use of pesticides are obtained by the agricultural lessee before application.

Petroleum Production

Since 1954, a 6.5-acre, man-made fill island, Oil Island, has served as a base from which to pump oil from reservoirs at depth (SWDIV, 1995). Located on the northern side of Pacific Coast Highway at the southwest portion of NAVWPNSTA Seal Beach, Oil Island is currently in operation, exceeding its original life expectancy of 15 years (SWDIV, 1990). BreitBurn Energy Corporation purchased the lease in September 1988 and is the current operator. Water present in fluids pumped to the surface is separated in surface vessels. The water is then injected down wells to force oil from pores in the reservoir rock.

Recreation

Recreational activities are authorized for military and civilian personnel (retired military). The small arms range is used by a variety of organizations including the Navy, Marine Corps, other federal personnel, and local law enforcement agencies. The range is located on former marshlands east of Case Road. Beaches at the entrance to the harbor extend north along the northwest side of the Seal Beach NWR. Portions of the beach are available to NAVWPNSTA personnel for swimming, picnicking, and other beach activities. Fishing is permitted outside the Seal Beach NWR at the NAVWPNSTA beach and around the inner harbor of Anaheim Bay (SWDIV, 1990).

Wildlife Management

The Seal Beach NWR is located within the boundaries of NAVWPNSTA Seal Beach and occupies 911 of 5,000 acres that comprise the base. In 1964, Anaheim Bay and its tidal salt marsh were designated as an NWR. In 1972, the bay and tidal salt marsh were established as the Seal Beach NWR (NEESA, 1985). In 1990, the Port of Long Beach (POLB) completed its creation of 116 acres of wetland habitat within the Seal Beach NWR as mitigation for the construction of its Pier J Landfill. The mitigation project of POLB consisted of creating four tidally influenced ponds, two of which have islands to provide additional habitat for birds. Although the Navy is the owner of the land that comprises the Seal Beach NWR, the USFWS serves as the NWR manager and the Natural Resources Trustee.

2.1.3.2 Climatology

The climate of the NAVWPNSTA Seal Beach area is typical of the Southern California coastal region. The adjacent Pacific Ocean has a moderating effect on temperatures. In the winter months, the maximum temperature usually ranges from mid to high 50s (degrees Fahrenheit [°F]). In the summer months, maximum temperatures in the high 70s and low 80s°F are common, while low temperatures vary between the high 50s and the mid 60s°F (NEESA, 1987).

The Seal Beach coastal area has an annual average rainfall of 10 to 12 inches with the greatest rainfall occurring during the winter months (Orange County Environmental Management Agency, 1986). Occasionally, strong dry northeasterly winds descend the mountain slopes in the fall, winter, and early spring months. The highest winds at NAVWPNSTA Seal Beach were recorded in association with the winter and spring storms that invade Southern California from the Pacific Ocean (NEESA, 1987).

2.1.3.3 Geology

Most of NAVWPNSTA Seal Beach lies on flat, alluvial deposits that slope evenly from approximately 20 feet above sea level in the northeast part of the facility to sea level in the tidal flats of the base in the southwest.

Bedrock in the vicinity of the base is a thick sequence of Tertiary and Quaternary sedimentary rocks deposited on a basement of pre-Tertiary metamorphic and crystalline rocks. Tertiary rocks range in age from Oligocene to Pliocene and include sandstone, siltstone, shale, and mudstone; they are almost exclusively of marine origin (Poland et al., 1956).

The most prominent geologic feature at NAVWPNSTA Seal Beach is the Newport-Inglewood fault zone, which cuts diagonally, paralleling the coast, across the southwest part of NAVWPNSTA. Landing Hill, situated on the southeast side of the NAVWPNSTA, is an uplift along the Newport-Inglewood fault zone that reaches a maximum elevation of about

50 feet. The fault has been active in recent times, as attested by the major Inglewood earthquakes in 1921, 1933, and 1941 (Poland et al., 1956).

Soils typically contain abundant clay and silt, and are poorly drained. Six soil types (Alo clay, beaches, Bolsa silt loam, Bolsa silt clay loam, Myford sandy loam, and tidal flats) have been identified at NAVWPNSTA Seal Beach (Soil Conservation Service, 1978).

2.1.3.4 Hydrology

Surface water drainage at NAVWPNSTA Seal Beach is provided by ditches and tidal sloughs through flat-lying clay deposits. Stream flow in ditches is intermittent and depends on rainfall and excess irrigation runoff. Water in tidal sloughs depends on tide elevation and rainfall, and ultimately drains to the tidal salt marsh. Generally, tidal areas are wet or damp, except during extended dry periods (SWDIV, 1990).

A large portion of the salt marsh associated with Anaheim Bay is within the NAVWPNSTA Seal Beach. The salt marsh is flushed semidiurnally with seawater from Anaheim Bay. During high tides, water floods the tidal flats. Nearly the entire marsh becomes inundated during spring high tides (NEESA, 1990).

Across the Seal Beach NWR, the extent of tidal flooding is controlled by raised roadbeds that serve as barriers. Three major tidal subchannels (west, middle, and east) branch northward from the main channel to NAVWPNSTA Seal Beach. The west branch supplies water to areas west of Oil Island and to the northern part of the NWR. The middle branch supplies water to Oil Island and the area north to Bolsa Avenue. The east branch supplies water to the largest tidal flat and the southeast portion of the NWR. Water is present perennially in the lower reaches of the major sloughs.

2.1.3.5 Hydrogeology

NAVWPNSTA Seal Beach is located in the southwest corner of the Orange County Basin of the Los Angeles Basin. The Orange County Basin, like the adjacent Central and West Coast Basins of the Los Angeles Basin, is host to several important aquifers that supply groundwater for the Southern California area: Artesia, Gage, Hollydale, Jefferson, Lynwood, and Silverado. Three general aquifer systems or "zones" have been identified by Poland et al. (1956):

1. An unconfined zone that occurs just below ground surface (bgs) to a few feet bgs in the upper part of the alluvial deposits of Recent age, and that is essentially continuous from the ocean
2. A fresh confined groundwater zone (the principal freshwater zone) that occurs in the lower division of the alluvial deposits of Recent age where the total thickness is about 2,600 feet
3. A confined zone of saline water that underlies the principal freshwater zone

However, a 1968 report published by the California Department of Water Resources (DWR) investigating seawater intrusion along the Bolsa-Sunset area subsequently refined these zones into four generalized groundwater zones as described below (DWR, 1968).

Semiperched Zone. The upper semiperched groundwaters occur at shallow depths in the permeable deposits of Upper Recent and Upper Pleistocene age sediments. This zone is irregularly distributed throughout the area and consists of generally fine-to-coarse sand and fine gravel. These deposits are irregularly interbedded with gray-green sandy silt and sandy

clay (DWR, 1968). This zone generally includes one or two permeable beds that may be as thick as 20 feet and are separated by silt and clay (Orange County Water District, 1990).

Beneath and adjacent to Seal Beach NWR, the semiperched waters are sodium chloride in chemical character within Recent deposits and sodium to calcium chloride in upper Pleistocene deposits. Landward from Seal Beach NWR, the salinity and chemical character ranges from brackish calcium sulfate water to localized areas of fresh water (DWR, 1968).

Upper Aquifer System. The upper aquifer system of the coastal area of Orange County generally corresponds to the aquifers in the Central Basin. In the vicinity of NAVWPNSTA Seal Beach, the Alpha, Beta, and Lambda Aquifers of the upper Pleistocene and the Meadowlark Aquifer of the lower Pleistocene are locally interconnected due to unconformities and discontinuities of aquitards commonly less than 30 feet thick. These aquifers generally correspond to the Exposition/Artesia, Gardena, Gage, and Hollydale/ Jefferson Aquifers in the Central Basin. Piezometric levels among these aquifers are approximately the same with vertical head differences of less than 1 foot. Because of such conditions, these aquifers form an upper aquifer system (DWR, 1968).

The fresh waters of the upper Pleistocene are typically calcium bicarbonate to calcium-sodium bicarbonate. Aquifers in the lower Pleistocene are sodium bicarbonate in character. Within the NAVWPNSTA Seal Beach area, fresh groundwater containing less than 50 parts per million (ppm) chloride is found in aquifers on the landward side of the Newport-Inglewood fault. This freshwater body terminates abruptly in a seaward direction along the Newport-Inglewood fault, which acts to varying degrees as a hydraulic barrier to lateral groundwater movement. Seaward of the fault, groundwater is predominantly brackish to saline and is sodium chloride in character with chloride concentrations as high as 18,800 ppm (DWR, 1968).

Lower Aquifer System. Aquifers forming the lower aquifer system include the Main Aquifer (corresponding to the merged Lynwood and Silverado Aquifers in the Central Basin) and the Lower Zone aquifer (corresponding to the Sunnyside Aquifer in the Central Basin). This aquifer system is generally overlain by a continuous aquitard commonly more than 80 feet thick. The piezometric surface of this lower aquifer system is different from that of the upper aquifer system.

The waters in this system are sodium bicarbonate in chemical nature and are soft to very soft. Due to sulfate reduction within the aquifer, waters in this system are characterized by a hydrogen sulfide odor and an amber color (DWR, 1968).

Connate Waters. Groundwater contained in the lower division of the Pico Formation and in older sedimentary formations of Tertiary age is saline. These waters are sodium chloride in chemical character; however, in comparison with seawater, the connate waters are normally lower in dissolved solids and chlorides. They are characteristically higher in boron and bicarbonate and lower in sulfate and magnesium (DWR, 1968).

Depth to groundwater in the upper part of the alluvial deposits of Recent age ranges from just bgs in the NWR to approximately 20 feet bgs at higher ground elevations (NEESA, 1985).

2.1.4 Ecological Setting

The physical setting and habitat at Site 74 is somewhat complex and diverse. The portion of Site 74 east of Case Road is relatively flat and is predominantly covered with tall grass and shrubs. This area contains silty clays with a high percentage of sand and occasional shell deposits. There are also certain isolated areas within this half of the site that are completely devoid of vegetation. These areas are characterized by fine silts. During periods of heavy rain, ponding is observed in these portions of the site. The remainder of this half of the site is covered by a concrete pad, gravel, and asphalt-paved road. The soils in this area are silty sands with large amounts of black-colored broken clay targets.

To the west of Case Road within the NWR, the site becomes part of the southern coastal salt marsh with year-round flooding and drainage caused by tidal fluctuations. The area is characterized by tidal flats of stratified clayey to sandy deposits that are poorly drained and high in salts. The salt marsh has abundant vegetation that is dominated by plant species like saltwort (*Batis maritima*), shoregrass (*Monanthochloe littoralis*), estuary seablite (*Suaeda esteroa*), and cordgrass (*Spartina foliosa*). This area is an ecologically sensitive natural habitat for several wildlife species, and it presents a large open space along the Pacific flyway for migratory birds.

Though no groundwater data are available for Site 74, the depth to groundwater is expected to be approximately 5 to 7 feet bgs and the water is considered to be saline (SWDIV, 1997). Groundwater in this area is hydraulically connected to the surface waters in the NWR and is tidally influenced. Fresh surface water is present on the site only during periods of high rainfall or when irrigation runoff is excessive.

Several bird species known to be resident or migrants at NAVWPNSTA Seal Beach are listed by federal or state agencies, or both, as threatened or endangered. They include the California brown pelican (*Pelecanus occidentalis californicus*), Swainson's hawk (*Buteo swainsoni*), light-footed clapper rail, western snowy plover (*Charadrius alexandrinus nivosus*), California least tern (*Sterna antillarum browni*), and Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) (Recon, 1997). The breeding season for these species extends from approximately late January to mid-September.

The light-footed clapper rail is a subspecies of clapper rail that is a resident of the NWR, thus obtaining its entire food supply there. The mangrove clapper rail (*R. l. insularium*), California clapper rail (*R. l. obsoletus*), and Yuma clapper rail (*R. l. yumanensis*) are also subspecies of clapper rail in California. Life history and risk estimates are assumed to be similar among these four subspecies (Eddleman and Conway, 1998). The California least tern occupies the NWR only during the breeding season, but most of its food supply comes from the NWR during that period (USFWS, 1990).

Small mammals such as voles, shrews, and ground squirrels, as well as other mammals such as Audubon's cottontail (*Sylviagus audubonii*) and the brush rabbit are likely to be found in the upland areas east of Case Road.

2.2 Chemicals of Potential Ecological Concern

COPECs are those chemicals that are present at the site in concentrations that may exceed toxicity thresholds for ecological receptors. These chemicals are identified by the evaluation

of known site practices or analytical results. The skeet and trap shooting activities have resulted in the distribution of solid lead shot and broken clay targets within Site 74. Distribution of lead shot is expected to be greater than that of the targets because of its greater travel distance. Shot (an alloy of lead and antimony) is the primary source of lead and antimony contamination at the site. Stray bullets from the nearby small arms range represent another potential source for the lead contamination. The "clay" targets used at the site commonly were made from coal tar materials and are the only source of PAH contamination at Site 74. Therefore, COPECs for Site 74 are lead, antimony, and PAHs, though lead and antimony are of primary concern.

2.3 Ecological Conceptual Site Model

The CSM is a written description and visual presentation of predicted relationships between ecological receptors and the COPECs to which they might be exposed (Figure 2-1).

An exposure pathway can be described as the physical course that a COPEC takes from the point of release to a receptor. An exposure pathway is complete (i.e., there is exposure) if there is a way for the receptor to take in chemicals through ingestion, inhalation, or dermal absorption. To be complete, an exposure pathway must have all of the following components:

- Chemical source
- Mechanism for chemical release
- Environmental transport media or the possibility of direct contact
- Exposure point
- Feasible route of intake

In the absence of any one of these components, an exposure pathway is considered incomplete, and, by definition, there can be no risk associated with that particular exposure pathway. Exposure can occur when chemicals migrate from their source to an exposure point (i.e., a location where receptors can come into contact with the chemicals) or when a receptor moves into direct contact with chemicals or contaminated media.

Skeet and trap shooting activities at Site 74 resulted in widespread distribution of solid lead shot and broken clay targets. For the purposes of this investigation, the lead shot and broken clay targets were considered the primary sources of COPECs. Abrasion (from the firing of the weapon and impact of the shot) and subsequent weathering of the shot and clay targets were the major release mechanisms, with infiltration/percolation, water erosion, wind erosion, and discharge from soil and sediment being the secondary release mechanisms. Although the groundwater in the portion of Site 74 east of Case Road is hydraulically connected to the surface waters in the NWR, groundwater was not a concern because lead from shot is not very mobile and tends to sorb to the soil and sediments (Stansley et al., 1992). Within the NWR portion of Site 74, the groundwater and the surface water pathways were considered to be possible. However, due to low mobility, adsorption to sediment, in addition to dispersion and dilution effects (from tidal flow), surface water was not considered a medium of concern.

Contaminants in soil or sediment may be directly bioaccumulated by plants or invertebrates that are resident in Site 74 soils and sediments. Wildlife (e.g., herbivores, omnivores, and

invertebrate feeders) may be exposed directly to contaminants in soil or sediment by incidental soil or sediment ingestion, by dermal contact, or by the inhalation of wind-borne particles. Except in the case of burrow-dwelling animals, a receptor's exposure to contaminants by inhalation and dermal contact usually contributes little to its overall exposure. Dermal exposure is likely to be low, even in burrow-dwelling animals, because of the presence of protective dermal layers (e.g., feathers, fur, or scales). Receptors evaluated in this assessment do not include burrow-dwelling animals because other receptors were determined to be more representative of onsite receptors. Additionally, methods and toxicity data needed to evaluate risk from these pathways were lacking. Therefore, dermal and inhalation exposures were not evaluated.

Wildlife also may receive contaminant exposure through food-web transfer of chemicals from lower trophic levels (e.g., plants to herbivores and invertebrates to invertebrate feeders), though food-web exposure to lead (and likely antimony) is expected to be somewhat limited, especially for herbivores. In general, lead does not bioaccumulate to any great degree (Eisler, 2000). Bioaccumulation of lead by plants is generally minimal at soil pHs >6.0 (Stansley and Roscoe, 1996). Soil pH at locations on the NAVWPNSTA Seal Beach ranged from 6.9 to 8.3 (see Section 2.6.1). Therefore, little bioaccumulation by plants was expected.

Although exposure through food-web transfer of lead (and possibly antimony) was expected to be minimal, exposure through incidental ingestion of soil and sediment could be significant. Soil ingestion has been shown to be the primary pathway for lead exposure of wildlife at trap and skeet ranges (Stansley and Roscoe, 1996) and other lead-contaminated areas (Beyer et al., 1998). Therefore, incidental soil or sediment ingestion was assumed to account for the exposure and potential risk at Site 74.

Another exposure pathway for avian species occurs through ingestion of shot in site soils or sediments. This is particularly a concern for birds such as mallards that mistakenly may consume shot while consuming grit needed for digestion. Unlike birds, which can store this shot in the gizzard and experience long-term exposure, shot is expected to pass through the gastrointestinal (GI) tract of mammals relatively quickly and with little absorption. Therefore, shot at Site 74 was not expected to contribute significantly to lead and antimony exposure in mammals.

These exposure pathways were the primary focus of this ERA.

2.4 Assessment and Measurement Endpoints

A complete problem formulation also includes selection of assessment and measurement endpoints (referred to as measures under some regulatory guidelines). The identification of these endpoints enables the risk manager and the risk assessor to focus on the critical aspects of the study that will have an impact on 1) exposure and, thus, potential risk to the environment; 2) schedule; and 3) cost. Utilizing the endpoint process, resources are focused on the most critical elements necessary to address the environmental problem (USEPA, 1992a and 1998).

Assessment endpoints are the ecological resources present at a site that are to be protected. Measurement endpoints are the measures that are evaluated to provide an indication of

whether exposure and adverse effects to assessment endpoints have occurred or are likely to occur.

2.4.1 Assessment Endpoints

The selection of assessment endpoints is crucial to the ERA because the endpoints define the important ecological values that are to be protected (Suter, 1990 and 1993; Suter et al., 2000; Navy, 1999; USEPA, 1997 and 1998). They are developed based on known information concerning the contaminants present, site conditions, and the risk management goals. In addition, they must represent a property of the system that can be measured. There are three components to each assessment endpoint: an entity (e.g., birds), an attribute of that entity (e.g., population survival), and a measurable value such as an effect level (USEPA, 1998; Suter et al., 1995 and 2000).

Assessment endpoints for Site 74 include marsh plants, sediment invertebrates, terrestrial plants, soil invertebrates, threatened and endangered species (i.e., light-footed clapper rail and Belding's savannah sparrow), aquatic birds, terrestrial birds, and terrestrial mammals (Table 2-1). USEPA identifies four criteria to consider when selecting assessment endpoints (USEPA, 1992a and 1998). These criteria and their relationships to the assessment endpoints for Site 74 are summarized below:

- Societal value: endangered species and migratory birds have been identified as valued to society by protection under federal legislation (i.e., the Endangered Species Act) or by international treaty (i.e., the Migratory Bird Treaty Act).
- Environmental policy goals: protection of endangered species and migratory birds is consistent with policy goals as stated through federal legislation (i.e., the Endangered Species Act) or international treaty (i.e., the Migratory Bird Treaty Act); these are protected at the individual level.
- Ecological relevance: marsh plants, sediment invertebrates, and aquatic birds such as waterfowl and shorebirds are integral components of the marsh ecosystem west of Case Road; whereas, terrestrial plants, soil invertebrates, upland birds, and upland small mammals are integral components of the upland ecosystem east of Case Road.
- Susceptibility to the stressor: research has shown that plants, sediment and soil invertebrates, birds, and mammals may be adversely affected by exposure to lead and antimony. Potential risks to birds and mammals from exposure to PAHs at Site 74 were found to be insignificant in the screening ERAs. Potential risks to directly exposed soil or sediment biota were not estimated in the screening; however, only terrestrial plants and soil invertebrates have potential for exposure to PAHs as the source of these contaminants (i.e., clay targets) is not found in the marsh areas of the site. These species potentially may be affected by exposure to PAHs.

The attribute selected for each entity was based on the biological organizational level of the entity and the primary criteria that were used to select it. Entities and attributes were evaluated at either the community level, the population level, or the individual level of organization.

The maximum acceptable adverse effect level generally selected for the assessment endpoints is a 20 percent reduction in the measured attribute. This level is consistent with current USEPA regulatory practices (e.g., development of the national ambient water quality criteria and effluent discharges regulated by the National Pollutant Discharge Elimination System [NPDES]) and measurement limits for many field and laboratory tests. For example, aquatic subchronic toxicity tests are not reliable at detecting reductions at less than 20 percent adverse effect responses of the test organism; lowest observed effect concentrations (LOECs) for avian reproduction tests correspond to a 20 percent reduction; and 20 percent reduction in community is the limit of detection for assessing aquatic communities using USEPA rapid bioassessment procedures (Suter et al., 2000). Using available methods, changes in natural populations of less than 20 percent cannot generally be differentiated from "noise" measurements. An effect level of 20 percent was selected for all population- and community-level assessment endpoints at Site 74. For individual-level assessment endpoints (e.g., threatened and endangered species), there is no acceptable adverse effect level.

Receptors representative of assessment endpoints include marsh plant, sediment invertebrate, terrestrial plant, and soil invertebrate communities; avian species (light-footed clapper rails, mallards, Belding's savannah sparrows, western meadowlarks), and mammals (California voles and ornate shrews). These receptors were selected based on several criteria and fulfill as many of the following selection criteria as possible:

- Receptor is a special-status species (e.g., threatened or endangered).
- Receptor has a small home range.
- Receptor is representative of an ecological guild (i.e., a group of species with similar ecological resource requirements and foraging strategies and, therefore, similar roles in the ecosystem).
- Receptor is susceptible to bioaccumulation/biomagnification of COPECs (e.g., higher trophic-level predators).
- Receptor is likely to be exposed to contaminants.
- Receptor occurs at the site.
- Receptor is known or suspected to be sensitive to contaminants.
- Receptor is ecologically important.

Assessment endpoints, representative receptors, and selection rationale for the assessment of Site 74 are presented in Table 2-1.

Although mallards and western meadowlarks are migratory birds protected by the Migratory Bird Treaty Act, these species are not threatened or endangered across their range. Therefore, mallards and meadowlarks were assessed at the population level. As a threatened or endangered species (protected by the Endangered Species Act), any adverse effect on the health or survival of individual light-footed clapper rails and Belding's savannah sparrows is unacceptable, and these receptors were evaluated at the individual

level. There are no special-status mammalian species at Site 74; therefore, California voles and ornate shrews were assessed at the population level.

2.4.2 Measurement Endpoints

The measurement endpoints (or measures) used in ERAs are predictive of the assessment endpoints (USEPA, 1998). There are three categories of measures: measures of exposure, measures of effects, and measures of ecosystem and receptor characteristics. Measures identified for an ERA can be from one or more of these categories, depending on the complexity of the ERA. For purposes of Site 74, only measures of exposure and measures of effects were used.

2.4.2.1 Measures of Exposure

Measures of exposure are used to evaluate how exposure could be occurring and are defined as the contact or co-occurrence of the stressor and the assessment endpoint. The primary measures of exposure used for Site 74 were the concentrations of COPECs in soil or sediment for all receptors. Additionally, the measured concentrations of lead in liver tissue for western meadowlarks and small mammals were used as measures of exposure for these receptors. Estimated concentrations of lead in livers of the mallard and in small mammals were additional tissue-based measures of exposure.

2.4.2.2 Measures of Effects

Measures of effects are used to evaluate the response of the assessment endpoints when exposed to the stressor. As such, they are quantifiable changes in an attribute of an assessment endpoint. Measures of effects available for this ERA included ambient media toxicity bioassay data and nonsite-specific literature-based toxicity data. For example, only literature-derived, single-chemical toxicity data were available for birds and mammals (though this consists of both dietary- and tissue-based data), while single-chemical toxicity data, as well as site-specific ambient media toxicity test data, were available for sediment invertebrates.

Measures of exposure and effects are presented in Table 2-1 along with the assessment endpoints.

2.5 Data Quality Objectives

DQOs are qualitative and quantitative statements specifying the required quality of the data for each specific use. They are based on the concept that different data uses often require data of varying quality.

DQOs ensure that this Tier II ERA remains focused to provide the information needed to develop site-specific target cleanup goals for lead and antimony. USEPA has established a seven-step process for developing DQOs (USEPA, 2000), and this section discusses the DQO process as it applies to the Tier II ERA for Site 74. The following DQOs were developed and presented in the two SAPs described in Section 1.3 (SWDIV, 2003 and 2004).

2.5.1 Data Quality Objectives Process

The DQO process consists of the following seven steps (USEPA, 2000):

- **Step 1—**State the Problem: Concisely describe the problem to be studied based on concerns and/or data gaps identified by previous investigations.
- **Step 2—**Identify the Decision: Identify what questions the study will attempt to resolve.
- **Step 3—**Identify the Inputs to the Decision: Identify the informational inputs that need to be obtained and the measurements that need to be taken to resolve the decision statement.
- **Step 4—**Define the Study Boundaries: Specify the time and spatial boundaries (or constraints) to which decisions will apply. Determine when and where the data should be collected.
- **Step 5—**Develop a Decision Rule: Integrate the previous DQO outputs into a single "if-then" statement that describes the logical basis for choosing among alternative actions.
- **Step 6—**Specify Tolerable Limits on Decision Errors: Specify how the data will be treated statistically and what the tolerable limits on decisions are.
- **Step 7—**Optimize the Design for Obtaining Data: State the sampling strategy design, given the previous DQO outputs.

The DQO process is a strategic planning approach that provides a systematic procedure for defining the criteria that a data collection design should satisfy, including when to collect samples, the tolerable level of decision errors for the study, and how many samples to collect (USEPA, 2000). The Tier II ERA sampling included collection of site-specific bioaccumulation and bioavailability data and provides input in developing site-specific target cleanup goals for lead and antimony in support of the removal action at Site 74 (SWDIV, 2003). The project objective for the sediment and soil bioassays was to provide site-specific plant and sediment invertebrate toxicity information to support this development (SWDIV, 2004).

2.5.2 Project-Specific Data Quality Objectives

The data to be collected during the Tier II ERA were intended to assess the risk from historic range activities to biota inhabiting or using Site 74. In general, the data were used for supplemental site characterization and risk assessment (primarily ecological) to arrive at final site decisions for Site 74. Project-specific DQOs for this Tier II ERA are presented below, following the USEPA seven-step DQO process.

2.5.2.1 Step 1—Statement of Problem

Screening-level ERAs conducted for Site 74 as part of the FSI Phase II Report identified potential ecological risks (SWDIV, 2002). These risks were attributed primarily to lead and antimony in soil and sediment from lead shot. The FSI Phase II Report recommended soil and sediment removal as a remedial option. However, because part of Site 74 lies within the Seal Beach NWR and provides habitat for the federally endangered light-footed clapper rail, removal actions would result in significant disturbance or habitat loss. Therefore, further evaluation of ecological risk was warranted before initiating removal actions that would cause habitat impacts. In addition to collection of data to refine the exposure and risk

estimates for birds and mammals (e.g., site-specific bioaccumulation), the USFWS requested that data also be collected to ensure adequate evaluation of the potential for direct toxicity to plants and invertebrates at the site (i.e., site-specific bioassays).

2.5.2.2 Step 2—Decision Questions

The Tier II sampling was designed to collect site-specific contaminant bioavailability and exposure data and conduct site-specific bioassays to answer the following questions for ecological risk-related decisions.

1. Are bird and mammal receptors that are resident at Site 74 experiencing estimated oral exposures to lead or antimony in excess of No Observed Adverse Effects Levels (NOAELs) for the clapper rail and Belding's savannah sparrow and Lowest Observed Adverse Effects Levels (LOAELs) for all other receptors?

   TRVs used in answering the above question consisted of the Navy/Biological Technical Advisory Group (BTAG) TRVs (as available), plus other toxicity values. These TRVs are presented and described in Section 3.2.2.1.

2. Do measured or estimated concentrations of lead in the liver of surrogate avian and mammalian species exceed concentrations associated with clinical toxicity?

   Note that only lead, and not antimony, was evaluated in tissues. Although tissue-effects data for lead were available and relatively well defined, tissue-effects data for antimony were lacking (Pain, 1996; Ma, 1996). Therefore, due to the absence of these data, evaluation of potential risks associated with antimony tissue burdens could not be performed. Consequently, such data were not collected. Tissue-effects levels used in the ERA are presented and described in Section 3.2.2.1.

3. If risks are identified, what level of remediation does Site 74 require to reduce exposure to resident birds and mammals (i.e., given site-specific bioavailability, what are the lead and antimony concentrations in soil or sediment and, for birds only, lead concentration as lead shot that will result in no significant risk)?

   Note that lead shot exposure was evaluated only for avian receptors. Unlike birds that can store shot in the gizzard and experience long-term exposure, lead shot passes through the GI tract of mammals relatively quickly and with little absorption. Therefore, shot was not expected to contribute significantly to lead exposure in mammals.

4. Are sediments or soils associated with Site 74 toxic to directly exposed biota (i.e., plants and/or sediment invertebrates)?

   Effects data for directly exposed biota consisted of literature-derived toxicity values (Section 3.2.1.1) and ambient media bioassays (Section 3.2.1.2).

5. If direct toxicity is observed, does a dose-response relationship exist between analytes measured in sediment or soil samples and observed effects?

6. If direct toxicity is identified and a dose-response relationship exists between analytes measured in sediment or soil samples and observed effects, what level of remediation does Site 74 require to reduce exposure to plants and invertebrates such that toxicity does not occur (i.e., given site-specific sediment or soil toxicity, what are the analyte

concentrations in soil or sediment that will result in no significant risk to plants and/or sediment invertebrates)?

7. If direct toxicity is identified and a dose-response relationship exists between analytes measured in sediment or soil samples and observed effects, do these analytes include lead and antimony (the risk drivers for birds and mammals)? Will the estimated level of remediation to alleviate toxicity be more or less protective of risks to birds and mammals?

2.5.2.3 Step 3—Inputs to Decisions

1. Measurements of lead and antimony in co-located soil or sediment and biota from Site 74 and adjacent areas. Also included counting and weighing of lead shot in soil or sediment.
2. Measurements of relative bioavailability (i.e., bioaccessibility) of lead and antimony in soil and sediment from Site 74.
3. Measurements of lead in livers of western meadowlarks and small mammals from Site 74 and from other adjacent areas or other reference area.
4. Literature-derived exposure parameters (e.g., diet composition, food and soil ingestion rates, and home range) for light-footed clapper rails, mallards, Belding's savannah sparrow, western meadowlarks, ornate shrews, and California voles.
5. Literature-derived avian and mammalian NOAELs and LOAELs for oral exposures to lead and antimony. Literature-derived avian threshold for exposure to lead shot.
6. Literature-derived effects thresholds for concentrations of lead in livers of birds and mammals.
7. Measurements of analytes in soil or sediment from the Site 74 bioassay samples. Analytes included known risk drivers (i.e., lead and antimony), plus other chemicals known to be present at the site that may be used to explain toxic responses if observed (i.e., other TAL metals, PAHs, and minerals and nutrients).
8. Literature-derived effects data for directly exposed biota (i.e., sediment invertebrates, terrestrial and marsh plants, and soil invertebrates)
9. Correlation/regression analyses to determine if dose-response relationships exist between analytes in soil or sediment and bioassay results.
10. Site-specific single-chemical toxicity values (no and/or lowest observed effects concentrations [NOECs and/or LOECs] and median lethal concentrations [LC_{50}] and/or median effects concentrations [EC_{50}]) for plants and sediment invertebrates derived from bioassays. Site-specific single-chemical toxicity values were developed only for analytes for which statistically significant dose-response relationships were observed.

2.5.2.4 Step 4—Study Boundaries

Spatial Boundaries

1. Upland habitat east of Case Road that contains lead concentrations greater than background (Figures 2-2 and 2-3). (Note: Lead was used as the indicator analyte.

Because antimony was found to covary with lead, spatial boundaries identified using lead concentrations were assumed to capture significant antimony concentrations as well. Also, the figures presented here were based on data collected for the FSI Phase II Report [SWDIV, 2002] and represent the information used in selecting Tier II sampling locations. Figures depicting the data from the Tier II sampling are presented in Section 2.6.1)

2. Salt marsh habitat west of Case Road that contains lead concentrations greater than background (Figures 2-2 and 2-3). Salt marsh invertebrates (i.e., horned snails) collected west of Case Road and within areas of elevated lead concentrations were considered to be within study boundaries. (Note: Lead was used as the indicator analyte. Because antimony was found to covary with lead, spatial boundaries identified using lead concentrations were assumed to capture significant antimony concentrations as well.)

3. Soil and sediment to a depth of 1 foot bgs. A sampling depth of 0 to 1 foot was selected based on the depth of contamination observed as part of the FSI Phase II sampling effort, when samples were collected at intervals of 0 to 0.25-foot and 2 to 2.5 feet at 21 soil sampling locations (SWDIV, 2002). The distribution for lead concentrations at each depth interval consistently showed that elevated lead is limited to the upper 1 foot of soil and sediment bgs. Although the root zones of some plant species may extend deeper than 1 foot, this depth captures the area of contamination (i.e., lead and antimony in deeper soils do not differ from background) and, therefore, represents the depth of greatest exposure to plants. Due to the limited vertical distribution of lead and antimony, sampling to a greater depth was not warranted.

4. Upland and salt marsh habitat reference areas.

Temporal Boundaries

This assessment focuses on the current state of Site 74 at the time the assessment was conducted.

2.5.2.5 Step 5—Decision Rules

A weight-of-evidence approach was employed to evaluate ecological risks from lead and antimony to birds and mammals at Site 74. This approach considered risks based from dietary exposure in addition to those based on lead concentrations in livers of resident animals.

1. If estimated dietary exposures for bird and mammal receptors, based on site-specific bioavailability and bioaccumulation data, exceeded NOAELs for the clapper rail and Belding's savannah sparrow or LOAELs for all other receptors, then significant ecological risks were presumed.

2. If measured or estimated concentrations of lead in livers exceeded concentrations associated with clinical toxicity, then significant ecological risks were presumed.

3. If risks were identified, exposure data were evaluated to identify the level of remediation required for Site 74 to reduce exposure of resident birds and mammals to below risk levels (i.e., given site-specific bioavailability, lead and antimony concentrations in soil or sediment that resulted in no significant risk were derived).

4. If the measured numbers of pellets in the digestive tract of birds exceeded literature-based benchmarks, then significant ecological risk was presumed. Note that ecological risks of ingestion of lead pellets from soil and sediment also were evaluated previously and provided in Appendix L-2 as part of the FSI Phase II report (SWDIV, 2002).

5. If any of the animals collected for tissue samples exhibited symptoms of lead or antimony toxicity (e.g., tremors, weakness, wing droop [in birds], limb paralysis, seizures, and blindness for lead; and anorexia and hind limb weakness for antimony), significant ecological risk was presumed.

Additionally, the following decision rules applied to the soil and sediment bioassays.

1. Sediments or soils associated with Site 74 were assumed to be toxic if statistically significant (relative to laboratory controls and field reference samples) reductions in germination, survival, or growth of plants or sediment invertebrates were observed in bioassays. If statistically significant reductions in germination, survival, or growth of plants or sediment invertebrates were not observed in bioassays, the sediment or soil from the individual sampling location was assumed to be not toxic.

2. If toxicity (as defined in Decision Rule 1) was identified in at least one individual sample, visual evaluation and/or regression analyses were performed on the paired toxic response (i.e., germination, survival, or growth) and sediment or soil concentration for each analyte from all samples for that test species. A dose-response relationship was assumed to be present if a continuous increasing or decreasing trend was observed by visual analysis or if a statistically significant regression model was obtained. The presence of a dose-response relationship suggests that the analyte may be a risk driver for directly exposed biota. The lack of a continuous trend or statistically significant regression for a particular analyte indicates no dose-response relationship, suggesting that the analyte was not a risk driver for directly exposed biota.

3. If toxicity (as defined in Decision Rule 1) and a dose-response relationship (as defined by Decision Rule 2) were identified for a given analyte and bioassay test organism (i.e., plant or benthic invertebrate), the highest concentration of the analyte in sediment or soil that caused no statistically significant toxicity (i.e., the NOEC) that was below the lowest concentration of the analyte in sediment or soil that caused statistically significant toxicity (i.e., the LOEC) was identified. The NOEC represents the site-specific soil or sediment concentration that results in no significant risk to plants and/or benthic invertebrates.

4. If toxicity (as defined in Decision Rule 1) and a dose-response relationship (as defined by Decision Rule 2) were identified for a given analyte and bioassay test organism (e.g., plant or benthic invertebrate), the analytes for which dose-response relationships were observed (i.e., potential risk drivers) were evaluated to determine if they included lead or antimony (the COPECs for birds and mammals). If lead or antimony was not identified as a potential risk driver for directly exposed biota, no further evaluation was performed. If lead or antimony was identified as a potential risk driver for directly exposed biota, the resulting site-specific NOECs (as described Decision Rule 3) for directly exposed biota were compared to remediation goals developed for birds and mammals (developed as part of the initial Site 74 Tier II ERA SAP). If remediation goals

for birds and mammals were lower than site-specific NOECs for directly exposed biota, bird and mammal remediation goals were assumed to be protective of directly exposed biota. If site-specific NOECs for directly exposed biota were lower than remediation goals for birds and mammals, site-specific NOECs for directly exposed biota were assumed to be protective of birds and mammals.

2.5.2.6 Step 6—Limits of Decision Error

In general, a stratified sampling approach was used to determine the level of lead and antimony in Site 74. For site-specific evaluation of lead and antimony bioaccumulation, samples of soil or sediment, plants, and invertebrates were co-located. These samples were collected east and west of Case Road, representing low to high lead concentrations determined from previous sampling (see Section 1.3.2 for the definition of low, medium, and high areas). Soil and sediment samples were collected using a stratified random sampling strategy within the areas of low, medium, and high lead concentrations. For site-specific evaluation of lead and antimony bioavailability, three soil and three sediment samples were collected during the bioaccumulation study and submitted for bioavailability analyses in accordance with DTSC (1999) and Navy guidances using methods from Ruby et al. (1996). Plant and invertebrate samples were collected at Site 74 (Note: Results for these samples were compared to those from previously collected plant and invertebrate samples at Seal Beach). Bird and mammal samples were collected at and away (at reference sites) from Site 74.

A stratified sampling approach also was used for sampling soils and sediments for bioassays at Site 74. This stratification was based on the distributions of lead and antimony. As the primary risk drivers for birds and mammals, these analytes were the presumptive risk drivers for directly exposed biota. These samples were collected both east and west of Case Road, representing low to high lead concentrations (determined from previous sampling) in each of those portions of the site. Soil and sediment samples were collected using a stratified sampling strategy within the areas of low, medium, and high lead concentrations. As lead and antimony were found to covary, these areas also were expected to represent areas of low, medium, and high antimony concentrations. Specific sampling locations within each of the low, medium, and high strata were selected based upon best professional judgement (i.e., a judgmental sampling design) and are shown in Figure 1-4. Bioassays on these samples would allow a dose-response relationship (if present) to be defined. To represent ambient conditions, bioassays also were conducted on soil and sediment samples collected from reference locations within the boundaries of NAVWPNSTA Seal Beach but removed from Site 74. Comparison to reference results were controls for effects from field conditions that were not specifically site related. Finally, to control for variation in laboratory test conditions and test species, bioassays were conducted with laboratory control media per approved bioassay protocols. Differences in responses (i.e., site versus field reference or control samples) as well as dose-response relationships were considered statistically significant at a probability of less than or equal to 0.05 ($p \leq 0.05$). This means there is a 5 in 100 likelihood that a difference between groups occurred by chance alone.

Because a weight-of-evidence was employed, statistical limits did not specifically apply to accept or reject all study hypotheses. Instead, all lines of evidence were evaluated and judged based on their complementary strengths and weaknesses.

2.5.2.7 Step 7—Optimize the Sampling Design

See Section 1.3 for a description of the numbers and types of samples collected. The California Department of Fish and Game, Regional Water Quality Control Board, USFWS, and DTSC were consulted during a July 10, 2002, meeting to optimize the sampling and analytical design. (Note: Benthic organisms [e.g., infaunal polychaetes and amphipods] were not sampled because the tidal wetland portion of Site 74 is shallow, only intermittently flooded, and does not provide habitat to support fish or sediment biota communities. However, direct toxicity to sediment invertebrates was evaluated through the sediment invertebrate bioassays.)

2.6 Summary of Available Data

Data used in the ERA included site-specific abiotic sampling, plant and invertebrate bioaccumulation, bioaccessibility, tissue, ambient media toxicity data, and nonsite-specific literature-based data. These data are briefly summarized below.

2.6.1 Abiotic Sampling Data

Soil and sediment samples were collected at Site 74 in 2000 during the FSI Phase II sampling (SWDIV, 2002). These samples included 66 sediment samples collected at 0 to 0.25 foot bgs, 52 surface soil samples collected at 0.5 foot bgs, and 21 subsurface soil samples collected at 2 feet bgs. Only data from 1 foot or less bgs were used in this evaluation (see Section 2.5.2.4, Step 4). Sediment samples were analyzed for TAL lead, TAL antimony and lead shot count. Surface soil samples were analyzed for PAHs, TAL lead, TAL antimony, and lead shot count. Subsurface soil samples were analyzed for PAHs, TAL lead, and TAL antimony.

Soil and sediment samples also were collected during both sampling events conducted in support of this Tier II ERA. These included a total of 27 soil and 27 sediment samples. Of those, 15 soil and 15 sediment samples were collected for the bioaccumulation analyses (August 2003 sampling), and 12 soil and 12 sediment were collected for the bioassays (December 2003 sampling).

Laboratory analyses for the bioaccumulation samples (collected August 2003) were restricted to the primary chemicals of concern, lead and antimony. However, a subset of sediment and soil samples (three samples each) was analyzed for CLP TAL metals (excluding mercury and cyanide), and pH was measured in each of these six samples. Additionally, moisture content was determined in all collected soil and sediment, and grain size and percent TOC were determined in a subset of soil and sediment samples (six soil and six sediment; two each from low, medium, and high lead concentration areas east and west of Case Road). The SAP indicated that grain size and TOC would be measured in all sediment samples collected during the August 2003 sampling. These measurements were not planned for soil samples. Just prior to sampling, it was erroneously assumed that TOC and grain size needed to be measured in soil and sediment. Because these two parameters were not required for the development of the bioaccumulation models for the site, TOC and grain size were measured in a subset of the soil and sediment samples collected. Given that Site 74 is a geologically small site and that grain size and TOC were not expected to vary significantly across the site (due to the homogenous nature of the soils and sediments at the site), two samples from each of the low, medium, and high lead areas (for soil and for

sediment) were assumed to be sufficient for characterization of the site. An analysis of the TOC and grain size results from the two sampling events suggests that surface soils and sediments at the site are fairly homogenous, as predicted. In general, sediments had higher percentages of fine particles and slightly greater TOC compared to soils. This trend was observed for samples collected in August and December 2003. Though the trend is similar, the mean TOC in sediment samples collected in August was greater than in sediment samples collected in December (mean value of 7.2 mg/L compared to 1.7 mg/L in the bioassay samples).

For the bioassay samples (collected December 2003), laboratory analyses consisted of lead, antimony, TAL metals (excluding mercury and cyanide), lead shot count, moisture content, pH, TOC, CEC, and grain size for all soil and sediment samples. In contrast to the bioaccumulation study, TOC and grain size were required for interpretation of the bioassay results and, therefore, were measured in all soil and sediment samples collected. Additionally, PAHs were measured in all 12 soil samples.

Data from all sampling events were compiled into a single electronic database for use in analyses conducted for the ERA. These validated data were evaluated for their use in the risk assessment. Data were retained or eliminated from the ERA analyses using the following guidelines:

- Media included in the database consisted of field-collected soil, sediment, and biota.
- Subsurface soil samples collected in 2000 were excluded from all analyses.
- Chemical results with final validation qualifiers of "ND" (not detected or "nondetect") or "U" (undetected at sample quantitation limit [the concentration given]) or "UJ" (estimated nondetect level) were considered nondetects and were evaluated at one-half the method detection limit to calculate summary statistics.
- Chemical results with final validation qualifiers of any letter except "ND," "U," or "UJ" were considered detected.
- Field duplicates were not included in the analyses. Only original samples were evaluated.

The summary statistics for the abiotic media are presented in Table 2-2. These statistics include number of detects; number of samples; and mean, standard deviation, minimum, median, and maximum concentrations. (Concentrations of COPECs in all soil, sediment, and biota samples are presented in mg/kg dry weight.) Lead and antimony concentrations in soil and sediment, plus the corresponding results of the lead shot data are listed for all original samples in Table 2-3. The sampling locations and ranges of lead in soil and sediment, lead shot in soil and sediment, and antimony in soil and sediment at Site 74 are shown in Figures 2-4, 2-5, and 2-6, respectively. The analytical chemistry database of all samples is presented in Appendix A.3 (on CD).

2.6.2 Bioaccumulation Data

As indicated above, 15 soil and 15 sediment samples were collected for the bioaccumulation analyses. Additionally, co-located biota samples including 15 terrestrial plant, 12 terrestrial invertebrate, 15 marsh plant, and 15 marsh invertebrate samples were collected. Although

15 terrestrial invertebrates were planned for collection at the 15 soil sampling locations, only 12 samples (representing 6 sampling locations) were collected due to the small number of available soil invertebrates in the upland areas east of Case Road. Laboratory analyses for the soil and sediment samples are described in Section 2.6.1. Analytical chemistry for the biota samples included lead, antimony, and moisture content. (Note: Horned snails were the only marsh invertebrate collected. Chemical analyses of these included the shell).

Summary statistics and bioaccumulation analyses for these data are presented in Section 3.1.2.1.

2.6.3 Bioaccessibility Data

To reduce uncertainty in the Site 74 exposure calculations, three soil and three sediment samples were collected east and west of Case Road, respectively, and analyzed for bioaccessibility of lead and antimony. Bioaccessibility of these COPECs was measured in accordance with DTSC (1999) and Navy guidances using the *in vitro* laboratory procedure developed by Ruby et al. (1996).

Further discussion and analysis of these data are presented in Section 3.1.2.1.

2.6.4 Tissue Data

A total of 35 vertebrate tissue samples were collected from Site 74 and analyzed for lead. These included 10 livers from deer mice, western harvest mice, and house mice from Site 74; 10 livers from western harvest mice from a reference area on NAVWPNSTA Seal Beach; 10 livers from western meadowlarks from Site 74; and 5 livers from western meadowlarks from a reference area at Kesterson NWR. In addition, each whole bird (minus liver) was radiographically screened (by x-ray) for the presence or absence of lead shot from ingestion. As discussed in Section 2.3, shot was not expected to contribute significantly to lead or antimony exposure in mammals, and mammals were not radiographically screened.

Further discussion and analysis of these data are presented in Section 3.1.2.2.

2.6.5 Ambient Media Toxicity Bioassays

Ambient media toxicity tests were conducted using soil and sediment collected from Site 74 and reference areas. These included plant and invertebrate bioassays.

2.6.5.1 Plant Bioassays

Plant bioassays were conducted using 12 soil samples and 12 sediment samples collected during the December 2003 sampling. Of these, nine soil samples were collected from Site 74 upland areas east of Case Road, and three soil samples were collected from an upland reference site. Similarly, nine sediment samples were collected from Site 74 tidal marsh areas west of Case Road, and three sediment samples were collected from a tidal marsh reference site. Every effort was made to use a native plant (i.e., cordgrass) as the test species for these bioassays; however, bioassays using this species could not be conducted due to low germination (even among controls). Therefore, plant bioassays were completed using a standard test species (barley) and following standard ASTM methods (ASTM, 2002). The analytical chemistry parameters measured in the bioassay soils and sediments are described in Section 2.6.1.

The results of these bioassays are presented in Section 3.2.1.2.

2.6.5.2 Invertebrate Bioassays

Due to the high salinity of the soils, it is unlikely that soil invertebrates that are suitable for testing (e.g., earthworms) inhabit the upland areas of Site 74. This was confirmed during sampling. The field biologist noted that most soil sampling locations were either barren or lightly covered by dried vegetation, with soils that were dry, sandy, and powdery. The only soil invertebrates observed (and sampled) were low densities of beetle larvae and various-sized instars of Jerusalem crickets (*Orthoptera: Stenopelmatinae*), biota characteristic of these dry, sandy conditions. In addition, use of a standard soil invertebrate test species (e.g., earthworms) would require rinsing of these saline soils and would alter the soil characteristics. Therefore, invertebrate bioassays were conducted only with the 12 sediment samples. These included nine sediment samples from Site 74 tidal marsh areas west of Case Road, and three sediment samples from a tidal marsh reference site. The 28-day *Leptocheirus plumulosus* test was used for these sediment invertebrate bioassays (USEPA, 2001). The analytical chemistry parameters measured in the bioassay sediments are described in Section 2.6.1.

The results of these bioassays are presented in Section 3.2.1.2.

2.6.6 Nonsite-Specific Literature-Derived Data

Site-specific toxicity data and avian and mammalian life-history parameters used for exposure estimates (e.g., body weight, food ingestion rates, dietary components) were not available. Life-history parameters for avian and mammalian receptors were derived from the literature, and these values are discussed Section 3.1.2.1. Toxicity data for each receptor group were obtained from many sources including published benchmarks from data compiled by the National Oceanic and Atmospheric Administration (NOAA, 1999), USEPA (2003a and 2003b), the Oak Ridge National Laboratory (ORNL) (Efroymson et al., 1997a and 1997b), the Navy (Engineering Field Activity [EFA] West, 1998), and the DTSC (DTSC, 2002). Additional toxicity data were derived from published studies as needed. The sources and use of literature-derived toxicity data are discussed in Section 3.2.

3.0 Analysis

The analysis phase consists of the technical evaluation of chemical and ecological data to determine potential ecological exposure and effects. The analysis includes the exposure assessment and the ecological effects assessment.

3.1 Exposure Assessment

The nature and magnitude of the interaction between COPECs in environmental media and ecological receptors are described and quantified in the exposure assessment. The methods for and the results of exposure estimation are outlined below for each receptor group.

3.1.1 Directly Exposed Biota (Plants and Invertebrates)

Plant and invertebrate receptors at Site 74 exist in the marsh habitat west of Case Road and the terrestrial habitat east of Case Road. Marsh plants and sediment invertebrates

experience exposure primarily through the sediment where they live; whereas, terrestrial plants and soil invertebrates experience exposure primarily through the soil. This exposure occurs as a consequence of living in a contaminated medium (i.e., receptors are directly exposed to COPECs). Although other exposure pathways (e.g., direct exposure to water or dietary exposure for invertebrates) may contribute to total exposure for these receptors, exposure through the sediment or soil predominates. Consequently, estimates of exposure for marsh plants and sediment invertebrates may be represented as the concentration of COPECs in sediment (mg/kg) and for terrestrial plants and soil invertebrates the concentration of COPECs in the soil (mg/kg). Because plants are not mobile and the mobility of invertebrates is limited or absent, the entire distribution of values at Site 74 was selected as suitable exposure point concentrations resulting in a point-by-point evaluation for each of these receptors.

3.1.2 Birds and Mammals

Exposures estimated for birds and mammals consist of both dietary and tissue-based exposure.

3.1.2.1 Dietary Exposure

Birds and mammals experience exposure through multiple pathways, including ingestion of abiotic media (soil, sediment, and surface water) and biotic media (food), as well as inhalation and dermal contact. To address this multiple pathway exposure, modeling is required. The necessary input parameters to the exposure model are outlined below. Exposure estimates for bird and mammal receptors were generated based on model assumptions, life history parameters, and estimated concentrations in exposure media (soil or sediment) and food sources described below.

The end product, or exposure estimate, for birds and mammals is a dosage (amount of chemical in milligrams per kilogram receptor body weight per day [mg/kg/day]) rather than a media concentration, as is the case for the other receptor groups (plants and invertebrates). This is a function of both the multiple pathway approach and the typical methods used in toxicity testing for birds and mammals. Summaries of total (i.e., sum over all pathways) and partial (pathway-specific) exposure estimates are presented and compared to toxicity values in Section 4.2.

Model

The general form of the model used to estimate exposure of birds and mammals to COPECs in soil, sediment, surface water, and food items is as follows (Suter et al., 2000):

$$E_t = E_o + E_d + E_i$$

Where,

E_t = the total chemical exposure experienced by wildlife

E_o, E_d, and E_i = oral, dermal, and inhalation exposure, respectively

Oral exposure occurs through the consumption of contaminated food, water, or soil. Because freshwater sources are not available onsite, water is not considered a complete exposure pathway. Therefore, only consumption of food and soil or sediment are considered for the oral exposure pathway.

Dermal exposure occurs when contaminants are absorbed directly through the skin, and inhalation exposure occurs when volatile compounds or fine particulates are inhaled into the lungs. Although methods are available for assessing dermal exposure to humans (USEPA, 1992b), data necessary to estimate dermal exposure generally are not available for wildlife (USEPA, 1993). Similarly, methods and data necessary to estimate wildlife inhalation exposure are poorly developed or generally not available (USEPA, 1993). Additionally, a wildlife receptor's exposure to contaminants by inhalation and dermal contact usually contributes little to its overall exposure, except in the case of burrow-dwelling animals. Dermal exposure is likely to be low, even in burrow-dwelling animals, because of the presence of protective dermal layers (e.g., feathers, fur, or scales). Therefore, for the purposes of this assessment, both dermal and inhalation exposure were assumed to be negligible.

Because dermal and inhalation exposures have been eliminated, total chemical exposure experienced by wildlife (E_t) is equal to oral exposure (E_o). By replacing E_o with a generalized exposure model modified from Suter et al. (2000), the previous equation was rewritten as follows:

$$E_j = \left[Soil_j \times P_s \times FIR \times P_{BA}\right] + \left[\sum_{i=1}^{N} B_{ij} \times P_i \times FIR\right]$$

Where,

E_j	=	total exposure (mg/kg/day)
$Soil_j$	=	concentration of chemical in soil (mg/kg)
P_s	=	soil ingestion rate as a proportion of diet
FIR	=	total food ingestion rate for the representative species (kg diet/kg body weight/day)
P_{BA}	=	bioaccessibility of chemical in soil (proportion)
B_{ij}	=	concentration of chemical (j) in biota type (i) (mg/kg)
P_i	=	proportion of biota type (i) in diet

Model Parameterization

To apply the exposure model, appropriate model parameters must be defined. These are outlined below. A summary of the model parameters and an example exposure calculation are provided in Appendix B.1.

Life History Parameters

The specific life history parameters required to estimate exposure of bird and mammal receptors to the COPECs include body weight, ingestion rate of food, dietary components and percentage of the overall diet represented by each major food type, and approximate amount of soil or sediment that may be incidentally ingested based on feeding habits. Many wildlife species are highly mobile, covering large areas in search of food, water, and shelter. The exposure that individuals experience depends on the amount of time they spend at a

contaminated site. Site use depends on the size of the site relative to receptor's home range. However, for the purposes of the exposure calculation, all receptors were assumed to forage within the site at all times. Additionally, home range was not considered in the risk characterization because risk was evaluated and discussed on a point-by-point basis. Species-specific life history parameters were obtained from the literature and are presented in Table 3-1.

Bioaccessibility Values

Bioavailability of a chemical is the fraction of that chemical in a particular environmental matrix (e.g., soil, sediment, and water) that is absorbed by an organism via a specific exposure route (e.g., oral ingestion). Screening-level risk assessments generally assume that all COPECs are 100 percent bioavailable. However, most chemicals are not 100 percent bioavailable because most are likely to sorb to organic matter in soil or sediment. Additionally, other parameters, such as pH, can increase or decrease the bioavailability of a chemical. For instance, aluminum is known to increase in bioavailability at a pH of less than 5.5 (USEPA, 2003c). Therefore, knowledge of the bioavailability of a COPEC at a particular site can greatly reduce the uncertainty in the exposure calculation. Measurement of bioavailability requires lengthy and expensive testing using animal models and is often not feasible at a particular site. Researchers, therefore, have "developed *in vitro* tests to measure the fraction of a chemical solubilized from a soil sample under simulated gastrointestinal conditions" (DTSC, 1999). This measurement is referred to as bioaccessibility. Studies with lead have indicated that bioaccessibility measurements correlate well with the relative bioavailability values developed from an animal model (DTSC, 1999).

To reduce uncertainty in the Site 74 exposure calculations, three soil and three sediment samples were collected east and west of Case Road, respectively, and analyzed for bioaccessibility of lead and antimony. Bioaccessibility of these COPECs was measured in accordance with DTSC (1999) and Navy guidances using the *in vitro* laboratory procedure developed by Ruby et al. (1996). Briefly, Site 74 soils or sediments were introduced into an aqueous fluid and were then solubilized under simulated gastric conditions. After filtration at the 0.45-micrometer (µm) pore size, the concentrations of lead and antimony were measured in this solution. Additionally, total concentrations of lead and antimony in the original soil or sediment sample were measured in triplicate. Results of these measurements are presented in Table 3-2.

To determine the bioaccessibility value, the mass of lead or antimony in the aqueous phase was compared to the mass introduced into the test (i.e., the total lead or antimony in the collected soil or sediment sample). The fraction solubilized into the aqueous phase is defined as the bioaccessible fraction of lead or antimony in that soil or sediment sample and was calculated using the following equation:

$$Bioaccessibility\ value = \frac{(Pb\ or\ Sb\ concentration\ in\ the\ in\ vitro\ extract,\ mg/L)(0.1L)}{(Pb\ or\ Sb\ concentration\ in\ soil\ or\ sed,\ mg/kg)(0.001kg)}\ x100$$

Pb	lead
Sb	antimony
mg/L	milligrams per liter

Lead and antimony bioaccessibility values for the three splits of each soil or sediment sample are presented in Table 3-2. The mean and standard deviation for each sample are also presented, as are the overall mean and standard deviation for all the soil samples and all the sediment samples. For both lead and antimony, differences in bioaccessibility were observed between soil and sediment samples. Lead in Site 74 soil was found to be on average 87 percent bioaccessible; whereas, in sediment, lead was on average 73 percent bioaccessible. A similar trend was observed for antimony with bioaccessibility being greater in soil compared to sediment. A value of greater than 100 percent was determined for soil (truncated to 100 percent) and 61 percent was calculated for sediment. These bioaccessibility values were used in the exposure calculation for the bird and mammal receptors. It should be noted that a value of 100 percent was used for antimony in soil because a chemical cannot be available within the GI tract at concentrations greater than were introduced (i.e., greater than concentrations in the soil or sediment).

Site-Specific Bioaccumulation Values

Estimation of wildlife exposure requires data on contaminant concentration in dietary components. Directly measured, site-specific data provide the least uncertainty. If these site-specific biota data are co-located with abiotic media concentrations, site-specific bioavailability and bioaccumulation relationships may be determined. These site-specific relationships may then be used to estimate exposure and derive site-specific PRGs.

Co-located soil or sediment and biota (plant foliage or invertebrates) were collected at Site 74 (see Section 2.6.2). These data are presented in Table 3-3. Although lead and antimony were detected in all sediment and soil samples, with concentrations ranging up to 55,000 mg/kg for lead and 2,380 mg/kg for antimony, they were not detected in all biota samples. Lead was detected in biota with the greatest frequency including 10 of 11 samples for terrestrial invertebrates and 8 of 14 samples for horned snails. In plants, lead was detected in 9 of 17 terrestrial plant samples and 8 of 15 marsh plant samples. In contrast, antimony was detected in fewer than 50 percent of biota samples, being detected in 7 of 15 and 2 of 17 terrestrial and marsh plant samples, respectively. Among invertebrates, antimony was detected in only 2 of 14 horned snails and 3 of 11 terrestrial invertebrate samples. The low frequency of detection of antimony in plant and invertebrate tissues suggests that the form present at Site 74 has low bioavailability to these taxa.

Another indication of low bioavailability of lead and antimony to plants and invertebrates is low bioaccumulation factors (BAFs). With the exception of one sample (74B41-03; lead from soil to pickelweed; Table 3-3), all site-specific BAFs (concentration of COPEC in plant or invertebrate tissue/concentration of COPEC in soil or sediment) for lead and antimony in plants and invertebrates were less than 1.

Regression analyses were conducted to determine if linear relationships existed and if concentrations in biota could be predicted based on sediment or soil concentrations. Although statistically significant regressions were obtained for lead in invertebrates (both terrestrial invertebrates and horned snails), no linear relationships were observed for lead in plants or for antimony in invertebrates or in plants.

Scatter plots of the lead concentrations in sediment or soil versus concentrations in invertebrates are presented in Figure 3-1. Lead in soil accounts for 78 percent of the variation in lead concentrations in terrestrial invertebrates. The relationship between lead in

sediment and lead in horned snails (shell included) is stronger. Using data from the current sampling event at Site 74, lead in sediment accounts for 85 percent of the variation in lead concentration in snails. Inclusion of additional data from Site 74 presented in Hui (2002) and data from Bolsa Chica (another salt marsh location 3.7 kilometers [km] south of NAVWPNSTA Seal Beach strengthened the relationship (CH2M HILL, 2002). The expanded regression explained 92 percent of the variation in lead concentrations in horned snails. These regression models (the site-specific lead model for terrestrial invertebrates, and the expanded lead model for horned snails) were used to estimate invertebrate concentrations for wildlife receptors as appropriate.

Although significant regression models were not obtained for lead in plants, data from Site 74 do fall within the 95 percent prediction interval for the lead-plant bioaccumulation model from Efroymson et al. (2001) (Figure 3-2). Because the Site 74 data fall within the prediction interval for the Efroymson et al. (2001) lead-plant bioaccumulation model, this model was assumed to be representative of Site 74 and, therefore, was used to estimate lead concentrations in plants at the site.

Antimony was detected infrequently in tissue of biota from Site 74, and no significant linear associations with soil or sediment concentrations were observed. The absence of an association with soil or sediment concentrations means that concentrations in biota cannot reliably be predicted from concentrations in these abiotic media. To be conservative, antimony concentrations in plant and invertebrate food items in the exposure model were assumed to be equal to the maximum concentrations observed at Site 74, 1.5 and 1.4 mg/kg in plant and invertebrate tissues, respectively.

Exposure Point Concentrations

Because wildlife are mobile, traveling and experiencing exposure over the range of habitats they occupy, their exposure is often described by mean chemical concentrations in areas they inhabit (Suter et al., 2000). Site 74 is a small site (approximately 23 acres) and is well characterized (up to 90 sediment samples and 77 soil samples). This extensive characterization of the site permits a highly detailed evaluation of exposure. Rather than calculating summary statistics for contaminant concentrations and using this value to represent exposure via soil or sediment for wildlife receptors, exposure estimates were generated for each individual sampling location. No time-weighting of exposure was included; each receptor was assumed to reside and forage exclusively at each point. Overall weighting of site use is considered in the risk characterization (i.e., risk within the site is judged by the fraction of samples for which exposure estimates exceed effects thresholds). This approach, although conservative, permits development of a detailed picture of locations contributing to risk. This detailed picture then can be used to direct remedial decisions.

Soil or sediment was used as the source exposure medium based on the habitat and food preferences for each receptor. Whereas clapper rails and mallards were assumed to use the marsh exclusively, meadowlarks and voles were assumed to be restricted to upland habitats. Exposure for the former was based on sediments, and soils were used for the latter. Belding's savannah sparrow and ornate shrews are likely to utilize both marsh and upland areas; therefore, both soil and sediment were used for these receptors. Nondetects were evaluated using one-half the detection or reporting limits. Point-by-point dietary exposure estimates for wildlife receptors are presented in Section 4.2.

Exposure Through Ingestion of Lead Shot

In addition to being exposed to lead through the diet and incidental soil ingestion, birds may be exposed by direct ingestion of lead shot. The likelihood of ingestion of lead shot is a function of diet and foraging habits. Species that consume large amounts of grit to aid digestion or those that forage by probing deeply into soil or sediment are more likely to inadvertently ingest lead shot. A large body of evidence exists to indicate that mallards do ingest lead shot and can be at risk from that exposure. Although data concerning the potential for ingestion of shot by the other avian receptors were lacking, it was assumed that lead shot was likely to be ingested by these receptors as well, given that they forage on the ground.

Exposure due to shot ingestion was estimated for each of the four avian receptors considered at Site 74 because each forages on the ground. Exposure to lead as shot was estimated using the dietary exposure model outlined above. Shot ingestion was assumed to be proportional to soil ingestion for each species. Exposure was calculated based on the concentration of lead as shot in soils and sediment (see Table 2-3). Metallic led in shot was assumed to be biologically unavailable to plants and invertebrates. Consequently, a food component was not included in the shot exposure calculation. Point-by-point exposure estimates for lead as shot for avian receptors are presented in Section 4.2.

3.1.2.2 Tissue-Based Exposures

Tissue-based exposures consist of concentrations of COPECs in tissues of receptor species that are the focus of contaminant toxicity. These concentrations may be measured directly from field-collected birds and/or mammals, or they may be modeled using site-specific or literature-derived information. They can then be compared to available literature information for concentrations of chemicals in specific tissues that are associated with adverse effects. This provides another measure of the potential nature and magnitude of effects that birds and mammals may experience at Site 74. In this ERA, concentrations of lead were measured in livers of western meadowlarks and small mammals collected from Site 74 and appropriate reference areas. Additionally, concentrations of lead in livers were estimated for mallards and small mammals. These data are described below.

Measured Tissue Data

A total of 35 vertebrate tissue samples were collected from Site 74 and analyzed for lead. These included 10 livers from deer mice, western harvest mice, and house mice from Site 74; 10 livers from western harvest mice from a reference area at NAVWPNSTA Seal Beach; 10 livers from western meadowlarks from Site 74; and 5 livers from western meadowlarks from a reference area at Kesterson NWR. No signs of lead or antimony toxicity (e.g., tremors, weakness, wing droop [in birds], limb paralysis, seizures, and blindness for lead; and anorexia and hind limb weakness for antimony) were observed in any of the 35 collected birds and mammals. Each tissue sample from individual birds and mammals was analyzed separately; analysis of composite samples was not conducted. In addition, each whole bird (minus liver) was radiographically screened (by x-ray) for the presence or absence of lead shot from ingestion. As previously discussed (Section 2.3), shot was not expected to contribute significantly to lead or antimony exposure in mammals, and mammals were not radiographically screened.

The lead concentrations and descriptions of the avian x-ray results are presented in Table 3-4. The summary statistics for lead are presented in Table 3-5. These results are discussed in Section 4.2.2.1. The entire distribution of values was selected as the exposure point concentrations resulting in a point-by-point evaluation. Copies of the avian x-rays are in Appendix A.4.

Estimated Tissue Data

The models for the mallard and for small mammals are described below.

Mallard Model

A waterfowl model was developed using data collected in the Coeur d'Alene Basin, Idaho, and an adaptation of the exposure/effects model presented in Beyer et al. (2000). This model was used to estimate concentrations of lead in liver resulting from incidental ingestion of sediment for mallards. The exposure model is based on an integration of the sediment ingestion model from Beyer et al. (1994) and results from laboratory diet-tissue bioaccumulation studies conducted with waterfowl and lead contaminated sediments from the Coeur d'Alene Basin (Hoffman et al., 1999; Heinz et al., 1999; and Day et al., 1998). The model is of the form:

$$C_{Pb} = e^{\left[\text{slope}\times\ln\left[C_s\times\left[\frac{b-y+ay}{ay-c+b}\right]\right]+\text{intercept}\right]}$$

Where:

C_{Pb}	=	estimated concentration of lead in liver (mg/kg wet weight)
a	=	proportion digestibility of diet (0.3 dry mass for mallard; Beyer et al., 1994)
b	=	proportion of acid-insoluble ash in diet (0.02 dry mass; Beyer et al., 1994)
c	=	proportion of acid-insoluble ash in sediment (0.9 dry mass; Beyer et al., 1994)
y	=	proportion of acid-insoluble ash in scat (0.069 dry mass; Beyer et al., 1994)
C_s	=	concentration of lead in sediment (mg/kg dry weight)
slope	=	slope from diet-liver regression model
intercept	=	intercept from diet-liver regression model

Data used to develop the diet-to-liver bioaccumulation model for waterfowl are presented in Appendix B.2, Table B.2-1. Scatter plots displaying the relationships between dietary lead and lead in liver are presented in Figure B.2-1. The diet-liver regression model was:

$$\ln(liver_{Pb})=0.810x(\ln[diet_{Pb}])-2.941 \ (n=23,\ p<0.0001,\ r^2=0.86)$$

The model outlined above was applied to sediment lead concentrations measured at Site 74. Although lead as shot is unlikely to have bioavailability comparable to lead in sediment, the model also was applied to the sum of sediment lead and lead as shot concentrations in each

sample. Estimated liver lead concentrations for mallards at Site 74 are presented in Table 3-6.

Small Mammal Models

Previous research has shown that concentrations of chemicals in small mammal tissues may be estimated based on soil concentrations (Sample et al., 1998; Shore, 1995). Thus, soil-to-liver bioaccumulation models were developed for small mammals based on literature-derived data. Using an approach comparable to that employed in Sample et al. (1998), co-located soil and small mammal organ concentration data were extracted from published studies. A summary of data used for model development is provided in Appendix B.2, Table B.2-2. Log-linear regression models were developed for all small mammals combined and for specific trophic guilds (e.g., insectivores, herbivores, and omnivores). Scatter plots and the soil-to-liver regression model for lead are summarized in Appendix B.2, Figure B.2-2.

The insectivore and herbivore models were applied to data from Site 74. Whereas estimates from the insectivore model were assumed to be representative of the ornate shrew, estimates from the herbivore model were assumed to be representative of California voles. Liver lead estimates for voles were calculated based only on soil lead (Table 3-7). Because shrews may use both marsh and upland habitats, liver lead estimates for shrews were calculated based on soil and sediment lead (Table 3-8).

3.2 Ecological Effects Assessment

The ecological effects assessment consists of an evaluation of available toxicity or other effects information that can be used to relate the exposures to COPECs and adverse effects in ecological receptors. Data that can be used to evaluate ecological risks resulting from exposure to contaminants include literature-derived or site-specific single-chemical toxicity data, site-specific ambient-media toxicity tests, and site-specific field surveys (Suter et al., 2000). For this assessment, single-chemical toxicity data from literature sources and site-specific ambient-media toxicity tests were available.

3.2.1 Directly Exposed Biota

Effects data for directly exposed biota (e.g., plants and invertebrates) are described in this section.

3.2.1.1 Literature-Derived Toxicity Data

Literature-derived effects data for sediment invertebrates, marsh and terrestrial plants, and soil invertebrates are described below.

Sediment Invertebrates

Currently, there are no USEPA sediment criteria for metals in sediment. In general, it is difficult to predict sediment concentrations at which toxicity occurs because the type and form of the sediment and the water chemistry of the overlying water affect metal speciation and bioavailability. For example, the bioavailability of metals in sediment is influenced by the amount of organic carbon, Fe-oxyhydroxides, and acid-volatile sulfides in sediments (Di Toro et al., 1990 and 1992; Tessier et al., 1993). However, sediment guidelines have been derived for metals based on the relationship between the bulk metal concentration in the

sediment, the metal concentration in the pore water, and measured biological effects (e.g., Ingersoll et al., 1996; Long and Morgan, 1990; Long et al., 1995; and National Oceanic and Atmospheric Administration [NOAA], 1999). Effects considered included reductions in growth, reproduction, or survival of test species, which is consistent with assessment endpoints identified for Site 74 (Table 2-1). These sediment guidelines provide an initial benchmark for predicting the potential for adverse effects due to elevated metals concentrations in sediment.

For the purposes of this ERA, the Screening Quick Reference Table (SQuiRT) values provided by the NOAA were used (NOAA, 1999). The Effects Range-Low (ER-L) and Effects Range-Median (ER-M) were selected as the most appropriate benchmarks; however, these were not available for antimony. Therefore, the Apparent Effects Threshold (AET) was selected for antimony. These values are as follows:

- Antimony – AET = 9.3 mg/kg dry weight
- Lead – ER-L = 46.7 mg/kg dry weight and ER-M = 218 mg/kg dry weight

The ER-L represents the concentration at which effects are possible, and the ER-M represents the concentration above which effects are probable. It should be noted that the ER-L may only correctly identify a sediment as toxic at a rate of about 15 percent and the ER-M at a rate of about 60 percent. Sediment bioassays (described in Section 3.2.1.2) provide a more accurate prediction of site-specific toxicity.

Terrestrial and Marsh Plants

Single-chemical screening-level toxicity values for terrestrial plants are presented in the USEPA Ecological Soil Screening Levels (EcoSSLs) for lead (USEPA, 2003b), and Oak Ridge National Laboratory (ORNL) plant benchmarks report for lead and antimony (Efroymson et al., 1997a). A plant EcoSSL for antimony was not available. The protection of terrestrial plant communities, evaluated on the basis of a 20 percent reduction in growth, reproduction, or survival of plants, is an assessment endpoint in this ERA. Therefore, benchmarks used to determine risk to plants must be based on adverse effects related to these endpoints. The EcoSSLs were developed from studies that demonstrated effects on growth, and the ORNL plant benchmarks were developed from studies that demonstrated at least a 20 percent reduction in the growth or yield of test plant species. Both of these are consistent with the goals of the ERA. Additionally, growth and yield are important to plant populations and to the ability of the vegetation to support higher trophic levels; therefore, these are ecologically significant responses (Efroymson et al., 1997a). For lead, the geometric mean of the NOEC and LOEC from studies selected for the EcoSSL development were used as toxicity values (see Appendix B.3 for data). Because a plant EcoSSL for antimony was not available, the ORNL benchmark was selected. The plant benchmarks selected are as follows:

- Antimony – 5 mg/kg dry weight (ORNL)
- Lead – NOEC = 100 mg/kg dry weight; LOEC = 278 mg/kg dry weight (EcoSSL)

It should be noted that these soil screening levels were used to evaluate risks to terrestrial and marsh plants. The suitability of applying these to marsh plants living in saline sediment in unknown. However, differences in the toxicity of lead and antimony between soil and sediment are likely, given the differences in physical properties (e.g., TOC, pH, and clay

content) between the two media. Uncertainties associated with this application of the soil screening benchmarks are described in Section 4.3.

Soil Invertebrates

Single-chemical screening-level toxicity values for terrestrial invertebrates, represented primarily by earthworms, are presented in the USEPA EcoSSLs for antimony (USEPA, 2003a) and lead (USEPA, 2003b). Although ORNL soil invertebrate benchmarks for antimony and lead are also available (Efroymson et al., 1997b), these values were not used because appropriate EcoSSLs were available. The protection of terrestrial invertebrate communities, evaluated on the basis of a 20 percent reduction in growth, reproduction, or survival of invertebrates, is an assessment endpoint in this ERA. Therefore, benchmarks used to determine risk to this receptor group must be based on adverse effects related to these endpoints. As for plants, the EcoSSLs for soil invertebrates were developed from studies that demonstrated effects. For soil invertebrates, these effects were on reproduction. The geometric mean of the NOEC and LOEC from studies selected for the EcoSSL development were used as toxicity values for soil invertebrates and are as follows:

- Antimony – NOEC = 84 mg/kg dry weight; LOEC = 115 mg/kg dry weight
- Lead – NOEC = 894 mg/kg dry weight; LOEC = 3,162 mg/kg dry weight

3.2.1.2 Site-Specific

Ambient media toxicity tests were conducted using sediment and soil from Site 74. These tests included the 28-day sediment bioassay using *Leptocheirus plumulosus* and the 28-day plant soil and sediment bioassays using barley. Reports containing the initial bioassay tests results as reported by the contracted bioassay laboratories are included in Appendixes C and D for sediment invertebrates and plants, respectively. Chemistry data from each bioassay sampling location were integrated with the bioassay response data to determine the chemical factors most associated with the observed responses. The results of these analyses for sediment invertebrate and plant bioassays are presented below.

Invertebrate Bioassays

Sediment invertebrate bioassays were conducted to evaluate potential toxicity of Site 74 sediments to sediment invertebrates. Chronic 28-day tests were conducted using the amphipod *Leptocheirus plumulosus* according to the methods outlined by USEPA (2001). Bioassays were conducted on a total of 12 sediment samples; 3 each from locations with low (<61 mg/kg), medium (61 to 829 mg/kg), and high (>829 mg/kg) lead concentrations in sediment during previous sampling, plus three reference locations sufficiently distant as to be presumed unaffected by firing activities at Site 74. Internal laboratory quality assurance (QA) tests conducted as part of the bioassay indicated survival of controls and overall chemistry within samples were within acceptable bounds. Consequently, the results of the bioassays were considered valid. Results of the bioassay tests, details on the test conditions, and the final report from the contracted testing laboratory are presented in Appendix C.

Of the 12 samples tested, responses that differed statistically from those on the laboratory control were observed in 3 samples (Table 3-9). Survival and reproduction were reduced in one sample; growth and reproduction were reduced in one sample; only reproduction was reduced in one sample. One of the three samples in which statistically significant effects were observed was from a reference location, presumably unaffected by Site 74.

Chemical data from each sample were matched with the observed effects data to determine the association between chemical concentrations and effects (Table 3-9). Simple nonparametric Spearman's rank-correlation analyses were conducted to quantify the association between effects and chemical concentrations (Table 3-10). Scatter plots displaying the relationships between mean (plus or minus [±] standard deviation) responses versus chemical concentrations for all analytes are presented in Appendix C (Figures C-1 through C-30). Thirteen, 15, and 14 analytes were significantly correlated (positive or negative) with survival, growth, and reproduction, respectively. The highest correlation coefficients were observed between lead and antimony and survival (r>-0.85; Table 3-10). Correlation coefficients between all other analytes and bioassay responses were <±0.59.

Although lead and antimony displayed a very clear dose-response relationship with survival, these analytes do not appear to significantly influence growth or reproduction (Figures C-1 and C-2). Analytes most strongly correlated with growth were pH (r=-0.56; Figure C-20), selenium (r=0.55; Figure C-23), and total organic carbon (r=0.59; Figure C-28). Analytes most strongly associated with reproduction were CEC (r=0.47; Figure C-9) and total solids (r=-0.45; Figure C-26). The analytes most associated with the growth and reproduction bioassay results are not associated with the target shooting activities at Site 74. In addition, the growth and reproduction in samples from the reference locations were among the lowest samples observed.

The interpretation of these bioassays is that lead and antimony associated with Site 74 activities reduce survival but do not affect either growth or reproduction among exposed sediment biota. The site-specific survival NOECs (highest concentration that did not produce a statistically significant difference compared to controls) and LOECs (lowest concentration that produced a statistically significant difference compared to controls) were 9,020 and 33,100 mg/kg for lead, and 109 and 282 mg/kg for antimony, respectively (Table 3-9). Growth and reproductive effects observed in the bioassays appear to be most associated with variation in nutrient levels or other analytes not associated with target shooting activities at Site 74. Consequently, site-specific NOECs and LOECs for these effects metrics were not determined.

Plant Bioassays

Plant bioassays were conducted to evaluate potential toxicity of Site 74 soils and sediments to the plant community. Chronic 28-day emergence and growth tests were conducted using barley according to the methods outlined in ASTM (2002).[1] Bioassays were conducted on a total of 12 sediment and 12 soil samples; 3 each from locations with low (<61 mg/kg), medium (61 to 829 mg/kg), and high (>829 mg/kg) lead concentrations in soil and sediment during previous sampling, plus 3 soil and 3 sediment reference locations sufficiently distant

[1] The original test species specified for this test was *Spartina foliosa.* An intensive search to procure seed was conducted, but no seed could be found. A decision then was made to go forward using a related species, *S. alterniflora*, as the test species. Again, obtaining seed was difficult. No commercial seed source was available. An *S. alterniflora* breeding project was located at the Golden Meadow Plant Materials Center in Louisiana, and a request was made to procure seed of their variety "Vermillion." Only a small amount of seed was available. Approximately 50 grams of freshly harvested seed (harvested in late November 2003) was obtained in late January 2004. No purity or germination test information was sent with the seed. The seed seemed of poor quality, containing many immature seeds and chaff. Seed of *S. alterniflora* needs to be primed or "stratified" to initiate germination. The priming process involves soaking the seeds in water and refrigerating for a period of 1 to 2 months. At 8 weeks into priming, the germination rate settled at a very poor 4 to 8 percent. This poor germination rate was insufficient to support the bioassay test. Given the extensive delay associated with efforts to perform the test with a nonstandard species, the decision was made to proceed with the project utilizing commercially available barley as the test species.

as to be presumed unaffected by activities at Site 74. Internal laboratory QA tests conducted as part of the bioassay indicated survival of controls and overall chemistry within samples were within acceptable bounds. Consequently, the results of the bioassays were considered valid. Results of the bioassay tests, details on the test conditions, and the final report from the contracted testing laboratory are presented in Appendix D.

No seed germination was observed among any of the 12 sediment samples and among 4 of 12 soil samples (Table 3-11). Among the eight soils samples for which seed germination occurred, the number of seedlings at 28 days was significantly reduced for two of the samples. In addition, all eight soil samples displayed a statistically significant reduction in total dry weight per pot. Sediment samples with no germination included the three from reference locations. Although seed germination occurred among the three reference soil samples and the number of seedlings at 28 days was not reduced, these three were among the eight with reduced total dry weight per pot.

Chemical data from each sample were matched with the observed effects data to determine the association between chemical concentrations and effects (Table 3-11). Scatter plots displaying the relationships between mean (± standard deviation) responses versus chemical concentrations for all analytes are presented in Appendix D (Figures D-1 through D-42). Given the large number of samples with no germination (16 of 24 or 66 percent), no correlation analyses were conducted. Rather, the scatter plots visually were evaluated for evidence of continuous dose-response relationships indicative of a potential causative association between an analyte and bioassay responses.

Discontinuous dose-response relationships (i.e., more severe effects [no germination] at lower concentrations) were observed for antimony (Figure D-2) and lead (Figure D-13), suggesting the absence of a causative association between concentrations of these analytes and the bioassay responses. Discontinuous dose-response relationships were observed for all other analytes except sodium (Figure D-21). In contrast to all other analytes, a nearly perfect, continuous dose-response relationship was observed for sodium for all bioassay measures. It is therefore apparent that the plant bioassay results are dominated by sodium (a surrogate for salinity). The salinity of the samples was such that germination and survival of barley seedlings was impaired significantly in any sample containing greater than 2,150 mg/kg sodium.

Neither antimony nor lead appear to significantly contribute to observed plant toxicity. In addition to discontinuous dose-response relationships, when germination occurred, the variation in responses at reference sites overlapped with responses at exposed sites. Due to the overriding effect of sodium in the bioassays, it is not known if antimony or lead would produce adverse effects at concentrations that exceeded the maximum among samples that germinated. Therefore, for the purposes of this assessment, the maximum antimony and lead concentrations in any sample in which germination occurred was selected as the site-specific plant NOEC. These values were 7 and 1,220 mg/kg for antimony and lead, respectively.

3.2.2 Birds and Mammals

Toxicity data for dietary and internal tissue-based exposures to birds and mammals are described in this section.

3.2.2.1 Dietary Toxicity Data

Single-chemical toxicity data for birds and mammals consisted of NOAEL or LOAEL TRVs derived from toxicity studies reported in the literature. Extensive evaluation of available wildlife toxicity data have been conducted by USEPA Region 9 BTAG and more recently by USEPA EcoSSL working groups. The most appropriate values identified by these groups were selected as wildlife TRVs in this assessment. Appropriate studies were selected based on several criteria:

- Studies were of chronic exposures or exposures during a critical stage of life (e.g., reproduction).
- Exposure was oral through food to ensure data were representative of oral exposures expected for wildlife in the field.
- Emphasis was placed on studies of reproductive impacts to ensure relevancy to population-level effects.
- Studies presented adequate information to evaluate and determine the magnitude of exposure and effects (or no-effects concentrations).

Toxicity studies were selected to serve as the primary toxicity value if exposure were chronic or during reproduction. The dosing regime was sufficient to identify an NOAEL and an LOAEL and the study considered ecologically relevant effects (e.g., reproduction, mortality, growth). If multiple studies for a given COPEC met these criteria, the study generating the lowest reliable toxicity value was selected to be the primary toxicity value. Primary TRVs selected for use in this ERA are summarized below:

- **Antimony—**No Navy/BTAG TRVs currently exist for antimony. Therefore, the antimony TRVs used were those developed as part of the USEPA EcoSSL process (USEPA, 2003a). Extensive searching by USEPA and its contractor located no suitable avian TRV for antimony. The mammalian NOAEL and LOAEL for antimony (based on antimony trioxide) were 0.059 and 0.59 mg/kg/day, respectively.
- **Lead—**Navy/BTAG and USEPA EcoSSL TRVs were available for birds and mammals. The Navy/BTAG TRVs for birds are 0.014 mg/kg/day and 8.75 mg/kg/day for the NOAEL and LOAEL, respectively (EFA West, 1998). In contrast, the USEPA EcoSSL work groups identified avian reproductive NOAELs and LOAELs of 1.63 and 3.26 mg/kg/day (USEPA, 2003b). Comparison of the Navy/BTAG lead NOAEL for birds to the scatter plot of NOAELs and LOAELs observed for the 106 studies considered by the USEPA EcoSSL work group indicates the Navy/BTAG lead NOAEL for birds to be lower than the lowest no effect level for any response type considered. As a consequence, the lead TRV developed by the EcoSSL work group was selected as more appropriate.

  The previously published Navy/BTAG mammalian TRVs have been the subject of much discussion and have been withdrawn. A new lead TRV has been proposed (DTSC, 2002) based on a series of studies by Kimmel et al. (1980), Grant et al. (1980), and Fowler et al. (1980). The NOAEL derived from these studies was approximately 0.92 mg/kg/day and a LOAEL (based on delayed sexual maturation in female rats) was 4.7 mg/kg/day.

Also, toxicity of lead to birds was evaluated based on lead shot. A lead shot toxicity value of 1.46 mg/kg/day was previously developed for the FSI Phase II Report and was selected for use (SWDIV, 2002). Data and the approach used to develop this value are summarized in Appendix E.

These laboratory data were not adjusted for body weight of each receptor (i.e., allometrically scaled), but instead were used as presented.

3.2.2.2 Tissue-Based Effects Data

Target-organ-based exposures consist of measured or estimated concentrations of contaminants in target organs (e.g., blood or liver) of receptors. In this assessment, these data are restricted to measurements or estimates of liver lead concentrations. Site-specific measurements were available for western meadowlarks and small mammals collected at Site 74 and appropriate reference areas. Estimated concentrations of lead in liver tissue of mallards and small mammals also were available (see Section 3.1.2.2). Concentrations of lead in these target organs, as reported in published literature, that have been associated with effects in field or laboratory animals were used to evaluate target-organ-based exposure data.

Ma (1996) conducted an extensive review of lead tissue levels in mammals associated with effects. The conclusion was that toxic effects in mammals are not evident at liver lead concentrations of 5 mg/kg dry weight or less. When liver lead concentrations in mammals were 10 mg/kg dry weight or greater, clinical toxicity (anemia, weakness, nervous system and gastrointestinal dysfunction) was apparent.

Pain (1996) and Franson (1996) present similar reviews of tissue-based effects levels of lead for waterfowl and other birds, respectively. These concentrations are summarized in Table 3-12. Additional liver lead-effects observations for passerines are summarized in Table 3-13.

4.0 Risk Characterization

In the risk characterization, the exposure and effects analyses are integrated to provide an estimate of risk (e.g., the likelihood of adverse effects given the exposure). Based on the results of earlier risk evaluations for Site 74 (SWDIV, 2002) and the high concentrations of lead measured in soil and sediment (up to 154,000 mg/kg) (Table 2-2), the presence of some level of risk from lead (and possibly antimony) to ecological receptors was assumed. Consequently, the purpose of this risk evaluation is to delineate the spatial extent of these risks and to identify potential remedial levels for protection of exposed biota, rather than to determine the presence or absence of risks.

Because multiple types of information (i.e., lines of evidence) were available, risks to ecological receptors at Site 74 were evaluated using a weight-of-evidence approach (as described by Suter et al., 2000). In a weight-of-evidence approach, each available line of evidence for each assessment endpoint and receptor is evaluated individually to provide a conclusion concerning the presence or absence of risk based on that line of evidence. Once all lines of evidence have been evaluated, they are considered jointly to determine whether the combined weight-of-evidence supports a conclusion of risk. Lines of evidence for this

assessment included both site-specific and literature (i.e., not site-specific) measures. In all cases, greater weight was given to conclusions based on site-specific data. However, there was uncertainty associated with the plant bioassays (see Section 4.1.1 for discussion).

Conclusions based on each line of evidence for each assessment endpoint are summarized in Sections 4.1 and 4.2. Uncertainties that may influence final risk conclusions are summarized in Section 4.3. Risk conclusions based on the integration of all lines of evidence and considering uncertainties are presented in Section 4.4.

4.1 Directly Exposed Biota

Data available to evaluate potential risks to directly exposed biota (plants, sediment and soil invertebrates) consisted of comparisons of measured concentrations of lead and antimony in Site 74 sediments and soils to literature-derived and site-specific toxicity values, as well as the results of site-specific bioassays. It was assumed that metallic lead in lead shot was not directly bioavailable to plants, sediment invertebrates, or soil invertebrates. Consequently, only sediment or soil concentrations were considered in the screening evaluation. These results are discussed below.

4.1.1 Plants

Interpretation of the plant bioassay results was problematic due to the difficulties encountered in conducting the tests. No germination was observed in all 12 sediment samples and in 4 of 12 soil samples. This was attributed to excessive salinity. With the exception of sodium, no clear dose-response relationship was observed for any analyte, including antimony and lead. Although the highest concentrations of lead and antimony observed in bioassay samples were selected as the site-specific plant NOECs, the accuracy of these values is uncertain due to the overriding effects of salinity.

Point-by-point screening of sediment and soil concentrations against literature and site-specific plant toxicity values are presented in Table 4-1 and in Figure 4-1. Lead concentrations in sediment and soil at Site 74 exceeded the site-specific plant NOEC in 15 of 93 (16.1 percent) and in 15 of 80 (18.75 percent) samples, respectively. If the lower literature-based plant LOEC is considered, exceedance frequencies were 25 of 93 (26.9 percent) and 28 of 80 (35 percent) for sediment and soil, respectively.

Evaluation of potential risks from antimony to plants is somewhat confounded by inadequately low detection limits in the 2000 FSI Phase II sampling. Although antimony was detected in only 26 of 102 (25.5 percent) sediment and soil samples from the 2000 sampling event, concentrations in all samples (including nondetects) exceeded both the site-specific and literature-derived toxicity values (Table 4-1, Figure 4-1). A lower antimony detection was achieved in the 2003 sampling event, resulting in a detection frequency of 49 of 55 samples or 89 percent. Evaluation of the 2003 data indicates that toxicity values are not exceeded by any nondetected concentration and that 8 of 27 (29.6 percent) sediment samples and 8 of 27 (29.6 percent) soil samples had antimony concentrations that exceeded the literature-based LOEC. Assuming nondetects from 2000 actually contain concentrations that do not exceed toxicity values (an uncertain assumption, but considered reasonable because the frequency of detection in the 2000 data is comparable to the frequency of exceedance of

the 2003 data), 21 of 88 (23.9 percent) sediment samples and 21 of 68 (31 percent) soil samples had concentrations that exceeded the literature-based LOEC.

Because lead and antimony may contribute to the risk to plants, the joint frequency of exceedances was determined. Due to the uncertain nature of the plant bioassay results, this evaluation was based on the lower, literature-based toxicity values. Nondetected antimony concentrations from 2000 were not considered to contribute. All samples in which either lead or antimony or both lead and antimony exceeded their respective literature-based toxicity values were identified as presenting a potential risk to plants at Site 74. These data are presented in Table 4-1. Exceedance of at least one plant toxicity value was observed in 35 of 94 (43 percent) of sediment samples and 35 of 81 (43.2 percent) of soil samples from Site 74.

4.1.2 Sediment Invertebrates

Although site-specific sediment bioassays resulted in statistical differences in responses in 3 of 12 samples, only in 1 sample were these results attributed to site contamination (see Section 3.2.1.2). Responses in the other two samples (one of which was a reference sample) were attributed to variations in required nutrients. Based on these tests, site-specific mortality NOECs and LOECs for antimony (109 and 282 mg/kg) and lead (9,020 and 33,100 mg/kg) were determined.

Point-by-point screening of sediment concentrations against site-specific sediment toxicity values are presented in Table 4-2 and Figure 4-2. The availability of site-specific bioassays that displayed strong dose-response relationships with lead and antimony precluded the use of literature-based sediment screening values in the point-by-point evaluation. Lead and antimony concentrations in sediment from Site 74 exceeded site-specific NOECs in 7 of 94 (7.4 percent) samples. Site-specific LOECs were exceeded by fewer samples (2 and 3 for lead and antimony, respectively). Although the antimony detection limit was not lower than the single available literature-derived sediment value, it was not considered an issue for sediment because it was below the site-specific values.

Because both lead and antimony may contribute to the risk to sediment invertebrates, the joint frequency of exceedances was determined. All samples in which either lead or antimony or both lead and antimony exceeded their respective site-specific NOECs were identified as presenting a potential risk to sediment invertebrates at Site 74. These data are presented in Table 4-2. Exceedance of at least one sediment toxicity value was observed in 8 of 94 (8.5 percent) of sediment samples from Site 74.

4.1.3 Soil Invertebrates

No site-specific bioassays were conducted for soil invertebrates at Site 74. Consequently, risks to this assessment endpoint can only be evaluated based on literature-derived values.

Point-by-point screening of soil concentrations against literature-derived soil invertebrate toxicity values are presented in Table 4-3 and Figure 4-3. Lead and antimony concentrations in soil from Site 74 exceeded literature-derived soil invertebrate NOECs in 19 of 80 samples (23.75 percent) and in 5 of 68 (7.4 percent) samples, respectively. Literature-derived LOECs were exceeded by six samples for lead and five samples for antimony. The detection limit was not an issue for evaluation of antimony risks to soil invertebrates.

Because lead and antimony may contribute to the risk to soil invertebrates, the joint frequency of exceedances was determined. All samples in which either lead or antimony or both lead and antimony exceeded their respective literature-based NOECs were identified as presenting a potential risk to soil invertebrates at Site 74. These data are presented in Table 4-3. Exceedance of at least one soil toxicity value was observed in 20 of 80 (25 percent) soil samples from Site 74.

4.2 Birds and Mammals

Multiple types of exposure and effects data were available for birds and mammals at Site 74. These included dietary exposure estimates, measured target organ concentrations, and estimated target organ concentrations. Risks estimated based on each individual type of data for each wildlife receptor species are summarized in Sections 4.2.1 and 4.2.2.

4.2.1 Dietary Risk Estimate

As outlined in Section 3.1.2.1, dietary exposure was estimated for each bird and mammal receptor at each soil and/or sediment sample location. The selection of soil or sediment as the source medium for a receptor was based on a species habitat use (sediment was used for species that use marsh habitat, soil used for species that use upland habitats, and both soil and sediment were used if the species used both marsh and upland habitats). Because avian TRVs for antimony were lacking, antimony exposure was estimated only for mammals. Exposure to lead in soil or sediment (as appropriate) was estimated for both birds and mammals. Exposure to lead as shot was estimated only for avian receptors. As stated in Section 3.1.2.1, lead shot is not expected to be retained in the GI tract of mammals; therefore, this exposure pathway was not assumed to be present. The results of the comparisons of point-by-point exposure estimates to NOAELs and LOAELs for each receptor are presented below.

4.2.1.1 California Vole

California voles were assumed to be restricted to upland habitats. Consequently, exposure was estimated based on antimony and lead concentrations in soil. Although estimated exposure to antimony exceeded the NOAEL in all soil samples, only in 5 of 68 (7.4 percent) samples did estimated exposure exceed the LOAEL (Table 4-4 and Figure 4-4). Nondetected concentrations of antimony in soil produced exposure estimates that exceeded NOAELs, but none that exceeded LOAELs. The highest detected antimony concentration in soil producing an exposure estimate that did not exceed the LOAEL was 28.6 mg/kg; the lowest antimony concentration producing an exposure estimate that exceeded the LOAEL was 1,430 mg/kg.

Estimated dietary lead exposure exceeded the NOAEL in 45 of 79 (57 percent) and the LOAEL in 21 of 79 (26.6 percent) soil samples (Table 4-5 and Figure 4-4). The highest lead concentration in soil producing an exposure estimate that did not exceed the LOAEL was 604 mg/kg; the lowest lead concentration producing an exposure estimate that exceeded the LOAEL was 797 mg/kg.

4.2.1.2 Ornate Shrew

Ornate shrews were assumed to use both marsh and upland habitats. Consequently, exposure was estimated based on antimony and lead concentrations in sediment and soil.

Although estimated exposure to antimony exceeded the NOAEL in all sediment and soil samples, only in 7 of 88 (8 percent) sediment samples and in 5 of 68 (7.4 percent) soil samples did estimated exposure exceed the LOAEL (Table 4-6 and Figure 4-4). Nondetected concentrations of antimony in sediment and soil produced exposure estimates that exceeded NOAELs, but none that exceeded LOAELs. The highest detected antimony concentrations in sediment and soil producing exposure estimates that did not exceed the LOAEL were 81.2 and 28.6 mg/kg, respectively; the lowest antimony concentrations in sediment and soil producing exposure estimates that exceeded the LOAEL were 109 and 1,430 mg/kg.

Estimated dietary lead exposure exceeded the NOAEL in 44 of 93 (47.3 percent) and the LOAEL in 22 of 93 (23.6 percent) sediment samples (Table 4-7 and Figure 4-4). Exposure based on soil exceeded the NOAEL in 68 of 79 (86 percent) and the LOAEL in 26 of 79 (33 percent) samples. The highest detected lead concentrations in sediment and soil producing exposure estimates that did not exceed the LOAEL were 364 and 357 mg/kg, respectively; the lowest lead concentrations in sediment and soil producing exposure estimates that exceeded the LOAEL were 536 and 377 mg/kg.

4.2.1.3 Light-footed Clapper Rail

Light-footed clapper rails were assumed to be restricted to marsh habitat. Consequently, exposure was estimated based on lead and lead shot concentrations in sediment. The lack of avian TRVs for antimony precluded risk calculation for this analyte. Estimated dietary lead exposure exceeded the NOAEL in 29 of 93 sediment samples (31.2 percent) and the LOAEL in 23 of 93 (24.7 percent) sediment samples (Table 4-8 and Figure 4-5). Exposure based on lead as shot in sediment exceeded the annualized median lethal dose (LD_{50}) in 18 of 90 (20 percent) samples (Table 4-9 and Figure 4-5). The highest detected lead concentration in sediment producing an exposure estimate that did not exceed the NOAEL was 167 mg/kg; the lowest lead concentration in sediment producing an exposure estimate that exceeded the NOAEL was 176 mg/kg. The highest concentration of lead as shot in sediment producing an exposure estimate that did not exceed the annualized median lethal dose (LD_{50}) was 134 mg/kg; the lowest concentration of lead as shot in sediment producing an exposure estimate that exceeded the annualized LD_{50} was 176 mg/kg.

4.2.1.4 Mallard

Mallards were assumed to be restricted to marsh habitat. Consequently, exposure was estimated based on lead and lead shot concentrations in sediment. The lack of avian TRVs for antimony precluded risk calculation for this analyte. Estimated dietary lead exposure exceeded the NOAEL in 25 of 93 (26.9 percent) and the LOAEL in 22 of 93 (23.7 percent) sediment samples (Table 4-10 and Figure 4-6). Exposure based on lead as shot in sediment exceeded the annualized LD_{50} in 15 of 90 (16.7 percent) samples (Table 4-11 and Figure 4-6). The highest detected lead concentration in sediment producing an exposure estimate that did not exceed the LOAEL was 364 mg/kg; the lowest lead concentration in sediment producing an exposure estimate that exceeded the LOAEL was 536 mg/kg. The highest concentration of lead as shot in sediment producing an exposure estimate that did not exceed the annualized LD_{50} was 389 mg/kg; the lowest concentration of lead as shot in sediment producing an exposure estimate that exceeded the annualized LD_{50} was 504 mg/kg.

4.2.1.5 Belding's Savannah Sparrow

Belding's savannah sparrows were assumed to use marsh and upland habitats. Consequently, exposure was estimated based on lead and lead shot concentrations in sediment and soil. The lack of avian TRVs for antimony precluded risk calculation for this analyte. Estimated dietary lead exposure exceeded the NOAEL in 33 of 93 (35.5 percent) and the LOAEL in 24 of 93 (25.8 percent) sediment samples (Table 4-12 and Figure 4-7). Exposure based on soil exceeded the NOAEL in 47 of 80 samples (58.8 percent) and the LOAEL in 31 of 80 (38.8 percent) samples. Exposure based on lead as shot exceeded the annualized LD_{50} in 16 of 90 (17.8 percent) sediment samples and 42 of 77 soil samples (54.5 percent) (Table 4-13 and Figure 4-7).

The highest lead concentrations in sediment and soil producing exposure estimates that did not exceed the NOAEL were 131 and 59.6 mg/kg, respectively; the lowest lead concentrations in sediment and soil producing exposure estimates that exceeded the NOAEL were 140 and 70.6 mg/kg.

The highest concentrations of lead as shot in sediment and soil producing exposure estimates that did not exceed the annualized LD_{50} were 240 and 276 mg/kg, respectively; the lowest concentrations of lead as shot in sediment and soil producing exposure estimates that exceeded the annualized LD_{50} were 389 and 305 mg/kg, respectively.

4.2.1.6 Western Meadowlark

Meadowlarks were assumed to be restricted to upland habitat. Consequently, exposure was estimated based on lead and lead shot concentrations in soil. The lack of avian TRVs for antimony precluded risk calculation for this analyte. Estimated dietary lead exposure exceeded the NOAEL in 9 of 79 (11.4 percent) and the LOAEL in 5 of 79 (6.3 percent) soil samples (Table 4-14 and Figure 4-8). Exposure based on lead as shot in soil exceeded the annualized LD_{50} in 22 of 77 (28.6 percent) samples (Table 4-15 and Figure 4-8). The highest detected lead concentration in soil producing an exposure estimate that did not exceed the LOAEL was 3,430 mg/kg; the lowest lead concentration in soil producing an exposure estimate that exceeded the LOAEL was 31,600 mg/kg. The highest concentration of lead as shot in soil producing an exposure estimate that did not exceed the annualized LD_{50} was 2,112 mg/kg; the lowest concentration of lead as shot in soil producing an exposure estimate that exceeded the annualized LD_{50} was 2,554 mg/kg.

4.2.2 Tissue-Based Risk Estimate

4.2.2.1 Measured Tissue Concentrations

Concentrations of lead in liver tissue were measured in western meadowlarks and small mammals collected at Site 74 and at reference areas (see Table 3-4). Additionally, all bird carcasses (minus liver) were radiographed for evidence of lead ingestion.

Although concentrations of lead in the liver were statistically significantly greater ($p < 0.05$) among birds and mammals from Site 74 as compared to reference locations (Table 3-5 and Figure 4-9), all measured lead concentrations in liver of birds and mammals from Site 74 were within literature-based ranges either associated with no effects or with background (Figure 4-9 and Tables 3-12 and 3-13). (Note: Background refers to a value that was indicated a normal background lead concentrations in avian livers based on literature sources and is

not referring to the measured values in the reference birds collected for this ERA.) Assuming that the samples are representative, adverse effects to small mammals and western meadowlarks at Site 74 were considered unlikely.

X-ray images of meadowlarks collected from Site 74 and the reference area were evaluated for evidence of consumption of lead pellets. Evidence of radio-dense particles was observed on x-rays of 8 of the 10 meadowlarks collected at Site 74 (Table 3-4 and Figures A.4-1 to A.4-15 in Appendix A.4). These consisted of fragments that clearly were related to the collection method (i.e., nonlead shot), as well as radio-dense particles in the coelomic cavities (probably within the proventriculus and ventriculus). There was no correlation between these and lead concentrations in liver tissue and similar radio-dense particles were observed in the coelomic cavities of three of the five reference meadowlarks. Thus, it was considered more likely that these radio-dense particles were some form of mineralized material, though metallic fragments could not be ruled out by the radiologist. That is to say, an unidentified material seen as an opaque spot on the x-ray was reported and considered to be some form of mineralized material. This could include rocks, gravel, or other forms of grit.

4.2.2.2 Estimated Tissue

Concentrations of lead in livers of mallards, shrews, and voles were estimated using the models described in Section 3.1.2.2. The results of these analyses are described below.

Mallard

Mallards were assumed to be restricted to marsh habitat. To be conservative, the lead concentration used in the model was the sum of lead in sediment and lead as shot at each sample location (Table 3-6). The cumulative distribution of liver lead concentrations estimated for mallards using Site 74 were compared to the lead effect levels for waterfowl identified by Pain (1996) (Table 3-6 and Figure 4-10). Estimated liver lead concentrations for mallards were in the background range for 79 of 94 (84 percent) samples. Six (6.4 percent) and seven (7.4 percent) samples had combined lead concentrations in sediment that resulted in estimated liver lead concentrations within the subclinical and clinical effects ranges, respectively. Only two (2.1 percent) samples had lead concentrations that resulted in estimated liver lead concentrations in the severe clinical effects range.

California Vole

California voles were assumed to be restricted to upland habitat. Tissue concentrations, therefore, were estimated based on soil concentrations. Lead shot concentrations were not included because shot was not assumed to reside within the mammalian digestive system sufficiently long to contribute to exposure. The cumulative distribution of liver lead concentrations estimated for voles using Site 74 were compared to the lead effect levels for mammals identified by Ma (1996) (Table 3-7 and Figure 4-11). Estimated liver lead concentrations for voles were within the no effect range for 59 of 80 (74 percent) of samples. Sixteen (20 percent) samples had lead concentrations in soil that resulted in estimated liver lead concentrations greater than the no effect level but less than the clinical effect level. Only five (6.25 percent) samples had lead concentrations that resulted in estimated liver lead concentrations in the clinical effects range.

Ornate Shrew

Ornate shrews were assumed to use upland and marsh habitats. Consequently, tissue-based exposure was estimated based on both sediment and soil. Lead shot concentrations were not included because shot was not assumed to reside within the mammalian digestive system sufficiently long to contribute to exposure. The cumulative distribution of liver lead concentrations estimated for shrews using Site 74 were compared to the lead effect levels for mammals identified by Ma (1996) (Table 3-8 and Figure 4-12). Estimated liver lead concentrations for shrews were within the no effect range for 69 of 93 (74 percent) sediment samples and 52 of 80 (65 percent) of soil samples. Nine (9.7 percent) sediment and 12 (15 percent) soil samples had lead concentrations that resulted in estimated liver lead concentrations greater than the no effect level but less than the clinical effect level. Fifteen (16 percent) sediment samples and 16 (20 percent) soil samples had lead concentrations that resulted in estimated liver lead concentrations in the clinical effects range.

4.3 Uncertainties

Uncertainties are inherent in all risk assessments. The nature and magnitude of uncertainties depend on the amount and quality of data available, the degree of knowledge concerning site conditions, and the assumptions made to perform the assessment. A qualitative evaluation of the major uncertainties associated with this assessment, in no particular order of importance, is outlined below:

- The point-by-point exposure estimation approach employed to evaluate dietary exposure for birds and mammals implicitly assumes that an individual resides and forages exclusively at a given point. Because birds and mammals are mobile, moving and foraging over areas of various size, this assumption is conservative and overestimates risk.
- The habitat quality and availability, including such factors as plant cover, plant distribution, and quantity of available food, may affect the abundance and distribution of receptors at the site and, thus, exposure of receptors. Site-specific data on habitat quality were not collected at Site 74. Instead (as described above), bird and mammal receptors were assumed to reside and forage exclusively at a given point to yield a point-by-point exposure estimate. Given this assumption, the lack of habitat quality data in this assessment would result in an overestimation or underestimation of risk.
- A significant relationship for lead bioaccumulation in plants based on plants and soil/sediment collected at Site 74 was not observed. Because the site-collected data did fall within the 95 percent prediction interval of previously developed bioaccumulation models for lead in plants (i.e., Efroymson et al., 2000), the significant regression obtained for the larger dataset was used to estimate concentrations of lead in plants at Site 74. These estimates were used in the exposure calculations for bird and mammal receptors at the site. Although the Site 74 data were within the limits of the literature-based model, the actual bioaccumulation of lead in plants at Site 74 may be less or greater than estimated. Consequently, risk to birds and mammals may be overestimated or underestimated.

- Significant relationships for bioaccumulation of antimony from soil/sediment to plants and invertebrates was not observed from the site-specific data collected at Site 74. Therefore, the maximum measured antimony concentrations in plant and invertebrate tissue collected at the site were used in the exposure calculations for birds and mammals. Although there is the possibility that plants or invertebrates with greater concentrations of antimony exist at the site, use of these maximum values for the point-by-point analysis (i.e., assuming the highest concentration at every point) is a conservative approach that likely overestimates risk.
- Concentrations of lead and antimony in plants were measured in the edible parts (e.g., leaves, seeds, and flowers) of the vegetation. The distribution of lead or antimony in these compartments of the plant may be unequal (i.e., there may be a preference to store the COPEC in one compartment); therefore, a compartment may have a higher or lower concentration of the COPEC than represented in the combined tissue. Because receptors may forage exclusively on one compartment (e.g., seeds only or leaves only), they may be exposed to tissue concentrations greater than or less than those measured in the combined compartments. Consequently, unequal compartmentalization of metals in plant tissues may result in an overestimation or underestimation of risk.
- The bioaccessibility analyses that were conducted on soils and sediments from Site 74 was developed to evaluate bioaccessibility of lead to humans. The suitability of this method to evaluate bioaccessibility of antimony or bioaccessibility for other mammalian species or birds is unknown. This uncertainty could result in either under- or over-estimation of bioaccessibility and, therefore, risk.
- Detection limits for antimony as part of the 2000 sampling event were insufficiently low for some receptors. Based on an evaluation of the 2003 data for which lower detection limits were obtained, the 2000 antimony data were assumed to present no risk. Because actual antimony concentrations present in the 2000 samples are unknown, excluding these data may under-represent antimony risks.
- The models used to estimate concentrations of lead in the livers of mallards and small mammals were based on data derived from another site (in the case of mallards) or from published data (in the case of small mammals). It was assumed that the bioavailability and bioaccumulation relationships described in these models were applicable to lead in sediment or soil from Site 74. This uncertainty may result in over- or underestimation of exposure and risk.
- Meadowlarks and small mammals collected from Site 74 were assumed to reside exclusively on and be exposed at Site 74. This assumption may be valid for small mammals (due to their limited mobility and small home range) but may not be so for meadowlarks. Birds collected onsite may have spent most of their time at other locations and, therefore, may not accurately represent onsite exposure. This uncertainty would result in an underestimation of risk for birds that may spend more time onsite than the collected meadowlarks.
- Although every effort was made to conduct valid bioassays with a salt marsh plant species, these efforts were unsuccessful. As a consequence barley was selected as the test species. Excessive salinity of the sediment and, to a lesser extent, soil samples resulted in

low germination. Although it appears that observed effects were associated exclusively with sodium (representing salinity), it is possible that the dominant effect of sodium masked possible effects from other analytes, such as antimony or lead.

- Except for mallards, data concerning soil ingestion rates for bird and mammal receptors were not available. As a consequence, the soil ingestion rates were estimated based on assumed similarities to other species for which data were available. The suitability of these assumptions is unknown. This uncertainty may result in over- or underestimation of exposure and risk.
- No life history data specific to Site 74 were available. Therefore, exposure parameters either were modeled on the basis of allometric relationships (e.g., food ingestion rates) or were based on data from the same species in other portions of its range. Because diet composition and rates of food, water, and soil ingestion can differ among individuals and locations, published parameter values may not accurately reflect individuals present at Site 74. As a consequence, risk may be overestimated or underestimated.
- Literature-derived toxicity data based on laboratory studies were used to evaluate risk to all receptor groups. It was assumed that effects observed in laboratory species were indicative of effects that would occur in wild species. The suitability of this assumption is unknown. Consequently, risk may be overestimated or underestimated.
- Laboratory toxicity tests often use highly bioavailable forms of metals (e.g., lead acetate). In contrast, metals biologically-incorporated into plant, invertebrate, small mammals, and bird tissue may be much less bioavailable. This may result in lower exposure despite ingestion of concentrations similar to those used in the toxicity test. Therefore, risk may be overestimated.
- TRVs for plants and invertebrates also are often based on laboratory studies using highly bioavailable forms of the metal; whereas, forms found at contaminated sites are generally less bioavailable. Therefore, risk to these receptors may be overestimated.
- An adverse effect level of 20 percent was selected as an assessment endpoint for plant and invertebrate communities, and all bird and mammal populations, except the light-footed clapper rail and Belding's savannah sparrow. A 20 percent effect level in an individual, may have varying effects on communities or populations related to varying life-history strategies. For example, population modeling for hypothetical r- and k-selected species confirmed the theory that k-selected (long-lived, delayed sexual maturity, small broods, and low annual reproductive effort) species are more sensitive to stress, but r-selected (short-lived, early sexual maturity, large broods, and high annual reproductive effort) species are more sensitive to short-term reproductive failure (Sample et al., 2000). Specific data required to model population effects for Site 74 bird and mammal receptors are lacking; therefore, effect levels that produce population effects are uncertain. Consequently, risk to communities or populations may be overestimated or underestimated at the assumed effect level.
- In this assessment, risks from COPECs were considered independently for many receptors (i.e., those receptors that lacked ambient media toxicity data). Because chemicals may interact in an additive, antagonistic, or synergistic manner, evaluation of single-chemical risk may either underestimate or overestimate risks associated with

chemical mixtures. Based on a review of the literature, lead and antimony do not have similar modes of action or primary target organs; therefore, interactions between these two metals are uncertain but not likely.

- Ambient media toxicity bioassays were conducted on a select group of laboratory species (e.g., amphipods and barley). It was assumed that these species are representative of the sediment invertebrates and terrestrial and marsh plants found at Site 74. The suitability of this assumption is unknown. Consequently, risk may be either overestimated or underestimated.
- A hydrologic connection between groundwater in the portion of Site 74 east of Case Road and surface water in the NWR has been described. However, as previously stated, this pathway is not of significance because lead from shot has not been observed to be highly mobile. Instead it tends to sorb to the soil and sediments. Similarly, migration via surface runoff is expected to be low. However, the potential for offsite migration of COPECs via these pathways, though remote, exists, potentially exposing aquatic receptors. Consequently, risk to these aquatic receptors may be underestimated, though dispersion and dilution from tidal flow likely would make this underestimation insignificant.

4.4 Risk Conclusions

The decision rules developed as part of the DQOs (Section 2.5.1) provide a set of criteria for the determination of the presence or absence of risk for each line of evidence for each assessment endpoint. Decision rules and the risk conclusions are summarized in Table 4-16. Based on an integration of the site data with the decision rules, the following risk conclusions can be made:

- The lines of evidence available for the avian and mammalian receptors varied by receptor. There were three lines of evidence available for small mammals (California vole and ornate shrew) including literature-derived toxicity data for estimated dietary dose, site-specific tissue concentrations, and estimated tissue concentrations. For the western meadowlark literature-derived toxicity data for dietary dose and site-specific tissue concentrations were available. Literature-derived toxicity data for dietary dose and estimated tissue concentrations were available for mallards, and only literature-derived toxicity data for dietary dose were available for the light footed clapper rail and Belding's savannah sparrow. For birds, exposure via lead shot provided an additional line of evidence. The conclusions of each line of evidence are as follows:
  - For all bird and mammal receptors, concentrations of lead and antimony exceeded toxicity thresholds for dietary dose in some samples.
  - Measured concentrations of lead in livers of meadowlarks and small mammals suggest that exposure, although elevated relative to background, is insufficient to present a risk. Although the low levels observed in these data serve to mitigate the concerns for meadowlarks and small mammals, the limited sample size for these data and the mobility of the receptors limit the ability of these data to support a definitive conclusion of no risk. Additionally, no shorebirds were sampled (i.e., the species planned for collection were not present onsite during several collection

attempts) and no year-round residents were sampled. Therefore, definitive conclusions for avian species that feed in wetland portions of the site or are year-round residents (e.g., the clapper rail) cannot be made.

– Estimated concentrations of lead in livers of mallards and small mammals suggest that exposure is sufficient to present risk at some sampling locations. Although lead concentrations in less than 10 percent of samples exceeded effects levels for the mallard and California vole, 16 and 20 percent of sediment and soil samples exceeded effects levels for ornate shrews.

– Lead as shot exists in concentrations that present risks to birds.

Based on the results of these lines of evidence, the weight-of-evidence conclusion is that lead and antimony in sediment and soil at Site 74 exist in concentrations that present risks to resident birds and mammals.

- Two lines of evidence (site-specific bioassays and literature-derived toxicity data) were available to evaluate sediment invertebrates. Given that there were exceedances of the site-specific effects concentrations that were developed from the bioassay results, the weight-of-evidence conclusion is that lead and antimony are at concentrations in sediment that may present risks to sediment invertebrates. Because lead and antimony concentrations explain toxicity better than the other metals considered, other analytes are not considered to contribute significantly to sediment toxicity to invertebrates. However, this is not to say that other analytes and/or sediment conditions (e.g., pH) have no effect.

- As with sediment invertebrates, two lines of evidence (site-specific bioassays and literature-derived toxicity data) were available to evaluate plants. Though concentrations of lead and antimony exceeded literature-based toxicity values in some samples, these analytes were not associated with effects observed in the plant bioassays. Therefore, the weight-of-evidence conclusion is that lead and antimony in sediment and soil do not present a risk to plants. However, this conclusion is not definitive. Observed results in the site-specific bioassays were driven by sodium (salinity) toxicity, which may have masked contaminant-related effects. Collection of plant samples in locations with high lead and antimony concentrations (e.g., pickleweed collected in areas with lead as high as 55,200 mg/kg and antimony up to 2,300 mg/kg) support the conclusion that plants are not at risk.

- One line of evidence (literature-derived toxicity data) was available for soil invertebrates. Because concentrations of lead and antimony in some samples exceeded toxicity thresholds, the weight of evidence conclusion is that lead and antimony concentrations in soil may present risk to soil invertebrates.

5.0 Risk Management Options

The primary purpose for conducting this Tier II ERA was to apply more site-specific and detailed criteria to the development of ecological PRGs for Site 74 receptors. Remediation of soil and sediment to background concentrations (35.7 mg/kg), as suggested by the screening ERAs conducted as part of the FSI Phase II investigation (SWDIV, 2002), would

require remediation of the entire site and would result in significant adverse effects to ecological resources at the site. This is of particular concern because the adjacent NWR provides habitat of the federally protected light-footed clapper rail and Belding's savannah sparrow.

Given the high concentrations of antimony and lead, and the abundance of lead shot in onsite soil and sediment, the presence of risks essentially could be assumed. A point-by-point risk evaluation approach, therefore, was used to aid in identifying specific locations that present risks. Ideally, remediation then could be targeted to these areas. To provide the broadest level of protection for assessment endpoints from any remediation, it is essential that risks to each endpoint at each sampling location be evaluated concurrently. Table 5-1 summarizes the point-by-point risk conclusions for all retained receptors. Plants were not considered, because the risk conclusion was that neither antimony nor lead presented a risk to this assessment endpoint. Although there is uncertainty associated with this conclusion (due to uncertainty with the plant bioassays), site-specific lead TRVs for plants (more than 1,000 mg/kg) are greater than lead PRGs for the other receptors and literature-derived plant TRVs for lead are within the range of PRGs for birds. Because of the lack of conclusive bioassay data and a dearth of TRVs or other benchmarks, similar conclusions for antimony are uncertain.

Several conclusions can be drawn from the summary data in Table 5-1.

1) If wildlife receptors will be protected from risks, directly exposed biota (i.e., sediment and soil invertebrates) also will be protected. In all cases, fewer sample locations were identified as presenting risks to sediment and soil invertebrates than for birds and mammals. In addition, no location was identified that presented a risk to invertebrates that did not also present a risk to a wildlife receptor.

2) Risks from lead are greater than those from antimony. Fewer sample locations were identified as presenting risks from antimony than was observed for lead. In addition, with one exception, all locations identified as presenting antimony risks also presented lead risks. Note that antimony risks could be evaluated only for mammals. Avian toxicity data are lacking.

3) Spatially, risks are driven by the Belding's savannah sparrow. More locations were identified that presented risks to this receptor than was observed for any other receptor. All locations identified as presenting risks to Belding's savannah sparrow also presented risks to other species. In no instance did a sample location that presented a risk for any other wildlife species not present a risk to the sparrow. As a consequence, targeting cleanup to reduce risks to this species also will address risks for all other species. Figure 5-1 displays the spatial distribution of samples identified as presenting risks to Belding's savannah sparrows. This area represents approximately 13.5 acres.

4) Given the large number of samples with lead or shot concentrations that exceed thresholds for Belding's savannah sparrow, focusing remediation solely on this species could result in significant habitat disruption and destruction. To provide an alternative for informed remedial decisionmaking, samples identified as presenting risks to the next most sensitive set of receptors were identified. These receptors were the light-footed clapper rail for lead and lead as shot in sediment, the ornate shrew for lead in soil, and

the western meadowlark for lead as shot in soil. The smaller potential cleanup footprint identified by exceedances for these species is also shown in Figure 5-1 and is approximately 8.1 acres in size. The difference between the larger and smaller remedial footprints is that the smaller footprint excludes all samples identified as presenting risks only to sparrows and not to other bird or mammal receptors. Reducing the remedial footprint from 13.5 to 8.1 acres results in an increase in the minimum sediment lead concentration remediated of just 36 mg/kg (i.e., increased from 140 to 176 mg/kg). For soil, the remediated lead concentration is increased from 25.6 to 42.6 mg/kg. (Note: the minimum soil concentration to be remediated is lower than the PRG in some cases because the concentration of lead as shot was also considered in determining which samples to include in the remedial footprint. In these cases the lead as shot concentration exceeded its PRG, but the soil lead concentration did not.)

In addition to mapping potential remedial footprints, concentrations of antimony or lead in soil or sediment or lead as shot that represent thresholds for risks to each wildlife receptor were derived by back-calculation of the exposure calculations. These back-calculated PRGs are shown in Table 5-2.

Efficacy of potential risk reduction was evaluated by comparing the distributions of antimony, lead, or lead as shot in samples to be removed and samples to remain under each scenario (Table 5-3). In all cases, median concentrations of all analytes in samples to remain following remediation under the smaller footprint scenario were less than PRGs for all receptors. There were, however, instances under the smaller footprint scenario where maximum or 90th percentile concentrations of lead or lead as shot exceeded the sparrow PRG. Because these exceedances are restricted to a limited number of samples and are based on NOAELs, residual risks are considered negligible.

Comparative analyses of the effects and benefits of different remedial alternatives are recommended. In particular, an evaluation weighing the benefits of remediation against the damage to sensitive habitat due to remedial actions is warranted.

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TABLES

Table 1-1
Site 74 Sample Counts for the Tier II Ecological Risk Assessment Sampling (Planned and Actual)
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Media	Activity	Data Type	Number Planned Samples [a]	Number Planned MS/MSD [b]	Number Samples Collected [c]	Number MS/MSD Collected [b]	Sampling Event	Comments
Bioaccumulation								
Sediment	Sb and Pb	Analytical Chemistry	17	1	17	1	Aug-03	
Sediment	TAL metals (excluding Hg and CN)	Analytical Chemistry	3 to 5	1	3	1	Aug-03	
Sediment	Moisture Content	Analytical Chemistry	17		17		Aug-03	
Sediment	TOC (Total Organic Carbon)	Analytical Chemistry	17		17		Aug-03	Only run on 6 samples (2 from each of the high, med, low lead areas)
Sediment	Grain size	Analytical Chemistry	17		17		Aug-03	Only run on 6 samples (2 from each of the high, med, low lead areas)
Sediment	Lead Shot Counting and Weighing	Analytical Chemistry	15		15		Aug-03	
Marsh Invertebrates	Sb and Pb	Analytical Chemistry	17	1	19	2	Aug-03	
Marsh Invertebrates	Moisture Content	Analytical Chemistry	17		19		Aug-03	
Marsh Plants	Sb and Pb	Analytical Chemistry	17	1	17	1	Aug-03	
Marsh Plants	Moisture Content	Analytical Chemistry	17		17		Aug-03	
Soil	Sb and Pb	Analytical Chemistry	17	1	17	1	Aug-03	
Soil	TAL metals (excluding Hg and CN)	Analytical Chemistry	3 to 5	1	3	1	Aug-03	
Soil	Moisture Content	Analytical Chemistry	17		17		Aug-03	
Soil	TOC (Total Organic Carbon)	Analytical Chemistry	17		17		Aug-03	Only run on 6 samples (2 from each of the high, med, low lead areas)
Soil	Grain size	Analytical Chemistry	17		17		Aug-03	Only run on 6 samples (2 from each of the high, med, low lead areas)
Soil	Lead Shot Counting and Weighing	Analytical Chemistry	15		15		Aug-03	
Terrestrial Plants	Sb and Pb	Analytical Chemistry	16	1	16	1	Aug-03	
Terrestrial Plants	Moisture Content	Analytical Chemistry	16		16		Aug-03	
Terrestrial Invertebrates	Sb and Pb	Analytical Chemistry	16	1	12	1	Aug-03/Dec-03	12 samples represent 6 sampling locations; inverts not present at other locations
Terrestrial Invertebrates	Moisture Content	Analytical Chemistry	16		12		Aug-03/Dec-03	12 samples represent 6 sampling locations; inverts not present at other locations
Bioaccessibility								
Sediment	Sb and Pb	Bioaccessibility extraction	3		3		Dec-03	
Sediment	Sb and Pb (9 total and 3 SBRC)	Bioaccessibility Analytical Chemistry	12		12		Dec-03	
Soil	Sb and Pb	Bioaccessibility extraction	3		3		Dec-03	
Soil	Sb and Pb (9 total and 3 SBRC)	Bioaccessibility Analytical Chemistry	12		12		Dec-03	
Decant Water	Sb and Pb (3 filtered/3 unfiltered)	Analytical Chemistry	6		0		Dec-03	insufficient quantity of decant water for sampling
Target Organ								
Meadowlark Liver	Pb	Analytical Chemistry	20	1	15	1	Dec-03	only 5 reference meadowlarks collected
Meadowlark Liver	Moisture Content	Analytical Chemistry	20		15		Dec-03	only 5 reference meadowlarks collected
Shorebird Liver	Pb	Analytical Chemistry	20	1	0	0	Dec-03	no shorebirds present
Shorebird Liver	Moisture Content	Analytical Chemistry	20		0		Dec-03	no shorebirds present
Mammal Liver	Pb	Analytical Chemistry	20	1	20	1	Dec-03	
Mammal Liver	Moisture Content	Analytical Chemistry	20		20		Dec-03	
Bioassays								
Sediment	14-Day Plant Bioassays - Barley	Bioassay	12		12		Dec-03	
Sediment	28-Day Invertebrate Bioassay - *Leptocheirus plumulosus*	Bioassay	12		12		Dec-03	
Sediment	Sb and Pb	Bioassay Analytical Chemistry	14	1	14	1	Dec-03	
Sediment	TAL metals (excluding Hg and CN)	Bioassay Analytical Chemistry	14	1	14	1	Dec-03	
Sediment	Moisture Content	Bioassay Analytical Chemistry	14		14		Dec-03	
Sediment	TOC (Total Organic Carbon)	Bioassay Analytical Chemistry	14		14		Dec-03	
Sediment	Grain size	Bioassay Analytical Chemistry	14		14		Dec-03	
Sediment	CEC (Cation Exchange Capacity)	Bioassay Analytical Chemistry	14		14		Dec-03	
Sediment	pH	Bioassay Analytical Chemistry	14		14		Dec-03	
Sediment	Lead Shot Counting and Weighing	Bioassay Analytical Chemistry	9		9		Dec-03	
Soil	14-Day Plant Bioassays - Barley	Bioassay	12		12		Dec-03	
Soil	Sb and Pb	Bioassay Analytical Chemistry	14	1	14	1	Dec-03	
Soil	TAL metals (excluding Hg and CN)	Bioassay Analytical Chemistry	14	1	14	1	Dec-03	
Soil	PAHs	Bioassay Analytical Chemistry	14	1	14	1	Dec-03	
Soil	Moisture Content	Bioassay Analytical Chemistry	14		14		Dec-03	
Soil	TOC (Total Organic Carbon)	Bioassay Analytical Chemistry	14		14		Dec-03	
Soil	Grain size	Bioassay Analytical Chemistry	14		14		Dec-03	
Soil	CEC (Cation Exchange Capacity)	Bioassay Analytical Chemistry	14		14		Dec-03	

Table 1-1
Site 74 Sample Counts for the Tier II Ecological Risk Assessment Sampling (Planned and Actual)
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Media	Activity	Data Type	Number Planned Samples [a]	Number Planned MS/MSD [b]	Number Samples Collected [c]	Number MS/MSD Collected [b]	Sampling Event	Comments
Soil	pH	Bioassay Analytical Chemistry	14		14		Dec-03	
Soil	Lead Shot Counting and Weighing	Bioassay Analytical Chemistry	9		9		Dec-03	
Equipment Rinsate and Wastewater								
Equipment Rinsate	Sb and Pb	Analytical Chemistry	2		3		Dec-03	one per day in field (exceeded planned by 1 day)
Equipment Rinsate	PAHs	Analytical Chemistry	2		3		Dec-03	one per day in field (exceeded planned by 1 day)
Wastewater	Sb and Pb	Analytical Chemistry	2		0		Aug-03	waited to collect wastewater until after Dec sampling event
Wastewater	PAHs	Analytical Chemistry	2		0		Aug-03	waited to collect wastewater until after Dec sampling event
Wastewater	Sb and Pb	Analytical Chemistry	2		2		Jan-04	collected from waste storage container after all sampling complete
Wastewater	PAHs	Analytical Chemistry	2		0		--	not needed due to time elapsed between collection and sampling events
Wastewater	pH	Analytical Chemistry	2		2		Jan-04	collected from waste storage container after all sampling complete

Notes:
[a] Sample numbers include target and duplicate samples. Numbers shown are from Sampling and Analysis Plan.
[b] One MS/MSD sample collected equals two laboratory samples
[c] Sample numbers include target and duplicate samples. Numbers shown are from Chain of Custody forms.
-- not applicable

Table 2-1

Assessment Endpoints and Measures of Exposure and Effects for the Site 74 Assessment

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Assessment Endpoint					Receptor Characteristics					Exposure Potential				
Entity	**Attribute**	**Effect Level**	**Conceptual Model Group**	**Representative Receptor**	**Special Status**	**Small Home Range**	**Representative of Guild**	**Susceptible to Biomagnification**	**Assessment Level**	**Inhalation**	**Ingestion**	**Dermal**	**Measures of Exposure**	**Measures of Effects**
Marsh Plants	Growth, reproduction, or survival	20% reduction of attribute	Sediment Biota	NA	L	H	H	M	Community	NA	NA	H	Measured concentrations of COPECs in sediment.	Point-by-point comparison of sediment concentrations to benchmark values for toxic effects that could affect growth or survival.
													Ambient Media Toxicity Tests	Bioassays using site-specific sediment for seed germination and early seedling growth
													Ambient Media Toxicity Tests	Bioassay results were used to develop site-specific NOECs and LOECs. These were compared to sediment concentrations on a point-by-point basis.
Benthic Invertebrates	Growth, reproduction, or survival	20% reduction of attribute	Sediment Biota	NA	L	H	H	H	Community	NA	H	H	Measured concentrations of COPECs in sediment.	Point-by-point comparison of sediment concentrations to benchmark values for toxic effects that could affect growth or survival.
													Ambient Media Toxicity Tests	Bioassays using site-specific sediment for survival, growth, and reproduction
													Ambient Media Toxicity Tests	Bioassay results were used to develop site-specific NOECs and LOECs. These were compared to sediment concentrations on a point-by-point basis.
Terrestrial Plants	Growth, reproduction, or survival	20% reduction of attribute	Soil Biota	NA	L	H	H	M	Community	NA	NA	H	Measured concentrations of COPECs in soil	Point-by-point comparison of soil concentrations to benchmark values for toxic effects that could affect growth or survival.
													Ambient Media Toxicity Tests	Bioassays using site-specific soil for seed germination and early seedling growth
													Ambient Media Toxicity Tests	Bioassay results were used to develop site-specific NOECs and LOECs. These were compared to soil concentrations on a point-by-point basis.
Soil Invertebrates	Growth, reproduction, or survival	20% reduction of attribute	Soil Biota	NA	L	H	H	H	Community	H	H	H	Measured concentrations of COPECs in soil	Point-by-point comparison of soil concentrations to benchmark values for toxic effects that could affect growth or survival.
Birds	Growth, reproduction, or survival	No acceptable effect	Aquatic Invertivore	Light-footed Clapper Rail	H	H	H	H	Individual	L	H	L	Measured concentrations of COPECs in sediment.	Comparison of exposure estimates (based on 95% UCL abiotic media concentrations and measured site-specific biota concentrations, which were used to develop site-specific bioaccumulation models) to benchmark values for toxic effects that could affect reproduction or survival.
	Growth, reproduction, or survival	20% reduction of attribute	Aquatic Omnivore	Mallard	M	L/M	H	H	Population	L	M	L	Measured concentrations of COPECs in sediment.	Comparison of exposure estimates (based on 95% UCL abiotic media concentrations and measured site-specific biota concentrations, which were used to develop site-specific bioaccumulation models) to benchmark values for toxic effects that could affect reproduction or survival.
													Estimated concentrations of lead in blood.	Comparison of estimated concentrations of lead in blood to concentrations of lead in blood associated with clinical toxicity.
	Growth, reproduction, or survival	No acceptable effect	Aquatic/Terrestrial Insectivore	Belding's Savannah Sparrow	H	H	H	H	Individual	L	M	L	Measured concentrations of COPECs in sediment/soil.	Comparison of exposure estimates (based on 95% UCL abiotic media concentrations and measured site-specific biota concentrations, which were used to develop site-specific bioaccumulation models) to benchmark values for toxic effects that could affect reproduction or survival.
	Growth, reproduction, or survival	20% reduction of attribute	Terrestrial Omnivore	Western Meadowlark	L	H	H	H	Population	L	M	L	Measured concentrations of COPECs in soil.	Comparison of exposure estimates (based on 95% UCL abiotic media concentrations and measured site-specific biota concentrations, which were used to develop site-specific bioaccumulation models) to benchmark values for toxic effects that could affect reproduction or survival.
													Measured concentrations of lead in liver.	Comparison of measured concentrations of lead in liver tissue to concentrations of lead in liver associated with mortality, weight loss, or clinical toxicity.

Table 2-1

Assessment Endpoints and Measures of Exposure and Effects for the Site 74 Assessment

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Assessment Endpoint					Receptor Characteristics					Exposure Potential				
Entity	**Attribute**	**Effect Level**	**Conceptual Model Group**	**Representative Receptor**	**Special Status**	**Small Home Range**	**Representative of Guild**	**Susceptible to Biomagnification**	**Assessment Level**	**Inhalation**	**Ingestion**	**Dermal**	**Measures of Exposure**	**Measures of Effects**
Mammals	Growth, reproduction, or survival	20% reduction of attribute	Terrestrial Herbivore	California Vole	L	H	H	L	Population	L	H	L	Measured concentrations of COPECs in soil.	Comparison of exposure estimates (based on 95% UCL abiotic media concentrations and measured site-specific biota concentrations, which were used to develop site-specific bioaccumulation models) to benchmark values for toxic effects that could affect reproduction or survival.
													Measured concentrations of lead in liver.	Comparison of measured concentrations of lead in liver tissue to concentrations of lead in liver associated with mortality, weight loss, or clinical toxicity.
	Growth, reproduction, or survival	20% reduction of attribute	Terrestrial Insectivore	Ornate Shrew	L	H	H	H	Population	M	H	M	Measured concentrations of COPECs in soil.	Comparison of exposure estimates (based on 95% UCL abiotic media concentrations and measured site-specific biota concentrations, which were used to develop site-specific bioaccumulation models) to benchmark values for toxic effects that could affect reproduction or survival.
													Measured concentrations of lead in liver.	Comparison of measured concentrations of lead in liver tissue to concentrations of lead in liver associated with mortality, weight loss, or clinical toxicity.

NOEC = No Observed Effects Concentration

LOEC = Lowest Observed Effects Concentration

LC_{50} = Median Lethal Concentration (concentration that results the mortality of 50% of individuals tested)

EC_{50} = Median Effect Concentration (concentration that causes the endpoint effect in 50% of individuals tested)

EC_{100} = Effect Concentration (concentration that causes the endpoint effect in 100% of individuals tested)

Note that all receptors are potentially sensitive to contaminants and all are considered ecologically important. Although all receptors are not expected to occur in all areas (i.e., because of inappropriate habitat), all receptors are assumed to be indicators (or surrogates) of other related species that could be present in these areas.

L = low

M = moderate

H = high

Table 2-2
Summary Statistics for Analytes Detected in Soils and Sediments at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Matrix	Type	Analyte	Units	Number of Detects	Number of Samples	Mean	Standard Deviation	Minimum	Median	Maximum
Sediment	2000	Antimony	mg/kg, dw	13	61	92.81	377.47	19.8	37.4	2980
Sediment	Bioassay	Antimony	mg/kg, dw	9	9	44.84	95.75	0.2	1.8	282
Sediment	PhaseI	Antimony	mg/kg, dw	15	15	38.63	68.44	0.3	1.4	182
Sediment	Refbio	Antimony	mg/kg, dw	3	3	0.20	0.10	0.1	0.2	0.3
Soil	2000	Antimony	mg/kg, dw	13	41	194.89	711.18	10.3	12.7	3930
Soil	Bioassay	Antimony	mg/kg, dw	6	9	6.22	9.11	0.2	3.4	28.6
Soil	PhaseI	Antimony	mg/kg, dw	15	15	256.05	693.13	0.2	1.5	2380
Soil	Refbio	Antimony	mg/kg, dw	0	3	0.17	0.06	0.1	0.2	0.2
Sediment	2000	Lead	mg/kg, dw	66	66	3219.78	19076.73	8.7	67.7	154000
Sediment	Bioassay	Lead	mg/kg, dw	9	9	4837.64	10993.19	48.4	199	33100
Sediment	PhaseI	Lead	mg/kg, dw	15	15	3834.12	6690.66	42.7	127	20400
Sediment	Refbio	Lead	mg/kg, dw	3	3	285.37	422.34	35.7	47.4	773
Soil	2000	Lead	mg/kg, dw	52	52	4274.25	16108.58	5	87.55	80300
Soil	Bioassay	Lead	mg/kg, dw	9	9	829.32	1112.03	15.1	535	3430
Soil	PhaseI	Lead	mg/kg, dw	16	16	5708.18	15336.13	12.6	152.95	55200
Soil	Refbio	Lead	mg/kg, dw	3	3	92.17	74.34	48	50.5	178
Sediment	2000	Lead as shot	mg/kg, dw	23	66	461.98	1395.37	0	0	7481.1
Sediment	Bioassay	Lead as shot	mg/kg, dw	3	9	906.21	1832.32	0	0	4979.5
Sediment	PhaseI	Lead as shot	mg/kg, dw	5	15	1274.76	2451.94	0	0	7511.5
Sediment	Refbio	Lead as shot	mg/kg, dw	0	0	.	.	.	.	.
Soil	2000	Lead as shot	mg/kg, dw	43	52	2292.97	3631.10	0	526.17	13193.31
Soil	Bioassay	Lead as shot	mg/kg, dw	8	9	3492.27	5599.79	0	308.1	14404.6
Soil	PhaseI	Lead as shot	mg/kg, dw	12	16	2286.49	3548.44	0	530.275	12193.75
Soil	Refbio	Lead as shot	mg/kg, dw	0	0	.	.	.	.	.
Sediment	2000	mean shot size	g		23	0.043	0.019	0.024	0.038	0.093
Sediment	Bioassay	mean shot size	g		3	0.038	0.014	0.027	0.034	0.054
Sediment	PhaseI	mean shot size	g		5	0.035	0.008	0.025	0.032	0.045
Sediment	Refbio	mean shot size	g		0	.	.	.	.	.
Soil	2000	mean shot size	g		43	0.050	0.013	0.024	0.049	0.106
Soil	Bioassay	mean shot size	g		8	0.048	0.010	0.032	0.0485	0.063
Soil	PhaseI	mean shot size	g		12	0.049	0.011	0.038	0.0445	0.076
Soil	Refbio	mean shot size	g		0	.	.	.	.	.
Sediment	2000	No. shot/kg Soil		23	66	11.98	34.75	0	0	170.22
Sediment	Bioassay	No. shot/kg Soil		3	9	29.11	57.74	0	0	145.47
Sediment	PhaseI	No. shot/kg Soil		5	15	36.33	66.07	0	0	166.84
Sediment	Refbio	No. shot/kg Soil		0	0	.	.	.	.	.
Soil	2000	No. shot/kg Soil		43	52	47.37	73.67	0	9.625	275.86
Soil	Bioassay	No. shot/kg Soil		8	9	74.58	115.82	0	6.71	309.84
Soil	PhaseI	No. shot/kg Soil		12	16	49.70	73.82	0	9.29	240.15
Soil	Refbio	No. shot/kg Soil		0	0	.	.	.	.	.
Sediment	Bioassay	Aluminum	mg/kg, dw	9	9	27988.89	4862.47	20600	26600	36400
Sediment	PhaseI	Aluminum	mg/kg, dw	3	3	19766.67	568.62	19300	19600	20400
Sediment	Refbio	Aluminum	mg/kg, dw	3	3	24133.33	7910.33	17800	21600	33000
Soil	Bioassay	Aluminum	mg/kg, dw	9	9	14311.11	3675.41	10700	12700	22100
Soil	PhaseI	Aluminum	mg/kg, dw	3	3	12926.67	3715.12	9980	11700	17100
Soil	Refbio	Aluminum	mg/kg, dw	3	3	14133.33	5804.60	10200	11400	20800
Sediment	Bioassay	Arsenic	mg/kg, dw	9	9	33.97	32.24	11.4	19.5	104
Sediment	PhaseI	Arsenic	mg/kg, dw	3	3	159.67	41.55	117	162	200
Sediment	Refbio	Arsenic	mg/kg, dw	3	3	7.70	4.11	3.8	7.3	12
Soil	Bioassay	Arsenic	mg/kg, dw	9	9	5.96	2.84	3.6	4.9	12.8
Soil	PhaseI	Arsenic	mg/kg, dw	3	3	4.97	2.76	2.6	4.3	8
Soil	Refbio	Arsenic	mg/kg, dw	3	3	5.37	2.12	3	6	7.1
Sediment	Bioassay	Barium	mg/kg, dw	9	9	94.01	16.02	75.6	96.2	124
Sediment	PhaseI	Barium	mg/kg, dw	0	3	159.00	51.39	100	183	194
Sediment	Refbio	Barium	mg/kg, dw	3	3	115.13	17.90	98.4	113	134
Soil	Bioassay	Barium	mg/kg, dw	0	9	109.82	22.26	85.9	105	150
Soil	PhaseI	Barium	mg/kg, dw	3	3	118.13	35.51	87.4	110	157
Soil	Refbio	Barium	mg/kg, dw	3	3	104.53	29.15	71.6	115	127
Sediment	Bioassay	Beryllium	mg/kg, dw	9	9	0.89	0.18	0.6	0.9	1.2
Sediment	PhaseI	Beryllium	mg/kg, dw	0	3	4.33	1.15	3	5	5
Sediment	Refbio	Beryllium	mg/kg, dw	3	3	0.67	0.21	0.5	0.6	0.9
Soil	Bioassay	Beryllium	mg/kg, dw	1	9	2.08	0.66	0.4	2.2	2.7
Soil	PhaseI	Beryllium	mg/kg, dw	0	3	1.00	0.00	1	1	1
Soil	Refbio	Beryllium	mg/kg, dw	1	3	1.50	0.95	0.4	2	2.1
Sediment	Bioassay	Cadmium	mg/kg, dw	5	9	2.18	2.09	0.1	1.5	5
Sediment	PhaseI	Cadmium	mg/kg, dw	0	3	4.33	1.15	3	5	5
Sediment	Refbio	Cadmium	mg/kg, dw	3	3	0.27	0.06	0.2	0.3	0.3
Soil	Bioassay	Cadmium	mg/kg, dw	0	9	1.01	0.03	1	1	1.1

Table 2-2
Summary Statistics for Analytes Detected in Soils and Sediments at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Matrix	Type	Analyte	Units	Number of Detects	Number of Samples	Mean	Standard Deviation	Minimum	Median	Maximum
Soil	PhaseI	Cadmium	mg/kg, dw	0	3	1.00	0.00	1	1	1
Soil	Refbio	Cadmium	mg/kg, dw	0	3	1.00	0.00	1	1	1
Sediment	Bioassay	Calcium	mg/kg, dw	9	9	7132.22	375.29	6530	7150	7680
Sediment	PhaseI	Calcium	mg/kg, dw	3	3	6316.67	677.15	5830	6030	7090
Sediment	Refbio	Calcium	mg/kg, dw	3	3	13446.67	7644.77	6440	12300	21600
Soil	Bioassay	Calcium	mg/kg, dw	9	9	108018.89	290658.83	6320	10300	883000
Soil	PhaseI	Calcium	mg/kg, dw	3	3	8873.33	1066.08	7660	9300	9660
Soil	Refbio	Calcium	mg/kg, dw	3	3	9713.33	286.76	9410	9750	9980
Sediment	Bioassay	Chromium	mg/kg, dw	9	9	40.44	4.76	35.3	39.3	48
Sediment	PhaseI	Chromium	mg/kg, dw	3	3	41.20	3.33	38.8	39.8	45
Sediment	Refbio	Chromium	mg/kg, dw	3	3	33.57	10.92	23	32.9	44.8
Soil	Bioassay	Chromium	mg/kg, dw	9	9	22.27	3.15	16.9	23.1	26.1
Soil	PhaseI	Chromium	mg/kg, dw	3	3	24.03	4.70	19.4	23.9	28.8
Soil	Refbio	Chromium	mg/kg, dw	3	3	23.90	4.55	19	24.7	28
Sediment	Bioassay	Cobalt	mg/kg, dw	9	9	11.71	2.81	7.6	11.5	16.5
Sediment	PhaseI	Cobalt	mg/kg, dw	0	3	40.00	13.08	25	46	49
Sediment	Refbio	Cobalt	mg/kg, dw	3	3	10.90	2.07	9	10.6	13.1
Soil	Bioassay	Cobalt	mg/kg, dw	1	9	11.20	1.10	10	11	13
Soil	PhaseI	Cobalt	mg/kg, dw	1	3	11.23	1.37	10	11	12.7
Soil	Refbio	Cobalt	mg/kg, dw	0	3	10.33	0.58	10	10	11
Sediment	Bioassay	Copper	mg/kg, dw	9	9	74.41	65.19	37.4	43	213
Sediment	PhaseI	Copper	mg/kg, dw	3	3	72.23	48.31	43.2	45.5	128
Sediment	Refbio	Copper	mg/kg, dw	3	3	38.00	15.14	23.5	36.8	53.7
Soil	Bioassay	Copper	mg/kg, dw	9	9	24.64	4.84	16.6	25.6	33.6
Soil	PhaseI	Copper	mg/kg, dw	3	3	24.53	5.97	18	25.9	29.7
Soil	Refbio	Copper	mg/kg, dw	3	3	25.33	8.76	17.7	23.4	34.9
Sediment	Bioassay	Iron	mg/kg, dw	9	9	32666.67	7011.42	21700	32700	44000
Sediment	PhaseI	Iron	mg/kg, dw	3	3	30800.00	4371.50	25900	32200	34300
Sediment	Refbio	Iron	mg/kg, dw	3	3	29633.33	7767.45	23300	27300	38300
Soil	Bioassay	Iron	mg/kg, dw	9	9	20666.67	4232.91	17200	18800	29700
Soil	PhaseI	Iron	mg/kg, dw	3	3	22766.67	5519.36	18200	21200	28900
Soil	Refbio	Iron	mg/kg, dw	3	3	19366.67	5943.34	15400	16500	26200
Sediment	Bioassay	Magnesium	mg/kg, dw	9	9	14566.67	1308.63	12500	14600	16500
Sediment	PhaseI	Magnesium	mg/kg, dw	3	3	14900.00	1915.72	12700	15800	16200
Sediment	Refbio	Magnesium	mg/kg, dw	3	3	13250.00	5612.71	8050	12500	19200
Soil	Bioassay	Magnesium	mg/kg, dw	9	9	8292.22	2859.54	5800	7560	13800
Soil	PhaseI	Magnesium	mg/kg, dw	3	3	7793.33	2287.56	6120	6860	10400
Soil	Refbio	Magnesium	mg/kg, dw	3	3	5626.67	523.48	5230	5430	6220
Sediment	Bioassay	Manganese	mg/kg, dw	9	9	831.67	656.00	344	579	2310
Sediment	PhaseI	Manganese	mg/kg, dw	3	3	332.33	54.90	274	340	383
Sediment	Refbio	Manganese	mg/kg, dw	3	3	498.67	40.15	474	477	545
Soil	Bioassay	Manganese	mg/kg, dw	9	9	389.78	89.98	290	387	589
Soil	PhaseI	Manganese	mg/kg, dw	3	3	397.67	51.68	338	427	428
Soil	Refbio	Manganese	mg/kg, dw	3	3	379.00	134.39	295	308	534
Sediment	Bioassay	Nickel	mg/kg, dw	9	9	30.52	2.71	27.4	30	34.7
Sediment	PhaseI	Nickel	mg/kg, dw	1	3	34.77	5.69	28.3	37	39
Sediment	Refbio	Nickel	mg/kg, dw	3	3	23.07	6.47	18.7	20	30.5
Soil	Bioassay	Nickel	mg/kg, dw	9	9	18.29	3.56	13.7	16.5	24.5
Soil	PhaseI	Nickel	mg/kg, dw	3	3	19.23	6.83	13.8	17	26.9
Soil	Refbio	Nickel	mg/kg, dw	3	3	15.73	3.69	12.9	14.4	19.9
Sediment	Bioassay	Potassium	mg/kg, dw	9	9	8912.22	635.35	7760	9170	9660
Sediment	PhaseI	Potassium	mg/kg, dw	3	3	8763.33	830.32	7830	9040	9420
Sediment	Refbio	Potassium	mg/kg, dw	3	3	5903.33	2058.07	4460	4990	8260
Soil	Bioassay	Potassium	mg/kg, dw	9	9	4946.67	909.23	4050	4640	6700
Soil	PhaseI	Potassium	mg/kg, dw	3	3	5323.33	1039.82	4420	5090	6460
Soil	Refbio	Potassium	mg/kg, dw	3	3	3503.33	366.65	3080	3710	3720
Sediment	Bioassay	Selenium	mg/kg, dw	9	9	13.20	5.02	6.7	11.1	19
Sediment	PhaseI	Selenium	mg/kg, dw	0	3	4.33	1.15	3	5	5
Sediment	Refbio	Selenium	mg/kg, dw	2	3	4.30	2.88	2.3	3	7.6
Soil	Bioassay	Selenium	mg/kg, dw	0	9	1.00	0.00	1	1	1
Soil	PhaseI	Selenium	mg/kg, dw	0	3	1.00	0.00	1	1	1
Soil	Refbio	Selenium	mg/kg, dw	0	3	1.00	0.00	1	1	1
Sediment	Bioassay	Silver	mg/kg, dw	2	9	6.14	3.76	0.5	7	12
Sediment	PhaseI	Silver	mg/kg, dw	0	3	8.00	2.65	5	9	10
Sediment	Refbio	Silver	mg/kg, dw	2	3	1.10	1.65	0.1	0.2	3
Soil	Bioassay	Silver	mg/kg, dw	0	9	2.27	0.43	2	2	3
Soil	PhaseI	Silver	mg/kg, dw	0	3	2.00	0.00	2	2	2
Soil	Refbio	Silver	mg/kg, dw	0	3	2.00	0.00	2	2	2

Table 2-2
Summary Statistics for Analytes Detected in Soils and Sediments at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Matrix	Type	Analyte	Units	Number of Detects	Number of Samples	Mean	Standard Deviation	Minimum	Median	Maximum
Sediment	Bioassay	Sodium	mg/kg, dw	9	9	34688.89	14790.83	17500	29400	56800
Sediment	PhaseI	Sodium	mg/kg, dw	3	3	40966.67	18519.27	19600	50900	52400
Sediment	Refbio	Sodium	mg/kg, dw	3	3	8716.67	5502.22	4760	6390	15000
Soil	Bioassay	Sodium	mg/kg, dw	9	9	18080.00	32610.33	2060	5670	103000
Soil	PhaseI	Sodium	mg/kg, dw	3	3	2376.67	2094.69	1030	1310	4790
Soil	Refbio	Sodium	mg/kg, dw	3	3	1451.00	1046.17	243	2050	2060
Sediment	Bioassay	Thallium	mg/kg, dw	9	9	0.31	0.08	0.2	0.3	0.5
Sediment	PhaseI	Thallium	mg/kg, dw	0	3	8.00	2.65	5	9	10
Sediment	Refbio	Thallium	mg/kg, dw	3	3	0.33	0.06	0.3	0.3	0.4
Soil	Bioassay	Thallium	mg/kg, dw	0	9	2.27	0.43	2	2	3
Soil	PhaseI	Thallium	mg/kg, dw	0	3	2.00	0.00	2	2	2
Soil	Refbio	Thallium	mg/kg, dw	0	3	2.00	0.00	2	2	2
Sediment	Bioassay	Vanadium	mg/kg, dw	9	9	54.80	16.66	30.4	56.7	75.5
Sediment	PhaseI	Vanadium	mg/kg, dw	3	3	96.63	14.21	87.5	89.4	113
Sediment	Refbio	Vanadium	mg/kg, dw	3	3	46.33	14.99	35.8	39.7	63.5
Soil	Bioassay	Vanadium	mg/kg, dw	9	9	38.63	5.53	32.3	37	50.7
Soil	PhaseI	Vanadium	mg/kg, dw	3	3	54.67	14.78	41.4	52	70.6
Soil	Refbio	Vanadium	mg/kg, dw	3	3	34.57	0.90	34	34.1	35.6
Sediment	Bioassay	Zinc	mg/kg, dw	9	9	213.67	197.32	119	147	734
Sediment	PhaseI	Zinc	mg/kg, dw	3	3	161.67	60.05	111	146	228
Sediment	Refbio	Zinc	mg/kg, dw	3	3	138.80	63.65	87.4	119	210
Soil	Bioassay	Zinc	mg/kg, dw	9	9	86.54	15.64	60.5	88.5	112
Soil	PhaseI	Zinc	mg/kg, dw	3	3	95.07	11.08	85.1	93.1	107
Soil	Refbio	Zinc	mg/kg, dw	3	3	82.60	15.75	65.5	85.8	96.5
Sediment	Bioassay	CEC	meq/100 g dry	9	9	361.00	94.46	231	329	524
Sediment	Refbio	CEC	meq/100 g dry	3	3	125.90	84.31	71.3	83.4	223
Soil	Bioassay	CEC	meq/100 g dry	9	9	72.50	8.37	58.1	71.9	86.3
Soil	Refbio	CEC	meq/100 g dry	3	3	61.87	14.91	51.2	55.5	78.9
Sediment	Bioassay	pH	Std Units	9	9	7.42	0.19	7.2	7.4	7.7
Sediment	Refbio	pH	Std Units	3	3	7.77	0.61	7.1	7.9	8.3
Soil	Bioassay	pH	Std Units	9	9	7.70	0.46	6.9	7.7	8.2
Soil	Refbio	pH	Std Units	3	3	8.17	0.23	7.9	8.3	8.3
Sediment	Bioassay	Total Solids	Percent Wet	9	9	27.64	6.69	16.7	28.4	37.6
Sediment	Refbio	Total Solids	Percent Wet	3	3	64.83	17.77	45	70.2	79.3
Sediment	Bioassay	TOC	Percent	9	9	1.71	0.44	1.25	1.55	2.7
Sediment	Refbio	TOC	Percent	3	3	1.23	0.76	0.54	1.09	2.05
Sediment	PhaseI	TOC	Percent	6	6	7.20	3.50	3.11	6.38	11.9
Soil	Bioassay	TOC	Percent	9	9	1.30	1.04	0.27	1.01	3.72
Soil	Refbio	TOC	Percent	3	3	1.03	0.35	0.69	1	1.39
Soil	PhaseI	TOC	Percent	6	6	0.86	0.57	0.25	0.79	1.51
Soil	Bioassay	2-Methylnaphthalene	µg/kg, dw	5	9	27.10	46.06	1.1	5.6	120
Soil	Refbio	2-Methylnaphthalene	µg/kg, dw	1	3	29.90	34.71	2.7	18	69
Soil	2000	Acenaphthene	µg/kg, dw	10	47	8325.12	33056.00	64	190	270000
Soil	Bioassay	Acenaphthene	µg/kg, dw	3	9	237.57	637.41	0.27	6.05	2600
Soil	Refbio	Acenaphthene	µg/kg, dw	1	3	30.83	30.09	5.2	18	69
Soil	2000	Anthracene	µg/kg, dw	16	47	640.77	2149.58	5.5	11	14000
Soil	Bioassay	Anthracene	µg/kg, dw	4	9	497.70	1288.05	0.63	6.4	3900
Soil	Refbio	Anthracene	µg/kg, dw	3	3	9.73	7.24	4.5	6.7	18
Soil	2000	Benzo(a)anthracene	µg/kg, dw	29	47	3600.42	8376.57	5.6	13	33000
Soil	Bioassay	Benzo(a)anthracene	µg/kg, dw	8	9	5033.91	11895.42	3.6	7.25	34000
Soil	Refbio	Benzo(a)anthracene	µg/kg, dw	3	3	41.33	25.32	22	32	70
Soil	2000	Benzo(a)pyrene	µg/kg, dw	37	47	5620.65	13078.48	4	29	58000
Soil	Bioassay	Benzo(a)pyrene	µg/kg, dw	8	9	6787.19	15434.36	4.8	12.5	44000
Soil	Refbio	Benzo(a)pyrene	µg/kg, dw	3	3	46.67	27.02	19	48	73
Soil	2000	Benzo(b)fluoranthene	µg/kg, dw	38	47	4547.75	10965.64	2.9	26	47000
Soil	Bioassay	Benzo(b)fluoranthene	µg/kg, dw	8	9	5219.49	12243.66	5.2	12	35000
Soil	Refbio	Benzo(b)fluoranthene	µg/kg, dw	3	3	42.00	23.07	18	44	64
Soil	2000	Benzo(g,h,i)perylene	µg/kg, dw	28	47	4363.37	10340.14	9.4	25	47000
Soil	Bioassay	Benzo(g,h,i)perylene	µg/kg, dw	8	9	3813.54	9438.31	4.2	13	27000
Soil	Refbio	Benzo(g,h,i)perylene	µg/kg, dw	3	3	82.33	67.68	36	51	160
Soil	2000	Benzo(k)fluoranthene	µg/kg, dw	27	47	3252.04	8092.82	6.2	13	36000
Soil	Bioassay	Benzo(k)fluoranthene	µg/kg, dw	8	9	3129.61	7347.17	2.6	6.6	21000
Soil	Refbio	Benzo(k)fluoranthene	µg/kg, dw	3	3	24.13	16.80	7.4	24	41
Soil	2000	Chrysene	µg/kg, dw	36	47	4371.81	9955.97	5.2	24	40000
Soil	Bioassay	Chrysene	µg/kg, dw	8	9	5604.34	13615.24	4.5	9.6	41000
Soil	Refbio	Chrysene	µg/kg, dw	3	3	46.67	15.04	31	48	61
Soil	2000	Dibenz(a,h)anthracene	µg/kg, dw	17	47	1166.49	3442.59	16	23	22000
Soil	Bioassay	Dibenz(a,h)anthracene	µg/kg, dw	6	9	1053.68	2774.22	5.2	5.8	8400

Table 2-2
Summary Statistics for Analytes Detected in Soils and Sediments at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Matrix	Type	Analyte	Units	Number of Detects	Number of Samples	Mean	Standard Deviation	Minimum	Median	Maximum
Soil	Refbio	Dibenz(a,h)anthracene	µg/kg, dw	1	3	20.73	17.06	5.2	18	39
Soil	2000	Fluoranthene	µg/kg, dw	29	47	4703.23	10991.43	10	25	44000
Soil	Bioassay	Fluoranthene	µg/kg, dw	8	9	5416.52	14888.08	6.7	13	45000
Soil	Refbio	Fluoranthene	µg/kg, dw	3	3	34.33	21.08	11	40	52
Soil	2000	Fluorene	µg/kg, dw	7	47	1137.64	4298.36	17	23	28000
Soil	Bioassay	Fluorene	µg/kg, dw	4	9	155.94	395.32	0.49	5.6	1200
Soil	Refbio	Fluorene	µg/kg, dw	1	3	29.57	35.11	1.7	18	69
Soil	2000	Indeno(1,2,3cd)pyrene	µg/kg, dw	35	47	4678.96	11655.80	5.6	16	54000
Soil	Bioassay	Indeno(1,2,3cd)pyrene	µg/kg, dw	8	9	3019.84	8268.50	2.5	7.6	25000
Soil	Refbio	Indeno(1,2,3cd)pyrene	µg/kg, dw	3	3	34.33	27.97	13	24	66
Soil	2000	Naphthalene	µg/kg, dw	6	47	5690.83	21476.89	86	110	140000
Soil	Bioassay	Naphthalene	µg/kg, dw	5	9	35.70	70.14	1.1	5.6	210
Soil	Refbio	Naphthalene	µg/kg, dw	1	3	29.53	35.15	1.6	18	69
Soil	2000	Phenanthrene	µg/kg, dw	30	47	1263.46	3066.65	7.7	13	14000
Soil	Bioassay	Phenanthrene	µg/kg, dw	8	9	1720.48	4302.95	2.3	4.4	13000
Soil	Refbio	Phenanthrene	µg/kg, dw	3	3	19.03	13.17	4.1	24	29
Soil	2000	Pyrene	µg/kg, dw	33	47	4703.81	10835.70	5.8	15	42000
Soil	Bioassay	Pyrene	µg/kg, dw	7	9	6803.33	16898.46	6.4	9.9	51000
Soil	Refbio	Pyrene	µg/kg, dw	3	3	51.33	36.12	12	59	83

Notes:
Refbio = Bioassay sample collected from a reference area
CEC = cation exchange capacity
dw = dry weight
g = gram
meq = milli equivalent
mg/kg = milligram/kilogram
µg/kg = microgram/kilogram
TOC = total organic carbon

Table 2-3
Lead and Antimony Concentrations in Soil and Sediment Samples and Corresponding Lead Shot Data at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

					Lead (mg/kg, dw)		Antimony (mg/kg, dw)		Lead Shot Results		
Matrix Type	Data Group	Sample Location	Sample Number	Sampling Date	Concentration	Qualifier	Concentration	Qualifier	Lead Concentration as Shot (mg/kg, dw)	Mean Shot Size (g)	Number of shot /kg Soil
Sediment	2000	74G01-00	74G01CA01	3/1/2000	850	DET	35.5	ND	133.59	0.03	4.47
Sediment	2000	74G02-00	74G02CA01	3/1/2000	2390	DET	30.2	ND	1027.49	0.039	26.42
Sediment	2000	74G03-00	74G03CA01	3/1/2000	2050	DET	50	ND	3643.53	0.034	105.88
Sediment	2000	74G04-00	74G04CA01	3/1/2000	7240	DET	32.1	ND	2481.14	0.035	70.54
Sediment	2000	74G05-00	74G05CA01D	3/7/2000	154000	DET					
Sediment	2000	74G05-00	74G05CA01	3/7/2000			2980	DET	6578.2	0.04	165.09
Sediment	2000	74G06-00	74G06CA01	3/7/2000	1500	DET	29.2	ND	503.69	0.029	17.43
Sediment	2000	74G07-00	74G07CA01	3/7/2000	121	DET	24.4	ND	105.93	0.047	2.27
Sediment	2000	74G08-00	74G08CA01	3/1/2000	140	DET	28.3	ND	24.77	0.024	1.05
Sediment	2000	74G09-00	74G09CA01	3/7/2000	52.1	DET	32.1	ND	0		0
Sediment	2000	74G10-00	74G10CA01	3/1/2000	130	DET	26.7	ND	39.66	0.069	0.57
Sediment	2000	74G11-00	74G11CA01	3/1/2000	165	DET	21.6	ND	0		0
Sediment	2000	74G12-00	74G12CA01	3/1/2000	5780	DET	54.3	DET	3487.8	0.038	92.52
Sediment	2000	74G13-00	74G13CA01	3/1/2000	7280	DET	81.2	DET	7481.1	0.044	170.22
Sediment	2000	74G14-00	74G14CA01	3/1/2000	131	DET	23.8	ND	97.09	0.092	1.06
Sediment	2000	74G15-00	74G15CA01	3/1/2000	106	DET	20	ND	52.93	0.053	1
Sediment	2000	74G16-00	74G16CA01	3/7/2000	51.6	DET	83.3	ND	0		0
Sediment	2000	74G17-00	74G17CA01	3/1/2000	41.3	DET	27.4	ND	0		0
Sediment	2000	74G18-00	74G18CA01	3/1/2000	80.9	DET	19.8	ND	0		0
Sediment	2000	74G19-00	74G19CA01	3/1/2000	1160	DET	38	ND	240.16	0.024	10.15
Sediment	2000	74G20-00	74G20CA01	3/1/2000	69.7	DET	22.7	ND	15.01	0.027	0.56
Sediment	2000	74G21-00	74G21CA01	3/1/2000	364	DET	46.7	ND	176.28	0.03	5.9
Sediment	2000	74G22-00	74G22CA01	3/1/2000	176	DET	50.8	ND	0		0
Sediment	2000	74G23-00	74G23CA01	3/1/2000	57.1	DET	24.6	ND	0		0
Sediment	2000	74G24-00	74G24CA01	3/1/2000	65.1	DET	48.3	ND	0		0
Sediment	2000	74G25-00	74G25CA01	3/1/2000	155	DET	22.2	ND	0		0
Sediment	2000	74G26-00	74G26CA01	3/1/2000	212	DET	83.3	ND	0		0
Sediment	2000	74G27-00	74G27CA01	3/1/2000	64.9	DET	23.5	ND	0		0
Sediment	2000	74G28-00	74G28CA01	3/1/2000	126	DET	52.1	ND	0		0
Sediment	2000	74G29-00	74G29CA01	3/1/2000	34.4	DET	67.6	ND	0		0
Sediment	2000	74G30-00	74G30CA01	3/1/2000	109	DET	47.2	ND	0		0
Sediment	2000	74G31-00	74G31CA01	3/1/2000	67	DET	51.8	ND	0		0
Sediment	2000	74G32-00	74G32CA01	3/1/2000	45	DET	30.9	ND	0		0
Sediment	2000	74G33-00	74G33CA01	3/1/2000	46.2	DET	55.9	ND	0		0
Sediment	2000	74G34-00	74G34CA01	3/1/2000	104	DET	29.9	ND	26.41	0.045	0.59
Sediment	2000	74G35-00	74G35CA01	3/1/2000	1020	DET	55.2	ND	388.81	0.052	7.41
Sediment	2000	74G36-00	74G36CA01	3/1/2000	21400	DET	282	DET	4628.53	0.037	125.13
Sediment	2000	74G37-00	74G37CA01	3/1/2000	84.6	DET	22.5	ND	0		0
Sediment	2000	74G38-00	74G38CA01	3/1/2000	3230	DET	37.4	DET	1350.57	0.032	42.64
Sediment	2000	74G39-00	74G39CA01	3/8/2000	46.1	DET	65.4	ND	0		0
Sediment	2000	74G40-00	74G40CA01	3/8/2000	56.4	DET	32.5	ND	0		0
Sediment	2000	74G41-00	74G41CA01	3/10/2000	23.2	DET			29.7	0.038	0.78
Sediment	2000	74G42-00	74G42CA01	3/10/2000	103	DET	62.9	ND	0		0
Sediment	2000	74G43-00	74G43CA01	3/10/2000	8.7	DET			0		0
Sediment	2000	74G44-00	74G44CA01	3/13/2000	52.3	DET	31.9	ND	0		0
Sediment	2000	74G45-00	74G45CA01	3/13/2000	54.8	DET	55.9	ND	19.05	0.03	0.63
Sediment	2000	74G46-00	74G46CA01	3/16/2000	39.6	DET	32.9	ND	0		0
Sediment	2000	74G47-00	74G47CA01	3/16/2000	68.2	DET	22.5	ND	60.56	0.093	0.65
Sediment	2000	74G48-00	74G48CA01	3/16/2000	49.8	DET	40	ND	0		0
Sediment	2000	74G49-00	74G49CA01	3/16/2000	50.9	DET	24.9	ND	0		0
Sediment	2000	74G50-00	74G50CA01	3/16/2000	43.1	DET	30.2	ND	0		0
Sediment	2000	74G51-00	74G51CA01	3/17/2000	51.7	DET	51.3	ND	0		0
Sediment	2000	74G52-00	74G52CA01	3/17/2000	334	DET	33.2	ND	0		0
Sediment	2000	74G53-00	74G53CA01	3/23/2000	61.6	DET			0		0
Sediment	2000	74G54-00	74G54CA01	3/21/2000	39.5	DET	25.4	ND	0		0
Sediment	2000	74G55-00	74G55CA01	3/21/2000	65.9	DET	71.4	ND	0		0
Sediment	2000	74G56-00	74G56CA01	3/21/2000	57.4	DET	26	ND	0		0
Sediment	2000	74G57-00	74G57CA01	3/21/2000	34.6	DET			0		0
Sediment	2000	74G58-00	74G58CA01	3/31/2000	61	DET	22.6	DET	0		0
Sediment	2000	74G59-00	74G59CA01	3/31/2000	127	DET	62.1	DET	0		0
Sediment	2000	74G60-00	74G60CA01	3/31/2000	67.7	DET	59.2	DET	0		0
Sediment	2000	74G61-00	74G61CA01	3/31/2000	67.4	DET	43.5	DET	0		0
Sediment	2000	74G62-00	74G62CA01	3/31/2000	39	DET	39.2	DET	0		0
Sediment	2000	74G63-00	74G63CA01	3/31/2000	67.7	DET	38.6	DET	0		0
Sediment	2000	74G64-00	74G64CA01	3/31/2000	35.4	DET			0		0
Sediment	2000	74G65-00	74G65CA01	3/31/2000	39.9	DET	48.5	DET	0		0
Sediment	2000	74G66-00	74G66CA01	3/31/2000	60.6	DET	48.8	DET	0		0
Sediment	Bioassay	74G05-03	74B0274B005	12/14/2003	9020	DET	109	DET	4979.5	0.034	145.47
Sediment	Bioassay	74G15-03	74B0274B015	12/14/2003	179	DET	1.1	DET	0		0
Sediment	Bioassay	74G26-03	74B0274B026	12/15/2003	285	DET	1.8	DET	0		0
Sediment	Bioassay	74G35-03	74B0274B035	12/15/2003	536	DET	3.8	DET	103.31	0.054	1.93
Sediment	Bioassay	74G36-03	74B0274B036	12/15/2003	33100	DET	282	DET	3073.11	0.027	114.58
Sediment	Bioassay	74G41-03	74B0274B041	12/15/2003	76.5	DET	0.8	DET	0		0

Table 2-3
Lead and Antimony Concentrations in Soil and Sediment Samples and Corresponding Lead Shot Data at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

					Lead (mg/kg, dw)		Antimony (mg/kg, dw)		Lead Shot Results		
Matrix Type	Data Group	Sample Location	Sample Number	Sampling Date	Concentration	Qualifier	Concentration	Qualifier	Lead Concentration as Shot (mg/kg, dw)	Mean Shot Size (g)	Number of shot /kg Soil
Sediment	Bioassay	74G44-03	74B0274B044	12/14/2003	94.9	DET	0.7	DET	0		0
Sediment	Bioassay	74G46-03	74B0274B346	12/14/2003	48.4	DET	0.2	DET	0		0
Sediment	Bioassay	74G52-03	74B0274B052	12/15/2003	199	DET	4.2	DET	0		0
Sediment	Phase I	74G04-03	74E0208DA0	8/14/2003	15800	DET	142	DET	4882.52	0.032	154.52
Sediment	Phase I	74G05-03	74E0201DA0	8/15/2003	50.3	DET	0.9	DET	0		0
Sediment	Phase I	74G15-03	74E0212DA0	8/15/2003	127	DET	1.6	DET	0		0
Sediment	Phase I	74G16-03	74E0213DA0	8/15/2003	928	DET	7.8	DET	0		0
Sediment	Phase I	74G26-03	74E0207DA0	8/14/2003	8080	DET	60.1	DET	7511.5	0.045	166.84
Sediment	Phase I	74G28-03	74E0209DA0	8/15/2003	76.7	DET	0.7	DET	0		0
Sediment	Phase I	74G35-03	74E0211DA0	8/15/2003	837	DET	3.3	DET	0		0
Sediment	Phase I	74G36-03	74E0206DA0	8/14/2003	167	DET	1.2	DET	0		0
Sediment	Phase I	74G37-03	74E0204DA0	8/14/2003	10700	DET	182	DET	1548.88	0.025	62.48
Sediment	Phase I	74G38-03	74E0205DA0	8/14/2003	20400	DET	176	DET	5086.65	0.032	159.02
Sediment	Phase I	74G39-03	74E0214DA0	8/15/2003	70.1	DET	1.4	DET	91.89	0.043	2.12
Sediment	Phase I	74G41-03	74E0202DA0	8/14/2003	42.7	DET	0.3	DET	0		0
Sediment	Phase I	74G44-03	74E0210DA0	8/15/2003	54.9	DET	0.4	DET	0		0
Sediment	Phase I	74G46-03	74E0203DA0	8/14/2003	76.1	DET	0.4	DET	0		0
Sediment	Phase I	74G52-03	74E0215DA0	8/15/2003	102	DET	1.4	DET	0		0
Sediment	Refbio	SD1-03	74B0374B001	12/13/2003	35.7	DET	0.1	DET			
Sediment	Refbio	SD2-03	74B0374B002	12/15/2003	47.4	DET	0.2	DET			
Sediment	Refbio	SD3-03	74B0374B003	12/15/2003	773	DET	0.3	DET			
Soil	2000	74B01-00	74B01SA01	2/29/2000	32.6	DET	12.3	ND	202.3	0.049	4.12
Soil	2000	74B02-00	74B02SA01	2/29/2000	75.5	DET	12.2	ND	276.06	0.059	4.65
Soil	2000	74B03-00	74B03SA01	2/29/2000	86.6	DET	12.4	ND	1333.35	0.048	27.81
Soil	2000	74B04-00	74B04SA01	2/29/2000	57.2	DET	11.8	ND	304.5	0.048	6.36
Soil	2000	74B05-00	74B05SA01	3/1/2000	51.3	DET	13.2	ND	560.89	0.041	13.62
Soil	2000	74B06-00	74B06SA01	3/1/2000	316	DET	13.3	ND	4553.58	0.049	93.36
Soil	2000	74B07-00	74B07SA01	3/1/2000	70.6	DET	12.5	ND	1025.12	0.055	18.75
Soil	2000	74B08-00	74B08SA01	2/29/2000	1270	DET	12.1	ND	1555.05	0.029	53.95
Soil	2000	74B09-00	74B09SA01	3/1/2000	1110	DET	12.7	ND	4529.15	0.039	116.49
Soil	2000	74B10-00	74B10SA01	3/1/2000	2170	DET	20.4	DET	6660.57	0.038	176.55
Soil	2000	74B11-00	74B11SA01	3/1/2000	1700	DET	19	DET	1450.68	0.049	29.73
Soil	2000	74B12-00	74B12SA01	3/1/2000	53400	DET	1780	DET	2893.2	0.052	55.62
Soil	2000	74B13-00	74B13SA01	3/1/2000	256	DET	12.2	ND	2111.58	0.053	40.15
Soil	2000	74B14-00	74B14SA01	3/1/2000	357	DET	11.9	ND	3777.5	0.055	68.24
Soil	2000	74B15-00	74B15SA01	3/1/2000	1060	DET	12.8	ND	11297.72	0.054	210.2
Soil	2000	74B16-00	74B16SA01	3/1/2000	797	DET	11.9	ND	9308.19	0.055	168.59
Soil	2000	74B17-00	74B17SA01	3/1/2000	448	DET	12.1	ND	4851.14	0.06	81.29
Soil	2000	74B18-00	74B18SA01	3/1/2000	59.6	DET	11.5	ND	491.45	0.065	7.53
Soil	2000	74B19-00	74B19SA01	3/1/2000	2680	DET	13.9	ND	8143.6	0.039	206.88
Soil	2000	74B20-00	74B20SA01	3/1/2000	69700	DET	3930	DET	7478.01	0.053	141.07
Soil	2000	74B21-00	74B21SA01	2/29/2000	30.1	DET	12.2	ND	62.34	0.038	1.64
Soil	2000	74B22-00	74B22SA01	3/8/2000	1500	DET	14	ND	10768.53	0.051	212.6
Soil	2000	74B23-00	74B23SA01	3/8/2000	55.2	DET	15.4	ND	2048.14	0.057	36.11
Soil	2000	74B24-00	74B24SA01	3/8/2000	191	DET	13.2	ND	2553.72	0.048	53.4
Soil	2000	74B25-00	74B25SA01	3/8/2000	5	DET			0		0
Soil	2000	74B26-00	74B26SA01	3/8/2000	54.2	DET	13.1	ND	419.09	0.059	7.06
Soil	2000	74B27-00	74B27SA01	3/10/2000	168	DET	14.7	ND	86.58	0.036	2.42
Soil	2000	74B28-00	74B28SA01	3/16/2000	232	DET	12.9	ND	151.75	0.032	4.78
Soil	2000	74B29-00	74B29SA01	3/16/2000	1470	DET	18.4	DET	646.42	0.024	27.21
Soil	2000	74B30-00	74B30SA01	3/16/2000	198	DET	12.2	ND	12687.48	0.054	236.61
Soil	2000	74B31-00	74B31SA01	3/16/2000	1200	DET	19.4	DET	13193.31	0.048	275.86
Soil	2000	74B32-00	74B32SA01	3/16/2000	88.5	DET			45.08	0.058	0.78
Soil	2000	74B33-00	74B33SA01	3/16/2000	17.4	DET			34.32	0.054	0.64
Soil	2000	74B34-00	74B34SA01	3/23/2000	156	DET	10.8	ND	0		0
Soil	2000	74B35-00	74B35SA01	3/23/2000	73.8	DET	11.6	ND	772.51	0.049	15.84
Soil	2000	74B36-00	74B36SA01	3/23/2000	25.6	DET			562.72	0.048	11.72
Soil	2000	74B37-00	74B37SA01D	3/23/2000	80300	DET					
Soil	2000	74B37-00	74B37SA01	3/23/2000			13.7	ND	855.45	0.038	22.81
Soil	2000	74B38-00	74B38SA01	3/23/2000	205	DET	13.9	ND	84.77	0.106	0.8
Soil	2000	74B39-00	74B39SA01	3/23/2000	31.3	DET			0		0
Soil	2000	74B40-00	74B40SA01	3/23/2000	13.5	DET			34.28	0.049	0.7
Soil	2000	74B41-00	74B41SA01	3/23/2000	29	DET			30	0.067	0.45
Soil	2000	74B42-00	74B42SA01	3/23/2000	22.9	DET			38.42	0.054	0.71
Soil	2000	74B43-00	74B43SA01	3/23/2000	42.6	DET	1780	DET	934.22	0.051	18.22
Soil	2000	74B44-00	74B44SA01	3/31/2000	168	DET	10.3	DET	52.5	0.046	1.15
Soil	2000	74B45-00	74B45SA01	3/31/2000	12.7	DET	10.4	DET	0		0
Soil	2000	74B46-00	74B46SA01	3/31/2000	21.5	DET	10.7	DET	0		0
Soil	2000	74B47-00	74B47SA01	3/31/2000	135	DET	12	DET	237.8	0.059	4.03
Soil	2000	74B48-00	74B48SA01	3/31/2000	9.7	DET	13	DET	0		0
Soil	2000	74B49-00	74B49SA01	3/31/2000	55.1	DET	10.4	DET	131.41	0.049	2.68
Soil	2000	74B50-00	74B50SA01	4/4/2000	22	DET			0		0
Soil	2000	74B51-00	74B51SA01	4/4/2000	11.6	DET			0		0

Table 2-3
Lead and Antimony Concentrations in Soil and Sediment Samples and Corresponding Lead Shot Data at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

					Lead (mg/kg, dw)		Antimony (mg/kg, dw)		Lead Shot Results		
Matrix Type	**Data Group**	**Sample Location**	**Sample Number**	**Sampling Date**	**Concentration**	**Qualifier**	**Concentration**	**Qualifier**	**Lead Concentration as Shot (mg/kg, dw)**	**Mean Shot Size (g)**	**Number of shot /kg Soil**
Soil	2000	74B52-00	74B52SA01	4/4/2000	19.1	DET			0		0
Soil	Bioassay	74B01-03	74B0174B001	12/13/2003	40.4	DET	0.3	ND	308.1	0.051	6.04
Soil	Bioassay	74B04-03	74B0174B304	12/14/2003	15.1	DET	0.2	DET	57.52	0.063	0.92
Soil	Bioassay	74B07-03	74B0174B007	12/13/2003	535	DET	3.4	DET	816.38	0.045	18.04
Soil	Bioassay	74B09-03	74B0174B009	12/13/2003	1470	DET	10.4	DET	3605.72	0.036	100.05
Soil	Bioassay	74B10-03	74B0174B010	12/13/2003	3430	DET	28.6	DET	14404.6	0.046	309.84
Soil	Bioassay	74B20-03	74B0174B020	12/13/2003	1220	DET	7	DET	11801.32	0.052	225.68
Soil	Bioassay	74B27-03	74B0174B027	12/14/2003	123	DET	0.9	DET	0		0
Soil	Bioassay	74B32-03	74B0174B032	12/13/2003	604	DET	5	DET	211.33	0.032	6.71
Soil	Bioassay	74B43-03	74B0174B043	12/14/2003	26.4	DET	0.2	ND	225.48	0.058	3.9
Soil	Phase I	74B01-03	74E0101SA0	8/13/2003	32.9	DET	0.3	DET	153.73	0.076	2.04
Soil	Phase I	74B04-03	74E0102SA0	8/13/2003	12.6	DET	0.2	DET	0		0
Soil	Phase I	74B07-03	74E0103SA0	8/13/2003	568	DET	3.3	DET	2038.94	0.043	47.11
Soil	Phase I	74B09-03	74E0104SA0	8/13/2003	55200	DET	2380	DET	3560.11	0.039	90.89
Soil	Phase I	74B10-03	74E0105SA0	8/13/2003	31600	DET	1430	DET	8660.8	0.045	191.85
Soil	Phase I	74B20-03	74E0106SA0	8/13/2003	831	DET	4.6	DET	12193.75	0.051	240.15
Soil	Phase I	74B24-03	74E0107SA0	8/13/2003	963	DET	6.3	DET	4636.21	0.044	104.21
Soil	Phase I	74B27-03	74E0108SA0	8/13/2003	72.4	DET	0.7	DET	0		0
Soil	Phase I	74B29-03	74E0109SA0	8/13/2003	377	DET	2.4	DET	802.87	0.055	14.62
Soil	Phase I	74B30-03	74E0110SA0	8/13/2003	1240	DET	9.5	DET	2842.08	0.044	64.36
Soil	Phase I	74B32-03	74E0113SA0	8/13/2003	84.9	DET	0.6	DET	1293.98	0.039	32.8
Soil	Phase I	74B37-03	74E0111SA0	8/13/2003	25.5	DET	0.5	DET	83.86	0.051	1.64
Soil	Phase I	74B41-03	74E0112SA0	8/13/2003	41.3	DET	0.6	DET	0		0
Soil	Phase I	74B43-03	74E0115SA0	8/13/2003	16.2	DET	0.2	DET	257.68	0.065	3.96
Soil	Phase I	74B49-03	74E0114SA0	8/13/2003	221	DET	1.5	DET	59.86	0.038	1.6
Soil	Refbio	SR1-03	74B0374B001	12/13/2003	50.5	DET	0.1	ND			
Soil	Refbio	SR2-03	74B0374B002	12/13/2003	178	DET	0.2	ND			
Soil	Refbio	SR3-03	74B0374B003	12/13/2003	48	DET	0.2	ND			

Notes:
Refbio = Bioassay sample collected from a reference area
DET = detected value
dw = dry weight
g = gram
mg/kg = milligram per kilogram
ND = non-detected value

Table 3-1
Exposure Parameters for Wildlife Receptors
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

	Exposure Factors						Feeding Habits and Foraging Range													
	Body Weight			Ingestion rate - food dry wt.			Biotic Dietary Items (% Diet)						Abiotic Media Ingestion (% diet)				Foraging Range			
Species	Mean (kg)	Notes	Reference	Mean (kg/kg BW-d)	Notes	Reference	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Notes	Major food items	Reference	Soil	Sediment	Notes	Reference	Hectares (Acres)	other (miles, km)	Reference	Notes
Birds																				
Light-footed Clapper Rail (Avian Aquatic Invertivore)	0.3	adult males and females	Dunning, 1993	0.089	Estimated using allometric estimation for all birds and a body weight of 0.3 kg.	Nagy 1987	0.15	--	0.85	From diet of clapper rails in San Francisco Bay collected in February	Diet included ribbed horse mussels, spiders, seeds and hulls of cordgrass, little macoma clam, mud crabs, wor-out nassa, insects, clam worms and carrion. Though terrestrial invertebrates can make up a part of the clapper rail diet, this species is assumed to forage only in the salt marsh at Site 74.	Eddleman and Conway, 1998	--	10	Data not available for clapper rails. Assumed to represented by the median value for several species of shorebirds and other waterfowl.	Beyer et al. 1994	4.69 (11.6)		Albertson, 1995	San Francisco Bay
Mallard (Avian Aquatic Omnivore)	Male: 1.225 Female: 1.043 **Mean = 1.134**	Data from throughout North America	Nelsen and Martin 1953 in EPA 1993	0.1		Heinz et al. 1989	10.6	--	89.4	Data for June in ND prairie potholes.	Diet includes gastropods, insects, crustacea, annelids, and plants	USEPA 1993		3.3		Beyer et al. 1994	468 (1156)		USEPA 1993	Spring home range for females in ND prairie potholes.
Belding's Savannah Sparrow	0.0187	Data from San Diego, CA	Wheelwright and Rising 1993	0.256	Estimated using allometric estimation for passerines and a body weight of 0.0187 kg.	Nagy 1987	50	*	50		Salt marsh populations in coastal southern California eat a variety of crustaceans, including decapods, isopods, amphipods, as well as *Salicornia* spp. seeds. In upland areas, diet includes a variety of insects, spiders, crustaceans, snails, and aquatic insect larvae during the breeding season; seeds and forbs can make up as much as 90% of diet in the winter. A diet of 50% invertebrate and 50% plant (seeds) was selected to represent a reasonable annual estimate for resident birds.	Wheelwright and Rising 1993	*	2	Wheelright and Rising (1993) report that foraging is primarily by gleaning. Minimum soil ingestion assumed.	adapted from Beyer et al. 1994	< 1 (<2.5)		Wheelwright and Rising 1993	good habitat
Western Meadowlark (Avian Terrestrial Omnivore)	Male: 0.1119 Female: 0.092 **Mean: 0.102**	Mean values for birds studied in South Dakota, Texas, Washington, and Nevada	Wiens and Rotenberry 1980	0.029	Daily food consumption for western meadowlarks estimated at 3 times the stomach capacity (3.0 g). Ingestion rate based on body weight of 0.1115 kg.	Sample et al. 1997	36.7	63.3	--	Data for North America.	Diet includes both plant material (primarily seeds) and invertebrates (primarily arthropods).	Lanyon 1994	2.08		Data not available for western meadowlarks. Assumed to be similar to value derived for the American robin.	Sample et al. 1997	5.04 (12.5)		Lanyon 1994, Kendeigh 1941, and Schaef and Picman 1988	Median from 3 studies.
Mammals																				
Ornate Shrew (Mammalian Terrestrial Invertivore)	Male: 0.0052 Female: 0.0048 **Mean: 0.005**	Values reported for California	Silva and Downing 1995	0.18	Estimated using allometric equation for mammals and the mean body weight of 0.005 kg.	Nagy 1987	--	100	--		Invertebrates	Harris 1990	3		Data not available for ornate shrew. Assumed to be similar to short-tailed shrew. This is the 90th percentile value.	USEPA 2003 (EcoSSLs)	--	--		no data available
California Vole (Mammalian Terrestrial Herbivore)	Male (breeding): 0.04-0.06 Male: (non-breeding): 0.03-0.05 Female (breeding): 0.04-0.05 Female (non-breeding) 0.03-0.04 **Mean: 0.043**		Cockburn and Lidicker (1983) in Cal Ecotox Database	0.206 (6SE) fed rabbit pellets 0.254 (8SE) fed bromegrass 0.157 (5SE) fed ryegr. Seed **Mean: 0.206**		Batzli and Cole 1979 in Cal Ecotox Database	100	--	--	2.5% root, 97.5% foliage	Diet assumed to consist exclusively of plant material.	Batzli and Pitelka 1971 in Cal Ecotox Database	2.4		Data not available for ornate shrew. Assumed to be similar to meadow vole.	adapted from Beyer et al. 1994	0.007-0.023 (0.02-0.06)	68-231 m^2	Heske 1987 Ostfeld 1986 in Cal Ecotox Database	

Notes:
Bold values represent those selected for use in the exposure calculations.
* For this ERA, sparrows were assumed to forage in both upland and marsh habitats. For upland exposure estimates, a diet of 100% terrestrial invertebrates was used. For marsh exposure estimates, a diet of 100% aquatic invertebrates was used. A soil/sediment ingestion rate of 3.3% of diet was applied to both habitats.

Table 3-2
Lead and Antimony Bioaccessibility in Soil and Sediment from Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

		Concentration in Sample (mg/kg dry) [a]						Concentration in Extraction (mg/L) [b]		Bioaccessibility (percent) Calculations [c]				
Field ID	**Matrix**	**1**	**Qual**	**2**	**Qual**	**3**	**Qual**	**SBRC**	**Qual**	**1**	**2**	**3**	**Mean**	**Std**
Lead														
74E01SB0-01	Soil	38		40		38		0.32		84.2	80.0	84.2	82.8	2.4
74E01SB0-07	Soil	592		658		615		5.87		99.2	89.2	95.4	94.6	5.0
74E01SB0-09	Soil	1320		1320		1340		10.9		82.6	82.6	81.3	82.2	0.7
												Mean Soil	**86.5**	**6.7**
74E02DB0-44	Sediment	58		61		58		0.44		75.9	72.1	75.9	74.6	2.2
74E02DB0-26	Sediment	240		248		246		1.68		70.0	67.7	68.3	68.7	1.2
74E02DB0-05	Sediment	35100		40600		40700		292		83.2	71.9	71.7	75.6	6.6
												Mean Sediment	**73.0**	**4.8**
Antimony														
74E01SB0-01	Soil	0.4	B	0.3	B	0.3	B	0.004	B	.	.	.	.	
74E01SB0-07	Soil	3.3		4		2.8		0.053		160.6	132.5	189.3	160.8	28.4
74E01SB0-09	Soil	5.8		6		6		0.102		175.9	170.0	170.0	172.0	3.4
												Mean Soil	**166.4**	**19.1**
74E02DB0-44	Sediment	0.3	B	0.4	B	0.3	B	0.003	B	.	.	.	.	
74E02DB0-26	Sediment	1.7		1.8		1.7		0.011		64.7	61.1	64.7	63.5	2.1
74E02DB0-05	Sediment	223		235		234		1.36	*	61.0	57.9	58.1	59.0	1.7
												Mean Sediment	**61.3**	**3.0**

Notes:

[a] Total lead and antimony were measured in three splits of each sample.

[b] Simulates gastric extraction.

[c] Bioaccessibility was calculated as follows ((concentration in extract or SBRC*0.1)/(concentration in split 1, 2 or 3 of sample*0.001))*100

B = analyte concentration detected at a value between MDL and PQL.

mg/kg = milligram per kilogram

mg/L = milligram per liter

SBRC = Solubility/Bioavailability Research Consortium - this is the extract that represents the bioaccessible fraction

*Data Validator gave a "J,J" qualifier to this sample

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Table 3-3
Summary of Co-located Soil or Sediment and Biota from Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Sample Number	Abiotic Matrix	Analyte	Abiotic Concentration (mg/kg dry)	Abiotic Concentration qualifier	Biota Type	Biota Species	Biota Concentration (mg/kg dry)	Biota Concentration Qualifier	BAF
74G3703	Sediment	Antimony	182	Detected	Invertebrate	Horned snail	0.6	Not detected	
74G3803	Sediment	Antimony	176	Detected	Invertebrate	Horned snail	1	Detected	0.0057
74G0403	Sediment	Antimony	142	Detected	Invertebrate	Horned snail	0.5	Not detected	
74G2603	Sediment	Antimony	60.1	Detected	Invertebrate	Horned snail	1.5	Detected	0.0250
74G1603	Sediment	Antimony	7.8	Detected	Invertebrate	Horned snail	0.1	Not detected	
74G3503	Sediment	Antimony	3.3	Detected	Invertebrate	Horned snail	0.1	Not detected	
74G1503	Sediment	Antimony	1.6	Detected	Invertebrate	Horned snail	0.1	Not detected	
74G3903	Sediment	Antimony	1.4	Detected	Invertebrate	Horned snail	0.2	Not detected	
74G5203	Sediment	Antimony	1.4	Detected	Invertebrate	Horned snail	0.2	Not detected	
74G3603	Sediment	Antimony	1.2	Detected	Invertebrate	Horned snail	0.1	Not detected	
74G0503	Sediment	Antimony	0.9	Detected	Invertebrate	Horned snail	0.1	Not detected	
74G4403	Sediment	Antimony	0.4	Detected	Invertebrate	Horned snail	0.2	Not detected	
74G4603	Sediment	Antimony	0.4	Detected	Invertebrate	Horned snail	0.1	Not detected	
74G4103	Sediment	Antimony	0.3	Detected	Invertebrate	Horned snail	0.1	Not detected	
74G3803	Sediment	Lead	20400	Detected	Invertebrate	Horned snail	879	Detected	0.0431
74G0403	Sediment	Lead	15800	Detected	Invertebrate	Horned snail	517	Detected	0.0327
74G3703	Sediment	Lead	10700	Detected	Invertebrate	Horned snail	54.7	Detected	0.0051
74G2603	Sediment	Lead	8080	Detected	Invertebrate	Horned snail	1590	Detected	0.1968
74G1603	Sediment	Lead	928	Detected	Invertebrate	Horned snail	0.9	Not detected	
74G3503	Sediment	Lead	837	Detected	Invertebrate	Horned snail	30.9	Detected	0.0369
74G3603	Sediment	Lead	167	Detected	Invertebrate	Horned snail	1.1	Detected	0.0066
74G1503	Sediment	Lead	127	Detected	Invertebrate	Horned snail	0.9	Not detected	
74G5203	Sediment	Lead	102	Detected	Invertebrate	Horned snail	1	Not detected	
74G4603	Sediment	Lead	76.1	Detected	Invertebrate	Horned snail	3.2	Detected	0.0420
74G3903	Sediment	Lead	70.1	Detected	Invertebrate	Horned snail	0.9	Not detected	
74G4403	Sediment	Lead	54.9	Detected	Invertebrate	Horned snail	1	Not detected	
74G0503	Sediment	Lead	50.3	Detected	Invertebrate	Horned snail	0.8	Not detected	
74G4103	Sediment	Lead	42.7	Detected	Invertebrate	Horned snail	1.2	Detected	0.0281
74B0903	Soil	Antimony	2380	Detected	Invertebrate	Terrestrial Composite [a]	0.2	Not detected	
74B0903a	Soil	Antimony	2380	Detected	Invertebrate	Terrestrial Composite [b]	1.2	Detected	0.0005
74B2003	Soil	Antimony	4.6	Detected	Invertebrate	Terrestrial Composite [c]	1.2	Detected	0.2609
74B0703	Soil	Antimony	3.3	Detected	Invertebrate	Terrestrial Composite [d]	1.3	Detected	0.3939
74B3203	Soil	Antimony	0.6	Detected	Invertebrate	Terrestrial Composite [e]	0.1	Not detected	
74B3203a	Soil	Antimony	0.6	Detected	Invertebrate	Terrestrial Composite [f]	0.1	Not detected	
74B3203b	Soil	Antimony	0.6	Detected	Invertebrate	Terrestrial Composite [g]	0.2	Not detected	
74B0103	Soil	Antimony	0.3	Detected	Invertebrate	Terrestrial Composite [h]	0.1	Not detected	
74B0103a	Soil	Antimony	0.3	Detected	Invertebrate	Terrestrial Composite [b]	0.1	Not detected	
74B4303	Soil	Antimony	0.2	Detected	Invertebrate	Terrestrial Composite [i]	0.2	Not detected	
74B4303a	Soil	Antimony	0.2	Detected	Invertebrate	Terrestrial Composite [i]	0.3	Not detected	
74B0903	Soil	Lead	55200	Detected	Invertebrate	Terrestrial Composite [a]	1.4	Not detected	
74B0903a	Soil	Lead	55200	Detected	Invertebrate	Terrestrial Composite [b]	72.9	Detected	0.0013
74B2003	Soil	Lead	831	Detected	Invertebrate	Terrestrial Composite [c]	64.9	Detected	0.0781
74B0703	Soil	Lead	568	Detected	Invertebrate	Terrestrial Composite [d]	40.5	Detected	0.0713
74B3203	Soil	Lead	84.9	Detected	Invertebrate	Terrestrial Composite [e]	10.6	Detected	0.1249
74B3203a	Soil	Lead	84.9	Detected	Invertebrate	Terrestrial Composite [f]	13.3	Detected	0.1567
74B3203b	Soil	Lead	84.9	Detected	Invertebrate	Terrestrial Composite [g]	8.6	Detected	0.1013
74B0103	Soil	Lead	32.9	Detected	Invertebrate	Terrestrial Composite [h]	2.9	Detected	0.0881
74B0103a	Soil	Lead	32.9	Detected	Invertebrate	Terrestrial Composite [b]	2.7	Detected	0.0821
74B4303	Soil	Lead	16.2	Detected	Invertebrate	Terrestrial Composite [i]	3.5	Detected	0.2160
74B4303a	Soil	Lead	16.2	Detected	Invertebrate	Terrestrial Composite [i]	3.5	Detected	0.2160
74G05-03	Sediment	Antimony	199	Detected	Plant	Pickelweed	0.7	Not detected	
74G37-03	Sediment	Antimony	182	Detected	Plant	Pickelweed	0.7	Not detected	
74G38-03	Sediment	Antimony	176	Detected	Plant	Pickelweed	0.7	Not detected	
74G04-03	Sediment	Antimony	142	Detected	Plant	Pickelweed	0.7	Not detected	
74G26-03	Sediment	Antimony	60.1	Detected	Plant	Pickelweed	0.7	Not detected	
74G36-03	Sediment	Antimony	41.4	Detected	Plant	Pickelweed	0.6	Detected	0.0145
74G16-03	Sediment	Antimony	7.8	Detected	Plant	Pickelweed	0.7	Not detected	
74G35-03	Sediment	Antimony	3.3	Detected	Plant	Pickelweed	0.7	Not detected	
74G15-03	Sediment	Antimony	1.6	Detected	Plant	Pickelweed	1.4	Detected	0.8750
74G39-03	Sediment	Antimony	1.4	Detected	Plant	Pickelweed	0.8	Not detected	
74G52-03	Sediment	Antimony	1.4	Detected	Plant	Pickelweed	0.6	Not detected	
74G36-03	Sediment	Antimony	1.2	Detected	Plant	Pickelweed	0.7	Not detected	
74G05-03	Sediment	Antimony	0.9	Detected	Plant	Pickelweed	0.6	Not detected	

Table 3-3
Summary of Co-located Soil or Sediment and Biota from Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Sample Number	Abiotic Matrix	Analyte	Abiotic Concentration (mg/kg dry)	Abiotic Concentration qualifier	Biota Type	Biota Species	Biota Concentration (mg/kg dry)	Biota Concentration Qualifier	BAF
74G28-03	Sediment	Antimony	0.7	Detected	Plant	Pickelweed	0.8	Not detected	
74G44-03	Sediment	Antimony	0.4	Detected	Plant	Pickelweed	0.7	Not detected	
74G46-03	Sediment	Antimony	0.4	Detected	Plant	Pickelweed	0.6	Not detected	
74G41-03	Sediment	Antimony	0.3	Detected	Plant	Pickelweed	0.7	Not detected	
74G38-03	Sediment	Lead	20400	Detected	Plant	Pickelweed	22.8	Detected	0.0011
74G05-03	Sediment	Lead	17400	Detected	Plant	Pickelweed	14.9	Detected	0.0009
74G04-03	Sediment	Lead	15800	Detected	Plant	Pickelweed	27	Detected	0.0017
74G37-03	Sediment	Lead	10700	Detected	Plant	Pickelweed	8.1	Detected	0.0008
74G26-03	Sediment	Lead	8080	Detected	Plant	Pickelweed	34.7	Detected	0.0043
74G36-03	Sediment	Lead	4570	Detected	Plant	Pickelweed	53.5	Detected	0.0117
74G16-03	Sediment	Lead	928	Detected	Plant	Pickelweed	4.2	Not detected	
74G35-03	Sediment	Lead	837	Detected	Plant	Pickelweed	4.1	Detected	0.0049
74G36-03	Sediment	Lead	167	Detected	Plant	Pickelweed	4.2	Not detected	
74G15-03	Sediment	Lead	127	Detected	Plant	Pickelweed	41.8	Detected	0.3291
74G52-03	Sediment	Lead	102	Detected	Plant	Pickelweed	3.5	Not detected	
74G28-03	Sediment	Lead	76.7	Detected	Plant	Pickelweed	4.7	Not detected	
74G46-03	Sediment	Lead	76.1	Detected	Plant	Pickelweed	9.5	Detected	0.1248
74G39-03	Sediment	Lead	70.1	Detected	Plant	Pickelweed	4.7	Not detected	
74G44-03	Sediment	Lead	54.9	Detected	Plant	Pickelweed	4.4	Not detected	
74G05-03	Sediment	Lead	50.3	Detected	Plant	Pickelweed	3.6	Not detected	
74G41-03	Sediment	Lead	42.7	Detected	Plant	Pickelweed	4.2	Not detected	
74B09-03	Soil	Antimony	2380	Detected	Plant	Pickelweed	0.4	Not detected	
74B10-03	Soil	Antimony	1430	Detected	Plant	Pickelweed	0.5	Detected	0.0003
74B30-03	Soil	Antimony	9.5	Detected	Plant	Pickelweed	0.5	Detected	0.0526
74B24-03	Soil	Antimony	6.3	Detected	Plant	Pickelweed	0.7	Not detected	
74B20-03	Soil	Antimony	4.6	Detected	Plant	Saltgrass	0.5	Detected	0.1087
74B07-03	Soil	Antimony	3.3	Detected	Plant	*Bassia* spp.	0.4	Not detected	
74B29-03	Soil	Antimony	2.4	Detected	Plant	*Frankenia* spp	0.7	Detected	0.2917
74B49-03	Soil	Antimony	1.5	Detected	Plant	Pickelweed	0.5	Not detected	
74B27-03	Soil	Antimony	0.7	Detected	Plant	Pickelweed	0.6	Not detected	
74B32-03	Soil	Antimony	0.6	Detected	Plant	*Bassia* spp.	0.3	Detected	0.5000
74B41-03	Soil	Antimony	0.6	Detected	Plant	Pickelweed	1.1	Detected	1.8333
74B37-03	Soil	Antimony	0.5	Detected	Plant	*Frankenia* spp	0.2	Detected	0.4000
74B01-03	Soil	Antimony	0.3	Detected	Plant	*Bassia* spp.	0.4	Not detected	
74B04-03	Soil	Antimony	0.2	Detected	Plant	*Atroplex* spp	0.3	Not detected	
74B43-03	Soil	Antimony	0.2	Detected	Plant	*Bassia* spp.	0.3	Not detected	
74B09-03	Soil	Lead	55200	Detected	Plant	Pickelweed	4	Detected	0.0001
74B10-03	Soil	Lead	31600	Detected	Plant	Pickelweed	21.3	Detected	0.0007
74B30-03	Soil	Lead	1240	Detected	Plant	Pickelweed	3.1	Detected	0.0025
74B24-03	Soil	Lead	963	Detected	Plant	Pickelweed	3.9	Not detected	
74B20-03	Soil	Lead	831	Detected	Plant	Saltgrass	18	Detected	0.0217
74B07-03	Soil	Lead	568	Detected	Plant	*Bassia* spp.	2.5	Detected	0.0044
74B29-03	Soil	Lead	377	Detected	Plant	*Frankenia* spp	13	Detected	0.0345
74B49-03	Soil	Lead	221	Detected	Plant	Pickelweed	9.5	Detected	0.0430
74B32-03	Soil	Lead	84.9	Detected	Plant	*Bassia* spp.	2.1	Not detected	
74B27-03	Soil	Lead	45	Detected	Plant	Pickelweed	3.5	Not detected	
74B41-03	Soil	Lead	41.3	Detected	Plant	Pickelweed	3.4	Not detected	
74B01-03	Soil	Lead	32.9	Detected	Plant	*Bassia* spp.	2.6	Not detected	
74B37-03	Soil	Lead	25.5	Detected	Plant	*Frankenia* spp	1.4	Not detected	
74B43-03	Soil	Lead	16.2	Detected	Plant	*Bassia* spp.	1.7	Not detected	
74B04-03	Soil	Lead	12.6	Detected	Plant	*Atroplex* spp	1.9	Detected	0.1508

Notes:
[a] Terrestrial invertebrate composite consists of Araneae, Microocryphia, Dermaptera, Coleoptera
[b] Terrestrial invertebrate composite consists of Orthoptera
[c] Terrestrial invertebrate composite consists of Hymenoptera, Orthoptera, Coleoptera, Araneae, Lepidoptera, Isopoda
[d] Terrestrial invertebrate composite consists of Coleoptera, Hymenoptera, Aranae, Dermaptera, Lepidoptera
[e] Terrestrial invertebrate composite consists of Coleoptera, Hymenoptera, Dermaptera, Orthoptera, Araneae, Lepidoptera
[f] Terrestrial invertebrate composite consists of grubs
[g] Terrestrial invertebrate composite consists of Hemiptera, Dermaptera
[h] Terrestrial invertebrate composite consists of Coleoptera, Aranae, Orthoptera
[i] Terrestrial invertebrate composite consists of Coleoptera
BAF = Bioaccumulation factor

Table 3-4
Lead Concentrations (mg/kg) in Livers of Birds and Mammals Collected at Site 74 and Reference Areas.
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Sample ID	Location	Type	Dry Wt Value	Wet Wt Value [a]	LabQualifier	MDL	PQL	MoistureContent	X-Ray Results
74E01BA0-007	Site 74	Meadowlark	4.6	1.61		0.02	1.7	65.1	No radio-dense particles observed
74E01BA0-009	Site 74	Meadowlark	3	0.90		0.023	2	70.1	Evidence of radio-dense particles
74B01BA0-008	Site 74	Meadowlark	2.5	0.81		0.022	1.9	67.7	Evidence of radio-dense particles
74E01BA0-005	Site 74	Meadowlark	2.3	0.69		0.023	2	70	Possible small metallic particle in ventriculus
74E01BA0-001	Site 74	Meadowlark	1.9	0.59		0.022	1.9	68.8	Evidence of radio-dense particles
74E01BA0-004	Site 74	Meadowlark	1.7	0.49	J	0.024	2.1	70.9	Evidence of radio-dense particles
74E01BA0-003	Site 74	Meadowlark	1.3	0.39	J	0.023	2	69.8	No radio-dense particles observed
74E01BA0-010	Site 74	Meadowlark	1.3	0.39	J	0.023	2	70.1	Evidence of radio-dense particles
74E01BA0-002	Site 74	Meadowlark	1	0.29	J	0.024	2	70.6	Evidence of radio-dense particles, though related to collection methods
74E01BA0-006	Site 74	Meadowlark	0.6	0.20	J	0.021	1.8	67.4	Evidence of radio-dense particles
74E03BB0-0-3	Reference	Meadowlark	0.026	0.0070	U	0.026	2.2	73	Radio-dense particles observed in coelomic cavities; likely a mineralized material though thin metallic pieces (shavings, paint) cannot be ruled out
74E03BB0-0-2	Reference	Meadowlark	0.025	0.0070	U	0.025	2.1	71.9	Radio-dense particles observed in coelomic cavities; likely a mineralized material though thin metallic pieces (shavings, paint) cannot be ruled out
74E03BB0-0-4	Reference	Meadowlark	0.025	0.0070	U	0.025	2.2	72.2	Radio-dense particles observed in coelomic cavities; likely a mineralized material though thin metallic pieces (shavings, paint) cannot be ruled out
74E03BB0-0-5	Reference	Meadowlark	0.023	0.0069	U	0.023	2	70.1	No radio-dense particles observed
74E03BB0-0-1	Reference	Meadowlark	0.021	0.0071	U	0.021	1.8	66	No radio-dense particles observed
74E01MA0-004	Site 74	PEMA	2	0.59		0.024	2	70.6	NA
74E01MA0-002	Site 74	PEMA	1.1	0.31	J	0.025	2.1	71.6	NA
74E01MA0-009	Site 74	MUMU	1.1	0.31	J	0.025	2.1	72	NA
74E01MA0-010	Site 74	PEMA	1.1	0.29	J	0.026	2.3	73.4	NA
74E01MA0-001	Site 74	PEMA	1	0.30	J	0.023	2	69.8	NA
74E01MA0-005	Site 74	PEMA	1	0.29	J	0.024	2.1	71.1	NA
74E01MA0-007	Site 74	REME	1	0.31	J	0.022	1.9	68.7	NA
74E01MA0-008	Site 74	REME	1	0.29	J	0.024	2.1	71.2	NA
74E01MA0-003	Site 74	PEMA	0.3	0.09	J	0.024	2.1	71.4	NA
74E01MA0-006	Site 74	PEMA	0.3	0.09	J	0.023	2	69.7	NA
74E03MA0-009	Reference	REME	1.9	0.59		0.023	1.9	68.9	NA
74E03MA0-010	Reference	REME	0.7	0.20	J	0.025	2.1	71.8	NA
74E03MA0-002	Reference	REME	0.4	0.10	J	0.028	2.4	75	NA
74E03MA0-005	Reference	REME	0.4	0.11	J	0.025	2.2	72.1	NA
74E03MA0-006	Reference	REME	0.4	0.10	J	0.029	2.4	75.5	NA
74E03MA0-001	Reference	REME	0.3	0.08	J	0.025	2.2	72.1	NA
74E03MA0-003	Reference	REME	0.3	0.08	J	0.025	2.1	72	NA
74E03MA0-008	Reference	REME	0.3	0.09	J	0.024	2	70.7	NA
74E03MA0-004	Reference	REME	0.2	0.06	J	0.024	2.1	71.2	NA
74E03MA0-007	Reference	REME	0.2	0.06	J	0.025	2.1	72	NA

Notes:
[a] Wet weight values calculated using reported moisture content for each sample.
MUMU = *Mus musculus* (house mouse)
PEMA = *Peromyscus maniculatus* (deer mouse)
REMA = *Reithrodontomys megalotis* (western harvest mouse)

Table 3-5
Summary Statistics for Lead in Bird and Mammal Livers
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Type	Location	N	Detects	Mean	Std	Minimum	Median	Maximum
mg/kg dry weight								
Bird	Site 74	10	10	2.02	1.16	0.6	1.8	4.6
Bird	Reference	5	0	0.024	0.002	0.021	0.025	0.026
Mammal	Site 74	10	10	0.99	0.47	0.3	1	2
Mammal	Reference	10	10	0.51	0.51	0.2	0.35	1.9
mg/kg wet weight								
Bird	Site 74	10	10	0.64	0.41	0.20	0.54	1.61
Bird	Reference	5	0	0.0070	0.0001	0.0069	0.0070	0.0071
Mammal	Site 74	10	10	0.29	0.14	0.09	0.30	0.59
Mammal	Reference	10	10	0.15	0.16	0.06	0.09	0.59

Notes:
Site 74 samples were compared to reference samples using nonparametric analyses. All Site 74 samples were statistically different than reference.

Table 3-6
Summary of Estimated Concentrations of Lead in Liver of Mallards at Site 74
Tier II Ecological Risk Assessment for Site 74, Seal Beach Naval Weapons Station

Site-specific Sediment Lead Data							Sediment Ingestion Parameters for Mallards (Beyer et al. 1994)					Diet-Liver Uptake Model		Estimates Based on Sediment Lead Only		Estimates Based on Sediment Lead Plus Lead as Shot			
Sample Number	Type	Sample Location	Lead Concentration (mg/kg dry)	Lead Qualifier	Lead Concentration as Shot (mg/kg dry)	Lead in Sediment Plus Lead as Shot (mg/kg dry)	b	a	c	y	Ps	Intercept	Slope	Estimated Lead Ingestion P_s*Pb_{sed} (mg/kg)	Estimated Lead in Liver (mg/kg wet)	Estimated Lead Ingestion P_s*Pb_{sed} (mg/kg)	Estimated Lead in Liver (mg/kg wet)	Effect Category	Percentile
G05CA01D	2000	74G05-00	154000	DET		154000.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	5144.436	53.570	5144.436	53.570	Severe clinical	99%
B02DB036	Bioassay	74G36-03	33100	DET	3073.11	36173.110	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1105.720	15.420	1208.378	16.570	Severe clinical	98%
G36CA01	2000	74G36-00	21400	DET	4628.53	26028.530	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	714.876	10.831	869.494	12.692	Clinical	97%
E0205DA0	Phasel	74G38-03	20400	DET	5086.65	25486.650	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	681.471	10.419	851.393	12.478	Clinical	96%
E0208DA0	Phasel	74G04-03	15800	DET	4882.52	20682.520	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	527.806	8.471	690.909	10.536	Clinical	95%
E0207DA0	Phasel	74G26-03	8080	DET	7511.5	15591.500	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	269.916	4.921	520.841	8.381	Clinical	94%
G13CA01	2000	74G13-00	7280	DET	7481.1	14761.100	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	243.192	4.522	493.101	8.017	Clinical	93%
B02DB005	Bioassay	74G05-03	9020	DET	4979.5	13999.500	0.020	0.300	0.900	0.069	0.033	-2.941	0.810	297.063	5.318	461.056	7.592	Clinical	91%
E0204DA0	Phasel	74G37-03	10700	DET	1548.88	12248.880	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	357.438	6.178	409.179	6.893	Clinical	90%
G04CA01	2000	74G04-00	7240	DET	2481.14	9721.140	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	241.855	4.502	324.739	5.716	Subclinical	89%
G12CA01	2000	74G12-00	5780	DET	3487.8	9267.800	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	193.083	3.751	309.595	5.499	Subclinical	88%
G05CA01	2000	74G05-00			6578.2	6578.200	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	0.000	0.000	219.748	4.166	Subclinical	87%
G03CA01	2000	74G03-00	2050	DET	3643.53	5693.530	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	68.481	1.620	190.195	3.706	Subclinical	86%
G38CA01	2000	74G38-00	3230	DET	1350.57	4580.570	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	107.900	2.341	153.016	3.107	Subclinical	85%
G02CA01	2000	74G02-00	2390	DET	1027.49	3417.490	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	79.839	1.835	114.163	2.451	Subclinical	84%
G06CA01	2000	74G06-00	1500	DET	503.69	2003.690	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	50.108	1.258	66.934	1.590	Background	83%
G35CA01	2000	74G35-00	1020	DET	388.81	1408.810	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	34.074	0.920	47.062	1.196	Background	82%
G19CA01	2000	74G19-00	1160	DET	240.16	1400.160	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	38.750	1.022	46.773	1.190	Background	81%
G01CA01	2000	74G01-00	850	DET	133.59	983.590	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	28.395	0.794	32.857	0.894	Background	80%
E0213DA0	Phasel	74G16-03	928	DET	0	928.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	31.000	0.853	31.000	0.853	Background	79%
E0211DA0	Phasel	74G35-03	837	DET	0	837.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	27.960	0.784	27.960	0.784	Background	78%
B03DB003	Refbio	SD3-03	773	DET		773.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	25.822	0.735	25.822	0.735	Background	77%
B02DB035	Bioassay	74G35-03	536	DET	103.31	639.310	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	17.905	0.547	21.356	0.630	Background	76%
G21CA01	2000	74G21-00	364	DET	176.28	540.280	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	12.160	0.400	18.048	0.550	Background	74%
G52CA01	2000	74G52-00	334	DET	0	334.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	11.157	0.373	11.157	0.373	Background	73%
B02DB026	Bioassay	74G26-03	285	DET	0	285.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	9.521	0.328	9.521	0.328	Background	72%
G14CA01	2000	74G14-00	131	DET	97.09	228.090	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	4.376	0.175	7.619	0.274	Background	71%
G07CA01	2000	74G07-00	121	DET	105.93	226.930	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	4.042	0.164	7.581	0.272	Background	70%
G26CA01	2000	74G26-00	212	DET	0	212.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	7.082	0.258	7.082	0.258	Background	69%
B02DB052	Bioassay	74G52-03	199	DET	0	199.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	6.648	0.245	6.648	0.245	Background	68%
B02DB015	Bioassay	74G15-03	179	DET	0	179.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	5.980	0.225	5.980	0.225	Background	67%
G22CA01	2000	74G22-00	176	DET	0	176.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	5.879	0.222	5.879	0.222	Background	66%
G10CA01	2000	74G10-00	130	DET	39.66	169.660	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	4.343	0.174	5.668	0.215	Background	65%
E0206DA0	Phasel	74G36-03	167	DET	0	167.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	5.579	0.213	5.579	0.213	Background	64%
G11CA01	2000	74G11-00	165	DET	0	165.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	5.512	0.210	5.512	0.210	Background	63%
G08CA01	2000	74G08-00	140	DET	24.77	164.770	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	4.677	0.184	5.504	0.210	Background	62%
E0214DA0	Phasel	74G39-03	70.1	DET	91.89	161.990	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.342	0.105	5.411	0.207	Background	61%
G15CA01	2000	74G15-00	106	DET	52.93	158.930	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	3.541	0.147	5.309	0.204	Background	60%
G25CA01	2000	74G25-00	155	DET	0	155.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	5.178	0.200	5.178	0.200	Background	59%
G34CA01	2000	74G34-00	104	DET	26.41	130.410	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	3.474	0.145	4.356	0.174	Background	57%
G47CA01	2000	74G47-00	68.2	DET	60.56	128.760	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.278	0.103	4.301	0.172	Background	56%
E0212DA0	Phasel	74G15-03	127	DET	0	127.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	4.242	0.170	4.242	0.170	Background	55%
G59CA01	2000	74G59-00	127	DET	0	127.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	4.242	0.170	4.242	0.170	Background	54%
G28CA01	2000	74G28-00	126	DET	0	126.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	4.209	0.169	4.209	0.169	Background	53%
G30CA01	2000	74G30-00	109	DET	0	109.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	3.641	0.150	3.641	0.150	Background	52%
G42CA01	2000	74G42-00	103	DET	0	103.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	3.441	0.144	3.441	0.144	Background	51%
E0215DA0	Phasel	74G52-03	102	DET	0	102.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	3.407	0.143	3.407	0.143	Background	50%
B02DB044	Bioassay	74G44-03	94.9	DET	0	94.900	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	3.170	0.134	3.170	0.134	Background	49%
G20CA01	2000	74G20-00	69.7	DET	15.01	84.710	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.328	0.105	2.830	0.123	Background	48%
G37CA01	2000	74G37-00	84.6	DET	0	84.600	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.826	0.123	2.826	0.123	Background	47%

Table 3-6
Summary of Estimated Concentrations of Lead in Liver of Mallards at Site 74
Tier II Ecological Risk Assessment for Site 74, Seal Beach Naval Weapons Station

Site-specific Sediment Lead Data							Sediment Ingestion Parameters for Mallards (Beyer et al. 1994)					Diet-Liver Uptake Model		Estimates Based on Sediment Lead Only		Estimates Based on Sediment Lead Plus Lead as Shot			
Sample Number	Type	Sample Location	Lead Concentration (mg/kg dry)	Lead Qualifier	Lead Concentration as Shot (mg/kg dry)	Lead in Sediment Plus Lead as Shot (mg/kg dry)	b	a	c	y	Ps	Intercept	Slope	Estimated Lead Ingestion P_s*Pb_{sed} (mg/kg)	Estimated Lead in Liver (mg/kg wet)	Estimated Lead Ingestion P_s*Pb_{sed} (mg/kg)	Estimated Lead in Liver (mg/kg wet)	Effect Category	Percentile
G18CA01	2000	74G18-00	80.9	DET	0	80.900	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.702	0.118	2.702	0.118	Background	46%
E0209DA0	Phasel	74G28-03	76.7	DET	0	76.700	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.562	0.113	2.562	0.113	Background	45%
B02DB041	Bioassay	74G41-03	76.5	DET	0	76.500	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.556	0.113	2.556	0.113	Background	44%
B02DB346	Bioassay	74G46-03	76.1		0	76.100	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.542	0.112	2.542	0.112	Background	43%
E0203DA0	Phasel	74G46-03	76.1	DET	0	76.100	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.542	0.112	2.542	0.112	Background	41%
G45CA01	2000	74G45-00	54.8	DET	19.05	73.850	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.831	0.086	2.467	0.110	Background	40%
G60CA01	2000	74G60-00	67.7	DET	0	67.700	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.262	0.102	2.262	0.102	Background	39%
G63CA01	2000	74G63-00	67.7	DET	0	67.700	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.262	0.102	2.262	0.102	Background	38%
G61CA01	2000	74G61-00	67.4	DET	0	67.400	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.252	0.102	2.252	0.102	Background	37%
G31CA01	2000	74G31-00	67	DET	0	67.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.238	0.101	2.238	0.101	Background	36%
G55CA01	2000	74G55-00	65.9	DET	0	65.900	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.201	0.100	2.201	0.100	Background	35%
G24CA01	2000	74G24-00	65.1	DET	0	65.100	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.175	0.099	2.175	0.099	Background	34%
G27CA01	2000	74G27-00	64.9	DET	0	64.900	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.168	0.099	2.168	0.099	Background	33%
G53CA01	2000	74G53-00	61.6	DET	0	61.600	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.058	0.095	2.058	0.095	Background	32%
G58CA01	2000	74G58-00	61	DET	0	61.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.038	0.094	2.038	0.094	Background	31%
G66CA01	2000	74G66-00	60.6	DET	0	60.600	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	2.024	0.094	2.024	0.094	Background	30%
G56CA01	2000	74G56-00	57.4	DET	0	57.400	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.917	0.089	1.917	0.089	Background	29%
G23CA01	2000	74G23-00	57.1	DET	0	57.100	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.907	0.089	1.907	0.089	Background	28%
G40CA01	2000	74G40-00	56.4	DET	0	56.400	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.884	0.088	1.884	0.088	Background	27%
E0210DA0	Phasel	74G44-03	54.9	DET	0	54.900	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.834	0.086	1.834	0.086	Background	26%
G41CA01	2000	74G41-00	23.2	DET	29.7	52.900	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	0.775	0.043	1.767	0.084	Background	24%
G44CA01	2000	74G44-00	52.3	DET	0	52.300	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.747	0.083	1.747	0.083	Background	23%
G09CA01	2000	74G09-00	52.1	DET	0	52.100	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.740	0.083	1.740	0.083	Background	22%
G51CA01	2000	74G51-00	51.7	DET	0	51.700	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.727	0.082	1.727	0.082	Background	21%
G16CA01	2000	74G16-00	51.6	DET	0	51.600	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.724	0.082	1.724	0.082	Background	20%
G49CA01	2000	74G49-00	50.9	DET	0	50.900	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.700	0.081	1.700	0.081	Background	19%
E0201DA0	Phasel	74G05-03	50.3	DET	0	50.300	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.680	0.080	1.680	0.080	Background	18%
G48CA01	2000	74G48-00	49.8	DET	0	49.800	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.664	0.080	1.664	0.080	Background	17%
B03DB002	Refbio	SD2-03	47.4	DET		47.400	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.583	0.077	1.583	0.077	Background	16%
G33CA01	2000	74G33-00	46.2	DET	0	46.200	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.543	0.075	1.543	0.075	Background	15%
G39CA01	2000	74G39-00	46.1	DET	0	46.100	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.540	0.075	1.540	0.075	Background	14%
G32CA01	2000	74G32-00	45	DET	0	45.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.503	0.073	1.503	0.073	Background	13%
G50CA01	2000	74G50-00	43.1	DET	0	43.100	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.440	0.071	1.440	0.071	Background	12%
E0202DA0	Phasel	74G41-03	42.7	DET	0	42.700	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.426	0.070	1.426	0.070	Background	11%
G17CA01	2000	74G17-00	41.3	DET	0	41.300	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.380	0.069	1.380	0.069	Background	10%
G65CA01	2000	74G65-00	39.9	DET	0	39.900	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.333	0.067	1.333	0.067	Background	9%
G46CA01	2000	74G46-00	39.6	DET	0	39.600	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.323	0.066	1.323	0.066	Background	7%
G54CA01	2000	74G54-00	39.5	DET	0	39.500	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.320	0.066	1.320	0.066	Background	6%
G62CA01	2000	74G62-00	39	DET	0	39.000	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.303	0.065	1.303	0.065	Background	5%
B03DB001	Refbio	SD1-03	35.7	DET		35.700	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.193	0.061	1.193	0.061	Background	4%
G64CA01	2000	74G64-00	35.4	DET	0	35.400	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.183	0.060	1.183	0.060	Background	3%
G57CA01	2000	74G57-00	34.6	DET	0	34.600	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.156	0.059	1.156	0.059	Background	2%
G29CA01	2000	74G29-00	34.4	DET	0	34.400	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	1.149	0.059	1.149	0.059	Background	1%
G43CA01	2000	74G43-00	8.7	DET	0	8.700	0.020	0.500	0.900	0.096	0.033	-2.941	0.810	0.291	0.019	0.291	0.019	Background	0%

Notes:
DET = detected value
Refbio = Bioassay sample collected at a reference area

Table 3-7
Estimated Concentrations of Lead in Livers of Voles at Site 74.
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Sample Number	Sample Matrix	Sample Type	Sample Location	Lead in Soil (mg/kg dry)	Qualifier	Herbivore Model Intercept	Herbivore Model Slope	Estimated Lead in Liver (mg/kg dry)	Effect Category	Percentile
B37SA01D	Soil	2000	74B37-00	80300	DET	-0.20656	0.28003	19.22	Clinical poisoning	99%
B20SA01	Soil	2000	74B20-00	69700	DET	-0.20656	0.28003	18.47	Clinical poisoning	98%
E0104SA0	Soil	Phase I	74B09-03	55200	DET	-0.20656	0.28003	17.31	Clinical poisoning	96%
B12SA01	Soil	2000	74B12-00	53400	DET	-0.20656	0.28003	17.15	Clinical poisoning	95%
E0105SA0	Soil	Phase I	74B10-03	31600	DET	-0.20656	0.28003	14.80	Clinical poisoning	94%
B01SB010	Soil	Bioassay	74B10-03	3430	DET	-0.20656	0.28003	7.95	Not defined	93%
B19SA01	Soil	2000	74B19-00	2680	DET	-0.20656	0.28003	7.42	Not defined	91%
B10SA01	Soil	2000	74B10-00	2170	DET	-0.20656	0.28003	6.99	Not defined	90%
B11SA01	Soil	2000	74B11-00	1700	DET	-0.20656	0.28003	6.53	Not defined	89%
B22SA01	Soil	2000	74B22-00	1500	DET	-0.20656	0.28003	6.31	Not defined	88%
B01SB009	Soil	Bioassay	74B09-03	1470	DET	-0.20656	0.28003	6.27	Not defined	86%
B29SA01	Soil	2000	74B29-00	1470	DET	-0.20656	0.28003	6.27	Not defined	85%
B08SA01	Soil	2000	74B08-00	1270	DET	-0.20656	0.28003	6.02	Not defined	84%
E0110SA0	Soil	Phase I	74B30-03	1240	DET	-0.20656	0.28003	5.98	Not defined	83%
B01SB020	Soil	Bioassay	74B20-03	1220	DET	-0.20656	0.28003	5.95	Not defined	81%
B31SA01	Soil	2000	74B31-00	1200	DET	-0.20656	0.28003	5.92	Not defined	80%
B09SA01	Soil	2000	74B09-00	1110	DET	-0.20656	0.28003	5.80	Not defined	79%
B15SA01	Soil	2000	74B15-00	1060	DET	-0.20656	0.28003	5.72	Not defined	78%
E0107SA0	Soil	Phase I	74B24-03	963	DET	-0.20656	0.28003	5.57	Not defined	76%
E0106SA0	Soil	Phase I	74B20-03	831	DET	-0.20656	0.28003	5.34	Not defined	75%
B16SA01	Soil	2000	74B16-00	797	DET	-0.20656	0.28003	5.28	Not defined	74%
B01SB032	Soil	Bioassay	74B32-03	604	DET	-0.20656	0.28003	4.89	No effect	73%
E0103SA0	Soil	Phase I	74B07-03	568	DET	-0.20656	0.28003	4.80	No effect	71%
B01SB007	Soil	Bioassay	74B07-03	535	DET	-0.20656	0.28003	4.72	No effect	70%
B17SA01	Soil	2000	74B17-00	448	DET	-0.20656	0.28003	4.49	No effect	69%
E0109SA0	Soil	Phase I	74B29-03	377	DET	-0.20656	0.28003	4.28	No effect	68%
B14SA01	Soil	2000	74B14-00	357	DET	-0.20656	0.28003	4.22	No effect	66%
B06SA01	Soil	2000	74B06-00	316	DET	-0.20656	0.28003	4.08	No effect	65%
B13SA01	Soil	2000	74B13-00	256	DET	-0.20656	0.28003	3.84	No effect	64%
B28SA01	Soil	2000	74B28-00	232	DET	-0.20656	0.28003	3.74	No effect	63%
E0114SA0	Soil	Phase I	74B49-03	221	DET	-0.20656	0.28003	3.69	No effect	61%
B38SA01	Soil	2000	74B38-00	205	DET	-0.20656	0.28003	3.61	No effect	60%
B30SA01	Soil	2000	74B30-00	198	DET	-0.20656	0.28003	3.58	No effect	59%
B24SA01	Soil	2000	74B24-00	191	DET	-0.20656	0.28003	3.54	No effect	58%
B03SB002	Soil	Refbio	SR2-03	178	DET	-0.20656	0.28003	3.47	No effect	56%
B27SA01	Soil	2000	74B27-00	168	DET	-0.20656	0.28003	3.42	No effect	55%
B44SA01	Soil	2000	74B44-00	168	DET	-0.20656	0.28003	3.42	No effect	54%
B34SA01	Soil	2000	74B34-00	156	DET	-0.20656	0.28003	3.35	No effect	53%
B47SA01	Soil	2000	74B47-00	135	DET	-0.20656	0.28003	3.21	No effect	51%
B01SB027	Soil	Bioassay	74B27-03	123	DET	-0.20656	0.28003	3.13	No effect	50%
B32SA01	Soil	2000	74B32-00	88.5	DET	-0.20656	0.28003	2.85	No effect	49%
B03SA01	Soil	2000	74B03-00	86.6	DET	-0.20656	0.28003	2.84	No effect	48%
E0113SA0	Soil	Phase I	74B32-03	84.9	DET	-0.20656	0.28003	2.82	No effect	46%
B02SA01	Soil	2000	74B02-00	75.5	DET	-0.20656	0.28003	2.73	No effect	45%
B35SA01	Soil	2000	74B35-00	73.8	DET	-0.20656	0.28003	2.71	No effect	44%
E0108SA0	Soil	Phase I	74B27-03	72.4	DET	-0.20656	0.28003	2.70	No effect	43%
B07SA01	Soil	2000	74B07-00	70.6	DET	-0.20656	0.28003	2.68	No effect	41%
B18SA01	Soil	2000	74B18-00	59.6	DET	-0.20656	0.28003	2.56	No effect	40%
B04SA01	Soil	2000	74B04-00	57.2	DET	-0.20656	0.28003	2.53	No effect	39%
B23SA01	Soil	2000	74B23-00	55.2	DET	-0.20656	0.28003	2.50	No effect	38%
B49SA01	Soil	2000	74B49-00	55.1	DET	-0.20656	0.28003	2.50	No effect	36%
B26SA01	Soil	2000	74B26-00	54.2	DET	-0.20656	0.28003	2.49	No effect	35%
B05SA01	Soil	2000	74B05-00	51.3	DET	-0.20656	0.28003	2.45	No effect	34%
B03SB001	Soil	Refbio	SR1-03	50.5	DET	-0.20656	0.28003	2.44	No effect	33%
B03SB003	Soil	Refbio	SR3-03	48	DET	-0.20656	0.28003	2.40	No effect	31%
E0108SA0	Soil	Phase I	74B27-03	45	DET	-0.20656	0.28003	2.36	No effect	30%
B43SA01	Soil	2000	74B43-00	42.6	DET	-0.20656	0.28003	2.33	No effect	29%
E0112SA0	Soil	Phase I	74B41-03	41.3	DET	-0.20656	0.28003	2.31	No effect	28%
B01SB001	Soil	Bioassay	74B01-03	40.4	DET	-0.20656	0.28003	2.29	No effect	26%
E0101SA0	Soil	Phase I	74B01-03	32.9	DET	-0.20656	0.28003	2.16	No effect	25%
B01SA01	Soil	2000	74B01-00	32.6	DET	-0.20656	0.28003	2.16	No effect	24%
B39SA01	Soil	2000	74B39-00	31.3	DET	-0.20656	0.28003	2.13	No effect	23%
B21SA01	Soil	2000	74B21-00	30.1	DET	-0.20656	0.28003	2.11	No effect	21%
B41SA01	Soil	2000	74B41-00	29	DET	-0.20656	0.28003	2.09	No effect	20%
B01SB043	Soil	Bioassay	74B43-03	26.4	DET	-0.20656	0.28003	2.03	No effect	19%
B36SA01	Soil	2000	74B36-00	25.6	DET	-0.20656	0.28003	2.02	No effect	18%
E0111SA0	Soil	Phase I	74B37-03	25.5	DET	-0.20656	0.28003	2.01	No effect	16%

Table 3-7

Estimated Concentrations of Lead in Livers of Voles at Site 74.

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Sample Number	Sample Matrix	Sample Type	Sample Location	Lead in Soil (mg/kg dry)	Qualifier	Herbivore Model Intercept	Herbivore Model Slope	Estimated Lead in Liver (mg/kg dry)	Effect Category	Percentile
B42SA01	Soil	2000	74B42-00	22.9	DET	-0.20656	0.28003	1.95	No effect	15%
B50SA01	Soil	2000	74B50-00	22	DET	-0.20656	0.28003	1.93	No effect	14%
B46SA01	Soil	2000	74B46-00	21.5	DET	-0.20656	0.28003	1.92	No effect	13%
B52SA01	Soil	2000	74B52-00	19.1	DET	-0.20656	0.28003	1.86	No effect	11%
B33SA01	Soil	2000	74B33-00	17.4	DET	-0.20656	0.28003	1.81	No effect	10%
E0115SA0	Soil	PhaseI	74B43-03	16.2	DET	-0.20656	0.28003	1.77	No effect	9%
B01SB304	Soil	Bioassay	74B04-03	15.1	DET	-0.20656	0.28003	1.74	No effect	8%
B40SA01	Soil	2000	74B40-00	13.5	DET	-0.20656	0.28003	1.69	No effect	6%
B45SA01	Soil	2000	74B45-00	12.7	DET	-0.20656	0.28003	1.66	No effect	5%
E0102SA0	Soil	PhaseI	74B04-03	12.6	DET	-0.20656	0.28003	1.65	No effect	4%
B51SA01	Soil	2000	74B51-00	11.6	DET	-0.20656	0.28003	1.62	No effect	3%
B48SA01	Soil	2000	74B48-00	9.7	DET	-0.20656	0.28003	1.54	No effect	1%
B25SA01	Soil	2000	74B25-00	5	DET	-0.20656	0.28003	1.28	No effect	0%

Notes:

DET = detected value

Refbio = Bioassay sample collected from a reference area

Table 3-8
Estimated Concentrations of Lead in Livers of Shrews at Site 74.
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Sample Number	Sample Matrix	Sample Type	Sample Location	Lead Concentration in Soil or Sediment (mg/kg dry)	Qualifier	Insectivore model Intercept	Insectivore model Slope	Estimated Lead in Liver (mg/kg dry)	Effect Category	Percentile
G05CA01D	Sediment	2000	74G05-00	154000	DET	-1.3655	0.51792	124.08	Clinical poisoning	99%
B02DB036	Sediment	Bioassay	74G36-03	33100	DET	-1.3655	0.51792	55.96	Clinical poisoning	98%
G36CA01	Sediment	2000	74G36-00	21400	DET	-1.3655	0.51792	44.65	Clinical poisoning	97%
E0205DA0	Sediment	PhaseI	74G38-03	20400	DET	-1.3655	0.51792	43.55	Clinical poisoning	96%
E0208DA0	Sediment	PhaseI	74G04-03	15800	DET	-1.3655	0.51792	38.15	Clinical poisoning	95%
E0204DA0	Sediment	PhaseI	74G37-03	10700	DET	-1.3655	0.51792	31.18	Clinical poisoning	94%
B02DB005	Sediment	Bioassay	74G05-03	9020	DET	-1.3655	0.51792	28.54	Clinical poisoning	92%
E0207DA0	Sediment	PhaseI	74G26-03	8080	DET	-1.3655	0.51792	26.96	Clinical poisoning	91%
G13CA01	Sediment	2000	74G13-00	7280	DET	-1.3655	0.51792	25.54	Clinical poisoning	90%
G04CA01	Sediment	2000	74G04-00	7240	DET	-1.3655	0.51792	25.47	Clinical poisoning	89%
G12CA01	Sediment	2000	74G12-00	5780	DET	-1.3655	0.51792	22.66	Clinical poisoning	88%
G38CA01	Sediment	2000	74G38-00	3230	DET	-1.3655	0.51792	16.77	Clinical poisoning	87%
G02CA01	Sediment	2000	74G02-00	2390	DET	-1.3655	0.51792	14.35	Clinical poisoning	86%
G03CA01	Sediment	2000	74G03-00	2050	DET	-1.3655	0.51792	13.25	Clinical poisoning	85%
G06CA01	Sediment	2000	74G06-00	1500	DET	-1.3655	0.51792	11.27	Clinical poisoning	84%
G19CA01	Sediment	2000	74G19-00	1160	DET	-1.3655	0.51792	9.87	Not defined	83%
G35CA01	Sediment	2000	74G35-00	1020	DET	-1.3655	0.51792	9.23	Not defined	82%
E0213DA0	Sediment	PhaseI	74G16-03	928	DET	-1.3655	0.51792	8.79	Not defined	81%
G01CA01	Sediment	2000	74G01-00	850	DET	-1.3655	0.51792	8.40	Not defined	80%
E0211DA0	Sediment	PhaseI	74G35-03	837	DET	-1.3655	0.51792	8.33	Not defined	78%
B03DB003	Sediment	Refbio	SD3-03	773	DET	-1.3655	0.51792	7.99	Not defined	77%
B02DB035	Sediment	Bioassay	74G35-03	536	DET	-1.3655	0.51792	6.61	Not defined	76%
G21CA01	Sediment	2000	74G21-00	364	DET	-1.3655	0.51792	5.41	Not defined	75%
G52CA01	Sediment	2000	74G52-00	334	DET	-1.3655	0.51792	5.18	Not defined	74%
B02DB026	Sediment	Bioassay	74G26-03	285	DET	-1.3655	0.51792	4.77	No effect	73%
G26CA01	Sediment	2000	74G26-00	212	DET	-1.3655	0.51792	4.09	No effect	72%
B02DB052	Sediment	Bioassay	74G52-03	199	DET	-1.3655	0.51792	3.96	No effect	71%
B02DB015	Sediment	Bioassay	74G15-03	179	DET	-1.3655	0.51792	3.75	No effect	70%
G22CA01	Sediment	2000	74G22-00	176	DET	-1.3655	0.51792	3.72	No effect	69%
E0206DA0	Sediment	PhaseI	74G36-03	167	DET	-1.3655	0.51792	3.62	No effect	68%
G11CA01	Sediment	2000	74G11-00	165	DET	-1.3655	0.51792	3.59	No effect	67%
G25CA01	Sediment	2000	74G25-00	155	DET	-1.3655	0.51792	3.48	No effect	66%
G08CA01	Sediment	2000	74G08-00	140	DET	-1.3655	0.51792	3.30	No effect	65%
G14CA01	Sediment	2000	74G14-00	131	DET	-1.3655	0.51792	3.19	No effect	63%
G10CA01	Sediment	2000	74G10-00	130	DET	-1.3655	0.51792	3.18	No effect	62%
E0212DA0	Sediment	PhaseI	74G15-03	127	DET	-1.3655	0.51792	3.14	No effect	61%
G59CA01	Sediment	2000	74G59-00	127	DET	-1.3655	0.51792	3.14	No effect	60%
G28CA01	Sediment	2000	74G28-00	126	DET	-1.3655	0.51792	3.12	No effect	59%
G07CA01	Sediment	2000	74G07-00	121	DET	-1.3655	0.51792	3.06	No effect	58%
G30CA01	Sediment	2000	74G30-00	109	DET	-1.3655	0.51792	2.90	No effect	57%
G15CA01	Sediment	2000	74G15-00	106	DET	-1.3655	0.51792	2.86	No effect	56%
G34CA01	Sediment	2000	74G34-00	104	DET	-1.3655	0.51792	2.83	No effect	55%
G42CA01	Sediment	2000	74G42-00	103	DET	-1.3655	0.51792	2.81	No effect	54%
E0215DA0	Sediment	PhaseI	74G52-03	102	DET	-1.3655	0.51792	2.80	No effect	53%
B02DB044	Sediment	Bioassay	74G44-03	94.9	DET	-1.3655	0.51792	2.70	No effect	52%
G37CA01	Sediment	2000	74G37-00	84.6	DET	-1.3655	0.51792	2.54	No effect	51%
G18CA01	Sediment	2000	74G18-00	80.9	DET	-1.3655	0.51792	2.48	No effect	49%
E0209DA0	Sediment	PhaseI	74G28-03	76.7	DET	-1.3655	0.51792	2.42	No effect	48%
B02DB041	Sediment	Bioassay	74G41-03	76.5	DET	-1.3655	0.51792	2.41	No effect	47%
E0203DA0	Sediment	PhaseI	74G46-03	76.1	DET	-1.3655	0.51792	2.41	No effect	46%
E0214DA0	Sediment	PhaseI	74G39-03	70.1	DET	-1.3655	0.51792	2.31	No effect	45%
G20CA01	Sediment	2000	74G20-00	69.7	DET	-1.3655	0.51792	2.30	No effect	44%
G47CA01	Sediment	2000	74G47-00	68.2	DET	-1.3655	0.51792	2.27	No effect	43%
G60CA01	Sediment	2000	74G60-00	67.7	DET	-1.3655	0.51792	2.27	No effect	42%
G63CA01	Sediment	2000	74G63-00	67.7	DET	-1.3655	0.51792	2.27	No effect	41%
G61CA01	Sediment	2000	74G61-00	67.4	DET	-1.3655	0.51792	2.26	No effect	40%
G31CA01	Sediment	2000	74G31-00	67	DET	-1.3655	0.51792	2.25	No effect	39%
G55CA01	Sediment	2000	74G55-00	65.9	DET	-1.3655	0.51792	2.23	No effect	38%
G24CA01	Sediment	2000	74G24-00	65.1	DET	-1.3655	0.51792	2.22	No effect	37%

Table 3-8
Estimated Concentrations of Lead in Livers of Shrews at Site 74.
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Insectivore model				
Sample Number	**Sample Matrix**	**Sample Type**	**Sample Location**	**Lead Concentration in Soil or Sediment (mg/kg dry)**	**Qualifier**	**Intercept**	**Slope**	**Estimated Lead in Liver (mg/kg dry)**	**Effect Category**	**Percentile**
G27CA01	Sediment	2000	74G27-00	64.9	DET	-1.3655	0.51792	2.22	No effect	35%
G53CA01	Sediment	2000	74G53-00	61.6	DET	-1.3655	0.51792	2.16	No effect	34%
G58CA01	Sediment	2000	74G58-00	61	DET	-1.3655	0.51792	2.15	No effect	33%
G66CA01	Sediment	2000	74G66-00	60.6	DET	-1.3655	0.51792	2.14	No effect	32%
G56CA01	Sediment	2000	74G56-00	57.4	DET	-1.3655	0.51792	2.08	No effect	31%
G23CA01	Sediment	2000	74G23-00	57.1	DET	-1.3655	0.51792	2.07	No effect	30%
G40CA01	Sediment	2000	74G40-00	56.4	DET	-1.3655	0.51792	2.06	No effect	29%
E0210DA0	Sediment	PhaseI	74G44-03	54.9	DET	-1.3655	0.51792	2.03	No effect	28%
G45CA01	Sediment	2000	74G45-00	54.8	DET	-1.3655	0.51792	2.03	No effect	27%
G44CA01	Sediment	2000	74G44-00	52.3	DET	-1.3655	0.51792	1.98	No effect	26%
G09CA01	Sediment	2000	74G09-00	52.1	DET	-1.3655	0.51792	1.98	No effect	25%
G51CA01	Sediment	2000	74G51-00	51.7	DET	-1.3655	0.51792	1.97	No effect	24%
G16CA01	Sediment	2000	74G16-00	51.6	DET	-1.3655	0.51792	1.97	No effect	23%
G49CA01	Sediment	2000	74G49-00	50.9	DET	-1.3655	0.51792	1.95	No effect	22%
E0201DA0	Sediment	PhaseI	74G05-03	50.3	DET	-1.3655	0.51792	1.94	No effect	20%
G48CA01	Sediment	2000	74G48-00	49.8	DET	-1.3655	0.51792	1.93	No effect	19%
B02DB346	Sediment	Bioassay	74G46-03	48.4	DET	-1.3655	0.51792	1.90	No effect	18%
B03DB002	Sediment	Refbio	SD2-03	47.4	DET	-1.3655	0.51792	1.88	No effect	17%
G33CA01	Sediment	2000	74G33-00	46.2	DET	-1.3655	0.51792	1.86	No effect	16%
G39CA01	Sediment	2000	74G39-00	46.1	DET	-1.3655	0.51792	1.86	No effect	15%
G32CA01	Sediment	2000	74G32-00	45	DET	-1.3655	0.51792	1.83	No effect	14%
G50CA01	Sediment	2000	74G50-00	43.1	DET	-1.3655	0.51792	1.79	No effect	13%
E0202DA0	Sediment	PhaseI	74G41-03	42.7	DET	-1.3655	0.51792	1.78	No effect	12%
G17CA01	Sediment	2000	74G17-00	41.3	DET	-1.3655	0.51792	1.75	No effect	11%
G65CA01	Sediment	2000	74G65-00	39.9	DET	-1.3655	0.51792	1.72	No effect	10%
G46CA01	Sediment	2000	74G46-00	39.6	DET	-1.3655	0.51792	1.72	No effect	9%
G54CA01	Sediment	2000	74G54-00	39.5	DET	-1.3655	0.51792	1.71	No effect	8%
G62CA01	Sediment	2000	74G62-00	39	DET	-1.3655	0.51792	1.70	No effect	6%
B03DB001	Sediment	Refbio	SD1-03	35.7	DET	-1.3655	0.51792	1.63	No effect	5%
G64CA01	Sediment	2000	74G64-00	35.4	DET	-1.3655	0.51792	1.62	No effect	4%
G57CA01	Sediment	2000	74G57-00	34.6	DET	-1.3655	0.51792	1.60	No effect	3%
G29CA01	Sediment	2000	74G29-00	34.4	DET	-1.3655	0.51792	1.60	No effect	2%
G41CA01	Sediment	2000	74G41-00	23.2	DET	-1.3655	0.51792	1.30	No effect	1%
G43CA01	Sediment	2000	74G43-00	8.7	DET	-1.3655	0.51792	0.78	No effect	0%
B37SA01D	Soil	2000	74B37-00	80300	DET	-1.3655	0.51792	88.56	Clinical poisoning	99%
B20SA01	Soil	2000	74B20-00	69700	DET	-1.3655	0.51792	82.30	Clinical poisoning	98%
E0104SA0	Soil	PhaseI	74B09-03	55200	DET	-1.3655	0.51792	72.93	Clinical poisoning	96%
B12SA01	Soil	2000	74B12-00	53400	DET	-1.3655	0.51792	71.69	Clinical poisoning	95%
E0105SA0	Soil	PhaseI	74B10-03	31600	DET	-1.3655	0.51792	54.63	Clinical poisoning	94%
B01SB010	Soil	Bioassay	74B10-03	3430	DET	-1.3655	0.51792	17.30	Clinical poisoning	93%
B19SA01	Soil	2000	74B19-00	2680	DET	-1.3655	0.51792	15.22	Clinical poisoning	91%
B10SA01	Soil	2000	74B10-00	2170	DET	-1.3655	0.51792	13.65	Clinical poisoning	90%
B11SA01	Soil	2000	74B11-00	1700	DET	-1.3655	0.51792	12.02	Clinical poisoning	89%
B22SA01	Soil	2000	74B22-00	1500	DET	-1.3655	0.51792	11.27	Clinical poisoning	88%
B01SB009	Soil	Bioassay	74B09-03	1470	DET	-1.3655	0.51792	11.15	Clinical poisoning	86%
B29SA01	Soil	2000	74B29-00	1470	DET	-1.3655	0.51792	11.15	Clinical poisoning	85%
B08SA01	Soil	2000	74B08-00	1270	DET	-1.3655	0.51792	10.34	Clinical poisoning	84%
E0110SA0	Soil	PhaseI	74B30-03	1240	DET	-1.3655	0.51792	10.21	Clinical poisoning	83%
B01SB020	Soil	Bioassay	74B20-03	1220	DET	-1.3655	0.51792	10.13	Clinical poisoning	81%
B31SA01	Soil	2000	74B31-00	1200	DET	-1.3655	0.51792	10.04	Clinical poisoning	80%
B09SA01	Soil	2000	74B09-00	1110	DET	-1.3655	0.51792	9.64	Not defined	79%
B15SA01	Soil	2000	74B15-00	1060	DET	-1.3655	0.51792	9.42	Not defined	78%
E0107SA0	Soil	PhaseI	74B24-03	963	DET	-1.3655	0.51792	8.96	Not defined	76%
E0106SA0	Soil	PhaseI	74B20-03	831	DET	-1.3655	0.51792	8.30	Not defined	75%
B16SA01	Soil	2000	74B16-00	797	DET	-1.3655	0.51792	8.12	Not defined	74%
B01SB032	Soil	Bioassay	74B32-03	604	DET	-1.3655	0.51792	7.04	Not defined	73%
E0103SA0	Soil	PhaseI	74B07-03	568	DET	-1.3655	0.51792	6.82	Not defined	71%
B01SB007	Soil	Bioassay	74B07-03	535	DET	-1.3655	0.51792	6.61	Not defined	70%
B17SA01	Soil	2000	74B17-00	448	DET	-1.3655	0.51792	6.03	Not defined	69%

Table 3-8
Estimated Concentrations of Lead in Livers of Shrews at Site 74.
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Sample Number	Sample Matrix	Sample Type	Sample Location	Lead Concentration in Soil or Sediment (mg/kg dry)	Qualifier	Insectivore model Intercept	Insectivore model Slope	Estimated Lead in Liver (mg/kg dry)	Effect Category	Percentile
E0109SA0	Soil	PhaseI	74B29-03	377	DET	-1.3655	0.51792	5.51	Not defined	68%
B14SA01	Soil	2000	74B14-00	357	DET	-1.3655	0.51792	5.36	Not defined	66%
B06SA01	Soil	2000	74B06-00	316	DET	-1.3655	0.51792	5.03	Not defined	65%
B13SA01	Soil	2000	74B13-00	256	DET	-1.3655	0.51792	4.51	No effect	64%
B28SA01	Soil	2000	74B28-00	232	DET	-1.3655	0.51792	4.29	No effect	63%
E0114SA0	Soil	PhaseI	74B49-03	221	DET	-1.3655	0.51792	4.18	No effect	61%
B38SA01	Soil	2000	74B38-00	205	DET	-1.3655	0.51792	4.02	No effect	60%
B30SA01	Soil	2000	74B30-00	198	DET	-1.3655	0.51792	3.95	No effect	59%
B24SA01	Soil	2000	74B24-00	191	DET	-1.3655	0.51792	3.88	No effect	58%
B03SB002	Soil	Refbio	SR2-03	178	DET	-1.3655	0.51792	3.74	No effect	56%
B27SA01	Soil	2000	74B27-00	168	DET	-1.3655	0.51792	3.63	No effect	55%
B44SA01	Soil	2000	74B44-00	168	DET	-1.3655	0.51792	3.63	No effect	54%
B34SA01	Soil	2000	74B34-00	156	DET	-1.3655	0.51792	3.49	No effect	53%
B47SA01	Soil	2000	74B47-00	135	DET	-1.3655	0.51792	3.24	No effect	51%
B01SB027	Soil	Bioassay	74B27-03	123	DET	-1.3655	0.51792	3.09	No effect	50%
B32SA01	Soil	2000	74B32-00	88.5	DET	-1.3655	0.51792	2.60	No effect	49%
B03SA01	Soil	2000	74B03-00	86.6	DET	-1.3655	0.51792	2.57	No effect	48%
E0113SA0	Soil	PhaseI	74B32-03	84.9	DET	-1.3655	0.51792	2.55	No effect	46%
B02SA01	Soil	2000	74B02-00	75.5	DET	-1.3655	0.51792	2.40	No effect	45%
B35SA01	Soil	2000	74B35-00	73.8	DET	-1.3655	0.51792	2.37	No effect	44%
E0108SA0	Soil	PhaseI	74B27-03	72.4	DET	-1.3655	0.51792	2.35	No effect	43%
B07SA01	Soil	2000	74B07-00	70.6	DET	-1.3655	0.51792	2.31	No effect	41%
B18SA01	Soil	2000	74B18-00	59.6	DET	-1.3655	0.51792	2.12	No effect	40%
B04SA01	Soil	2000	74B04-00	57.2	DET	-1.3655	0.51792	2.08	No effect	39%
B23SA01	Soil	2000	74B23-00	55.2	DET	-1.3655	0.51792	2.04	No effect	38%
B49SA01	Soil	2000	74B49-00	55.1	DET	-1.3655	0.51792	2.04	No effect	36%
B26SA01	Soil	2000	74B26-00	54.2	DET	-1.3655	0.51792	2.02	No effect	35%
B05SA01	Soil	2000	74B05-00	51.3	DET	-1.3655	0.51792	1.96	No effect	34%
B03SB001	Soil	Refbio	SR1-03	50.5	DET	-1.3655	0.51792	1.95	No effect	33%
B03SB003	Soil	Refbio	SR3-03	48	DET	-1.3655	0.51792	1.90	No effect	31%
E0108SA0	Soil	PhaseI	74B27-03	45	DET	-1.3655	0.51792	1.83	No effect	30%
B43SA01	Soil	2000	74B43-00	42.6	DET	-1.3655	0.51792	1.78	No effect	29%
E0112SA0	Soil	PhaseI	74B41-03	41.3	DET	-1.3655	0.51792	1.75	No effect	28%
B01SB001	Soil	Bioassay	74B01-03	40.4	DET	-1.3655	0.51792	1.73	No effect	26%
E0101SA0	Soil	PhaseI	74B01-03	32.9	DET	-1.3655	0.51792	1.56	No effect	25%
B01SA01	Soil	2000	74B01-00	32.6	DET	-1.3655	0.51792	1.55	No effect	24%
B39SA01	Soil	2000	74B39-00	31.3	DET	-1.3655	0.51792	1.52	No effect	23%
B21SA01	Soil	2000	74B21-00	30.1	DET	-1.3655	0.51792	1.49	No effect	21%
B41SA01	Soil	2000	74B41-00	29	DET	-1.3655	0.51792	1.46	No effect	20%
B01SB043	Soil	Bioassay	74B43-03	26.4	DET	-1.3655	0.51792	1.39	No effect	19%
B36SA01	Soil	2000	74B36-00	25.6	DET	-1.3655	0.51792	1.37	No effect	18%
E0111SA0	Soil	PhaseI	74B37-03	25.5	DET	-1.3655	0.51792	1.37	No effect	16%
B42SA01	Soil	2000	74B42-00	22.9	DET	-1.3655	0.51792	1.29	No effect	15%
B50SA01	Soil	2000	74B50-00	22	DET	-1.3655	0.51792	1.27	No effect	14%
B46SA01	Soil	2000	74B46-00	21.5	DET	-1.3655	0.51792	1.25	No effect	13%
B52SA01	Soil	2000	74B52-00	19.1	DET	-1.3655	0.51792	1.18	No effect	11%
B33SA01	Soil	2000	74B33-00	17.4	DET	-1.3655	0.51792	1.12	No effect	10%
E0115SA0	Soil	PhaseI	74B43-03	16.2	DET	-1.3655	0.51792	1.08	No effect	9%
B01SB304	Soil	Bioassay	74B04-03	15.1	DET	-1.3655	0.51792	1.04	No effect	8%
B40SA01	Soil	2000	74B40-00	13.5	DET	-1.3655	0.51792	0.98	No effect	6%
B45SA01	Soil	2000	74B45-00	12.7	DET	-1.3655	0.51792	0.95	No effect	5%
E0102SA0	Soil	PhaseI	74B04-03	12.6	DET	-1.3655	0.51792	0.95	No effect	4%
B51SA01	Soil	2000	74B51-00	11.6	DET	-1.3655	0.51792	0.91	No effect	3%
B48SA01	Soil	2000	74B48-00	9.7	DET	-1.3655	0.51792	0.83	No effect	1%
B25SA01	Soil	2000	74B25-00	5	DET	-1.3655	0.51792	0.59	No effect	0%

Notes:

DET = detected value

Refbio = Bioassay sample collected from a reference area

Table 3-9

Summary of Results of Sediment Invertebrate Bioassays Conducted with Sediments from Site 74 in Comparison to Chemical Concentrations in Samples

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

	Bioassay Results						Chemistry Results																			
	Percent Survival		Growth		Reproduction		SolidsTotal	CEC	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Selenium	Silver
Sample Number	**Mean**	**STD**	**Mean**	**STD**	**Mean**	**STD**	**Percent**	**meq/100g**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Laboratory Control	93	4.47	46.4	5.55	2.21	0.67																				
74B03DB0-02	93	4.47	58.6	11.35	1.45	0.69	45	223	33000	0.2	12	98.4	0.9	0.2	6440	44.8	13.1	53.7	38300	47.4	12500	474	30.5	8260	7.6	0.2
74B02DB0-46	92	7.58	51	8.63	3.24	1.02	33.9	279	36400	0.2	19.5	98.8	1.2	0.1	6910	45.5	14.9	41.7	42300	48.4	13600	1500	30.3	9240	6.7	3
74B02DB0-35	92	9.75	37.2	13.37	2.77	1.10	30.1	328	33200	3.8	30.6	99.7	1	0.2	7290	45.7	16.5	43	44000	536	14800	2310	34.7	9660	10.7	3.5
74B03DB0-03	91	8.94	54.4	9.56	1.50	0.66	70.2	71.3	21600	0.3	7.3	134	0.6	0.3	12300	32.9	10.6	36.8	27300	773	8050	545	20	4990	3	0.1
74B03DB0-01	91	12.45	***25***	***7.07***	***0.68***	***0.87***	79.3	83.4	17800	0.1	3.8	113	0.5	0.3	21600	23	9	23.5	23300	35.7	19200	477	18.7	4460	1.85	1.5
74B02DB0-52	91	10.25	80.6	15.63	3.38	1.33	25.1	433	20600	4.2	12.2	96.2	0.8	1.5	7150	36.5	7.6	213	21700	199	13600	361	30	7760	19	0.8
74B02DB0-41	91	6.52	52.6	5.64	***1.19***	***0.74***	37.6	231	25300	0.8	11.4	124	0.8	0.3	6530	39.7	12.2	40.7	33300	76.5	12500	579	32.8	8100	9.8	2.5
74B02DB0-15	91	7.42	42.8	13.48	2.38	1.67	28.4	329	27000	1.1	18.1	82.2	0.7	2	6740	39.3	11.5	37.4	32700	179	14100	681	27.4	8780	7.4	3.5
74B02DB0-26	90	10.00	65.6	13.99	4.35	1.75	16.7	524	24900	1.8	24.4	75.6	0.6	0.5	7680	35.7	11.3	42.9	28100	285	16400	738	28	9170	17.9	6
74B02DB0-44	89	6.52	60.6	14.84	3.11	1.87	32.6	281	31700	0.7	13.5	109	1	1.5	7500	48	12.8	46.3	34100	94.9	14600	578	34.1	9490	11.1	3.5
74B02DB0-05	81	11.94	62.4	4.93	2.42	0.86	23.4	417	26200	109[a]	104	77.7	0.9	2.5	6980	35.3	9.3	43.7	28700	9020[a]	15000	394	28.4	8740	18.1	0.5
74B02DB0-36	***36***	***12.45***	54.4	15.57	***1.06***	***0.40***	21	427	26600	282[b]	72	82.9	1	2.5	7410	38.3	9.3	161	29100	33100[b]	16500	344	29	9270	18.1	5

Notes:

[a] Site-specific no observed effects concentration (NOEC)

[b] Site-specific lowest observed effects concentration (LOEC)

STD = standard deviation

Shaded rows represent results for reference samples

Bioassay responses in bold were statistically significantly different (p<0.05) from the laboratory control

All concentrations are reported in dry weight

Table 3-9
Summary of Results of Sediment Invertebrate Bioassays Conducted w
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Bea

	Bioassay Results						Chemistry Results												
	Percent Survival		Growth		Reproduction		Sodium	Thallium	Vanadium	Zinc	pH	TOC	Total Number of Lead Shot	Total Lead Shot (g)	Number of Lead Shot per Wet Weight of Sample	Percent Lead Shot per Wet Weight of Sample	Gravel	Sand	Fines
Sample Number	**Mean**	**STD**	**Mean**	**STD**	**Mean**	**STD**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**pH Units**	**Percent**					**Percent**	**Percent**	**Percent**
Laboratory Control	93	4.47	46.4	5.55	2.21	0.67													
74B03DB0-02	93	4.47	58.6	11.35	1.45	0.69	15000	0.4	63.5	210	7.1	2.05	Not requested	N/A	N/A	N/A	0	10	90
74B02DB0-46	92	7.58	51	8.63	3.24	1.02	19600	0.3	75.5	186	7.2	1.25	0	0	0.0	0	0	8	92
74B02DB0-35	92	9.75	37.2	13.37	2.77	1.10	24600	0.3	74.6	205	7.7	1.54	1	0.0535	1.9	0.01	0	7	93
74B03DB0-03	91	8.94	54.4	9.56	1.50	0.66	4760	0.3	39.7	119	7.9	1.09	Not requested	N/A	N/A	N/A	1	27	72
74B03DB0-01	91	12.45	***25***	***7.07***	***0.68***	***0.87***	6390	0.3	35.8	87.4	8.3	0.54	Not requested	N/A	N/A	N/A	0	27	73
74B02DB0-52	91	10.25	80.6	15.63	3.38	1.33	46400	0.2	30.4	734	7.2	2.7	0	0	0.0	0	0	23	77
74B02DB0-41	91	6.52	52.6	5.64	***1.19***	***0.74***	17500	0.5	64.6	138	7.7	1.42	0	0	0.0	0	0	9	91
74B02DB0-15	91	7.42	42.8	13.48	2.38	1.67	29400	0.3	34.1	121	7.5	1.75	0	0	0.0	0	0	13	87
74B02DB0-26	90	10.00	65.6	13.99	4.35	1.75	56800	0.3	44.6	147	7.4	1.91	0	0	0.0	0	0	20	80
74B02DB0-44	89	6.52	60.6	14.84	3.11	1.87	23200	0.3	65.5	148	7.5	1.34	0	0	0.0	0	0	13	87
74B02DB0-05	81	11.94	62.4	4.93	2.42	0.86	44300	0.3	56.7	125	7.3	1.55	66	2.2592	145.5	0.498	0	17	83
74B02DB0-36	***36***	***12.45***	54.4	15.57	***1.06***	***0.40***	50400	0.3	47.2	119	7.3	1.94	52	1.3947	114.6	0.307	0	17	83

Notes:
[a] Site-specific no observed effects concentration (NOEC)
[b] Site-specific lowest observed effects concentration (LOEC)
STD = standard deviation
Shaded rows represent results for reference samples
Bioassay responses in bold were statistically significantly different (p<0.05) from the labo
All concentrations are reported in dry weight

	Sampleno	**no shot**	Thallium	Cadmium	Berylliu	Antimony
1	na					
2	74B03DB0-02		0.4	0.2	0.9	0.2
3	74B02DB3-46	0	0.3	0.1	1.2	0.2
4	74B02DB0-35	1	0.3	0.2	1	3.8
5	74B03DB0-03		0.3	0.3	0.6	0.3
6	74B03DB0-01		0.3	0.3	0.5	0.1
7	74B02DB0-52	0	0.2	1.5	0.8	4.2
8	74B02DB0-41	0	0.5	0.3	0.8	0.8
9	74B02DB0-15	0	0.3	2	0.7	1.1
10	74B02DB0-26	0	0.3	0.5	0.6	1.8
11	74B02DB0-44	0	0.3	1.5	1	0.7
12	74B02DB0-05	66	0.3	2.5	0.9	109
13	74B02DB0-36	52	0.3	2.5	1	282

Silver	Selenium	Cobalt	Arsenic	Nickel	Chromium	Copper	CEC	Vanadium
0.2	7.6	13.1	12	30.5	44.8	53.7	223	63.5
3	6.7	14.9	19.5	30.3	45.5	41.7	279	75.5
3.5	10.7	16.5	30.6	34.7	45.7	43	328	74.6
0.1	3	10.6	7.3	20	32.9	36.8	71.3	39.7
1.5	1.85	9	3.8	18.7	23	23.5	83.4	35.8
0.8	19	7.6	12.2	30	36.5	213	433	30.4
2.5	9.8	12.2	11.4	32.8	39.7	40.7	231	64.6
3.5	7.4	11.5	18.1	27.4	39.3	37.4	329	34.1
6	17.9	11.3	24.4	28	35.7	42.9	524	44.6
3.5	11.1	12.8	13.5	34.1	48	46.3	281	65.5
0.5	18.1	9.3	104	28.4	35.3	43.7	417	56.7
5	18.1	9.3	72	29	38.3	161	427	47.2

Barium	Zinc	Lead	lead	Manganes	Calcium	Potassiu	Magnesiu	Sodium
98.4	210	47.4		474	6440	8260	12500	15000
98.8	186	48.4	0	1500	6910	9240	13600	19600
99.7	205	536	103.31177	2310	7290	9660	14800	24600
134	119	773		545	12300	4990	8050	4760
113	87.4	35.7		477	21600	4460	19200	6390
96.2	734	199	0	361	7150	7760	13600	46400
124	138	76.5	0	579	6530	8100	12500	17500
82.2	121	179	0	681	6740	8780	14100	29400
75.6	147	285	0	738	7680	9170	16400	56800
109	148	94.9	0	578	7500	9490	14600	23200
77.7	125	9020	4979.50187	394	6980	8740	15000	44300
82.9	119	33100	3073.10947	344	7410	9270	16500	50400

Aluminum	Iron	SolidsTo	TOC	pH	**Gravel (%)**	**Sand (%)**	**Fines (%)**
33000	38300	45	2.05	7.1	0	10	90
36400	42300	33.9	1.25	7.2	0	8	92
33200	44000	30.1	1.54	7.7	0	7	93
21600	27300	70.2	1.09	7.9	1	27	72
17800	23300	79.3	0.54	8.3	0	27	73
20600	21700	25.1	2.7	7.2	0	23	77
25300	33300	37.6	1.42	7.7	0	9	91
27000	32700	28.4	1.75	7.5	0	13	87
24900	28100	16.7	1.91	7.4	0	20	80
31700	34100	32.6	1.34	7.5	0	13	87
26200	28700	23.4	1.55	7.3	0	17	83
26600	29100	21	1.94	7.3	0	17	83

Sampleno						1	2	3
NAME		det freq	min	median	max	na	74B03DB0-02	74B02DB3-46
no shot	**count**						Result	Result
								0
Thallium	mg/kg	100%	0.2	0.3	0.5		0.4	0.3
Cadmium	mg/kg	66%	0.1	0.4	2.5		0.2	0.1
Berylliu	mg/kg	100%	0.5	0.85	1.2		0.9	1.2
Antimony	mg/kg	100%	0.1	0.95	282		0.2	0.2
Silver	mg/kg	33%	0.1	2.75	6		0.2	3
Selenium	mg/kg	92%	1.85	10.25	19		7.6	6.7
Cobalt	mg/kg	100%	7.6	11.4	16.5		13.1	14.9
Arsenic	mg/kg	100%	3.8	15.8	104		12	19.5
Nickel	mg/kg	100%	18.7	29.5	34.7		30.5	30.3
Chromium	mg/kg	100%	23	38.8	48		44.8	45.5
Copper	mg/kg	100%	23.5	42.95	213		53.7	41.7
CEC	meq/100g		71.3		524		223	279
Vanadium	mg/kg	100%	30.4	51.95	75.5		63.5	75.5
Barium	mg/kg	100%	75.6	98.6	134		98.4	98.8
Zinc	mg/kg	100%	87.4	142.5	734		210	186
Lead	mg/kg	100%	35.7	189	33100		47.4	48.4
lead	mg/kg as shot		0		4979.5019			0
Manganes	mg/kg	100%	344	561.5	2310		474	1500
Calcium	mg/kg	100%	6440	7220	21600		6440	6910
Potassiu	mg/kg	100%	4460	8760	9660		8260	9240
Magnesiu	mg/kg	100%	8050	14350	19200		12500	13600
Sodium	mg/kg	100%	4760	23900	56800		15000	19600
Aluminum	mg/kg	100%	17800	26400	36400		33000	36400
Iron	mg/kg	100%	21700	30900	44000		38300	42300
SolidsTo	Percent		16.7		79.3		45	33.9
TOC	Percent		0.54		2.7		2.05	1.25
pH	pH Units		7.1		8.3		7.1	7.2
Gravel (%)	Percent		0		1		0	0
Sand (%)	Percent		7		27		10	8
Fines (%)	Percent		72		93		90	92

4	5	6	7	8	9	10	11
74B02DB0-35	74B03DB0-03	74B03DB0-01	74B02DB0-52	74B02DB0-41	74B02DB0-15	74B02DB0-26	74B02DB0-44
Result	Result	Result	Result	Result	Result	Result	Result
1			0	0	0	0	0
0.3	0.3	0.3	0.2	0.5	0.3	0.3	0.3
0.2	0.3	0.3	1.5	0.3	2	0.5	1.5
1	0.6	0.5	0.8	0.8	0.7	0.6	1
3.8	0.3	0.1	4.2	0.8	1.1	1.8	0.7
3.5	0.1	1.5	0.8	2.5	3.5	6	3.5
10.7	3	1.85	19	9.8	7.4	17.9	11.1
16.5	10.6	9	7.6	12.2	11.5	11.3	12.8
30.6	7.3	3.8	12.2	11.4	18.1	24.4	13.5
34.7	20	18.7	30	32.8	27.4	28	34.1
45.7	32.9	23	36.5	39.7	39.3	35.7	48
43	36.8	23.5	213	40.7	37.4	42.9	46.3
328	71.3	83.4	433	231	329	524	281
74.6	39.7	35.8	30.4	64.6	34.1	44.6	65.5
99.7	134	113	96.2	124	82.2	75.6	109
205	119	87.4	734	138	121	147	148
536	773	35.7	199	76.5	179	285	94.9
103.3117698			0	0	0	0	0
2310	545	477	361	579	681	738	578
7290	12300	21600	7150	6530	6740	7680	7500
9660	4990	4460	7760	8100	8780	9170	9490
14800	8050	19200	13600	12500	14100	16400	14600
24600	4760	6390	46400	17500	29400	56800	23200
33200	21600	17800	20600	25300	27000	24900	31700
44000	27300	23300	21700	33300	32700	28100	34100
30.1	70.2	79.3	25.1	37.6	28.4	16.7	32.6
1.54	1.09	0.54	2.7	1.42	1.75	1.91	1.34
7.7	7.9	8.3	7.2	7.7	7.5	7.4	7.5
0	1	0	0	0	0	0	0
7	27	27	23	9	13	20	13
93	72	73	77	91	87	80	87

12	13
74B02DB0-05	74B02DB0-36
Result	Result
66	52
0.3	0.3
2.5	2.5
0.9	1
109	282
0.5	5
18.1	18.1
9.3	9.3
104	72
28.4	29
35.3	38.3
43.7	161
417	427
56.7	47.2
77.7	82.9
125	119
9020	33100
4979.501873	3073.109466
394	344
6980	7410
8740	9270
15000	16500
44300	50400
26200	26600
28700	29100
23.4	21
1.55	1.94
7.3	7.3
0	0
17	17
83	83

Table 3-10

Spearman Rank Correlations Between *Leptocheirus* Bioassay Responses and Chemical Concentrations

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Analyte	Survival	Growth	Reproduction
Aluminum	0.05	-0.01	0.21
Antimony	**-0.86**	0.07	-0.22
Arsenic	**-0.54**	0.14	0.00
Barium	**0.31**	-0.20	**-0.33**
Beryllium	-0.23	0.14	0.15
Cadmium	**-0.54**	**0.25**	0.02
Calcium	0.10	**-0.47**	**-0.34**
CEC	**-0.30**	**0.45**	**0.47**
Chromium	0.05	0.20	**0.27**
Cobalt	**0.30**	**-0.26**	0.16
Copper	**-0.43**	**0.46**	0.07
fines	0.06	-0.07	0.11
gravel	0.09	0.01	-0.16
Iron	0.16	-0.22	0.10
Lead	**-0.87**	0.05	-0.24
Magnesium	**-0.26**	**-0.26**	0.03
Manganese	0.24	**-0.31**	0.23
Nickel	-0.02	**0.26**	**0.30**
pH	0.18	**-0.56**	**-0.33**
Potassium	-0.20	**0.26**	**0.40**
sand	-0.07	0.07	-0.11
Selenium	**-0.40**	**0.55**	**0.34**
Silver	**-0.33**	-0.07	**0.28**
Sodium	**-0.41**	**0.46**	**0.39**
SolidsTotal	**0.27**	**-0.43**	**-0.45**
Thallium	0.09	-0.17	**-0.33**
TOC	-0.17	**0.59**	**0.30**
Vanadium	0.10	-0.09	0.08
Zinc	0.15	**0.49**	**0.27**

Notes:

All values in bold were statistically significantly ($p<0.05$) correlated.

Table 3-11
Plant Bioassay Results and Associated Chemistry Data for Soils and Sediments from Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

			Bioassay Results								Chemistry Results																				
			Count at Harvest		Percent at Harvest		Total Weight (dry)		Total Weight Per Plant (dry)		Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	CEC	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	pH	Potassium	Selenium	Silver
ep&t Number	Sample Number	Matrix	Mean	STD	Mean	STD	Mean	STD	Mean	STD	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	meq/100g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	mg/kg	mg/kg	mg/kg
1	74B02DB005	sediment	0	0	0	0	0	0	0	0	26200	109	104	77.7	0.9	5	6980	417	35.3	9.3	43.7	28700	9020	15000	394	28.4	7.3	8740	18.1	0.5
2	74B02DB015	sediment	0	0	0	0	0	0	0	0	27000	1.1	18.1	82.2	0.7	4	6740	329	39.3	11.5	37.4	32700	179	14100	681	27.4	7.5	8780	7.4	7
3	74B02DB026	sediment	0	0	0%	0%	0	0	0	0	24900	1.8	24.4	75.6	0.6	0.5	7680	524	35.7	11.3	42.9	28100	285	16400	738	28	7.4	9170	17.9	12
4	74B02DB035	sediment	0	0	0%	0%	0	0	0	0	33200	3.8	30.6	99.7	1	0.2	7290	328	45.7	16.5	43	44000	536	14800	2310	34.7	7.7	9660	10.7	7
5	74B02DB036	sediment	0	0	0%	0%	0	0	0	0	26600	282	72	82.9	1	5	7410	427	38.3	9.3	161	29100	33100	16500	344	29	7.3	9270	18.1	10
6	74B02DB041	sediment	0	0	0%	0%	0	0	0	0	25300	0.8	11.4	124	0.8	0.3	6530	231	39.7	12.2	40.7	33300	76.5	12500	579	32.8	7.7	8100	9.8	5
7	74B02DB044	sediment	0	0	0%	0%	0	0	0	0	31700	0.7	13.5	109	1	3	7500	281	48	12.8	46.3	34100	94.9	14600	578	34.1	7.5	9490	11.1	7
8	74B02DB052	sediment	0	0	0%	0%	0	0	0	0	20600	4.2	12.2	96.2	0.8	1.5	7150	433	36.5	7.6	213	21700	199	13600	361	30	7.2	7760	19	0.8
9	74B02DB346	sediment	0	0	0%	0%	0	0	0	0	36400	0.2	19.5	98.8	1.2	0.1	6910	279	45.5	14.9	41.7	42300	48.4	13600	1500	30.3	7.2	9240	6.7	6
10	74B03DB001	sediment	0	0	0%	0%	0	0	0	0	17800	0.1	3.8	113	0.5	0.3	21600	83.4	23	9	23.5	23300	35.7	19200	477	18.7	8.3	4460	2.3	3
11	74B03DB002	sediment	0	0	0%	0%	0	0	0	0	33000	0.2	12	98.4	0.9	0.2	6440	223	44.8	13.1	53.7	38300	47.4	12500	474	30.5	7.1	8260	7.6	0.2
12	74B03DB003	sediment	0	0	0%	0%	0	0	0	0	21600	0.3	7.3	134	0.6	0.3	12300	71.3	32.9	10.6	36.8	27300	773	8050	545	20	7.9	4990	3	0.1
13	74B01SB001	soil	5.4	1.817	60%	21%	**0.339**	**0.117**	0.063	0.006	11600	0.3	4.3	91.8	2.1	1	7540	71.3	20.3	10	19.4	17300	40.4	5960	336	13.7	7.7	4590	1	2.1
14	74B01SB007	soil	0	0	0%	0%	0	0	0	0	14200	3.4	4.9	98.7	2.2	1	22500	72.7	21.3	11	33.6	19900	535	7560	399	16.5	8.2	4810	1	2
15	74B01SB009	soil	0	0	0%	0%	0	0	0	0	12100	10.4	6.3	105	2.3	1.1	7490	71.4	18.7	11	25.3	17700	1470	7940	359	15.5	6.9	4640	1	2.3
16	74B01SB010	soil	0	0	0%	0%	0	0	0	0	17700	28.6	12.8	141	2.5	1	11900	71.9	25	13	26.9	24400	3430	12400	408	24.5	7.7	6700	1	3
17	74B01SB020	soil	4.6	1.517	51%	17%	**0.231**	**0.078**	0.050	0.006	11900	7[a]	7	92	2.2	1	10300	63.5	24.4	11	22.4	18100	1220[a]	7970	299	20	7.4	4050	1	2
18	74B01SB027	soil	0	0	0%	0%	0	0	0	0	15800	0.9	6.4	150	2.7	1	13800	77.5	24.6	13	25.9	22900	123	13800	441	22.6	8	6120	1	3
19	74B01SB032	soil	**2.2**	**1.304**	**24%**	**14%**	**0.126**	**0.073**	0.046	0.026	12700	5	3.6	110	2.2	1	9320	86.3	23.1	11	25.6	18800	604	6780	387	16.3	7.2	5170	1	2
20	74B01SB043	soil	**3.2**	**1.304**	**35%**	**15%**	**0.233**	**0.102**	0.073	0.009	10700	0.2	3.8	85.9	2.1	1	6320	58.1	16.9	10	16.6	17200	26.4	5800	290	16.2	8	4140	1	2
21	74B01SB304	soil	7.8	0.447	87%	5%	**0.509**	**0.043**	0.065	0.006	22100	0.2	4.5	114	0.4	1	8830	79.8	26.1	10.8	26.1	29700	15.1	6420	589	19.3	8.2	4300	1	2
22	74B03SB001	soil	5.4	1.673	60%	19%	**0.262**	**0.092**	0.049	0.010	11400	0.1	3	71.6	2.1	1	9750	55.5	19	10	17.7	16500	50.5	5430	308	12.9	8.3	3710	1	2
23	74B03SB002	soil	5.4	1.140	60%	13%	**0.312**	**0.060**	0.058	0.005	10200	0.2	6	115	2	1	9980	51.2	24.7	10	23.4	15400	178	5230	295	14.4	8.3	3080	1	2
24	74B03SB003	soil	8.4	0.894	93%	10%	**0.471**	**0.033**	0.057	0.006	20800	0.2	7.1	127	0.4	1	9410	78.9	28	11	34.9	26200	48	6220	534	19.9	7.9	3720	1	2

Notes:
[a] Site-specific no observed effects concentration (NOEC)
STD = standard deviation
Shaded rows represent results for reference samples
Bioassay responses in bold were statistically significantly different (p<0.05) from the laboratory control

Table 3-11
Plant Bioassay Results and Associated Chemistry Data for Soils and Sediments from Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

			Bioassay Results								Chemistry Results																							
			Count at Harvest		Percent at Harvest		Total Weight (dry)		Total Weight Per Plant (dry)		Sodium	Total Solids	Thallium	TOC	Vanadium	Zinc	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyre	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
ep&t Number	Sample Number	Matrix	Mean	STD	Mean	STD	Mean	STD	Mean	STD	mg/kg	Percent	mg/kg	Percent	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
1	74B02DB005	sediment	0	0	0	0	0	0	0	0	44300	23.4	0.3	1.55	56.7	125																		
2	74B02DB015	sediment	0	0	0	0	0	0	0	0	29400	28.4	0.3	1.75	34.1	121																		
3	74B02DB026	sediment	0	0	0%	0%	0	0	0	0	56800	16.7	0.3	1.91	44.6	147																		
4	74B02DB035	sediment	0	0	0%	0%	0	0	0	0	24600	30.1	0.3	1.54	74.6	205																		
5	74B02DB036	sediment	0	0	0%	0%	0	0	0	0	50400	21	0.3	1.94	47.2	119																		
6	74B02DB041	sediment	0	0	0%	0%	0	0	0	0	17500	37.6	0.5	1.42	64.6	138																		
7	74B02DB044	sediment	0	0	0%	0%	0	0	0	0	23200	32.6	0.3	1.34	65.5	148																		
8	74B02DB052	sediment	0	0	0%	0%	0	0	0	0	46400	25.1	0.2	2.7	30.4	734																		
9	74B02DB346	sediment	0	0	0%	0%	0	0	0	0	19600	33.9	0.3	1.25	75.5	186																		
10	74B03DB001	sediment	0	0	0%	0%	0	0	0	0	6390	79.3	0.3	0.54	35.8	87.4																		
11	74B03DB002	sediment	0	0	0%	0%	0	0	0	0	15000	45	0.4	2.05	63.5	210																		
12	74B03DB003	sediment	0	0	0%	0%	0	0	0	0	4760	70.2	0.3	1.09	39.7	119																		
13	74B01SB001	soil	5.4	1.817	60%	21%	**0.339**	**0.117**	0.063	0.006	2090		2.1	1.94	34.6	86	95	790	70	540	6100	10000	6500	3300	3900	9200	1000	3500	170	2000	81	2400	10000
14	74B01SB007	soil	0	0	0%	0%	0	0	0	0	5670		2	0.89	40.2	77.9	5.6	5.6	5.6	5.6	7.6	13	12	12	5.9	9.6	5.6	14	5.6	7.6	5.6	3.9	10
15	74B01SB009	soil	0	0	0%	0%	0	0	0	0	7360		2.3	1.44	32.3	97	2.6	25	5.7	9.4	140	250	210	160	110	190	46	190	3.7	140	3.9	60	180
16	74B01SB010	soil	0	0	0%	0%	0	0	0	0	17300		3	0.27	50.7	96.1	6.4	6.4	6.4	6.4	3.6	4.8	5.2	7.1	2.6	4.5	5.8	7.2	6.4	2.5	6.4	2.3	6.4
17	74B01SB020	soil	4.6	1.517	51%	17%	**0.231**	**0.078**	0.050	0.006	2150		2	1.21	37.6	68.7	5.4	1.1	5.4	5.4	6.9	11	10	11	5.2	8.4	5.4	11	5.4	5.2	5.4	3.8	7.9
18	74B01SB027	soil	0	0	0%	0%	0	0	0	0	20900		3	0.41	43.3	88.5	6.7	6.7	6.7	6.7	6.7	6.7	6.7	4.2	6.7	6.7	5.6	6.7	6.7	6.7	6.7	6.7	6.7
19	74B01SB032	soil	**2.2**	**1.304**	**24%**	**14%**	**0.126**	**0.073**	0.046	0.026	2190		2	3.72	37	112	120	2600	730	3900	34000	44000	35000	27000	21000	41000	8400	45000	1200	25000	210	13000	51000
20	74B01SB043	soil	**3.2**	**1.304**	**35%**	**15%**	**0.233**	**0.102**	0.073	0.009	2060		2	0.83	36.7	60.5	1.1	0.95	0.27	0.63	6.5	12	12	14	6.5	8.9	9.5	13	0.49	10	1.1	4.4	9.1
21	74B01SB304	soil	7.8	0.447	87%	5%	**0.509**	**0.043**	0.065	0.006	1030		2	1.01	35.3	92.2	1.1	5.2	5.2	5.2	7.3	13	9.5	11	4.4	11	5.2	6.8	5.2	6.6	1.2	3.2	9.9
22	74B03SB001	soil	5.4	1.673	60%	19%	**0.262**	**0.092**	0.049	0.010	2060		2	0.69	34	65.5	2.7	5.8	5.2	6.7	32	48	44	51	24	48	5.2	52	1.7	24	1.6	24	59
23	74B03SB002	soil	5.4	1.140	60%	13%	**0.312**	**0.060**	0.058	0.005	2050		2	1	34.1	85.8	69	69	69	18	70	73	64	160	41	61	39	40	69	66	69	29	83
24	74B03SB003	soil	8.4	0.894	93%	10%	**0.471**	**0.033**	0.057	0.006	243		2	1.39	35.6	96.5	18	18	18	4.5	22	19	18	36	7.4	31	18	11	18	13	18	4.1	12

Notes:
[a] Site-specific no observed effects concentration (NOEC)
STD = standard deviation
Shaded rows represent results for reference samples
Bioassay responses in bold were statistically significantly different (p<0.05) from the laboratory control

Table 3-12
Summary of Concentrations of Lead in Avian Liver and Associated Effects
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Taxa	Tissue	Units	Background	Subclinical Poisoning	Clinical Poisoning	Severe Clinical Poisoning/ Compatible with Death	Reference
Waterfowl	Liver	mg/kg wet	<2	2-6	6-15	>15	Pain 1996
Falconiformes	Liver	mg/kg wet		2-4	>3	>5	Franson 1996
Galliformes	Liver	mg/kg wet		2-6	>6	>50	Franson 1996

Definitions:
Background - concentrations in unexposed birds
Subclinical poisoning - physiological effects are present, but not sufficient to impair normal biological functioning. No overt signs of poisoning are apparent
Clinical Poisoning - normal biological function is impaired and overt signs of poisoning may be present
Severe Clinical Poisoning/Compatible with death - concentrations are life threatening

Table 3-13
Summary of Liver-Effect Concentrations for Passerines from Franson (1996)
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Concentration	Units	Reported Effect
20 to 40	mg/kg wet	Lethal to starlings (died within 6 days given trialkyl lead)
20 to 50	mg/kg wet	Fed lead acetate to red-winged blackbird, brown-headed cowbirds, and common grackles until half of birds in each group died
18 and 25	mg/kg wet	ALAD inhibited, but no anemia or gross or microscopic lesions of lead poisoning (2 cuckoos collected near Palmerton zinc smelter)
10 to 16	mg/kg dry	Maximum lead concentrations in songbirds (house sparrows, starlings, common grackles, and robins) collected in urban and rural areas not associated with known sources of contamination

Table 4-1
Point-by-Point Comparison of Lead and Antimony Concentrations in Soil and Sediment Samples Against Literature-Derived and Site-Specific Toxicity Values for Plants
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

				Lead (mg/kg dry)			Antimony (mg/kg dry)			Toxicity Values (mg/kg dry)					
Matrix Type	Data Group	Sample Location	Sample Number	Concentration	Note	Qualifier	Concentration	Note	Qualifier	Joint Exceedances	Literature-based Plant Antimony LOEC	Site-specific Plant Antimony NOEC	Literature-based Plant Lead NOEC	Literature-based Plant Lead LOEC	Site-specific Plant Lead NOEC
Sediment	2000	74G12-00	74G12CA01	5780	a	DET	54.3	a	DET	2	5	7	100	278	1220
Sediment	2000	74G13-00	74G13CA01	7280	a	DET	81.2	a	DET	2	5	7	100	278	1220
Sediment	2000	74G36-00	74G36CA01	21400	a	DET	282	a	DET	2	5	7	100	278	1220
Sediment	2000	74G38-00	74G38CA01	3230	a	DET	37.4	a	DET	2	5	7	100	278	1220
Sediment	Bioassay	74G05-03	74B0274B005	9020	a	DET	109	a	DET	2	5	7	100	278	1220
Sediment	Bioassay	74G36-03	74B0274B036	33100	a	DET	282	a	DET	2	5	7	100	278	1220
Sediment	Phasel	74G04-03	74E0208DA0	15800	a	DET	142	a	DET	2	5	7	100	278	1220
Sediment	Phasel	74G16-03	74E0213DA0	928	b	DET	7.8	a	DET	2	5	7	100	278	1220
Sediment	Phasel	74G26-03	74E0207DA0	8080	a	DET	60.1	a	DET	2	5	7	100	278	1220
Sediment	Phasel	74G37-03	74E0204DA0	10700	a	DET	182	a	DET	2	5	7	100	278	1220
Sediment	Phasel	74G38-03	74E0205DA0	20400	a	DET	176	a	DET	2	5	7	100	278	1220
Sediment	2000	74G01-00	74G01CA01	850	b	DET	35.5	c	ND	1	5	7	100	278	1220
Sediment	2000	74G02-00	74G02CA01	2390	a	DET	30.2	c	ND	1	5	7	100	278	1220
Sediment	2000	74G03-00	74G03CA01	2050	a	DET	50	c	ND	1	5	7	100	278	1220
Sediment	2000	74G04-00	74G04CA01	7240	a	DET	32.1	c	ND	1	5	7	100	278	1220
Sediment	2000	74G05-00	74G05CA01D	154000	a	DET				1	5	7	100	278	1220
Sediment	2000	74G05-00	74G05CA01				2980	a	DET	1	5	7	100	278	1220
Sediment	2000	74G06-00	74G06CA01	1500	a	DET	29.2	c	ND	1	5	7	100	278	1220
Sediment	2000	74G19-00	74G19CA01	1160	b	DET	38	c	ND	1	5	7	100	278	1220
Sediment	2000	74G21-00	74G21CA01	364	b	DET	46.7	c	ND	1	5	7	100	278	1220
Sediment	2000	74G35-00	74G35CA01	1020	b	DET	55.2	c	ND	1	5	7	100	278	1220
Sediment	2000	74G52-00	74G52CA01	334	b	DET	33.2	c	ND	1	5	7	100	278	1220
Sediment	2000	74G58-00	74G58CA01	61		DET	22.6	a	DET	1	5	7	100	278	1220
Sediment	2000	74G59-00	74G59CA01	127		DET	62.1	a	DET	1	5	7	100	278	1220
Sediment	2000	74G60-00	74G60CA01	67.7		DET	59.2	a	DET	1	5	7	100	278	1220
Sediment	2000	74G61-00	74G61CA01	67.4		DET	43.5	a	DET	1	5	7	100	278	1220
Sediment	2000	74G62-00	74G62CA01	39		DET	39.2	a	DET	1	5	7	100	278	1220
Sediment	2000	74G63-00	74G63CA01	67.7		DET	38.6	a	DET	1	5	7	100	278	1220
Sediment	2000	74G65-00	74G65CA01	39.9		DET	48.5	a	DET	1	5	7	100	278	1220
Sediment	2000	74G66-00	74G66CA01	60.6		DET	48.8	a	DET	1	5	7	100	278	1220
Sediment	Bioassay	74G26-03	74B0274B026	285	b	DET	1.8		DET	1	5	7	100	278	1220
Sediment	Bioassay	74G35-03	74B0274B035	536	b	DET	3.8		DET	1	5	7	100	278	1220
Sediment	Bioassay	74G52-03	74B0274B052	199		DET	4.2	b	DET	1	5	7	100	278	1220
Sediment	Phasel	74G35-03	74E0211DA0	837	b	DET	3.3		DET	1	5	7	100	278	1220
Sediment	Refbio	SD3-03	74B0374B003	773	b	DET	0.3		DET	1	5	7	100	278	1220
Sediment	2000	74G07-00	74G07CA01	121		DET	24.4	c	ND	0	5	7	100	278	1220
Sediment	2000	74G08-00	74G08CA01	140		DET	28.3	c	ND	0	5	7	100	278	1220
Sediment	2000	74G09-00	74G09CA01	52.1		DET	32.1	c	ND	0	5	7	100	278	1220
Sediment	2000	74G10-00	74G10CA01	130		DET	26.7	c	ND	0	5	7	100	278	1220
Sediment	2000	74G11-00	74G11CA01	165		DET	21.6	c	ND	0	5	7	100	278	1220
Sediment	2000	74G14-00	74G14CA01	131		DET	23.8	c	ND	0	5	7	100	278	1220
Sediment	2000	74G15-00	74G15CA01	106		DET	20	c	ND	0	5	7	100	278	1220
Sediment	2000	74G16-00	74G16CA01	51.6		DET	83.3	c	ND	0	5	7	100	278	1220
Sediment	2000	74G17-00	74G17CA01	41.3		DET	27.4	c	ND	0	5	7	100	278	1220
Sediment	2000	74G18-00	74G18CA01	80.9		DET	19.8	c	ND	0	5	7	100	278	1220
Sediment	2000	74G20-00	74G20CA01	69.7		DET	22.7	c	ND	0	5	7	100	278	1220
Sediment	2000	74G22-00	74G22CA01	176		DET	50.8	c	ND	0	5	7	100	278	1220
Sediment	2000	74G23-00	74G23CA01	57.1		DET	24.6	c	ND	0	5	7	100	278	1220
Sediment	2000	74G24-00	74G24CA01	65.1		DET	48.3	c	ND	0	5	7	100	278	1220
Sediment	2000	74G25-00	74G25CA01	155		DET	22.2	c	ND	0	5	7	100	278	1220
Sediment	2000	74G26-00	74G26CA01	212		DET	83.3	c	ND	0	5	7	100	278	1220
Sediment	2000	74G27-00	74G27CA01	64.9		DET	23.5	c	ND	0	5	7	100	278	1220
Sediment	2000	74G28-00	74G28CA01	126		DET	52.1	c	ND	0	5	7	100	278	1220
Sediment	2000	74G29-00	74G29CA01	34.4		DET	67.6	c	ND	0	5	7	100	278	1220
Sediment	2000	74G30-00	74G30CA01	109		DET	47.2	c	ND	0	5	7	100	278	1220
Sediment	2000	74G31-00	74G31CA01	67		DET	51.8	c	ND	0	5	7	100	278	1220
Sediment	2000	74G32-00	74G32CA01	45		DET	30.9	c	ND	0	5	7	100	278	1220
Sediment	2000	74G33-00	74G33CA01	46.2		DET	55.9	c	ND	0	5	7	100	278	1220
Sediment	2000	74G34-00	74G34CA01	104		DET	29.9	c	ND	0	5	7	100	278	1220
Sediment	2000	74G37-00	74G37CA01	84.6		DET	22.5	c	ND	0	5	7	100	278	1220
Sediment	2000	74G39-00	74G39CA01	46.1		DET	65.4	c	ND	0	5	7	100	278	1220
Sediment	2000	74G40-00	74G40CA01	56.4		DET	32.5	c	ND	0	5	7	100	278	1220
Sediment	2000	74G41-00	74G41CA01	23.2		DET				0	5	7	100	278	1220
Sediment	2000	74G42-00	74G42CA01	103		DET	62.9	c	ND	0	5	7	100	278	1220
Sediment	2000	74G43-00	74G43CA01	8.7		DET				0	5	7	100	278	1220
Sediment	2000	74G44-00	74G44CA01	52.3		DET	31.9	c	ND	0	5	7	100	278	1220
Sediment	2000	74G45-00	74G45CA01	54.8		DET	55.9	c	ND	0	5	7	100	278	1220
Sediment	2000	74G46-00	74G46CA01	39.6		DET	32.9	c	ND	0	5	7	100	278	1220
Sediment	2000	74G47-00	74G47CA01	68.2		DET	22.5	c	ND	0	5	7	100	278	1220
Sediment	2000	74G48-00	74G48CA01	49.8		DET	40	c	ND	0	5	7	100	278	1220
Sediment	2000	74G49-00	74G49CA01	50.9		DET	24.9	c	ND	0	5	7	100	278	1220
Sediment	2000	74G50-00	74G50CA01	43.1		DET	30.2	c	ND	0	5	7	100	278	1220
Sediment	2000	74G51-00	74G51CA01	51.7		DET	51.3	c	ND	0	5	7	100	278	1220
Sediment	2000	74G53-00	74G53CA01	61.6		DET				0	5	7	100	278	1220
Sediment	2000	74G54-00	74G54CA01	39.5		DET	25.4	c	ND	0	5	7	100	278	1220
Sediment	2000	74G55-00	74G55CA01	65.9		DET	71.4	c	ND	0	5	7	100	278	1220
Sediment	2000	74G56-00	74G56CA01	57.4		DET	26	c	ND	0	5	7	100	278	1220
Sediment	2000	74G57-00	74G57CA01	34.6		DET				0	5	7	100	278	1220
Sediment	2000	74G64-00	74G64CA01	35.4		DET				0	5	7	100	278	1220

Table 4-1
Point-by-Point Comparison of Lead and Antimony Concentrations in Soil and Sediment Samples Against Literature-Derived and Site-Specific Toxicity Values for Plants
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

				Lead (mg/kg dry)			Antimony (mg/kg dry)			Toxicity Values (mg/kg dry)					
Matrix Type	Data Group	Sample Location	Sample Number	Concentration	Note	Qualifier	Concentration	Note	Qualifier	Joint Exceedances	Literature-based Plant Antimony LOEC	Site-specific Plant Antimony NOEC	Literature-based Plant Lead NOEC	Literature-based Plant Lead LOEC	Site-specific Plant Lead NOEC
Sediment	Bioassay	74G15-03	74B0274B015	179		DET	1.1		DET	0	5	7	100	278	1220
Sediment	Bioassay	74G41-03	74B0274B041	76.5		DET	0.8		DET	0	5	7	100	278	1220
Sediment	Bioassay	74G44-03	74B0274B044	94.9		DET	0.7		DET	0	5	7	100	278	1220
Sediment	Bioassay	74G46-03	74B0274B346	48.4		DET	0.2		DET	0	5	7	100	278	1220
Sediment	Phasel	74G05-03	74E0201DA0	50.3		DET	0.9		DET	0	5	7	100	278	1220
Sediment	Phasel	74G15-03	74E0212DA0	127		DET	1.6		DET	0	5	7	100	278	1220
Sediment	Phasel	74G28-03	74E0209DA0	76.7		DET	0.7		DET	0	5	7	100	278	1220
Sediment	Phasel	74G36-03	74E0206DA0	167		DET	1.2		DET	0	5	7	100	278	1220
Sediment	Phasel	74G39-03	74E0214DA0	70.1		DET	1.4		DET	0	5	7	100	278	1220
Sediment	Phasel	74G41-03	74E0202DA0	42.7		DET	0.3		DET	0	5	7	100	278	1220
Sediment	Phasel	74G44-03	74E0210DA0	54.9		DET	0.4		DET	0	5	7	100	278	1220
Sediment	Phasel	74G46-03	74E0203DA0	76.1		DET	0.4		DET	0	5	7	100	278	1220
Sediment	Phasel	74G52-03	74E0215DA0	102		DET	1.4		DET	0	5	7	100	278	1220
Sediment	Refbio	SD1-03	74B0374B001	35.7		DET	0.1		DET	0	5	7	100	278	1220
Sediment	Refbio	SD2-03	74B0374B002	47.4		DET	0.2		DET	0	5	7	100	278	1220
Soil	2000	74B10-00	74B10SA01	2170	a	DET	20.4	a	DET	2	5	7	100	278	1220
Soil	2000	74B11-00	74B11SA01	1700	a	DET	19	a	DET	2	5	7	110	278	1220
Soil	2000	74B12-00	74B12SA01	53400	a	DET	1780	a	DET	2	5	7	110	278	1220
Soil	2000	74B20-00	74B20SA01	69700	a	DET	3930	a	DET	2	5	7	110	278	1220
Soil	2000	74B29-00	74B29SA01	1470	a	DET	18.4	a	DET	2	5	7	110	278	1220
Soil	2000	74B31-00	74B31SA01	1200	b	DET	19.4	a	DET	2	5	7	110	278	1220
Soil	Bioassay	74B09-03	74B0174B009	1470	a	DET	10.4	a	DET	2	5	7	110	278	1220
Soil	Bioassay	74B10-03	74B0174B010	3430	a	DET	28.6	a	DET	2	5	7	110	278	1220
Soil	Bioassay	74B20-03	74B0174B020	1220	a	DET	7	a	DET	2	5	7	110	278	1220
Soil	Bioassay	74B32-03	74B0174B032	604	b	DET	5	b	DET	2	5	7	110	278	1220
Soil	Phasel	74B09-03	74E0104SA0	55200	a	DET	2380	a	DET	2	5	7	110	278	1220
Soil	Phasel	74B10-03	74E0105SA0	31600	a	DET	1430	a	DET	2	5	7	110	278	1220
Soil	Phasel	74B24-03	74E0107SA0	963	b	DET	6.3	b	DET	2	5	7	110	278	1220
Soil	Phasel	74B30-03	74E0110SA0	1240	a	DET	9.5	a	DET	2	5	7	110	278	1220
Soil	2000	74B06-00	74B06SA01	316	b	DET	13.3	c	ND	1	5	7	110	278	1220
Soil	2000	74B08-00	74B08SA01	1270	a	DET	12.1	c	ND	1	5	7	110	278	1220
Soil	2000	74B09-00	74B09SA01	1110	b	DET	12.7	c	ND	1	5	7	110	278	1220
Soil	2000	74B13-00	74B13SA01	256		DET	12.2	c	ND	0	5	7	110	278	1220
Soil	2000	74B14-00	74B14SA01	357	b	DET	11.9	c	ND	1	5	7	110	278	1220
Soil	2000	74B15-00	74B15SA01	1060	b	DET	12.8	c	ND	1	5	7	110	278	1220
Soil	2000	74B16-00	74B16SA01	797	b	DET	11.9	c	ND	1	5	7	110	278	1220
Soil	2000	74B17-00	74B17SA01	448	b	DET	12.1	c	ND	1	5	7	110	278	1220
Soil	2000	74B19-00	74B19SA01	2680	a	DET	13.9	c	ND	1	5	7	110	278	1220
Soil	2000	74B22-00	74B22SA01	1500	a	DET	14	c	ND	1	5	7	110	278	1220
Soil	2000	74B28-00	74B28SA01	232		DET	12.9	c	ND	0	5	7	110	278	1220
Soil	2000	74B37-00	74B37SA01D	80300	a	DET				1	5	7	110	278	1220
Soil	2000	74B43-00	74B43SA01	42.6		DET	1780	a	DET	1	5	7	110	278	1220
Soil	2000	74B44-00	74B44SA01	168		DET	10.3	a	DET	1	5	7	110	278	1220
Soil	2000	74B45-00	74B45SA01	12.7		DET	10.4	a	DET	1	5	7	110	278	1220
Soil	2000	74B46-00	74B46SA01	21.5		DET	10.7	a	DET	1	5	7	110	278	1220
Soil	2000	74B47-00	74B47SA01	135		DET	12	a	DET	1	5	7	110	278	1220
Soil	2000	74B48-00	74B48SA01	9.7		DET	13	a	DET	1	5	7	110	278	1220
Soil	2000	74B49-00	74B49SA01	55.1		DET	10.4	a	DET	1	5	7	110	278	1220
Soil	Bioassay	74B07-03	74B0174B007	535	b	DET	3.4		DET	1	5	7	110	278	1220
Soil	Phasel	74B07-03	74E0103SA0	568	b	DET	3.3		DET	1	5	7	110	278	1220
Soil	Phasel	74B20-03	74E0106SA0	831	b	DET	4.6		DET	1	5	7	110	278	1220
Soil	Phasel	74B29-03	74E0109SA0	377	b	DET	2.4		DET	1	5	7	110	278	1220
Soil	Phasel	74B49-03	74E0114SA0	221		DET	1.5		DET	0	5	7	110	278	1220
Soil	2000	74B01-00	74B01SA01	32.6		DET	12.3	c	ND	0	5	7	110	278	1220
Soil	2000	74B02-00	74B02SA01	75.5		DET	12.2	c	ND	0	5	7	110	278	1220
Soil	2000	74B03-00	74B03SA01	86.6		DET	12.4	c	ND	0	5	7	110	278	1220
Soil	2000	74B04-00	74B04SA01	57.2		DET	11.8		ND	0	5	7	110	278	1220
Soil	2000	74B05-00	74B05SA01	51.3		DET	13.2	c	ND	0	5	7	110	278	1220
Soil	2000	74B07-00	74B07SA01	70.6		DET	12.5		ND	0	5	7	110	278	1220
Soil	2000	74B18-00	74B18SA01	59.6		DET	11.5		ND	0	5	7	110	278	1220
Soil	2000	74B21-00	74B21SA01	30.1		DET	12.2	c	ND	0	5	7	110	278	1220
Soil	2000	74B23-00	74B23SA01	55.2		DET	15.4		ND	0	5	7	110	278	1220
Soil	2000	74B24-00	74B24SA01	191		DET	13.2	c	ND	0	5	7	110	278	1220
Soil	2000	74B25-00	74B25SA01	5		DET				0	5	7	110	278	1220
Soil	2000	74B26-00	74B26SA01	54.2		DET	13.1	c	ND	0	5	7	110	278	1220
Soil	2000	74B27-00	74B27SA01	168		DET	14.7	c	ND	0	5	7	110	278	1220
Soil	2000	74B30-00	74B30SA01	198		DET	12.2	c	ND	0	5	7	110	278	1220
Soil	2000	74B32-00	74B32SA01	88.5		DET				0	5	7	110	278	1220
Soil	2000	74B33-00	74B33SA01	17.4		DET				0	5	7	110	278	1220
Soil	2000	74B34-00	74B34SA01	156		DET	10.8	c	ND	0	5	7	110	278	1220
Soil	2000	74B35-00	74B35SA01	73.8		DET	11.6	c	ND	0	5	7	110	278	1220
Soil	2000	74B36-00	74B36SA01	25.6		DET				0	5	7	110	278	1220
Soil	2000	74B37-00	74B37SA01				13.7	c	ND	0	5	7	110	278	1220
Soil	2000	74B38-00	74B38SA01	205		DET	13.9	c	ND	0	5	7	110	278	1220
Soil	2000	74B39-00	74B39SA01	31.3		DET				0	5	7	110	278	1220
Soil	2000	74B40-00	74B40SA01	13.5		DET				0	5	7	110	278	1220
Soil	2000	74B41-00	74B41SA01	29		DET				0	5	7	110	278	1220
Soil	2000	74B42-00	74B42SA01	22.9		DET				0	5	7	110	278	1220
Soil	2000	74B50-00	74B50SA01	22		DET				0	5	7	110	278	1220

Table 4-1

Point-by-Point Comparison of Lead and Antimony Concentrations in Soil and Sediment Samples Against Literature-Derived and Site-Specific Toxicity Values for Plants

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

				Lead (mg/kg dry)			Antimony (mg/kg dry)			Toxicity Values (mg/kg dry)					
Matrix Type	Data Group	Sample Location	Sample Number	Concentration	Note	Qualifier	Concentration	Note	Qualifier	Joint Exceedances	Literature-based Plant Antimony LOEC	Site-specific Plant Antimony NOEC	Literature-based Plant Lead NOEC	Literature-based Plant Lead LOEC	Site-specific Plant Lead NOEC
Soil	2000	74B51-00	74B51SA01	11.6		DET				0	5	7	110	278	1220
Soil	2000	74B52-00	74B52SA01	19.1		DET				0	5	7	110	278	1220
Soil	Bioassay	74B01-03	74B0174B001	40.4		DET	0.3		ND	0	5	7	110	278	1220
Soil	Bioassay	74B04-03	74B0174B304	15.1		DET	0.2		DET	0	5	7	110	278	1220
Soil	Bioassay	74B27-03	74B0174B027	123		DET	0.9		DET	0	5	7	110	278	1220
Soil	Bioassay	74B43-03	74B0174B043	26.4		DET	0.2		ND	0	5	7	110	278	1220
Soil	PhaseI	74B01-03	74E0101SA0	32.9		DET	0.3		DET	0	5	7	110	278	1220
Soil	PhaseI	74B04-03	74E0102SA0	12.6		DET	0.2		DET	0	5	7	110	278	1220
Soil	PhaseI	74B27-03	74E0108SA0	72.4		DET	0.7		DET	0	5	7	110	278	1220
Soil	PhaseI	74B32-03	74E0113SA0	84.9		DET	0.6		DET	0	5	7	110	278	1220
Soil	PhaseI	74B37-03	74E0111SA0	25.5		DET	0.5		DET	0	5	7	110	278	1220
Soil	PhaseI	74B41-03	74E0112SA0	41.3		DET	0.6		DET	0	5	7	110	278	1220
Soil	PhaseI	74B43-03	74E0115SA0	16.2		DET	0.2		DET	0	5	7	110	278	1220
Soil	Refbio	SR1-03	74B0374B001	50.5		DET	0.1		ND	0	5	7	110	278	1220
Soil	Refbio	SR2-03	74B0374B002	178		DET	0.2		ND	0	5	7	110	278	1220
Soil	Refbio	SR3-03	74B0374B003	48		DET	0.2		ND	0	5	7	110	278	1220

Notes:

a = exceeds site-specific and literature-based toxicity values

b = exceeds literature-based toxicity value, but not site-specific value

c = exceedance due to non-detected concentrations - not counted in joint exceedances

DET = detect

LOEC = lowest observed effects concentration

ND = non-detect

NOEC = no observed effects concentration

Refbio = bioassay sample collected at a reference area

Table 4-2
Point-by-Point Comparison of Lead and Antimony Concentrations in Sediment Samples Against Literature-Derived and Site-Specific Sediment Toxicity Values
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

													Antimony Toxicity Values (mg/kg dry)			Lead Toxicity Values (mg/kg dry)			
						Lead (mg/kg dry)			Antimony (mg/kg dry)				Literature-Based Values	Site-Specific Values		Literature-Based Values		Site-Specific Values	
Matrix Type	Data Group	Sample Location	Sample Number	Sampling Date	Event	Concentration	Note	Qualifier	Concentration	Note	Qualifier	Joint exceedances	AET	NOEC	LOEC	ER-L	ER-M	NOEC	LOEC
Sediment	2000	74G36-00	74G36CA01	3/1/2000	2000	21400	b	DET	282	a	DET	2	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G05-03	74B0274B005	12/14/2003	PhaseII	9020	b	DET	109	b	DET	2	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G36-03	74B0274B036	12/15/2003	PhaseII	33100	a	DET	282	a	DET	2	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G04-03	74E0208DA0	8/14/2003	PhaseI	15800	b	DET	142	b	DET	2	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G37-03	74E0204DA0	8/14/2003	PhaseI	10700	b	DET	182	b	DET	2	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G38-03	74E0205DA0	8/14/2003	PhaseI	20400	b	DET	176	b	DET	2	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G05-00	74G05CA01D	3/7/2000	2000	154000	a	DET				1	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G05-00	74G05CA01	3/7/2000	2000				2980	a	DET	1	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G01-00	74G01CA01	3/1/2000	2000	850		DET	35.5		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G02-00	74G02CA01	3/1/2000	2000	2390		DET	30.2		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G03-00	74G03CA01	3/1/2000	2000	2050		DET	50		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G04-00	74G04CA01	3/1/2000	2000	7240		DET	32.1		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G06-00	74G06CA01	3/7/2000	2000	1500		DET	29.2		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G07-00	74G07CA01	3/7/2000	2000	121		DET	24.4		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G08-00	74G08CA01	3/1/2000	2000	140		DET	28.3		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G09-00	74G09CA01	3/7/2000	2000	52.1		DET	32.1		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G10-00	74G10CA01	3/1/2000	2000	130		DET	26.7		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G11-00	74G11CA01	3/1/2000	2000	165		DET	21.6		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G12-00	74G12CA01	3/1/2000	2000	5780		DET	54.3		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G13-00	74G13CA01	3/1/2000	2000	7280		DET	81.2		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G14-00	74G14CA01	3/1/2000	2000	131		DET	23.8		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G15-00	74G15CA01	3/1/2000	2000	106		DET	20		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G16-00	74G16CA01	3/7/2000	2000	51.6		DET	83.3		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G17-00	74G17CA01	3/1/2000	2000	41.3		DET	27.4		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G18-00	74G18CA01	3/1/2000	2000	80.9		DET	19.8		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G19-00	74G19CA01	3/1/2000	2000	1160		DET	38		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G20-00	74G20CA01	3/1/2000	2000	69.7		DET	22.7		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G21-00	74G21CA01	3/1/2000	2000	364		DET	46.7		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G22-00	74G22CA01	3/1/2000	2000	176		DET	50.8		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G23-00	74G23CA01	3/1/2000	2000	57.1		DET	24.6		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G24-00	74G24CA01	3/1/2000	2000	65.1		DET	48.3		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G25-00	74G25CA01	3/1/2000	2000	155		DET	22.2		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G26-00	74G26CA01	3/1/2000	2000	212		DET	83.3		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G27-00	74G27CA01	3/1/2000	2000	64.9		DET	23.5		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G28-00	74G28CA01	3/1/2000	2000	126		DET	52.1		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G29-00	74G29CA01	3/1/2000	2000	34.4		DET	67.6		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G30-00	74G30CA01	3/1/2000	2000	109		DET	47.2		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G31-00	74G31CA01	3/1/2000	2000	67		DET	51.8		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G32-00	74G32CA01	3/1/2000	2000	45		DET	30.9		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G33-00	74G33CA01	3/1/2000	2000	46.2		DET	55.9		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G34-00	74G34CA01	3/1/2000	2000	104		DET	29.9		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G35-00	74G35CA01	3/1/2000	2000	1020		DET	55.2		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G37-00	74G37CA01	3/1/2000	2000	84.6		DET	22.5		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G38-00	74G38CA01	3/1/2000	2000	3230		DET	37.4		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G39-00	74G39CA01	3/8/2000	2000	46.1		DET	65.4		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G40-00	74G40CA01	3/8/2000	2000	56.4		DET	32.5		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G41-00	74G41CA01	3/10/2000	2000	23.2		DET				0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G42-00	74G42CA01	3/10/2000	2000	103		DET	62.9		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G43-00	74G43CA01	3/10/2000	2000	8.7		DET				0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G44-00	74G44CA01	3/13/2000	2000	52.3		DET	31.9		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G45-00	74G45CA01	3/13/2000	2000	54.8		DET	55.9		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G46-00	74G46CA01	3/16/2000	2000	39.6		DET	32.9		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G47-00	74G47CA01	3/16/2000	2000	68.2		DET	22.5		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G48-00	74G48CA01	3/16/2000	2000	49.8		DET	40		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G49-00	74G49CA01	3/16/2000	2000	50.9		DET	24.9		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G50-00	74G50CA01	3/16/2000	2000	43.1		DET	30.2		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G51-00	74G51CA01	3/17/2000	2000	51.7		DET	51.3		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G52-00	74G52CA01	3/17/2000	2000	334		DET	33.2		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G53-00	74G53CA01	3/23/2000	2000	61.6		DET				0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G54-00	74G54CA01	3/21/2000	2000	39.5		DET	25.4		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G55-00	74G55CA01	3/21/2000	2000	65.9		DET	71.4		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G56-00	74G56CA01	3/21/2000	2000	57.4		DET	26		ND	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G57-00	74G57CA01	3/21/2000	2000	34.6		DET				0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G58-00	74G58CA01	3/31/2000	2000	61		DET	22.6		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G59-00	74G59CA01	3/31/2000	2000	127		DET	62.1		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G60-00	74G60CA01	3/31/2000	2000	67.7		DET	59.2		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G61-00	74G61CA01	3/31/2000	2000	67.4		DET	43.5		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G62-00	74G62CA01	3/31/2000	2000	39		DET	39.2		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G63-00	74G63CA01	3/31/2000	2000	67.7		DET	38.6		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G64-00	74G64CA01	3/31/2000	2000	35.4		DET				0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G65-00	74G65CA01	3/31/2000	2000	39.9		DET	48.5		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	2000	74G66-00	74G66CA01	3/31/2000	2000	60.6		DET	48.8		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G15-03	74B0274B015	12/14/2003	PhaseII	179		DET	1.1		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G26-03	74B0274B026	12/15/2003	PhaseII	285		DET	1.8		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G35-03	74B0274B035	12/15/2003	PhaseII	536		DET	3.8		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G41-03	74B0274B041	12/15/2003	PhaseII	76.5		DET	0.8		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G44-03	74B0274B044	12/14/2003	PhaseII	94.9		DET	0.7		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G46-03	74B0274B346	12/14/2003	PhaseII	48.4		DET	0.2		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Bioassay	74G52-03	74B0274B052	12/15/2003	PhaseII	199		DET	4.2		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G05-03	74E0201DA0	8/15/2003	PhaseI	50.3		DET	0.9		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G15-03	74E0212DA0	8/15/2003	PhaseI	127		DET	1.6		DET	0	9.3	109	282	46.7	218	9020	33100

Table 4-2

Point-by-Point Comparison of Lead and Antimony Concentrations in Sediment Samples Against Literature-Derived and Site-Specific Sediment Toxicity Values

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

													Antimony Toxicity Values (mg/kg dry)			Lead Toxicity Values (mg/kg dry)			
						Lead (mg/kg dry)			Antimony (mg/kg dry)				Literature-Based Values	Site-Specific Values		Literature-Based Values		Site-Specific Values	
Matrix Type	Data Group	Sample Location	Sample Number	Sampling Date	Event	Concentration	Note	Qualifier	Concentration	Note	Qualifier	Joint exceedances	AET	NOEC	LOEC	ER-L	ER-M	NOEC	LOEC
Sediment	PhaseI	74G16-03	74E0213DA0	8/15/2003	PhaseI	928		DET	7.8		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G26-03	74E0207DA0	8/14/2003	PhaseI	8080		DET	60.1		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G28-03	74E0209DA0	8/15/2003	PhaseI	76.7		DET	0.7		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G35-03	74E0211DA0	8/15/2003	PhaseI	837		DET	3.3		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G36-03	74E0206DA0	8/14/2003	PhaseI	167		DET	1.2		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G39-03	74E0214DA0	8/15/2003	PhaseI	70.1		DET	1.4		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G41-03	74E0202DA0	8/14/2003	PhaseI	42.7		DET	0.3		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G44-03	74E0210DA0	8/15/2003	PhaseI	54.9		DET	0.4		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G46-03	74E0203DA0	8/14/2003	PhaseI	76.1		DET	0.4		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	PhaseI	74G52-03	74E0215DA0	8/15/2003	PhaseI	102		DET	1.4		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Refbio	SD1-03	74B0374B001	12/13/2003	PhaseII	35.7		DET	0.1		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Refbio	SD2-03	74B0374B002	12/15/2003	PhaseII	47.4		DET	0.2		DET	0	9.3	109	282	46.7	218	9020	33100
Sediment	Refbio	SD3-03	74B0374B003	12/15/2003	PhaseII	773		DET	0.3		DET	0	9.3	109	282	46.7	218	9020	33100

note

a = exceeds site-specific toxicity value

b = exceeds site-specific and literature-based toxicity value

AET = apparent effects threshold

ER-L = effects range - low

ER-M = effects range - median

DET = detect

LOEC = lowest observed effects concentration

ND = non-detect

NOEC = no observed effects concentration

Refbio = bioassay sample collected at a reference area

Table 4-3
Point-by-Point Comparison of Lead and Antimony Concentrations in Soil Samples Against Literature-Derived Soil Toxicity Values for Soil Invertebrates
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

											Antimony Toxicity Values (mg/kg dry)		Lead Toxicity Values (mg/kg dry)	
				Lead (mg/kg dry)			Antimony (mg/kg dry)				Literature-based Values		Literature-based Values	
Matrix Type	Data Group	Sample Location	Sample Number	Concentration	Note	Qualifier	Concentration	Note	Qualifier	Joint exceedances	NOEC	LOEC	NOEC	LOEC
Soil	2000	74B37-00	74B37SA01D	80300	a	DET				1	84	115	894	3162
Soil	2000	74B20-00	74B20SA01	69700	a	DET	3930	a	DET	2	84	115	894	3162
Soil	Phasel	74B09-03	74E0104SA0	55200	a	DET	2380	a	DET	2	84	115	894	3162
Soil	2000	74B12-00	74B12SA01	53400	a	DET	1780	a	DET	2	84	115	894	3162
Soil	Phasel	74B10-03	74E0105SA0	31600	a	DET	1430	a	DET	2	84	115	894	3162
Soil	Bioassay	74B10-03	74B0174B010	3430	a	DET	28.6		DET	1	84	115	894	3162
Soil	2000	74B19-00	74B19SA01	2680	b	DET	13.9		ND	1	84	115	894	3162
Soil	2000	74B10-00	74B10SA01	2170	b	DET	20.4		DET	1	84	115	894	3162
Soil	2000	74B11-00	74B11SA01	1700	b	DET	19		DET	1	84	115	894	3162
Soil	2000	74B43-00	74B43SA01	42.6		DET	1780	a	DET	1	84	115	894	3162
Soil	2000	74B29-00	74B29SA01	1470	b	DET	18.4		DET	1	84	115	894	3162
Soil	2000	74B22-00	74B22SA01	1500	b	DET	14		ND	1	84	115	894	3162
Soil	Bioassay	74B09-03	74B0174B009	1470	b	DET	10.4		DET	1	84	115	894	3162
Soil	2000	74B08-00	74B08SA01	1270	b	DET	12.1		ND	1	84	115	894	3162
Soil	Phasel	74B30-03	74E0110SA0	1240	b	DET	9.5		DET	1	84	115	894	3162
Soil	Bioassay	74B20-03	74B0174B020	1220	b	DET	7		DET	1	84	115	894	3162
Soil	2000	74B31-00	74B31SA01	1200	b	DET	19.4		DET	1	84	115	894	3162
Soil	2000	74B09-00	74B09SA01	1110	b	DET	12.7		ND	1	84	115	894	3162
Soil	2000	74B15-00	74B15SA01	1060	b	DET	12.8		ND	1	84	115	894	3162
Soil	Phasel	74B24-03	74E0107SA0	963	b	DET	6.3		DET	1	84	115	894	3162
Soil	Phasel	74B20-03	74E0106SA0	831		DET	4.6		DET	0	84	115	894	3162
Soil	2000	74B16-00	74B16SA01	797		DET	11.9		ND	0	84	115	894	3162
Soil	Bioassay	74B32-03	74B0174B032	604		DET	5		DET	0	84	115	894	3162
Soil	Phasel	74B07-03	74E0103SA0	568		DET	3.3		DET	0	84	115	894	3162
Soil	Bioassay	74B07-03	74B0174B007	535		DET	3.4		DET	0	84	115	894	3162
Soil	2000	74B17-00	74B17SA01	448		DET	12.1		ND	0	84	115	894	3162
Soil	Phasel	74B29-03	74E0109SA0	377		DET	2.4		DET	0	84	115	894	3162
Soil	2000	74B14-00	74B14SA01	357		DET	11.9		ND	0	84	115	894	3162
Soil	2000	74B06-00	74B06SA01	316		DET	13.3		ND	0	84	115	894	3162
Soil	2000	74B13-00	74B13SA01	256		DET	12.2		ND	0	84	115	894	3162
Soil	2000	74B28-00	74B28SA01	232		DET	12.9		ND	0	84	115	894	3162
Soil	Phasel	74B49-03	74E0114SA0	221		DET	1.5		DET	0	84	115	894	3162
Soil	2000	74B38-00	74B38SA01	205		DET	13.9		ND	0	84	115	894	3162
Soil	2000	74B30-00	74B30SA01	198		DET	12.2		ND	0	84	115	894	3162
Soil	2000	74B24-00	74B24SA01	191		DET	13.2		ND	0	84	115	894	3162
Soil	Refbio	SR2-03	74B0374B002	178		DET	0.2		ND	0	84	115	894	3162
Soil	2000	74B27-00	74B27SA01	168		DET	14.7		ND	0	84	115	894	3162
Soil	2000	74B44-00	74B44SA01	168		DET	10.3		DET	0	84	115	894	3162
Soil	2000	74B34-00	74B34SA01	156		DET	10.8		ND	0	84	115	894	3162
Soil	2000	74B47-00	74B47SA01	135		DET	12		DET	0	84	115	894	3162
Soil	Bioassay	74B27-03	74B0174B027	123		DET	0.9		DET	0	84	115	894	3162
Soil	2000	74B32-00	74B32SA01	88.5		DET				0	84	115	894	3162
Soil	2000	74B03-00	74B03SA01	86.6		DET	12.4		ND	0	84	115	894	3162
Soil	Phasel	74B32-03	74E0113SA0	84.9		DET	0.6		DET	0	84	115	894	3162
Soil	2000	74B02-00	74B02SA01	75.5		DET	12.2		ND	0	84	115	894	3162
Soil	2000	74B35-00	74B35SA01	73.8		DET	11.6		ND	0	84	115	894	3162
Soil	Phasel	74B27-03	74E0108SA0	72.4		DET	0.7		DET	0	84	115	894	3162
Soil	2000	74B07-00	74B07SA01	70.6		DET	12.5		ND	0	84	115	894	3162
Soil	2000	74B18-00	74B18SA01	59.6		DET	11.5		ND	0	84	115	894	3162
Soil	2000	74B04-00	74B04SA01	57.2		DET	11.8		ND	0	84	115	894	3162
Soil	2000	74B23-00	74B23SA01	55.2		DET	15.4		ND	0	84	115	894	3162
Soil	2000	74B49-00	74B49SA01	55.1		DET	10.4		DET	0	84	115	894	3162
Soil	2000	74B26-00	74B26SA01	54.2		DET	13.1		ND	0	84	115	894	3162
Soil	2000	74B05-00	74B05SA01	51.3		DET	13.2		ND	0	84	115	894	3162
Soil	Refbio	SR1-03	74B0374B001	50.5		DET	0.1		ND	0	84	115	894	3162
Soil	Refbio	SR3-03	74B0374B003	48		DET	0.2		ND	0	84	115	894	3162
Soil	Phasel	74B27-03	74E0108SA0	45		DET	0.7		DET	0	84	115	894	3162
Soil	Phasel	74B41-03	74E0112SA0	41.3		DET	0.6		DET	0	84	115	894	3162
Soil	Bioassay	74B01-03	74B0174B001	40.4		DET	0.3		ND	0	84	115	894	3162
Soil	Phasel	74B01-03	74E0101SA0	32.9		DET	0.3		DET	0	84	115	894	3162
Soil	2000	74B01-00	74B01SA01	32.6		DET	12.3		ND	0	84	115	894	3162
Soil	2000	74B39-00	74B39SA01	31.3		DET				0	84	115	894	3162
Soil	2000	74B21-00	74B21SA01	30.1		DET	12.2		ND	0	84	115	894	3162
Soil	2000	74B41-00	74B41SA01	29		DET				0	84	115	894	3162
Soil	Bioassay	74B43-03	74B0174B043	26.4		DET	0.2		ND	0	84	115	894	3162
Soil	2000	74B36-00	74B36SA01	25.6		DET				0	84	115	894	3162
Soil	Phasel	74B37-03	74E0111SA0	25.5		DET	0.5		DET	0	84	115	894	3162

Table 4-3
Point-by-Point Comparison of Lead and Antimony Concentrations in Soil Samples Against Literature-Derived Soil Toxicity Values for Soil Invertebrates
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

											Antimony Toxicity Values (mg/kg dry)		Lead Toxicity Values (mg/kg dry)	
				Lead (mg/kg dry)			Antimony (mg/kg dry)				Literature-based Values		Literature-based Values	
Matrix Type	**Data Group**	**Sample Location**	**Sample Number**	**Concentration**	**Note**	**Qualifier**	**Concentration**	**Note**	**Qualifier**	**Joint exceedances**	**NOEC**	**LOEC**	**NOEC**	**LOEC**
Soil	2000	74B42-00	74B42SA01	22.9		DET				0	84	115	894	3162
Soil	2000	74B50-00	74B50SA01	22		DET				0	84	115	894	3162
Soil	2000	74B46-00	74B46SA01	21.5		DET	10.7		DET	0	84	115	894	3162
Soil	2000	74B52-00	74B52SA01	19.1		DET				0	84	115	894	3162
Soil	2000	74B33-00	74B33SA01	17.4		DET				0	84	115	894	3162
Soil	Phase I	74B43-03	74E0115SA0	16.2		DET	0.2		DET	0	84	115	894	3162
Soil	Bioassay	74B04-03	74B0174B304	15.1		DET	0.2		DET	0	84	115	894	3162
Soil	2000	74B40-00	74B40SA01	13.5		DET				0	84	115	894	3162
Soil	2000	74B45-00	74B45SA01	12.7		DET	10.4		DET	0	84	115	894	3162
Soil	Phase I	74B04-03	74E0102SA0	12.6		DET	0.2		DET	0	84	115	894	3162
Soil	2000	74B51-00	74B51SA01	11.6		DET				0	84	115	894	3162
Soil	2000	74B48-00	74B48SA01	9.7		DET	13		DET	0	84	115	894	3162
Soil	2000	74B25-00	74B25SA01	5		DET				0	84	115	894	3162
Soil	2000	74B37-00	74B37SA01				13.7		ND	0	84	115	894	3162

Note:
a = exceeds literature-based NOEC and LOEC
b = exceeds literature-based NOEC, but not LOEC
DET = detect
LOEC = lowest observed effects concentration
ND = non-detect
NOEC = no observed effects concentration
Refbio = bioassay sample collected at a reference area

Table 4-4
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of California Voles to Antimony at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Antimony Concentration (mg/kg dry)	Qualifier	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Soil	2000	74B20	B20SA01	3930	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	19.4299	0.2884	0	0	19.7183	0.059	0.59	334.21	33.42	97%
Soil	Phase1	74B09	E0104SA0	2380	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	11.7667	0.2884	0	0	12.0551	0.059	0.59	204.32	20.43	94%
Soil	2000	74B43	B43SA01	1780	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	8.8003	0.2884	0	0	9.0887	0.059	0.59	154.05	15.40	91%
Soil	2000	74B12	B12SA01	1780	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	8.8003	0.2884	0	0	9.0887	0.059	0.59	154.05	15.40	89%
Soil	Phase1	74B10	E0105SA0	1430	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	7.0699	0.2884	0	0	7.3583	0.059	0.59	124.72	12.47	86%
Soil	Bioassay	74B10	B01SB010	28.6	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.1414	0.2884	0	0	0.4298	0.059	0.59	7.28	0.73	83%
Soil	2000	74B10	B10SA01	20.4	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.1009	0.2884	0	0	0.3893	0.059	0.59	6.60	0.66	80%
Soil	2000	74B31	B31SA01	19.4	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0959	0.2884	0	0	0.3843	0.059	0.59	6.51	0.65	77%
Soil	2000	74B11	B11SA01	19	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0939	0.2884	0	0	0.3823	0.059	0.59	6.48	0.65	74%
Soil	2000	74B29	B29SA01	18.4	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0910	0.2884	0	0	0.3794	0.059	0.59	6.43	0.64	71%
Soil	2000	74B48	B48SA01	13	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0643	0.2884	0	0	0.3527	0.059	0.59	5.98	0.60	69%
Soil	2000	74B47	B47SA01	12	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0593	0.2884	0	0	0.3477	0.059	0.59	5.89	0.59	66%
Soil	2000	74B46	B46SA01	10.7	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0529	0.2884	0	0	0.3413	0.059	0.59	5.78	0.58	63%
Soil	2000	74B49	B49SA01	10.4	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0514	0.2884	0	0	0.3398	0.059	0.59	5.76	0.58	60%
Soil	2000	74B45	B45SA01	10.4	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0514	0.2884	0	0	0.3398	0.059	0.59	5.76	0.58	57%
Soil	Bioassay	74B09	B01SB009	10.4	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0514	0.2884	0	0	0.3398	0.059	0.59	5.76	0.58	54%
Soil	2000	74B44	B44SA01	10.3	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0509	0.2884	0	0	0.3393	0.059	0.59	5.75	0.58	51%
Soil	Phase1	74B30	E0110SA0	9.5	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0470	0.2884	0	0	0.3354	0.059	0.59	5.68	0.57	49%
Soil	Bioassay	74B20	B01SB020	7	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0346	0.2884	0	0	0.3230	0.059	0.59	5.47	0.55	46%
Soil	Phase1	74B24	E0107SA0	6.3	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0311	0.2884	0	0	0.3195	0.059	0.59	5.42	0.54	43%
Soil	Bioassay	74B32	B01SB032	5	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0247	0.2884	0	0	0.3131	0.059	0.59	5.31	0.53	40%
Soil	Phase1	74B20	E0106SA0	4.6	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0227	0.2884	0	0	0.3111	0.059	0.59	5.27	0.53	37%
Soil	Bioassay	74B07	B01SB007	3.4	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0168	0.2884	0	0	0.3052	0.059	0.59	5.17	0.52	34%
Soil	Phase1	74B07	E0103SA0	3.3	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0163	0.2884	0	0	0.3047	0.059	0.59	5.16	0.52	31%
Soil	Phase1	74B29	E0109SA0	2.4	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0119	0.2884	0	0	0.3003	0.059	0.59	5.09	0.51	29%
Soil	Phase1	74B49	E0114SA0	1.5	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0074	0.2884	0	0	0.2958	0.059	0.59	5.01	0.50	26%
Soil	Bioassay	74B27	B01SB027	0.9	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0044	0.2884	0	0	0.2928	0.059	0.59	4.96	0.50	23%
Soil	Phase1	74B27	E0108SA0	0.7	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0035	0.2884	0	0	0.2919	0.059	0.59	4.95	0.49	20%
Soil	Phase1	74B41	E0112SA0	0.6	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0030	0.2884	0	0	0.2914	0.059	0.59	4.94	0.49	17%
Soil	Phase1	74B32	E0113SA0	0.6	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0030	0.2884	0	0	0.2914	0.059	0.59	4.94	0.49	14%
Soil	Phase1	74B37	E0111SA0	0.5	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0025	0.2884	0	0	0.2909	0.059	0.59	4.93	0.49	11%
Soil	Phase1	74B01	E0101SA0	0.3	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0015	0.2884	0	0	0.2899	0.059	0.59	4.91	0.49	9%
Soil	Bioassay	74B04	B01SB304	0.2	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0010	0.2884	0	0	0.2894	0.059	0.59	4.90	0.49	6%
Soil	Phase1	74B43	E0115SA0	0.2	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0010	0.2884	0	0	0.2894	0.059	0.59	4.90	0.49	3%
Soil	Phase1	74B04	E0102SA0	0.2	DET	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0010	0.2884	0	0	0.2894	0.059	0.59	4.90	0.49	0%
Soil	2000	74B23	B23SA01	15.4	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0761	0.2884	0	0	0.3645	0.059	0.59	6.18	0.62	97%
Soil	2000	74B27	B27SA01	14.7	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0727	0.2884	0	0	0.3611	0.059	0.59	6.12	0.61	94%
Soil	2000	74B22	B22SA01	14	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0692	0.2884	0	0	0.3576	0.059	0.59	6.06	0.61	91%
Soil	2000	74B38	B38SA01	13.9	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0687	0.2884	0	0	0.3571	0.059	0.59	6.05	0.61	88%
Soil	2000	74B19	B19SA01	13.9	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0687	0.2884	0	0	0.3571	0.059	0.59	6.05	0.61	85%
Soil	2000	74B37	B37SA01	13.7	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0677	0.2884	0	0	0.3561	0.059	0.59	6.04	0.60	82%
Soil	2000	74B06	B06SA01	13.3	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0658	0.2884	0	0	0.3542	0.059	0.59	6.00	0.60	79%
Soil	2000	74B24	B24SA01	13.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0653	0.2884	0	0	0.3537	0.059	0.59	5.99	0.60	76%
Soil	2000	74B05	B05SA01	13.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0653	0.2884	0	0	0.3537	0.059	0.59	5.99	0.60	73%
Soil	2000	74B26	B26SA01	13.1	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0648	0.2884	0	0	0.3532	0.059	0.59	5.99	0.60	70%
Soil	2000	74B28	B28SA01	12.9	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0638	0.2884	0	0	0.3522	0.059	0.59	5.97	0.60	67%
Soil	2000	74B15	B15SA01	12.8	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0633	0.2884	0	0	0.3517	0.059	0.59	5.96	0.60	64%
Soil	2000	74B09	B09SA01	12.7	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0628	0.2884	0	0	0.3512	0.059	0.59	5.95	0.60	61%
Soil	2000	74B07	B07SA01	12.5	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0618	0.2884	0	0	0.3502	0.059	0.59	5.94	0.59	58%
Soil	2000	74B03	B03SA01	12.4	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0613	0.2884	0	0	0.3497	0.059	0.59	5.93	0.59	55%
Soil	2000	74B01	B01SA01	12.3	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0608	0.2884	0	0	0.3492	0.059	0.59	5.92	0.59	52%
Soil	2000	74B30	B30SA01	12.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0603	0.2884	0	0	0.3487	0.059	0.59	5.91	0.59	48%
Soil	2000	74B21	B21SA01	12.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0603	0.2884	0	0	0.3487	0.059	0.59	5.91	0.59	45%
Soil	2000	74B13	B13SA01	12.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0603	0.2884	0	0	0.3487	0.059	0.59	5.91	0.59	42%
Soil	2000	74B02	B02SA01	12.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0603	0.2884	0	0	0.3487	0.059	0.59	5.91	0.59	39%
Soil	2000	74B17	B17SA01	12.1	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0598	0.2884	0	0	0.3482	0.059	0.59	5.90	0.59	36%
Soil	2000	74B08	B08SA01	12.1	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0598	0.2884	0	0	0.3482	0.059	0.59	5.90	0.59	33%
Soil	2000	74B16	B16SA01	11.9	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0588	0.2884	0	0	0.3472	0.059	0.59	5.89	0.59	30%
Soil	2000	74B14	B14SA01	11.9	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0588	0.2884	0	0	0.3472	0.059	0.59	5.89	0.59	27%
Soil	2000	74B04	B04SA01	11.8	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0583	0.2884	0	0	0.3467	0.059	0.59	5.88	0.59	24%
Soil	2000	74B35	B35SA01	11.6	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0574	0.2884	0	0	0.3458	0.059	0.59	5.86	0.59	21%
Soil	2000	74B18	B18SA01	11.5	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0569	0.2884	0	0	0.3453	0.059	0.59	5.85	0.59	18%
Soil	2000	74B34	B34SA01	10.8	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0534	0.2884	0	0	0.3418	0.059	0.59	5.79	0.58	15%
Soil	Bioassay	74B01	B01SB001	0.3	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0015	0.2884	0	0	0.2899	0.059	0.59	4.91	0.49	12%
Soil	Bioassay	74B43	B01SB043	0.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0010	0.2884	0	0	0.2894	0.059	0.59	4.90	0.49	9%
Soil	Refbio	SR3	B03SB003	0.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0010	0.2884	0	0	0.2894	0.059	0.59	4.90	0.49	6%
Soil	Refbio	SR2	B03SB002	0.2	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0010	0.2884	0	0	0.2894	0.059	0.59	4.90	0.49	3%
Soil	Refbio	SR1	B03SB001	0.1	ND	0.206	0.024	1	0	0	1.4	1.5	1.5	1	0.0005	0.2884	0	0	0.2889	0.059	0.59	4.90	0.49	0%
Soil	2000	74B52	B52SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	

Table 4-4

Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of California Voles to Antimony at Site 74

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility		Estimated Exposures (mg/kg/d)							
Matrix	Sample Event	Location	Sample Number	Antimony Concentration (mg/kg dry)	Qualifier	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Soil	2000	74B51	B51SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B50	B50SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B42	B42SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B41	B41SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B40	B40SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B39	B39SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B37	B37SA01D			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B36	B36SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B33	B33SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B32	B32SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	
Soil	2000	74B25	B25SA01			0.206	0.024	1	0	0	1.4	1.5	1.5	1	0	0.2884	0	0	0.2884	0.059	0.59	4.89	0.49	

Notes:

[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the LOAEL

Shaded samples are those with concentrations that exceeded the LOAEL

DET = detect

FIR = food ingestion rate

HQ = hazard quotient (total exposure/NOAEL or LOAEL)

LOAEL = lowest observed adverse effect level

ND = non-detect

NOAEL = no observed adverse effect level

Refbio = bioassay sample collected from a reference area

SIR = soil ingestion rate

Table 4-5
Point-by-point Toxicity Value Comparison of Estimated Dietary Exposure of California Voles to Lead at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	slope	intercept	slope	intercept	slope	intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Soil	2000	74B37	B37SA01D	80300	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	147.58	194.31	7047.93	0.87	345.39	30.40	0	0	375.79	0.92	4.7	408.47	79.96	99%
Soil	2000	74B20	B20SA01	69700	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	136.33	182.11	5980.55	0.87	299.80	28.08	0	0	327.88	0.92	4.7	356.40	69.76	98%
Soil	Phasel	74B09	E0104SA0	55200	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	119.64	163.66	4562.90	0.87	237.43	24.65	0	0	262.08	0.92	4.7	284.87	55.76	96%
Soil	2000	74B12	B12SA01	53400	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	117.44	161.19	4390.76	0.87	229.69	24.19	0	0	253.88	0.92	4.7	275.96	54.02	95%
Soil	Phasel	74B10	E0105SA0	31600	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	87.54	126.76	2389.07	0.87	135.92	18.03	0	0	153.95	0.92	4.7	167.34	32.76	94%
Soil	Bioassay	74B10	B01SB010	3430	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	25.24	45.84	181.77	0.87	14.75	5.20	0	0	19.95	0.92	4.7	21.69	4.25	93%
Soil	2000	74B19	B19SA01	2680	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	21.99	40.95	136.53	0.87	11.53	4.53	0	0	16.06	0.92	4.7	17.45	3.42	91%
Soil	2000	74B10	B10SA01	2170	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	19.53	37.17	106.88	0.87	9.33	4.02	0	0	13.36	0.92	4.7	14.52	2.84	90%
Soil	2000	74B11	B11SA01	1700	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	17.04	33.24	80.52	0.87	7.31	3.51	0	0	10.82	0.92	4.7	11.76	2.30	89%
Soil	2000	74B22	B22SA01	1500	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.87	6.45	3.27	0	0	9.72	0.92	4.7	10.57	2.07	88%
Soil	2000	74B29	B29SA01	1470	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.87	6.32	3.24	0	0	9.56	0.92	4.7	10.39	2.03	85%
Soil	Bioassay	74B09	B01SB009	1470	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.87	6.32	3.24	0	0	9.56	0.92	4.7	10.39	2.03	86%
Soil	2000	74B08	B08SA01	1270	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.47	29.08	57.41	0.87	5.46	2.98	0	0	8.44	0.92	4.7	9.18	1.80	84%
Soil	Phasel	74B30	E0110SA0	1240	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.28	28.77	55.84	0.87	5.33	2.94	0	0	8.28	0.92	4.7	8.99	1.76	83%
Soil	Bioassay	74B20	B01SB020	1220	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.15	28.55	54.80	0.87	5.25	2.91	0	0	8.16	0.92	4.7	8.87	1.74	81%
Soil	2000	74B31	B31SA01	1200	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.02	28.34	53.76	0.87	5.16	2.89	0	0	8.05	0.92	4.7	8.75	1.71	80%
Soil	2000	74B09	B09SA01	1110	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.42	27.35	49.11	0.87	4.77	2.76	0	0	7.54	0.92	4.7	8.19	1.60	79%
Soil	2000	74B15	B15SA01	1060	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.08	26.77	46.55	0.87	4.56	2.69	0	0	7.25	0.92	4.7	7.88	1.54	78%
Soil	Phasel	74B24	E0107SA0	963	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	12.39	25.62	41.65	0.87	4.14	2.55	0	0	6.70	0.92	4.7	7.28	1.42	76%
Soil	Phasel	74B20	E0106SA0	831	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.41	23.95	35.10	0.87	3.57	2.35	0	0	5.93	0.92	4.7	6.44	1.26	75%
Soil	2000	74B16	B16SA01	797	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.15	23.50	33.44	0.87	3.43	2.30	0	0	5.72	0.92	4.7	6.22	1.22	74%
Soil	Bioassay	74B32	B01SB032	604	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.54	20.69	24.24	0.87	2.60	1.97	0	0	4.56	0.92	4.7	4.96	0.97	73%
Soil	Phasel	74B07	E0103SA0	568	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.22	20.12	22.58	0.87	2.44	1.90	0	0	4.34	0.92	4.7	4.72	0.92	71%
Soil	Bioassay	74B07	B01SB007	535	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.92	19.58	21.06	0.87	2.30	1.84	0	0	4.14	0.92	4.7	4.50	0.88	70%
Soil	2000	74B17	B17SA01	448	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.07	18.05	17.14	0.87	1.93	1.66	0	0	3.59	0.92	4.7	3.90	0.76	69%
Soil	Phasel	74B29	E0109SA0	377	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.33	16.68	14.03	0.87	1.62	1.51	0	0	3.13	0.92	4.7	3.40	0.67	68%
Soil	2000	74B14	B14SA01	357	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.11	16.26	13.17	0.87	1.54	1.46	0	0	3.00	0.92	4.7	3.26	0.64	66%
Soil	2000	74B06	B06SA01	316	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	6.64	15.38	11.43	0.87	1.36	1.37	0	0	2.73	0.92	4.7	2.96	0.58	65%
Soil	2000	74B13	B13SA01	256	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.90	13.97	8.96	0.87	1.10	1.22	0	0	2.32	0.92	4.7	2.52	0.49	64%
Soil	2000	74B28	B28SA01	232	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.59	13.35	7.99	0.87	1.00	1.15	0	0	2.15	0.92	4.7	2.34	0.46	63%
Soil	Phasel	74B49	E0114SA0	221	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.44	13.06	7.55	0.87	0.95	1.12	0	0	2.07	0.92	4.7	2.25	0.44	61%
Soil	2000	74B38	B38SA01	205	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.21	12.62	6.92	0.87	0.88	1.07	0	0	1.96	0.92	4.7	2.13	0.42	60%
Soil	2000	74B30	B30SA01	198	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.11	12.42	6.65	0.87	0.85	1.05	0	0	1.90	0.92	4.7	2.07	0.41	59%
Soil	2000	74B24	B24SA01	191	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.01	12.21	6.38	0.87	0.82	1.03	0	0	1.85	0.92	4.7	2.01	0.39	58%
Soil	Refbio	SR2	B03SB002	178	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.82	11.83	5.88	0.87	0.77	0.99	0	0	1.76	0.92	4.7	1.91	0.37	56%
Soil	2000	74B44	B44SA01	168	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.87	0.72	0.96	0	0	1.68	0.92	4.7	1.83	0.36	54%
Soil	2000	74B27	B27SA01	168	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.87	0.72	0.96	0	0	1.68	0.92	4.7	1.83	0.36	55%
Soil	2000	74B34	B34SA01	156	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.47	11.13	5.04	0.87	0.67	0.92	0	0	1.59	0.92	4.7	1.73	0.34	53%
Soil	2000	74B47	B47SA01	135	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.12	10.42	4.26	0.87	0.58	0.85	0	0	1.43	0.92	4.7	1.55	0.30	51%
Soil	Bioassay	74B27	B01SB027	123	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.92	9.98	3.83	0.87	0.53	0.81	0	0	1.34	0.92	4.7	1.45	0.28	50%
Soil	2000	74B32	B32SA01	88.5	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.26	8.59	2.61	0.87	0.38	0.67	0	0	1.05	0.92	4.7	1.14	0.22	49%
Soil	2000	74B03	B03SA01	86.6	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.22	8.50	2.55	0.87	0.37	0.66	0	0	1.04	0.92	4.7	1.13	0.22	48%
Soil	Phasel	74B32	E0113SA0	84.9	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.18	8.42	2.49	0.87	0.37	0.66	0	0	1.02	0.92	4.7	1.11	0.22	46%
Soil	2000	74B02	B02SA01	75.5	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.98	7.98	2.17	0.87	0.32	0.61	0	0	0.94	0.92	4.7	1.02	0.20	45%
Soil	2000	74B35	B35SA01	73.8	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.94	7.90	2.12	0.87	0.32	0.61	0	0	0.92	0.92	4.7	1.00	0.20	44%
Soil	Phasel	74B27	E0108SA0	72.4	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.91	7.83	2.07	0.87	0.31	0.60	0	0	0.91	0.92	4.7	0.99	0.19	43%
Soil	2000	74B07	B07SA01	70.6	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.87	7.74	2.01	0.87	0.30	0.59	0	0	0.89	0.92	4.7	0.97	0.19	41%
Soil	2000	74B18	B18SA01	59.6	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.61	7.16	1.65	0.87	0.26	0.54	0	0	0.79	0.92	4.7	0.86	0.17	40%
Soil	2000	74B04	B04SA01	57.2	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.87	0.25	0.53	0	0	0.77	0.92	4.7	0.84	0.16	39%
Soil	2000	74B23	B23SA01	55.2	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.92	1.51	0.87	0.24	0.51	0	0	0.75	0.92	4.7	0.82	0.16	38%
Soil	2000	74B49	B49SA01	55.1	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.91	1.51	0.87	0.24	0.51	0	0	0.75	0.92	4.7	0.82	0.16	36%
Soil	2000	74B26	B26SA01	54.2	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.47	6.86	1.48	0.87	0.23	0.51	0	0	0.74	0.92	4.7	0.81	0.16	35%
Soil	2000	74B05	B05SA01	51.3	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.40	6.69	1.39	0.87	0.22	0.49	0	0	0.71	0.92	4.7	0.78	0.15	34%
Soil	Refbio	SR1	B03SB001	50.5	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.38	6.64	1.36	0.87	0.22	0.49	0	0	0.71	0.92	4.7	0.77	0.15	33%
Soil	Refbio	SR3	B03SB003	48	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.31	6.49	1.28	0.87	0.21	0.48	0	0	0.68	0.92	4.7	0.74	0.15	31%
Soil	2000	74B43	B43SA01	42.6	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.14	1.12	0.87	0.18	0.45	0	0	0.63	0.92	4.7	0.68	0.13	29%
Soil	Phasel	74B41	E0112SA0	41.3	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.87	0.18	0.44	0	0	0.62	0.92	4.7	0.67	0.13	28%
Soil	Bioassay	74B01	B01SB001	40.4	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.10	6.00	1.05	0.87	0.17	0.43	0	0	0.61	0.92	4.7	0.66	0.13	26%
Soil	Phasel	74B01	E0101SA0	32.9	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.87	5.46	0.83	0.87	0.14	0.39	0	0	0.53	0.92	4.7	0.57	0.11	25%
Soil	2000	74B01	B01SA01	32.6	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.86	5.43	0.82	0.87	0.14	0.38	0	0	0.52	0.92	4.7	0.57	0.11	24%
Soil	2000	74B39	B39SA01	31.3	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.82	5.33	0.78	0.87	0.13	0.37	0	0	0.51	0.92	4.7	0.55	0.11	23%
Soil	2000	74B21	B21SA01	30.1	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.78	5.24	0.75	0.87	0.13	0.37	0	0	0.50	0.92	4.7	0.54	0.11	21%
Soil	2000	74B41	B41SA01	29	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.74	5.15	0.72	0.87	0.12	0.36	0	0	0.48	0.92	4.7	0.53	0.10	20%
Soil	Bioassay	74B43	B01SB043	26.4	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.65	4.93	0.64	0.87	0.11	0.34	0	0	0.45	0.92	4.7	0.49	0.10	19%
Soil	2000	74B36	B36SA01	25.6	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.63	4.87	0.62	0.87	0.11	0.33	0	0	0.44	0.92	4.7	0.48	0.09	18%
Soil	Phasel	74B37	E0111SA0	25.5	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.62	4.86	0.62	0.87	0.11	0.33	0	0	0.44	0.92	4.7	0.48	0.09	16%
Soil	2000	74B42	B42SA01	22.9	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.53	4.62	0.54	0.87	0.10	0.31	0	0	0.41	0.92	4.7	0.45	0.09	15%
Soil	2000	74B50	B50SA01	22	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.49	4.54	0.52	0.87	0.09	0.31	0	0	0.40	0.92	4.7	0.44	0.09	14%
Soil	2000	74B46	B46SA01	21.5	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.47	4.49	0.51	0.87	0.09	0.30	0	0	0.40	0.92	4.7	0.43	0.08	13%
Soil	2000	74B52	B52SA01	19.1	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.38	4.25	0.44	0.87	0.08	0.28	0	0	0.37	0.92	4.7	0.40	0.08	11%
Soil	2000	74B33	B33SA01	17.4	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.31	4.08	0.40	0.87	0.07	0.27	0	0	0.34	0.92	4.7	0.37	0.07	10%
Soil	Phasel	74B43	E0115SA0	16.2	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.26	3.95	0.36	0.87	0.07	0.26	0	0	0.33	0.92	4.7	0.36	0.07	9%
Soil	Bioassay	74B04	B01SB304	15.1	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.21	3.82	0.34	0.87	0.06	0.25	0	0	0.31	0.92	4.7	0.34142588	0.0668323	8%
Soil	2000	74B40	B40SA01	13.5	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.14	3.63	0.29	0.87	0.06	0.23	0	0	0.29	0.92	4.7	0.32	0.06	6%
Soil	2000	74B45	B45SA01	12.7	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.10	3.53	0.27	0.87	0.05	0.23	0	0	0.28	0.92	4.7	0.31	0.06	5%
Soil	Phasel	74B04	E0102SA0	12.6	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.09	3.52	0.27	0.87	0.05	0.23	0	0	0.28	0.92	4.7	0.30	0.06	4%
Soil	2000	74B51	B51SA01	11.6	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.04	3.39	0.25	0.87	0.05	0.21	0	0	0.26	0.92	4.7	0.29	0.06	3%
Soil	2000	74B48	B48SA01	9.7	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.94	3.12	0.20	0.87	0.04	0.19	0	0	0.24	0.92	4.7	0.26	0.05	1%
Soil	2000	74B25	B25SA01	5	DET	0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.65	2.30	0.09	0.87	0.02	0.13	0	0	0.16	0.92	4.7	0.17	0.03	0%
Soil	2000	74B37	B37SA01			0.206	0.024	1	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.87	0	0	0	0	0	0.92	4.7	0	0	

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the LOAEL
Shaded samples are those with concentrations that exceeded the LOAEL
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/NOAEL or LOAEL)
LOAEL = lowest observed adverse effect level
ND = non-detect
NOAEL = no observed adverse effect level
Refbio = bioassay sample collected from a reference area
SIR = Soil ingestion rate

Table 4-6
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Ornate Shrews to Antimony at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Antimony Concentration (mg/kg dry)	Qualifier	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Sediment	2000	74G05	G05CA01	2980	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	9.81612	0	0	0.27	10.08612	0.059	0.59	170.95	17.10	98%
Sediment	2000	74G36	G36CA01	282	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.928908	0	0	0.27	1.198908	0.059	0.59	20.32	2.03	95%
Sediment	Bioassay	74G36	B02DB036	282	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.928908	0	0	0.27	1.198908	0.059	0.59	20.32	2.03	93%
Sediment	Phasel	74G37	E0204DA0	182	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.599508	0	0	0.27	0.869508	0.059	0.59	14.74	1.47	90%
Sediment	Phasel	74G38	E0205DA0	176	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.579744	0	0	0.27	0.849744	0.059	0.59	14.40	1.44	88%
Sediment	Phasel	74G04	E0208DA0	142	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.467748	0	0	0.27	0.737748	0.059	0.59	12.50	1.25	85%
Sediment	Bioassay	74G05	B02DB005	109	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.359046	0	0	0.27	0.629046	0.059	0.59	10.66	1.07	83%
Sediment	2000	74G13	G13CA01	81.2	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.2674728	0	0	0.27	0.5374728	0.059	0.59	9.11	0.91	80%
Sediment	2000	74G59	G59CA01	62.1	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.2045574	0	0	0.27	0.4745574	0.059	0.59	8.04	0.80	78%
Sediment	Phasel	74G26	E0207DA0	60.1	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1979694	0	0	0.27	0.4679694	0.059	0.59	7.93	0.79	75%
Sediment	2000	74G60	G60CA01	59.2	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1950048	0	0	0.27	0.4650048	0.059	0.59	7.88	0.79	73%
Sediment	2000	74G12	G12CA01	54.3	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1788642	0	0	0.27	0.4488642	0.059	0.59	7.61	0.76	70%
Sediment	2000	74G66	G66CA01	48.8	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1607472	0	0	0.27	0.4307472	0.059	0.59	7.30	0.73	68%
Sediment	2000	74G65	G65CA01	48.5	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.159759	0	0	0.27	0.429759	0.059	0.59	7.28	0.73	65%
Sediment	2000	74G61	G61CA01	43.5	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.143289	0	0	0.27	0.413289	0.059	0.59	7.00	0.70	63%
Sediment	2000	74G62	G62CA01	39.2	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1291248	0	0	0.27	0.3991248	0.059	0.59	6.76	0.68	60%
Sediment	2000	74G63	G63CA01	38.6	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1271484	0	0	0.27	0.3971484	0.059	0.59	6.73	0.67	58%
Sediment	2000	74G38	G38CA01	37.4	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1231956	0	0	0.27	0.3931956	0.059	0.59	6.66	0.67	55%
Sediment	2000	74G58	G58CA01	22.6	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0744444	0	0	0.27	0.3444444	0.059	0.59	5.84	0.58	53%
Sediment	Phasel	74G16	E0213DA0	7.8	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0256932	0	0	0.27	0.2956932	0.059	0.59	5.01	0.50	50%
Sediment	Bioassay	74G52	B02DB052	4.2	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0138348	0	0	0.27	0.2838348	0.059	0.59	4.81	0.48	48%
Sediment	Bioassay	74G35	B02DB035	3.8	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0125172	0	0	0.27	0.2825172	0.059	0.59	4.79	0.48	45%
Sediment	Phasel	74G35	E0211DA0	3.3	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0108702	0	0	0.27	0.2808702	0.059	0.59	4.76	0.48	43%
Sediment	Bioassay	74G26	B02DB026	1.8	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0059292	0	0	0.27	0.2759292	0.059	0.59	4.68	0.47	40%
Sediment	Phasel	74G15	E0212DA0	1.6	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0052704	0	0	0.27	0.2752704	0.059	0.59	4.67	0.47	38%
Sediment	Phasel	74G39	E0214DA0	1.4	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0046116	0	0	0.27	0.2746116	0.059	0.59	4.65	0.47	35%
Sediment	Phasel	74G52	E0215DA0	1.4	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0046116	0	0	0.27	0.2746116	0.059	0.59	4.65	0.47	33%
Sediment	Phasel	74G36	E0206DA0	1.2	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0039528	0	0	0.27	0.2739528	0.059	0.59	4.64	0.46	30%
Sediment	Bioassay	74G15	B02DB015	1.1	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0036234	0	0	0.27	0.2736234	0.059	0.59	4.64	0.46	28%
Sediment	Phasel	74G05	E0201DA0	0.9	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0029646	0	0	0.27	0.2729646	0.059	0.59	4.63	0.46	25%
Sediment	Bioassay	74G41	B02DB041	0.8	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0026352	0	0	0.27	0.2726352	0.059	0.59	4.62	0.46	23%
Sediment	Bioassay	74G44	B02DB044	0.7	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0023058	0	0	0.27	0.2723058	0.059	0.59	4.62	0.46	20%
Sediment	Phasel	74G28	E0209DA0	0.7	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0023058	0	0	0.27	0.2723058	0.059	0.59	4.62	0.46	18%
Sediment	Phasel	74G44	E0210DA0	0.4	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0013176	0	0	0.27	0.2713176	0.059	0.59	4.60	0.46	15%
Sediment	Phasel	74G46	E0203DA0	0.4	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0013176	0	0	0.27	0.2713176	0.059	0.59	4.60	0.46	13%
Sediment	Phasel	74G41	E0202DA0	0.3	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0009882	0	0	0.27	0.2709882	0.059	0.59	4.59	0.46	10%
Sediment	Refbio	SD3	B03DB003	0.3	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0009882	0	0	0.27	0.2709882	0.059	0.59	4.59	0.46	7%
Sediment	Bioassay	74G46	B02DB346	0.2	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0006588	0	0	0.27	0.2706588	0.059	0.59	4.59	0.46	5%
Sediment	Refbio	SD2	B03DB002	0.2	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0006588	0	0	0.27	0.2706588	0.059	0.59	4.59	0.46	2%
Sediment	Refbio	SD1	B03DB001	0.1	DET	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0003294	0	0	0.27	0.2703294	0.059	0.59	4.58	0.46	0%
Sediment	2000	74G16	G16CA01	83.3	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.2743902	0	0	0.27	0.5443902	0.059	0.59	9.23	0.92	98%
Sediment	2000	74G26	G26CA01	83.3	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.2743902	0	0	0.27	0.5443902	0.059	0.59	9.23	0.92	96%
Sediment	2000	74G55	G55CA01	71.4	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.2351916	0	0	0.27	0.5051916	0.059	0.59	8.56	0.86	94%
Sediment	2000	74G29	G29CA01	67.6	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.2226744	0	0	0.27	0.4926744	0.059	0.59	8.35	0.84	92%
Sediment	2000	74G39	G39CA01	65.4	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.2154276	0	0	0.27	0.4854276	0.059	0.59	8.23	0.82	90%
Sediment	2000	74G42	G42CA01	62.9	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.2071926	0	0	0.27	0.4771926	0.059	0.59	8.09	0.81	88%
Sediment	2000	74G33	G33CA01	55.9	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1841346	0	0	0.27	0.4541346	0.059	0.59	7.70	0.77	85%
Sediment	2000	74G45	G45CA01	55.9	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1841346	0	0	0.27	0.4541346	0.059	0.59	7.70	0.77	83%
Sediment	2000	74G35	G35CA01	55.2	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1818288	0	0	0.27	0.4518288	0.059	0.59	7.66	0.77	81%
Sediment	2000	74G28	G28CA01	52.1	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1716174	0	0	0.27	0.4416174	0.059	0.59	7.49	0.75	79%
Sediment	2000	74G31	G31CA01	51.8	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1706292	0	0	0.27	0.4406292	0.059	0.59	7.47	0.75	77%
Sediment	2000	74G51	G51CA01	51.3	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1689822	0	0	0.27	0.4389822	0.059	0.59	7.44	0.74	75%
Sediment	2000	74G22	G22CA01	50.8	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1673352	0	0	0.27	0.4373352	0.059	0.59	7.41	0.74	73%
Sediment	2000	74G03	G03CA01	50	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1647	0	0	0.27	0.4347	0.059	0.59	7.37	0.74	71%
Sediment	2000	74G24	G24CA01	48.3	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1591002	0	0	0.27	0.4291002	0.059	0.59	7.27	0.73	69%
Sediment	2000	74G30	G30CA01	47.2	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1554768	0	0	0.27	0.4254768	0.059	0.59	7.21	0.72	67%
Sediment	2000	74G21	G21CA01	46.7	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1538298	0	0	0.27	0.4238298	0.059	0.59	7.18	0.72	65%
Sediment	2000	74G48	G48CA01	40	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.13176	0	0	0.27	0.40176	0.059	0.59	6.81	0.68	63%
Sediment	2000	74G19	G19CA01	38	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.125172	0	0	0.27	0.395172	0.059	0.59	6.70	0.67	60%
Sediment	2000	74G01	G01CA01	35.5	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.116937	0	0	0.27	0.386937	0.059	0.59	6.56	0.66	58%
Sediment	2000	74G52	G52CA01	33.2	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1093608	0	0	0.27	0.3793608	0.059	0.59	6.43	0.64	56%
Sediment	2000	74G46	G46CA01	32.9	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1083726	0	0	0.27	0.3783726	0.059	0.59	6.41	0.64	54%
Sediment	2000	74G40	G40CA01	32.5	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.107055	0	0	0.27	0.377055	0.059	0.59	6.39	0.64	52%
Sediment	2000	74G04	G04CA01	32.1	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1057374	0	0	0.27	0.3757374	0.059	0.59	6.37	0.64	50%
Sediment	2000	74G09	G09CA01	32.1	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1057374	0	0	0.27	0.3757374	0.059	0.59	6.37	0.64	48%
Sediment	2000	74G44	G44CA01	31.9	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1050786	0	0	0.27	0.3750786	0.059	0.59	6.36	0.64	46%
Sediment	2000	74G32	G32CA01	30.9	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.1017846	0	0	0.27	0.3717846	0.059	0.59	6.30	0.63	44%
Sediment	2000	74G02	G02CA01	30.2	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0994788	0	0	0.27	0.3694788	0.059	0.59	6.26	0.63	42%
Sediment	2000	74G50	G50CA01	30.2	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0994788	0	0	0.27	0.3694788	0.059	0.59	6.26	0.63	40%

Table 4-6

Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Ornate Shrews to Antimony at Site 74

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Antimony Concentration (mg/kg dry)	Qualifier	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Sediment	2000	74G34	G34CA01	29.9	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0984906	0	0	0.27	0.3684906	0.059	0.59	6.25	0.62	38%
Sediment	2000	74G06	G06CA01	29.2	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0961848	0	0	0.27	0.3661848	0.059	0.59	6.21	0.62	35%
Sediment	2000	74G08	G08CA01	28.3	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0932202	0	0	0.27	0.3632202	0.059	0.59	6.16	0.62	33%
Sediment	2000	74G17	G17CA01	27.4	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0902556	0	0	0.27	0.3602556	0.059	0.59	6.11	0.61	31%
Sediment	2000	74G10	G10CA01	26.7	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0879498	0	0	0.27	0.3579498	0.059	0.59	6.07	0.61	29%
Sediment	2000	74G56	G56CA01	26	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.085644	0	0	0.27	0.355644	0.059	0.59	6.03	0.60	27%
Sediment	2000	74G54	G54CA01	25.4	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0836676	0	0	0.27	0.3536676	0.059	0.59	5.99	0.60	25%
Sediment	2000	74G49	G49CA01	24.9	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0820206	0	0	0.27	0.3520206	0.059	0.59	5.97	0.60	23%
Sediment	2000	74G23	G23CA01	24.6	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0810324	0	0	0.27	0.3510324	0.059	0.59	5.95	0.59	21%
Sediment	2000	74G07	G07CA01	24.4	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0803736	0	0	0.27	0.3503736	0.059	0.59	5.94	0.59	19%
Sediment	2000	74G14	G14CA01	23.8	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0783972	0	0	0.27	0.3483972	0.059	0.59	5.91	0.59	17%
Sediment	2000	74G27	G27CA01	23.5	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.077409	0	0	0.27	0.347409	0.059	0.59	5.89	0.59	15%
Sediment	2000	74G20	G20CA01	22.7	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0747738	0	0	0.27	0.3447738	0.059	0.59	5.84	0.58	13%
Sediment	2000	74G37	G37CA01	22.5	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.074115	0	0	0.27	0.344115	0.059	0.59	5.83	0.58	10%
Sediment	2000	74G47	G47CA01	22.5	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.074115	0	0	0.27	0.344115	0.059	0.59	5.83	0.58	8%
Sediment	2000	74G25	G25CA01	22.2	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0731268	0	0	0.27	0.3431268	0.059	0.59	5.82	0.58	6%
Sediment	2000	74G11	G11CA01	21.6	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0711504	0	0	0.27	0.3411504	0.059	0.59	5.78	0.58	4%
Sediment	2000	74G15	G15CA01	20	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.06588	0	0	0.27	0.33588	0.059	0.59	5.69	0.57	2%
Sediment	2000	74G18	G18CA01	19.8	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0.0652212	0	0	0.27	0.3352212	0.059	0.59	5.68	0.57	0%
Sediment	2000	74G05	G05CA01D			0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0	0	0	0.27	0.27	0.059	0.59	4.58	0.46	
Sediment	2000	74G41	G41CA01			0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0	0	0	0.27	0.27	0.059	0.59	4.58	0.46	
Sediment	2000	74G43	G43CA01			0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0	0	0	0.27	0.27	0.059	0.59	4.58	0.46	
Sediment	2000	74G53	G53CA01			0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0	0	0	0.27	0.27	0.059	0.59	4.58	0.46	
Sediment	2000	74G57	G57CA01			0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0	0	0	0.27	0.27	0.059	0.59	4.58	0.46	
Sediment	2000	74G64	G64CA01			0.18	0.03	0	0	1	1.4	1.5	1.5	0.61	0	0	0	0.27	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B20	B20SA01	3930	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	21.222	0	0.27	0	21.492	0.059	0.59	364.27	36.43	97%
Soil	Phase1	74B09	E0104SA0	2380	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	12.852	0	0.27	0	13.122	0.059	0.59	222.41	22.24	94%
Soil	2000	74B12	B12SA01	1780	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	9.612	0	0.27	0	9.882	0.059	0.59	167.49	16.75	91%
Soil	2000	74B43	B43SA01	1780	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	9.612	0	0.27	0	9.882	0.059	0.59	167.49	16.75	89%
Soil	Phase1	74B10	E0105SA0	1430	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	7.722	0	0.27	0	7.992	0.059	0.59	135.46	13.55	86%
Soil	Bioassay	74B10	B01SB010	28.6	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.15444	0	0.27	0	0.42444	0.059	0.59	7.19	0.72	83%
Soil	2000	74B10	B10SA01	20.4	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.11016	0	0.27	0	0.38016	0.059	0.59	6.44	0.64	80%
Soil	2000	74B31	B31SA01	19.4	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.10476	0	0.27	0	0.37476	0.059	0.59	6.35	0.64	77%
Soil	2000	74B11	B11SA01	19	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.1026	0	0.27	0	0.3726	0.059	0.59	6.32	0.63	74%
Soil	2000	74B29	B29SA01	18.4	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.09936	0	0.27	0	0.36936	0.059	0.59	6.26	0.63	71%
Soil	2000	74B48	B48SA01	13	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0702	0	0.27	0	0.3402	0.059	0.59	5.77	0.58	69%
Soil	2000	74B47	B47SA01	12	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0648	0	0.27	0	0.3348	0.059	0.59	5.67	0.57	66%
Soil	2000	74B46	B46SA01	10.7	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.05778	0	0.27	0	0.32778	0.059	0.59	5.56	0.56	63%
Soil	2000	74B45	B45SA01	10.4	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.05616	0	0.27	0	0.32616	0.059	0.59	5.53	0.55	60%
Soil	2000	74B49	B49SA01	10.4	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.05616	0	0.27	0	0.32616	0.059	0.59	5.53	0.55	57%
Soil	Bioassay	74B09	B01SB009	10.4	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.05616	0	0.27	0	0.32616	0.059	0.59	5.53	0.55	54%
Soil	2000	74B44	B44SA01	10.3	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.05562	0	0.27	0	0.32562	0.059	0.59	5.52	0.55	51%
Soil	Phase1	74B30	E0110SA0	9.5	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0513	0	0.27	0	0.3213	0.059	0.59	5.45	0.54	49%
Soil	Bioassay	74B20	B01SB020	7	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0378	0	0.27	0	0.3078	0.059	0.59	5.22	0.52	46%
Soil	Phase1	74B24	E0107SA0	6.3	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.03402	0	0.27	0	0.30402	0.059	0.59	5.15	0.52	43%
Soil	Bioassay	74B32	B01SB032	5	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.027	0	0.27	0	0.297	0.059	0.59	5.03	0.50	40%
Soil	Phase1	74B20	E0106SA0	4.6	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.02484	0	0.27	0	0.29484	0.059	0.59	5.00	0.50	37%
Soil	Bioassay	74B07	B01SB007	3.4	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.01836	0	0.27	0	0.28836	0.059	0.59	4.89	0.49	34%
Soil	Phase1	74B07	E0103SA0	3.3	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.01782	0	0.27	0	0.28782	0.059	0.59	4.88	0.49	31%
Soil	Phase1	74B29	E0109SA0	2.4	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.01296	0	0.27	0	0.28296	0.059	0.59	4.80	0.48	29%
Soil	Phase1	74B49	E0114SA0	1.5	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0081	0	0.27	0	0.2781	0.059	0.59	4.71	0.47	26%
Soil	Bioassay	74B27	B01SB027	0.9	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00486	0	0.27	0	0.27486	0.059	0.59	4.66	0.47	23%
Soil	Phase1	74B27	E0108SA0	0.7	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00378	0	0.27	0	0.27378	0.059	0.59	4.64	0.46	20%
Soil	Phase1	74B32	E0113SA0	0.6	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00324	0	0.27	0	0.27324	0.059	0.59	4.63	0.46	17%
Soil	Phase1	74B41	E0112SA0	0.6	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00324	0	0.27	0	0.27324	0.059	0.59	4.63	0.46	14%
Soil	Phase1	74B37	E0111SA0	0.5	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0027	0	0.27	0	0.2727	0.059	0.59	4.62	0.46	11%
Soil	Phase1	74B01	E0101SA0	0.3	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00162	0	0.27	0	0.27162	0.059	0.59	4.60	0.46	9%
Soil	Bioassay	74B04	B01SB304	0.2	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00108	0	0.27	0	0.27108	0.059	0.59	4.59	0.46	6%
Soil	Phase1	74B04	E0102SA0	0.2	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00108	0	0.27	0	0.27108	0.059	0.59	4.59	0.46	3%
Soil	Phase1	74B43	E0115SA0	0.2	DET	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00108	0	0.27	0	0.27108	0.059	0.59	4.59	0.46	0%
Soil	2000	74B23	B23SA01	15.4	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.08316	0	0.27	0	0.35316	0.059	0.59	5.99	0.60	97%
Soil	2000	74B27	B27SA01	14.7	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.07938	0	0.27	0	0.34938	0.059	0.59	5.92	0.59	94%
Soil	2000	74B22	B22SA01	14	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0756	0	0.27	0	0.3456	0.059	0.59	5.86	0.59	91%
Soil	2000	74B19	B19SA01	13.9	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.07506	0	0.27	0	0.34506	0.059	0.59	5.85	0.58	88%
Soil	2000	74B38	B38SA01	13.9	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.07506	0	0.27	0	0.34506	0.059	0.59	5.85	0.58	85%
Soil	2000	74B37	B37SA01	13.7	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.07398	0	0.27	0	0.34398	0.059	0.59	5.83	0.58	82%
Soil	2000	74B06	B06SA01	13.3	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.07182	0	0.27	0	0.34182	0.059	0.59	5.79	0.58	79%
Soil	2000	74B05	B05SA01	13.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.07128	0	0.27	0	0.34128	0.059	0.59	5.78	0.58	76%
Soil	2000	74B24	B24SA01	13.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.07128	0	0.27	0	0.34128	0.059	0.59	5.78	0.58	73%

Table 4-6

Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Ornate Shrews to Antimony at Site 74

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Antimony Concentration (mg/kg dry)	Qualifier	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Soil	2000	74B26	B26SA01	13.1	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.07074	0	0.27	0	0.34074	0.059	0.59	5.78	0.58	70%
Soil	2000	74B28	B28SA01	12.9	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06966	0	0.27	0	0.33966	0.059	0.59	5.76	0.58	67%
Soil	2000	74B15	B15SA01	12.8	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06912	0	0.27	0	0.33912	0.059	0.59	5.75	0.57	64%
Soil	2000	74B09	B09SA01	12.7	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06858	0	0.27	0	0.33858	0.059	0.59	5.74	0.57	61%
Soil	2000	74B07	B07SA01	12.5	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0675	0	0.27	0	0.3375	0.059	0.59	5.72	0.57	58%
Soil	2000	74B03	B03SA01	12.4	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06696	0	0.27	0	0.33696	0.059	0.59	5.71	0.57	55%
Soil	2000	74B01	B01SA01	12.3	ND	0.18	0.03	0	0	1	1.4	1.5	1.5	1	0.06642	0	0	0.27	0.33642	0.059	0.59	5.70	0.57	52%
Soil	2000	74B02	B02SA01	12.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06588	0	0.27	0	0.33588	0.059	0.59	5.69	0.57	48%
Soil	2000	74B13	B13SA01	12.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06588	0	0.27	0	0.33588	0.059	0.59	5.69	0.57	45%
Soil	2000	74B21	B21SA01	12.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06588	0	0.27	0	0.33588	0.059	0.59	5.69	0.57	42%
Soil	2000	74B30	B30SA01	12.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06588	0	0.27	0	0.33588	0.059	0.59	5.69	0.57	39%
Soil	2000	74B08	B08SA01	12.1	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06534	0	0.27	0	0.33534	0.059	0.59	5.68	0.57	36%
Soil	2000	74B17	B17SA01	12.1	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06534	0	0.27	0	0.33534	0.059	0.59	5.68	0.57	33%
Soil	2000	74B14	B14SA01	11.9	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06426	0	0.27	0	0.33426	0.059	0.59	5.67	0.57	30%
Soil	2000	74B16	B16SA01	11.9	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06426	0	0.27	0	0.33426	0.059	0.59	5.67	0.57	27%
Soil	2000	74B04	B04SA01	11.8	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06372	0	0.27	0	0.33372	0.059	0.59	5.66	0.57	24%
Soil	2000	74B35	B35SA01	11.6	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.06264	0	0.27	0	0.33264	0.059	0.59	5.64	0.56	21%
Soil	2000	74B18	B18SA01	11.5	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.0621	0	0.27	0	0.3321	0.059	0.59	5.63	0.56	18%
Soil	2000	74B34	B34SA01	10.8	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.05832	0	0.27	0	0.32832	0.059	0.59	5.56	0.56	15%
Soil	Bioassay	74B01	B01SB001	0.3	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00162	0	0.27	0	0.27162	0.059	0.59	4.60	0.46	12%
Soil	Bioassay	74B43	B01SB043	0.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00108	0	0.27	0	0.27108	0.059	0.59	4.59	0.46	9%
Soil	Refbio	SR2	B03SB002	0.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00108	0	0.27	0	0.27108	0.059	0.59	4.59	0.46	6%
Soil	Refbio	SR3	B03SB003	0.2	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00108	0	0.27	0	0.27108	0.059	0.59	4.59	0.46	3%
Soil	Refbio	SR1	B03SB001	0.1	ND	0.18	0.03	0	1	0	1.4	1.5	1.5	1	0.00054	0	0.27	0	0.27054	0.059	0.59	4.59	0.46	0%
Soil	2000	74B25	B25SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B32	B32SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B33	B33SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B36	B36SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B37	B37SA01D			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B39	B39SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B40	B40SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B41	B41SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B42	B42SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B50	B50SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B51	B51SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	
Soil	2000	74B52	B52SA01			0.18	0.03	0	1	0	1.4	1.5	1.5	1	0	0	0.27	0	0.27	0.059	0.59	4.58	0.46	

Notes:

[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the LOAEL

Shaded samples are those with concentrations that exceeded the LOAEL

DET = detect

FIR = food ingestion rate

HQ = hazard quotient (total exposure/NOAEL or LOAEL)

LOAEL = lowest observed adverse effect level

ND = non-detect

NOAEL = no observed adverse effect level

Refbio = bioassay sample collected from a reference area

SIR = soil ingestion rate

Table 4-7
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Ornate Shrews to Lead at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Ingestion Rate (FIR) kg/kg/d dry	Ingestion Rate (SIR) proportion of FIR	Diet Composition (proportion of FIR) Plants	Diet Composition Terrestrial Invertebrates	Diet Composition Aquatic Invertebrates	Plant Uptake Model slope	Plant Uptake Model intercept	Terrestrial Invertebrate Uptake Model slope	Terrestrial Invertebrate Uptake Model intercept	Aquatic Invertebrate Uptake Model slope	Aquatic Invertebrate Uptake Model intercept	Estimated Concentrations (mg/kg dry) Plants	Estimated Concentrations Terrestrial Invertebrates	Estimated Concentrations Aquatic Invertebrates	Site-specific Bioaccessibility proportion	Estimated Exposures (mg/kg/d) Soil or Sediment	Estimated Exposures Plants	Estimated Exposures Terrestrial Invertebrates	Estimated Exposures Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile
Sediment	2000	74G05	G05CA01D	154000	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	212.52	261.82	15000.83	0.73	607.07	0	0	2700.15	3307.22	0.92	4.7	3594.80	703.66	99%
Sediment	Bioassay	74G36	B02DB036	33100	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	89.84	129.48	2521.11	0.73	130.48	0	0	453.80	584.28	0.92	4.7	635.09	124.31	98%
Sediment	2000	74G36	G36CA01	21400	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	70.38	106.04	1520.10	0.73	84.36	0	0	273.62	357.98	0.92	4.7	389.10	76.17	97%
Sediment	PhaseI	74G38	E0205DA0	20400	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	68.51	103.74	1438.01	0.73	80.42	0	0	258.84	339.26	0.92	4.7	368.76	72.18	96%
Sediment	PhaseI	74G04	E0208DA0	15800	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	59.38	92.28	1069.14	0.73	62.28	0	0	192.44	254.73	0.92	4.7	276.88	54.20	95%
Sediment	PhaseI	74G37	E0204DA0	10700	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	47.74	77.19	680.26	0.73	42.18	0	0	122.45	164.63	0.92	4.7	178.94	35.03	94%
Sediment	Bioassay	74G05	B02DB005	9020	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	43.38	71.39	558.00	0.73	35.56	0	0	100.44	136.00	0.92	4.7	147.82	28.94	92%
Sediment	PhaseI	74G26	E0207DA0	8080	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	40.79	67.88	491.12	0.73	31.85	0	0	88.40	120.25	0.92	4.7	130.71	25.59	91%
Sediment	2000	74G13	G13CA01	7280	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	38.48	64.71	435.17	0.73	28.70	0	0	78.33	107.03	0.92	4.7	116.34	22.77	90%
Sediment	2000	74G04	G04CA01	7240	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	38.36	64.55	432.40	0.73	28.54	0	0	77.83	106.37	0.92	4.7	115.62	22.63	89%
Sediment	2000	74G12	G12CA01	5780	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	33.81	58.22	332.99	0.73	22.78	0	0	59.94	82.72	0.92	4.7	89.92	17.60	88%
Sediment	2000	74G38	G38CA01	3230	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	24.41	44.60	169.54	0.73	12.73	0	0	30.52	43.25	0.92	4.7	47.01	9.20	87%
Sediment	2000	74G02	G02CA01	2390	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	20.62	38.85	119.55	0.73	9.42	0	0	21.52	30.94	0.92	4.7	33.63	6.58	86%
Sediment	2000	74G03	G03CA01	2050	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	18.92	36.22	100.05	0.73	8.08	0	0	18.01	26.09	0.92	4.7	28.36	5.55	85%
Sediment	2000	74G06	G06CA01	1500	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.73	5.91	0	0	12.54	18.45	0.92	4.7	20.05	3.93	84%
Sediment	2000	74G19	G19CA01	1160	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	13.76	27.90	51.68	0.73	4.57	0	0	9.30	13.88	0.92	4.7	15.08	2.95	83%
Sediment	2000	74G35	G35CA01	1020	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	12.80	26.31	44.52	0.73	4.02	0	0	8.01	12.03	0.92	4.7	13.08	2.56	82%
Sediment	PhaseI	74G16	E0213DA0	928	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	12.14	25.19	39.90	0.73	3.66	0	0	7.18	10.84	0.92	4.7	11.78	2.31	81%
Sediment	2000	74G01	G01CA01	850	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	11.56	24.20	36.03	0.73	3.35	0	0	6.49	9.84	0.92	4.7	10.69	2.09	80%
Sediment	PhaseI	74G35	E0211DA0	837	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	11.46	24.03	35.40	0.73	3.30	0	0	6.37	9.67	0.92	4.7	10.51	2.06	78%
Sediment	Refbio	SD3	B03DB003	773	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	10.96	23.17	32.28	0.73	3.05	0	0	5.81	8.86	0.92	4.7	9.63	1.88	77%
Sediment	Bioassay	74G35	B02DB035	536	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	8.93	19.59	21.11	0.73	2.11	0	0	3.80	5.91	0.92	4.7	6.43	1.26	76%
Sediment	2000	74G21	G21CA01	364	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	7.19	16.41	13.47	0.73	1.43	0	0	2.43	3.86	0.92	4.7	4.20	0.82	75%
Sediment	2000	74G52	G52CA01	334	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	6.85	15.78	12.19	0.73	1.32	0	0	2.19	3.51	0.92	4.7	3.82	0.75	74%
Sediment	Bioassay	74G26	B02DB026	285	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	6.27	14.67	10.14	0.73	1.12	0	0	1.83	2.95	0.92	4.7	3.21	0.63	73%
Sediment	2000	74G26	G26CA01	212	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	5.31	12.81	7.20	0.73	0.84	0	0	1.30	2.13	0.92	4.7	2.32	0.45	72%
Sediment	Bioassay	74G52	B02DB052	199	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	5.13	12.45	6.69	0.73	0.78	0	0	1.20	1.99	0.92	4.7	2.16	0.42	71%
Sediment	Bioassay	74G15	B02DB015	179	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	4.83	11.86	5.91	0.73	0.71	0	0	1.06	1.77	0.92	4.7	1.92	0.38	70%
Sediment	2000	74G22	G22CA01	176	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	4.78	11.76	5.80	0.73	0.69	0	0	1.04	1.74	0.92	4.7	1.89	0.37	69%
Sediment	PhaseI	74G36	E0206DA0	167	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	4.65	11.48	5.46	0.73	0.66	0	0	0.98	1.64	0.92	4.7	1.78	0.35	68%
Sediment	2000	74G11	G11CA01	165	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	4.62	11.42	5.38	0.73	0.65	0	0	0.97	1.62	0.92	4.7	1.76	0.34	67%
Sediment	2000	74G25	G25CA01	155	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	4.46	11.10	5.00	0.73	0.61	0	0	0.90	1.51	0.92	4.7	1.64	0.32	66%
Sediment	2000	74G08	G08CA01	140	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	4.21	10.59	4.45	0.73	0.55	0	0	0.80	1.35	0.92	4.7	1.47	0.29	65%
Sediment	2000	74G14	G14CA01	131	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	4.06	10.28	4.12	0.73	0.52	0	0	0.74	1.26	0.92	4.7	1.37	0.27	63%
Sediment	2000	74G10	G10CA01	130	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	4.04	10.24	4.08	0.73	0.51	0	0	0.73	1.25	0.92	4.7	1.36	0.27	62%
Sediment	PhaseI	74G15	E0212DA0	127	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.99	10.13	3.97	0.73	0.50	0	0	0.71	1.22	0.92	4.7	1.32	0.26	61%
Sediment	2000	74G59	G59CA01	127	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.99	10.13	3.97	0.73	0.50	0	0	0.71	1.22	0.92	4.7	1.32	0.26	60%
Sediment	2000	74G28	G28CA01	126	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.97	10.09	3.94	0.73	0.50	0	0	0.71	1.21	0.92	4.7	1.31	0.26	59%
Sediment	2000	74G07	G07CA01	121	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.88	9.91	3.76	0.73	0.48	0	0	0.68	1.15	0.92	4.7	1.25	0.25	58%
Sediment	2000	74G30	G30CA01	109	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.66	9.45	3.33	0.73	0.43	0	0	0.60	1.03	0.92	4.7	1.12	0.22	57%
Sediment	2000	74G15	G15CA01	106	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.60	9.33	3.22	0.73	0.42	0	0	0.58	1.00	0.92	4.7	1.08	0.21	56%
Sediment	2000	74G34	G34CA01	104	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.56	9.25	3.15	0.73	0.41	0	0	0.57	0.98	0.92	4.7	1.06	0.21	55%
Sediment	2000	74G42	G42CA01	103	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.54	9.20	3.12	0.73	0.41	0	0	0.56	0.97	0.92	4.7	1.05	0.21	54%
Sediment	PhaseI	74G52	E0215DA0	102	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.53	9.16	3.08	0.73	0.40	0	0	0.55	0.96	0.92	4.7	1.04	0.20	53%
Sediment	Bioassay	74G44	B02DB044	94.9	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.39	8.87	2.83	0.73	0.37	0	0	0.51	0.88	0.92	4.7	0.96	0.19	52%
Sediment	2000	74G37	G37CA01	84.6	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.17	8.41	2.48	0.73	0.33	0	0	0.45	0.78	0.92	4.7	0.85	0.17	51%
Sediment	2000	74G18	G18CA01	80.9	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.10	8.24	2.35	0.73	0.32	0	0	0.42	0.74	0.92	4.7	0.81	0.16	49%
Sediment	PhaseI	74G28	E0209DA0	76.7	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.01	8.04	2.21	0.73	0.30	0	0	0.40	0.70	0.92	4.7	0.76	0.15	48%
Sediment	Bioassay	74G41	B02DB041	76.5	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	3.00	8.03	2.21	0.73	0.30	0	0	0.40	0.70	0.92	4.7	0.76	0.15	47%
Sediment	PhaseI	74G46	E0203DA0	76.1	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.99	8.01	2.19	0.73	0.30	0	0	0.39	0.69	0.92	4.7	0.76	0.15	46%
Sediment	PhaseI	74G39	E0214DA0	70.1	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.86	7.72	1.99	0.73	0.28	0	0	0.36	0.64	0.92	4.7	0.69	0.14	45%
Sediment	2000	74G20	G20CA01	69.7	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.85	7.70	1.98	0.73	0.27	0	0	0.36	0.63	0.92	4.7	0.69	0.13	44%
Sediment	2000	74G47	G47CA01	68.2	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.81	7.62	1.93	0.73	0.27	0	0	0.35	0.62	0.92	4.7	0.67	0.13	43%
Sediment	2000	74G60	G60CA01	67.7	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.60	1.91	0.73	0.27	0	0	0.34	0.61	0.92	4.7	0.66	0.13	42%
Sediment	2000	74G63	G63CA01	67.7	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.60	1.91	0.73	0.27	0	0	0.34	0.61	0.92	4.7	0.66	0.13	41%
Sediment	2000	74G61	G61CA01	67.4	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.58	1.90	0.73	0.27	0	0	0.34	0.61	0.92	4.7	0.66	0.13	40%
Sediment	2000	74G31	G31CA01	67	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.79	7.56	1.89	0.73	0.26	0	0	0.34	0.60	0.92	4.7	0.66	0.13	39%
Sediment	2000	74G55	G55CA01	65.9	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.76	7.50	1.86	0.73	0.26	0	0	0.33	0.59	0.92	4.7	0.65	0.13	38%
Sediment	2000	74G24	G24CA01	65.1	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.74	7.46	1.83	0.73	0.26	0	0	0.33	0.59	0.92	4.7	0.64	0.12	37%
Sediment	2000	74G27	G27CA01	64.9	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.74	7.45	1.82	0.73	0.26	0	0	0.33	0.58	0.92	4.7	0.63	0.12	35%
Sediment	2000	74G53	G53CA01	61.6	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.66	7.27	1.72	0.73	0.24	0	0	0.31	0.55	0.92	4.7	0.60	0.12	34%
Sediment	2000	74G58	G58CA01	61	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.64	7.24	1.70	0.73	0.24	0	0	0.31	0.55	0.92	4.7	0.59	0.12	33%
Sediment	2000	74G66	G66CA01	60.6	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.63	7.22	1.68	0.73	0.24	0	0	0.30	0.54	0.92	4.7	0.59	0.12	32%
Sediment	2000	74G56	G56CA01	57.4	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.04	1.58	0.73	0.23	0	0	0.28	0.51	0.92	4.7	0.56	0.11	31%
Sediment	2000	74G23	G23CA01	57.1	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.73	0.23	0	0	0.28	0.51	0.92	4.7	0.55	0.11	30%
Sediment	2000	74G40	G40CA01	56.4	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.53	6.99	1.55	0.73	0.22	0	0	0.28	0.50	0.92	4.7	0.54	0.11	29%
Sediment	PhaseI	74G44	E0210DA0	54.9	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.49	6.90	1.50	0.73	0.22	0	0	0.27	0.49	0.92	4.7	0.53	0.10	28%
Sediment	2000	74G45	G45CA01	54.8	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.49	6.89	1.50	0.73	0.22	0	0	0.27	0.49	0.92	4.7	0.53	0.10	27%
Sediment	2000	74G44	G44CA01	52.3	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.43	6.75	1.42	0.73	0.21	0	0	0.26	0.46	0.92	4.7	0.50	0.10	26%
Sediment	2000	74G09	G09CA01	52.1	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.42	6.74	1.41	0.73	0.21	0	0	0.25	0.46	0.92	4.7	0.50	0.10	25%
Sediment	2000	74G51	G51CA01	51.7	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.41	6.71	1.40	0.73	0.20	0	0	0.25	0.46	0.92	4.7	0.50	0.10	24%
Sediment	2000	74G16	G16CA01	51.6	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.41	6.71	1.40	0.73	0.20	0	0	0.25	0.45	0.92	4.7	0.49	0.10	23%
Sediment	2000	74G49	G49CA01	50.9	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.39	6.67	1.38	0.73	0.20	0	0	0.25	0.45	0.92	4.7	0.49	0.10	22%
Sediment	PhaseI	74G05	E0201DA0	50.3	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.37	6.63	1.36	0.73	0.20	0	0	0.24	0.44	0.92	4.7	0.48	0.09	20%
Sediment	2000	74G48	G48CA01	49.8	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.36	6.60	1.34	0.73	0.20	0	0	0.24	0.44	0.92	4.7	0.48	0.09	19%
Sediment	Bioassay	74G46	B02DB346	48.4	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.32	6.51	1.30	0.73	0.19	0	0	0.23	0.42	0.92	4.7	0.46	0.09	18%
Sediment	Refbio	SD2	B03DB002	47.4	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.30	6.45	1.27	0.73	0.19	0	0	0.23	0.41	0.92	4.7	0.45	0.09	17%
Sediment	2000	74G33	G33CA01	46.2	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.26	6.38	1.23	0.73	0.18	0	0	0.22	0.40	0.92	4.7	0.44	0.09	16%
Sediment	2000	74G39	G39CA01	46.1	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.26	6.37	1.23	0.73	0.18	0	0	0.22	0.40	0.92	4.7	0.44	0.09	15%
Sediment	2000	74G32	G32CA01	45	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.23	6.30	1.19	0.73	0.18	0	0	0.21	0.39	0.92	4.7	0.43	0.08	14%
Sediment	2000	74G50	G50CA01	43.1	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.18	6.18	1.13	0.73	0.17	0	0	0.20	0.37	0.92	4.7	0.41	0.08	13%
Sediment	PhaseI	74G41	E0202DA0	42.7	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.15	1.12	0.73	0.17	0	0	0.20	0.37	0.92	4.7	0.40	0.08	12%
Sediment	2000	74G17	G17CA01	41.3	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.73	0.16	0	0	0.19	0.36	0.92	4.7	0.39	0.08	11%
Sediment	2000	74G65	G65CA01	39.9	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.08	5.96	1.04	0.73	0.16	0	0	0.19	0.34	0.92	4.7	0.37	0.07	10%
Sediment	2000	74G46	G46CA01	39.6	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.08	5.94	1.03	0.73	0.16	0	0	0.19	0.34	0.92	4.7	0.37	0.07	9%
Sediment	2000	74G54	G54CA01	39.5	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.07	5.93	1.02	0.73	0.16	0	0	0.18	0.34	0.92	4.7	0.37	0.07	8%
Sediment	2000	74G62	G62CA01	39	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	2.06	5.90	1.01	0.73	0.15	0	0	0.18	0.34	0.92	4.7	0.36	0.07	6%
Sediment	Refbio	SD1	B03DB001	35.7	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	1.96	5.67	0.91	0.73	0.14	0	0	0.16	0.30	0.92	4.7	0.33	0.06	5%
Sediment	2000	74G64	G64CA01	35.4	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	1.95	5.64	0.90	0.73	0.14	0	0	0.16	0.30	0.92	4.7	0.33	0.06	4%
Sediment	2000	74G57	G57CA01	34.6	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	1.92	5.59	0.88	0.73	0.14	0	0	0.16	0.29	0.92	4.7	0.32	0.06	3%
Sediment	2000	74G29	G29CA01	34.4	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	1.92	5.57	0.87	0.73	0.14	0	0	0.16	0.29	0.92	4.7	0.32	0.06	2%
Sediment	2000	74G41	G41CA01	23.2	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	1.54	4.65	0.55	0.73	0.09	0	0	0.10	0.19	0.92	4.7	0.21	0.04	1%
Sediment	2000	74G43	G43CA01	8.7	DET	0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24	0.89	2.97	0.18	0.73	0.03	0	0	0.03	0.07	0.92	4.7	0.07	0.01	0%

Table 4-7
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Ornate Shrews to Lead at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)										
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	slope	intercept	slope	intercept	slope	intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile
Sediment	2000	74G05	G05CA01			0.18	0.03	0	0	1	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.00	0	0	0	0	0.92	4.7	0.00	0.00	
Soil	2000	74B37	B37SA01D	80300	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	147.58	194.31	7047.93	0.87	377.25	0	34.98	0	412.22	0.92	4.7	448.07	87.71	99%
Soil	2000	74B20	B20SA01	69700	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	136.33	182.11	5980.55	0.87	327.45	0	32.78	0	360.23	0.92	4.7	391.55	76.64	98%
Soil	Phase I	74B09	E0104SA0	55200	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	119.64	163.66	4562.90	0.87	259.33	0	29.46	0	288.79	0.92	4.7	313.90	61.44	96%
Soil	2000	74B12	B12SA01	53400	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	117.44	161.19	4390.76	0.87	250.87	0	29.01	0	279.89	0.92	4.7	304.23	59.55	95%
Soil	Phase I	74B10	E0105SA0	31600	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	87.54	126.76	2389.07	0.87	148.46	0	22.82	0	171.27	0.92	4.7	186.17	36.44	94%
Soil	Bioassay	74B10	B01SB010	3430	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	25.24	45.84	181.77	0.87	16.11	0	8.25	0	24.37	0.92	4.7	26.49	5.18	93%
Soil	2000	74B19	B19SA01	2680	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	21.99	40.95	136.53	0.87	12.59	0	7.37	0	19.96	0.92	4.7	21.70	4.25	91%
Soil	2000	74B10	B10SA01	2170	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	19.53	37.17	106.88	0.87	10.19	0	6.69	0	16.89	0.92	4.7	18.35	3.59	90%
Soil	2000	74B11	B11SA01	1700	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	17.04	33.24	80.52	0.87	7.99	0	5.98	0	13.97	0.92	4.7	15.18	2.97	89%
Soil	2000	74B22	B22SA01	1500	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.87	7.05	0	5.65	0	12.70	0.92	4.7	13.80	2.70	88%
Soil	Bioassay	74B09	B01SB009	1470	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.87	6.91	0	5.60	0	12.50	0.92	4.7	13.59	2.66	86%
Soil	2000	74B29	B29SA01	1470	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.87	6.91	0	5.60	0	12.50	0.92	4.7	13.59	2.66	85%
Soil	2000	74B08	B08SA01	1270	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.47	29.08	57.41	0.87	5.97	0	5.24	0	11.20	0.92	4.7	12.18	2.38	84%
Soil	Phase I	74B30	E0110SA0	1240	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.28	28.77	55.84	0.87	5.83	0	5.18	0	11.00	0.92	4.7	11.96	2.34	83%
Soil	Bioassay	74B20	B01SB020	1220	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.15	28.55	54.80	0.87	5.73	0	5.14	0	10.87	0.92	4.7	11.82	2.31	81%
Soil	2000	74B31	B31SA01	1200	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.02	28.34	53.76	0.87	5.64	0	5.10	0	10.74	0.92	4.7	11.67	2.28	80%
Soil	2000	74B09	B09SA01	1110	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.42	27.35	49.11	0.87	5.21	0	4.92	0	10.14	0.92	4.7	11.02	2.16	79%
Soil	2000	74B15	B15SA01	1060	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.08	26.77	46.55	0.87	4.98	0	4.82	0	9.80	0.92	4.7	10.65	2.08	78%
Soil	Phase I	74B24	E0107SA0	963	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	12.39	25.62	41.65	0.87	4.52	0	4.61	0	9.14	0.92	4.7	9.93	1.94	76%
Soil	Phase I	74B20	E0106SA0	831	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.41	23.95	35.10	0.87	3.90	0	4.31	0	8.22	0.92	4.7	8.93	1.75	75%
Soil	2000	74B16	B16SA01	797	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.15	23.50	33.44	0.87	3.74	0	4.23	0	7.97	0.92	4.7	8.67	1.70	74%
Soil	Bioassay	74B32	B01SB032	604	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.54	20.69	24.24	0.87	2.84	0	3.72	0	6.56	0.92	4.7	7.13	1.40	73%
Soil	Phase I	74B07	E0103SA0	568	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.22	20.12	22.58	0.87	2.67	0	3.62	0	6.29	0.92	4.7	6.84	1.34	71%
Soil	Bioassay	74B07	B01SB007	535	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.92	19.58	21.06	0.87	2.51	0	3.52	0	6.04	0.92	4.7	6.56	1.28	70%
Soil	2000	74B17	B17SA01	448	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.07	18.05	17.14	0.87	2.10	0	3.25	0	5.35	0.92	4.7	5.82	1.14	69%
Soil	Phase I	74B29	E0109SA0	377	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.33	16.68	14.03	0.87	1.77	0	3.00	0	4.77	0.92	4.7	5.19	1.02	68%
Soil	2000	74B14	B14SA01	357	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.11	16.26	13.17	0.87	1.68	0	2.93	0	4.60	0.92	4.7	5.01	0.98	66%
Soil	2000	74B06	B06SA01	316	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	6.64	15.38	11.43	0.87	1.48	0	2.77	0	4.25	0.92	4.7	4.62	0.90	65%
Soil	2000	74B13	B13SA01	256	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.90	13.97	8.96	0.87	1.20	0	2.51	0	3.72	0.92	4.7	4.04	0.79	64%
Soil	2000	74B28	B28SA01	232	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.59	13.35	7.99	0.87	1.09	0	2.40	0	3.49	0.92	4.7	3.80	0.74	63%
Soil	Phase I	74B49	E0114SA0	221	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.44	13.06	7.55	0.87	1.04	0	2.35	0	3.39	0.92	4.7	3.68	0.72	61%
Soil	2000	74B38	B38SA01	205	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.21	12.62	6.92	0.87	0.96	0	2.27	0	3.23	0.92	4.7	3.52	0.69	60%
Soil	2000	74B30	B30SA01	198	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.11	12.42	6.65	0.87	0.93	0	2.23	0	3.17	0.92	4.7	3.44	0.67	59%
Soil	2000	74B24	B24SA01	191	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.01	12.21	6.38	0.87	0.90	0	2.20	0	3.10	0.92	4.7	3.36	0.66	58%
Soil	Refbio	SR2	B03SB002	178	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.82	11.83	5.88	0.87	0.84	0	2.13	0	2.96	0.92	4.7	3.22	0.63	56%
Soil	2000	74B27	B27SA01	168	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.87	0.79	0	2.07	0	2.86	0.92	4.7	3.11	0.61	55%
Soil	2000	74B44	B44SA01	168	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.87	0.79	0	2.07	0	2.86	0.92	4.7	3.11	0.61	54%
Soil	2000	74B34	B34SA01	156	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.47	11.13	5.04	0.87	0.73	0	2.00	0	2.74	0.92	4.7	2.97	0.58	53%
Soil	2000	74B47	B47SA01	135	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.12	10.42	4.26	0.87	0.63	0	1.88	0	2.51	0.92	4.7	2.73	0.53	51%
Soil	Bioassay	74B27	B01SB027	123	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.92	9.98	3.83	0.87	0.58	0	1.80	0	2.37	0.92	4.7	2.58	0.51	50%
Soil	2000	74B32	B32SA01	88.5	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.26	8.59	2.61	0.87	0.42	0	1.55	0	1.96	0.92	4.7	2.13	0.42	49%
Soil	2000	74B03	B03SA01	86.6	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.22	8.50	2.55	0.87	0.41	0	1.53	0	1.94	0.92	4.7	2.11	0.41	48%
Soil	Phase I	74B32	E0113SA0	84.9	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.18	8.42	2.49	0.87	0.40	0	1.52	0	1.92	0.92	4.7	2.08	0.41	46%
Soil	2000	74B02	B02SA01	75.5	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.98	7.98	2.17	0.87	0.35	0	1.44	0	1.79	0.92	4.7	1.95	0.38	45%
Soil	2000	74B35	B35SA01	73.8	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.94	7.90	2.12	0.87	0.35	0	1.42	0	1.77	0.92	4.7	1.92	0.38	44%
Soil	Phase I	74B27	E0108SA0	72.4	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.91	7.83	2.07	0.87	0.34	0	1.41	0	1.75	0.92	4.7	1.90	0.37	43%
Soil	2000	74B07	B07SA01	70.6	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.87	7.74	2.01	0.87	0.33	0	1.39	0	1.73	0.92	4.7	1.88	0.37	41%
Soil	2000	74B18	B18SA01	59.6	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.61	7.16	1.65	0.87	0.28	0	1.29	0	1.57	0.92	4.7	1.71	0.33	40%
Soil	2000	74B04	B04SA01	57.2	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.87	0.27	0	1.27	0	1.53	0.92	4.7	1.67	0.33	39%
Soil	2000	74B23	B23SA01	55.2	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.92	1.51	0.87	0.26	0	1.25	0	1.50	0.92	4.7	1.64	0.32	38%
Soil	2000	74B49	B49SA01	55.1	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.91	1.51	0.87	0.26	0	1.24	0	1.50	0.92	4.7	1.63	0.32	36%
Soil	2000	74B26	B26SA01	54.2	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.47	6.86	1.48	0.87	0.25	0	1.23	0	1.49	0.92	4.7	1.62	0.32	35%
Soil	2000	74B05	B05SA01	51.3	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.40	6.69	1.39	0.87	0.24	0	1.20	0	1.45	0.92	4.7	1.57	0.31	34%
Soil	Refbio	SR1	B03SB001	50.5	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.38	6.64	1.36	0.87	0.24	0	1.20	0	1.43	0.92	4.7	1.56	0.30	33%
Soil	Refbio	SR3	B03SB003	48	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.31	6.49	1.28	0.87	0.23	0	1.17	0	1.39	0.92	4.7	1.51	0.30	31%
Soil	2000	74B43	B43SA01	42.6	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.14	1.12	0.87	0.20	0	1.11	0	1.31	0.92	4.7	1.42	0.28	29%
Soil	Phase I	74B41	E0112SA0	41.3	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.87	0.19	0	1.09	0	1.28	0.92	4.7	1.40	0.27	28%
Soil	Bioassay	74B01	B01SB001	40.4	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.10	6.00	1.05	0.87	0.19	0	1.08	0	1.27	0.92	4.7	1.38	0.27	26%
Soil	Phase I	74B01	E0101SA0	32.9	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.87	5.46	0.83	0.87	0.15	0	0.98	0	1.14	0.92	4.7	1.24	0.24	25%
Soil	2000	74B01	B01SA01	32.6	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.86	5.43	0.82	0.87	0.15	0	0.98	0	1.13	0.92	4.7	1.23	0.24	24%
Soil	2000	74B39	B39SA01	31.3	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.82	5.33	0.78	0.87	0.15	0	0.96	0	1.11	0.92	4.7	1.20	0.24	23%
Soil	2000	74B21	B21SA01	30.1	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.78	5.24	0.75	0.87	0.14	0	0.94	0	1.08	0.92	4.7	1.18	0.23	21%
Soil	2000	74B41	B41SA01	29	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.74	5.15	0.72	0.87	0.14	0	0.93	0	1.06	0.92	4.7	1.16	0.23	20%
Soil	Bioassay	74B43	B01SB043	26.4	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.65	4.93	0.64	0.87	0.12	0	0.89	0	1.01	0.92	4.7	1.10	0.22	19%
Soil	2000	74B36	B36SA01	25.6	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.63	4.87	0.62	0.87	0.12	0	0.88	0	1.00	0.92	4.7	1.08	0.21	18%
Soil	Phase I	74B37	E0111SA0	25.5	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.62	4.86	0.62	0.87	0.12	0	0.87	0	0.99	0.92	4.7	1.08	0.21	16%
Soil	2000	74B42	B42SA01	22.9	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.53	4.62	0.54	0.87	0.11	0	0.83	0	0.94	0.92	4.7	1.02	0.20	15%
Soil	2000	74B50	B50SA01	22	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.49	4.54	0.52	0.87	0.10	0	0.82	0	0.92	0.92	4.7	1.00	0.20	14%
Soil	2000	74B46	B46SA01	21.5	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.47	4.49	0.51	0.87	0.10	0	0.81	0	0.91	0.92	4.7	0.99	0.19	13%
Soil	2000	74B52	B52SA01	19.1	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.38	4.25	0.44	0.87	0.09	0	0.77	0	0.86	0.92	4.7	0.93	0.18	11%
Soil	2000	74B33	B33SA01	17.4	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.31	4.08	0.40	0.87	0.08	0	0.73	0	0.82	0.92	4.7	0.89	0.17	10%
Soil	Phase I	74B43	E0115SA0	16.2	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.26	3.95	0.36	0.87	0.08	0	0.71	0	0.79	0.92	4.7	0.85	0.17	9%
Soil	Bioassay	74B04	B01SB304	15.1	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.21	3.82	0.34	0.87	0.07	0	0.69	0	0.76	0.92	4.7	0.82	0.16	8%
Soil	2000	74B40	B40SA01	13.5	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.14	3.63	0.29	0.87	0.06	0	0.65	0	0.72	0.92	4.7	0.78	0.15	6%
Soil	2000	74B45	B45SA01	12.7	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.10	3.53	0.27	0.87	0.06	0	0.64	0	0.69	0.92	4.7	0.76	0.15	5%
Soil	Phase I	74B04	E0102SA0	12.6	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.09	3.52	0.27	0.87	0.06	0	0.63	0	0.69	0.92	4.7	0.75	0.15	4%
Soil	2000	74B51	B51SA01	11.6	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.04	3.39	0.25	0.87	0.05	0	0.61	0	0.66	0.92	4.7	0.72	0.14	3%
Soil	2000	74B48	B48SA01	9.7	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.94	3.12	0.20	0.87	0.05	0	0.56	0	0.61	0.92	4.7	0.66	0.13	1%
Soil	2000	74B25	B25SA01	5	DET	0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.65	2.30	0.09	0.87	0.02	0	0.41	0	0.44	0.92	4.7	0.48	0.09	0%
Soil	2000	74B37	B37SA01			0.18	0.03	0	1	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.87	0				0	0.92	4.7	0.00	0.00	

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the LOAEL
Shaded samples are those with concentrations that exceeded the LOAEL
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/NOAEL or LOAEL)
LOAEL = lowest observed adverse effect level
ND = non-detect
NOAEL = no observed adverse effect level
Refbio = bioassay sample collected from a reference area
SIR = soil ingestion rate

Table 4-8
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Light-footed Clapper Rails to Lead in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Sediment	2000	74G05	G05CA01D	154000	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	212.52	261.82	15000.83	0.73	1000.54	2.84	0	1134.81	2138.19	1.63	3.26	1311.77	655.89	99%
Sediment	Bioassay	74G36	B02DB036	33100	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	89.84	129.48	2521.11	0.73	215.05	1.20	0	190.72	406.97	1.63	3.26	249.68	124.84	98%
Sediment	2000	74G36	G36CA01	21400	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	70.38	106.04	1520.10	0.73	139.04	0.94	0	115.00	254.97	1.63	3.26	156.42	78.21	97%
Sediment	Phase I	74G38	E0205DA0	20400	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	68.51	103.74	1438.01	0.73	132.54	0.91	0	108.79	242.24	1.63	3.26	148.61	74.31	96%
Sediment	Phase I	74G04	E0208DA0	15800	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	59.38	92.28	1069.14	0.73	102.65	0.79	0	80.88	184.33	1.63	3.26	113.08	56.54	95%
Sediment	Phase I	74G37	E0204DA0	10700	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	47.74	77.19	680.26	0.73	69.52	0.64	0	51.46	121.62	1.63	3.26	74.61	37.31	94%
Sediment	Bioassay	74G05	B02DB005	9020	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	43.38	71.39	558.00	0.73	58.60	0.58	0	42.21	101.39	1.63	3.26	62.21	31.10	92%
Sediment	Phase I	74G26	E0207DA0	8080	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	40.79	67.88	491.12	0.73	52.50	0.54	0	37.15	90.19	1.63	3.26	55.33	27.67	91%
Sediment	2000	74G13	G13CA01	7280	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	38.48	64.71	435.17	0.73	47.30	0.51	0	32.92	80.73	1.63	3.26	49.53	24.76	90%
Sediment	2000	74G04	G04CA01	7240	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	38.36	64.55	432.40	0.73	47.04	0.51	0	32.71	80.26	1.63	3.26	49.24	24.62	89%
Sediment	2000	74G12	G12CA01	5780	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	33.81	58.22	332.99	0.73	37.55	0.45	0	25.19	63.19	1.63	3.26	38.77	19.38	88%
Sediment	2000	74G38	G38CA01	3230	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	24.41	44.60	169.54	0.73	20.99	0.33	0	12.83	34.14	1.63	3.26	20.94	10.47	87%
Sediment	2000	74G02	G02CA01	2390	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	20.62	38.85	119.55	0.73	15.53	0.28	0	9.04	24.85	1.63	3.26	15.24	7.62	86%
Sediment	2000	74G03	G03CA01	2050	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	18.92	36.22	100.05	0.73	13.32	0.25	0	7.57	21.14	1.63	3.26	12.97	6.48	85%
Sediment	2000	74G06	G06CA01	1500	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.73	9.75	0.21	0	5.27	15.23	1.63	3.26	9.34	4.67	84%
Sediment	2000	74G19	G19CA01	1160	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	13.76	27.90	51.68	0.73	7.54	0.18	0	3.91	11.63	1.63	3.26	7.14	3.57	83%
Sediment	2000	74G35	G35CA01	1020	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	12.80	26.31	44.52	0.73	6.63	0.17	0	3.37	10.17	1.63	3.26	6.24	3.12	82%
Sediment	Phase I	74G16	E0213DA0	928	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	12.14	25.19	39.90	0.73	6.03	0.16	0	3.02	9.21	1.63	3.26	5.65	2.83	81%
Sediment	2000	74G01	G01CA01	850	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	11.56	24.20	36.03	0.73	5.52	0.15	0	2.73	8.40	1.63	3.26	5.16	2.58	80%
Sediment	Phase I	74G35	E0211DA0	837	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	11.46	24.03	35.40	0.73	5.44	0.15	0	2.68	8.27	1.63	3.26	5.07	2.54	78%
Sediment	Refbio	SD3	B03DB003	773	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	10.96	23.17	32.28	0.73	5.02	0.15	0	2.44	7.61	1.63	3.26	4.67	2.33	77%
Sediment	Bioassay	74G35	B02DB035	536	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	8.93	19.59	21.11	0.73	3.48	0.12	0	1.60	5.20	1.63	3.26	3.19	1.59	76%
Sediment	2000	74G21	G21CA01	364	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	7.19	16.41	13.47	0.73	2.36	0.10	0	1.02	3.48	1.63	3.26	2.14	1.07	75%
Sediment	2000	74G52	G52CA01	334	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	6.85	15.78	12.19	0.73	2.17	0.09	0	0.92	3.18	1.63	3.26	1.95	0.98	74%
Sediment	Bioassay	74G26	B02DB026	285	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	6.27	14.67	10.14	0.73	1.85	0.08	0	0.77	2.70	1.63	3.26	1.66	0.83	73%
Sediment	2000	74G26	G26CA01	212	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	5.31	12.81	7.20	0.73	1.38	0.07	0	0.54	1.99	1.63	3.26	1.22	0.61	72%
Sediment	Bioassay	74G52	B02DB052	199	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	5.13	12.45	6.69	0.73	1.29	0.07	0	0.51	1.87	1.63	3.26	1.15	0.57	71%
Sediment	Bioassay	74G15	B02DB015	179	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	4.83	11.86	5.91	0.73	1.16	0.06	0	0.45	1.67	1.63	3.26	1.03	0.51	70%
Sediment	2000	74G22	G22CA01	176	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	4.78	11.76	5.80	0.73	1.14	0.06	0	0.44	1.65	1.63	3.26	1.01	0.50	69%
Sediment	Phase I	74G36	E0206DA0	167	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	4.65	11.48	5.46	0.73	1.08	0.06	0	0.41	1.56	1.63	3.26	0.96	0.48	68%
Sediment	2000	74G11	G11CA01	165	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	4.62	11.42	5.38	0.73	1.07	0.06	0	0.41	1.54	1.63	3.26	0.95	0.47	67%
Sediment	2000	74G25	G25CA01	155	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	4.46	11.10	5.00	0.73	1.01	0.06	0	0.38	1.45	1.63	3.26	0.89	0.44	66%
Sediment	2000	74G08	G08CA01	140	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	4.21	10.59	4.45	0.73	0.91	0.06	0	0.34	1.30	1.63	3.26	0.80	0.40	65%
Sediment	2000	74G14	G14CA01	131	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	4.06	10.28	4.12	0.73	0.85	0.05	0	0.31	1.22	1.63	3.26	0.75	0.37	63%
Sediment	2000	74G10	G10CA01	130	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	4.04	10.24	4.08	0.73	0.84	0.05	0	0.31	1.21	1.63	3.26	0.74	0.37	62%
Sediment	2000	74G59	G59CA01	127	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.99	10.13	3.97	0.73	0.83	0.05	0	0.30	1.18	1.63	3.26	0.72	0.36	61%
Sediment	Phase I	74G15	E0212DA0	127	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.99	10.13	3.97	0.73	0.83	0.05	0	0.30	1.18	1.63	3.26	0.72	0.36	60%
Sediment	2000	74G28	G28CA01	126	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.97	10.09	3.94	0.73	0.82	0.05	0	0.30	1.17	1.63	3.26	0.72	0.36	59%
Sediment	2000	74G07	G07CA01	121	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.88	9.91	3.76	0.73	0.79	0.05	0	0.28	1.12	1.63	3.26	0.69	0.34	58%
Sediment	2000	74G30	G30CA01	109	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.66	9.45	3.33	0.73	0.71	0.05	0	0.25	1.01	1.63	3.26	0.62	0.31	57%
Sediment	2000	74G15	G15CA01	106	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.60	9.33	3.22	0.73	0.69	0.05	0	0.24	0.98	1.63	3.26	0.60	0.30	56%
Sediment	2000	74G34	G34CA01	104	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.56	9.25	3.15	0.73	0.68	0.05	0	0.24	0.96	1.63	3.26	0.59	0.29	55%
Sediment	2000	74G42	G42CA01	103	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.54	9.20	3.12	0.73	0.67	0.05	0	0.24	0.95	1.63	3.26	0.58	0.29	54%
Sediment	Phase I	74G52	E0215DA0	102	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.53	9.16	3.08	0.73	0.66	0.05	0	0.23	0.94	1.63	3.26	0.58	0.29	53%
Sediment	Bioassay	74G44	B02DB044	94.9	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.39	8.87	2.83	0.73	0.62	0.05	0	0.21	0.88	1.63	3.26	0.54	0.27	52%
Sediment	2000	74G37	G37CA01	84.6	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.17	8.41	2.48	0.73	0.55	0.04	0	0.19	0.78	1.63	3.26	0.48	0.24	51%
Sediment	2000	74G18	G18CA01	80.9	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.10	8.24	2.35	0.73	0.53	0.04	0	0.18	0.75	1.63	3.26	0.46	0.23	49%
Sediment	Phase I	74G28	E0209DA0	76.7	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.01	8.04	2.21	0.73	0.50	0.04	0	0.17	0.71	1.63	3.26	0.43	0.22	48%
Sediment	Bioassay	74G41	B02DB041	76.5	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	3.00	8.03	2.21	0.73	0.50	0.04	0	0.17	0.70	1.63	3.26	0.43	0.22	47%
Sediment	Phase I	74G46	E0203DA0	76.1	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.99	8.01	2.19	0.73	0.49	0.04	0	0.17	0.70	1.63	3.26	0.43	0.21	46%
Sediment	Phase I	74G39	E0214DA0	70.1	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.86	7.72	1.99	0.73	0.46	0.04	0	0.15	0.64	1.63	3.26	0.40	0.20	45%
Sediment	2000	74G20	G20CA01	69.7	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.85	7.70	1.98	0.73	0.45	0.04	0	0.15	0.64	1.63	3.26	0.39	0.20	44%
Sediment	2000	74G47	G47CA01	68.2	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.81	7.62	1.93	0.73	0.44	0.04	0	0.15	0.63	1.63	3.26	0.38	0.19	43%
Sediment	2000	74G60	G60CA01	67.7	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.60	1.91	0.73	0.44	0.04	0	0.14	0.62	1.63	3.26	0.38	0.19	41%
Sediment	2000	74G63	G63CA01	67.7	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.60	1.91	0.73	0.44	0.04	0	0.14	0.62	1.63	3.26	0.38	0.19	42%
Sediment	2000	74G61	G61CA01	67.4	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.58	1.90	0.73	0.44	0.04	0	0.14	0.62	1.63	3.26	0.38	0.19	40%
Sediment	2000	74G31	G31CA01	67	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.79	7.56	1.89	0.73	0.44	0.04	0	0.14	0.62	1.63	3.26	0.38	0.19	39%
Sediment	2000	74G55	G55CA01	65.9	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.76	7.50	1.86	0.73	0.43	0.04	0	0.14	0.61	1.63	3.26	0.37	0.19	38%
Sediment	2000	74G24	G24CA01	65.1	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.74	7.46	1.83	0.73	0.42	0.04	0	0.14	0.60	1.63	3.26	0.37	0.18	37%
Sediment	2000	74G27	G27CA01	64.9	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.74	7.45	1.82	0.73	0.42	0.04	0	0.14	0.60	1.63	3.26	0.37	0.18	35%
Sediment	2000	74G53	G53CA01	61.6	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.66	7.27	1.72	0.73	0.40	0.04	0	0.13	0.57	1.63	3.26	0.35	0.17	34%
Sediment	2000	74G58	G58CA01	61	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.64	7.24	1.70	0.73	0.40	0.04	0	0.13	0.56	1.63	3.26	0.34	0.17	33%
Sediment	2000	74G66	G66CA01	60.6	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.63	7.22	1.68	0.73	0.39	0.04	0	0.13	0.56	1.63	3.26	0.34	0.17	32%
Sediment	2000	74G56	G56CA01	57.4	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.04	1.58	0.73	0.37	0.03	0	0.12	0.53	1.63	3.26	0.32	0.16	31%
Sediment	2000	74G23	G23CA01	57.1	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.73	0.37	0.03	0	0.12	0.52	1.63	3.26	0.32	0.16	30%
Sediment	2000	74G40	G40CA01	56.4	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.53	6.99	1.55	0.73	0.37	0.03	0	0.12	0.52	1.63	3.26	0.32	0.16	29%
Sediment	Phase I	74G44	E0210DA0	54.9	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.49	6.90	1.50	0.73	0.36	0.03	0	0.11	0.50	1.63	3.26	0.31	0.15	28%
Sediment	2000	74G45	G45CA01	54.8	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.49	6.89	1.50	0.73	0.36	0.03	0	0.11	0.50	1.63	3.26	0.31	0.15	27%
Sediment	2000	74G44	G44CA01	52.3	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.43	6.75	1.42	0.73	0.34	0.03	0	0.11	0.48	1.63	3.26	0.29	0.15	26%
Sediment	2000	74G09	G09CA01	52.1	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.42	6.74	1.41	0.73	0.34	0.03	0	0.11	0.48	1.63	3.26	0.29	0.15	25%
Sediment	2000	74G51	G51CA01	51.7	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.41	6.71	1.40	0.73	0.34	0.03	0	0.11	0.47	1.63	3.26	0.29	0.15	24%
Sediment	2000	74G16	G16CA01	51.6	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.41	6.71	1.40	0.73	0.34	0.03	0	0.11	0.47	1.63	3.26	0.29	0.15	23%
Sediment	2000	74G49	G49CA01	50.9	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.39	6.67	1.38	0.73	0.33	0.03	0	0.10	0.47	1.63	3.26	0.29	0.14	22%
Sediment	Phase I	74G05	E0201DA0	50.3	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.37	6.63	1.36	0.73	0.33	0.03	0	0.10	0.46	1.63	3.26	0.28	0.14	20%
Sediment	2000	74G48	G48CA01	49.8	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.36	6.60	1.34	0.73	0.32	0.03	0	0.10	0.46	1.63	3.26	0.28	0.14	19%
Sediment	Bioassay	74G46	B02DB346	48.4	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.32	6.51	1.30	0.73	0.31	0.03	0	0.10	0.44	1.63	3.26	0.27	0.14	18%
Sediment	Refbio	SD2	B03DB002	47.4	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.30	6.45	1.27	0.73	0.31	0.03	0	0.10	0.43	1.63	3.26	0.27	0.13	17%
Sediment	2000	74G33	G33CA01	46.2	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.26	6.38	1.23	0.73	0.30	0.03	0	0.09	0.42	1.63	3.26	0.26	0.13	16%

Table 4-8
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Light-footed Clapper Rails to Lead in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kd/d)									
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Sediment	2000	74G39	G39CA01	46.1	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.26	6.37	1.23	0.73	0.30	0.03	0	0.09	0.42	1.63	3.26	0.26	0.13	15%
Sediment	2000	74G32	G32CA01	45	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.23	6.30	1.19	0.73	0.29	0.03	0	0.09	0.41	1.63	3.26	0.25	0.13	14%
Sediment	2000	74G50	G50CA01	43.1	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.18	6.18	1.13	0.73	0.28	0.03	0	0.09	0.39	1.63	3.26	0.24	0.12	13%
Sediment	Phase I	74G41	E0202DA0	42.7	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.15	1.12	0.73	0.28	0.03	0	0.08	0.39	1.63	3.26	0.24	0.12	12%
Sediment	2000	74G17	G17CA01	41.3	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.73	0.27	0.03	0	0.08	0.38	1.63	3.26	0.23	0.12	11%
Sediment	2000	74G65	G65CA01	39.9	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.08	5.96	1.04	0.73	0.26	0.03	0	0.08	0.37	1.63	3.26	0.22	0.11	10%
Sediment	2000	74G46	G46CA01	39.6	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.08	5.94	1.03	0.73	0.26	0.03	0	0.08	0.36	1.63	3.26	0.22	0.11	9%
Sediment	2000	74G54	G54CA01	39.5	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.07	5.93	1.02	0.73	0.26	0.03	0	0.08	0.36	1.63	3.26	0.22	0.11	8%
Sediment	2000	74G62	G62CA01	39	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	2.06	5.90	1.01	0.73	0.25	0.03	0	0.08	0.36	1.63	3.26	0.22	0.11	6%
Sediment	Refbio	SD1	B03DB001	35.7	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	1.96	5.67	0.91	0.73	0.23	0.03	0	0.07	0.33	1.63	3.26	0.20	0.10	5%
Sediment	2000	74G64	G64CA01	35.4	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	1.95	5.64	0.90	0.73	0.23	0.03	0	0.07	0.32	1.63	3.26	0.20	0.10	4%
Sediment	2000	74G57	G57CA01	34.6	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	1.92	5.59	0.88	0.73	0.22	0.03	0	0.07	0.32	1.63	3.26	0.19	0.10	3%
Sediment	2000	74G29	G29CA01	34.4	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	1.92	5.57	0.87	0.73	0.22	0.03	0	0.07	0.32	1.63	3.26	0.19	0.10	2%
Sediment	2000	74G41	G41CA01	23.2	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	1.54	4.65	0.55	0.73	0.15	0.02	0	0.04	0.21	1.63	3.26	0.13	0.07	1%
Sediment	2000	74G43	G43CA01	8.7	DET	Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24	0.89	2.97	0.18	0.73	0.06	0.01	0	0.01	0.08	1.63	3.26	0.05	0.03	0%
Sediment	2000	74G05	G05CA01			Clapper rail	0.089	0.1	0.15	0	0.85	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.63	3.26	0	0.00	

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the NOAEL
Shaded samples are those with concentrations that exceeded the NOAEL
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/NOAEL or LOAEL)
LOAEL = lowest observed adverse effect level
ND = non-detect
NOAEL = no observed adverse effect level
Refbio = bioassay sample collected from a reference area
SIR = soil ingestion rate

Table 4-9
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Light-footed Clapper Rails to Lead as Shot in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)				Estimated Exposures (mg/kg/d)						
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	Annualized LD50 (mg/kg/d)	Annualized LD50 HQ	Percentile [a]
Sediment	2000	74G05	G05CA01D		DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46		
Sediment	Refbio	SD1	B03DB001		DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46		
Sediment	Refbio	SD2	B03DB002		DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46		
Sediment	Refbio	SD3	B03DB003		DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46		
Sediment	Phasel	74G26	E0207DA0	7511.5	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	66.85	0	0	0	66.85	1.46	45.79	99%
Sediment	2000	74G13	G13CA01	7481.1	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	66.58	0	0	0	66.58	1.46	45.60	98%
Sediment	2000	74G05	G05CA01	6578.2	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	58.55				58.55	1.46	40.10	97%
Sediment	Phasel	74G38	E0205DA0	5086.65	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	45.27	0	0	0	45.27	1.46	31.01	96%
Sediment	Bioassay	74G05	B02DB005	4979.5	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	44.32	0	0	0	44.32	1.46	30.35	94%
Sediment	Phasel	74G04	E0208DA0	4882.52	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	43.45	0	0	0	43.45	1.46	29.76	93%
Sediment	2000	74G36	G36CA01	4628.53	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	41.19	0	0	0	41.19	1.46	28.22	92%
Sediment	2000	74G03	G03CA01	3643.53	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	32.43	0	0	0	32.43	1.46	22.21	91%
Sediment	2000	74G12	G12CA01	3487.8	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	31.04	0	0	0	31.04	1.46	21.26	90%
Sediment	Bioassay	74G36	B02DB036	3073.11	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	27.35	0	0	0	27.35	1.46	18.73	89%
Sediment	2000	74G04	G04CA01	2481.14	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	22.08	0	0	0	22.08	1.46	15.12	88%
Sediment	Phasel	74G37	E0204DA0	1548.88	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	13.79	0	0	0	13.79	1.46	9.44	87%
Sediment	2000	74G38	G38CA01	1350.57	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	12.02	0	0	0	12.02	1.46	8.23	86%
Sediment	2000	74G02	G02CA01	1027.49	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	9.14	0	0	0	9.14	1.46	6.26	84%
Sediment	2000	74G06	G06CA01	503.69	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	4.48	0	0	0	4.48	1.46	3.07	83%
Sediment	2000	74G35	G35CA01	388.81	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	3.46	0	0	0	3.46	1.46	2.37	82%
Sediment	2000	74G19	G19CA01	240.16	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	2.14	0	0	0	2.14	1.46	1.46	81%
Sediment	2000	74G21	G21CA01	176.28	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	1.57	0	0	0	1.57	1.46	1.07	80%
Sediment	2000	74G01	G01CA01	133.59	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	1.19	0	0	0	1.19	1.46	0.81	79%
Sediment	2000	74G07	G07CA01	105.93	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.94	0	0	0	0.94	1.46	0.65	78%
Sediment	Bioassay	74G35	B02DB035	103.31	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.92	0	0	0	0.92	1.46	0.63	77%
Sediment	2000	74G14	G14CA01	97.09	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.86	0	0	0	0.86	1.46	0.59	76%
Sediment	Phasel	74G39	E0214DA0	91.89	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.82	0	0	0	0.82	1.46	0.56	74%
Sediment	2000	74G47	G47CA01	60.56	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.54	0	0	0	0.54	1.46	0.37	73%
Sediment	2000	74G15	G15CA01	52.93	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.47	0	0	0	0.47	1.46	0.32	72%
Sediment	2000	74G10	G10CA01	39.66	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.35	0	0	0	0.35	1.46	0.24	71%
Sediment	2000	74G41	G41CA01	29.7	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.26	0	0	0	0.26	1.46	0.18	70%
Sediment	2000	74G34	G34CA01	26.41	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.24	0	0	0	0.24	1.46	0.16	69%
Sediment	2000	74G08	G08CA01	24.77	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.22	0	0	0	0.22	1.46	0.15	68%
Sediment	2000	74G45	G45CA01	19.05	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.17	0	0	0	0.17	1.46	0.12	67%
Sediment	2000	74G20	G20CA01	15.01	DET	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0.13	0	0	0	0.13	1.46	0.09	66%
Sediment	2000	74G09	G09CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	64%
Sediment	2000	74G11	G11CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	63%
Sediment	2000	74G16	G16CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	62%
Sediment	2000	74G17	G17CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	61%
Sediment	2000	74G18	G18CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	60%
Sediment	2000	74G22	G22CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	59%
Sediment	2000	74G23	G23CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	58%
Sediment	2000	74G24	G24CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	57%
Sediment	2000	74G25	G25CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	56%
Sediment	2000	74G26	G26CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	54%
Sediment	2000	74G27	G27CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	53%
Sediment	2000	74G28	G28CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	52%
Sediment	2000	74G29	G29CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	51%
Sediment	2000	74G30	G30CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	50%
Sediment	2000	74G31	G31CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	49%
Sediment	2000	74G32	G32CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	48%
Sediment	2000	74G33	G33CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	47%
Sediment	2000	74G37	G37CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	46%
Sediment	2000	74G39	G39CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	44%
Sediment	2000	74G40	G40CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	43%
Sediment	2000	74G42	G42CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	42%
Sediment	2000	74G43	G43CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	41%
Sediment	2000	74G44	G44CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	40%
Sediment	2000	74G46	G46CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	39%
Sediment	2000	74G48	G48CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	38%
Sediment	2000	74G49	G49CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	37%
Sediment	2000	74G50	G50CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	36%
Sediment	2000	74G51	G51CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	34%
Sediment	2000	74G52	G52CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	33%
Sediment	2000	74G53	G53CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	32%
Sediment	2000	74G54	G54CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	31%
Sediment	2000	74G55	G55CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	30%
Sediment	2000	74G56	G56CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	29%
Sediment	2000	74G57	G57CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	28%
Sediment	2000	74G58	G58CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	27%
Sediment	2000	74G59	G59CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	26%
Sediment	2000	74G60	G60CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	24%
Sediment	2000	74G61	G61CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	23%
Sediment	2000	74G62	G62CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	22%
Sediment	2000	74G63	G63CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	21%

Table 4-9
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Light-footed Clapper Rails to Lead as Shot in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)				Estimated Exposures (mg/kg/d)						
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	Annualized LD50 (mg/kg/d)	Annualized LD50 HQ	Percentile [a]
Sediment	2000	74G64	G64CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	20%
Sediment	2000	74G65	G65CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	19%
Sediment	2000	74G66	G66CA01	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	18%
Sediment	Bioassay	74G15	B02DB015	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	17%
Sediment	Bioassay	74G26	B02DB026	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	16%
Sediment	Bioassay	74G41	B02DB041	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	14%
Sediment	Bioassay	74G44	B02DB044	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	13%
Sediment	Bioassay	74G46	B02DB346	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0				0	1.46	0	12%
Sediment	Bioassay	74G52	B02DB052	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	11%
Sediment	Phasel	74G05	E0201DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	10%
Sediment	Phasel	74G15	E0212DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	9%
Sediment	Phasel	74G16	E0213DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	8%
Sediment	Phasel	74G28	E0209DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	7%
Sediment	Phasel	74G35	E0211DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	6%
Sediment	Phasel	74G36	E0206DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	4%
Sediment	Phasel	74G41	E0202DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	3%
Sediment	Phasel	74G44	E0210DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	2%
Sediment	Phasel	74G46	E0203DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	1%
Sediment	Phasel	74G52	E0215DA0	0	ND	Clapper rail	0.089	0.1	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0	0	0	0	0	0	0	0	1.46	0	0%

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the annualized LD50
Shaded samples are those with concentrations that exceeded the annualized LD50
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/LD50)
LD50 = median lethal dose
ND = non-detect
Refbio = bioassay sample collected from a reference area
SIR = soil ingestion rate

Table 4-10
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Mallards to Lead in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Sediment	2000	74G05	G05CA01D	154000	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	212.52	261.82	15000.83	0.73	370.99	2.25	0	1341.07	1714.31	1.63	3.26	1051.73	525.86	99%
Sediment	Bioassay	74G36	B02DB036	33100	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	89.84	129.48	2521.11	0.73	79.74	0.95	0	225.39	306.08	1.63	3.26	187.78	93.89	98%
Sediment	2000	74G36	G36CA01	21400	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	70.38	106.04	1520.10	0.73	51.55	0.75	0	135.90	188.20	1.63	3.26	115.46	57.73	97%
Sediment	Phasel	74G38	E0205DA0	20400	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	68.51	103.74	1438.01	0.73	49.14	0.73	0	128.56	178.43	1.63	3.26	109.47	54.73	96%
Sediment	Phasel	74G04	E0208DA0	15800	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	59.38	92.28	1069.14	0.73	38.06	0.63	0	95.58	134.27	1.63	3.26	82.38	41.19	95%
Sediment	Phasel	74G37	E0204DA0	10700	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	47.74	77.19	680.26	0.73	25.78	0.51	0	60.82	87.10	1.63	3.26	53.43	26.72	94%
Sediment	Bioassay	74G05	B02DB005	9020	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	43.38	71.39	558.00	0.73	21.73	0.46	0	49.88	72.07	1.63	3.26	44.22	22.11	92%
Sediment	Phasel	74G26	E0207DA0	8080	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	40.79	67.88	491.12	0.73	19.46	0.43	0	43.91	63.80	1.63	3.26	39.14	19.57	91%
Sediment	2000	74G13	G13CA01	7280	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	38.48	64.71	435.17	0.73	17.54	0.41	0	38.90	56.85	1.63	3.26	34.88	17.44	90%
Sediment	2000	74G04	G04CA01	7240	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	38.36	64.55	432.40	0.73	17.44	0.41	0	38.66	56.50	1.63	3.26	34.67	17.33	89%
Sediment	2000	74G12	G12CA01	5780	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	33.81	58.22	332.99	0.73	13.92	0.36	0	29.77	44.05	1.63	3.26	27.03	13.51	88%
Sediment	2000	74G38	G38CA01	3230	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	24.41	44.60	169.54	0.73	7.78	0.26	0	15.16	23.20	1.63	3.26	14.23	7.12	87%
Sediment	2000	74G02	G02CA01	2390	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	20.62	38.85	119.55	0.73	5.76	0.22	0	10.69	16.66	1.63	3.26	10.22	5.11	86%
Sediment	2000	74G03	G03CA01	2050	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	18.92	36.22	100.05	0.73	4.94	0.20	0	8.94	14.08	1.63	3.26	8.64	4.32	85%
Sediment	2000	74G06	G06CA01	1500	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.73	3.61	0.17	0	6.23	10.01	1.63	3.26	6.14	3.07	84%
Sediment	2000	74G19	G19CA01	1160	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	13.76	27.90	51.68	0.73	2.79	0.15	0	4.62	7.56	1.63	3.26	4.64	2.32	83%
Sediment	2000	74G35	G35CA01	1020	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	12.80	26.31	44.52	0.73	2.46	0.14	0	3.98	6.57	1.63	3.26	4.03	2.02	82%
Sediment	Phasel	74G16	E0213DA0	928	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	12.14	25.19	39.90	0.73	2.24	0.13	0	3.57	5.93	1.63	3.26	3.64	1.82	81%
Sediment	2000	74G01	G01CA01	850	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	11.56	24.20	36.03	0.73	2.05	0.12	0	3.22	5.39	1.63	3.26	3.31	1.65	80%
Sediment	Phasel	74G35	E0211DA0	837	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	11.46	24.03	35.40	0.73	2.02	0.12	0	3.16	5.30	1.63	3.26	3.25	1.63	78%
Sediment	Refbio	SD3	B03DB003	773	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	10.96	23.17	32.28	0.73	1.86	0.12	0	2.89	4.86	1.63	3.26	2.98	1.49	77%
Sediment	Bioassay	74G35	B02DB035	536	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	8.93	19.59	21.11	0.73	1.29	0.09	0	1.89	3.27	1.63	3.26	2.01	1.00	76%
Sediment	2000	74G21	G21CA01	364	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	7.19	16.41	13.47	0.73	0.88	0.08	0	1.20	2.16	1.63	3.26	1.32	0.66	75%
Sediment	2000	74G52	G52CA01	334	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	6.85	15.78	12.19	0.73	0.80	0.07	0	1.09	1.97	1.63	3.26	1.21	0.60	74%
Sediment	Bioassay	74G26	B02DB026	285	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	6.27	14.67	10.14	0.73	0.69	0.07	0	0.91	1.66	1.63	3.26	1.02	0.51	73%
Sediment	2000	74G26	G26CA01	212	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	5.31	12.81	7.20	0.73	0.51	0.06	0	0.64	1.21	1.63	3.26	0.74	0.37	72%
Sediment	Bioassay	74G52	B02DB052	199	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	5.13	12.45	6.69	0.73	0.48	0.05	0	0.60	1.13	1.63	3.26	0.69	0.35	71%
Sediment	Bioassay	74G15	B02DB015	179	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	4.83	11.86	5.91	0.73	0.43	0.05	0	0.53	1.01	1.63	3.26	0.62	0.31	70%
Sediment	2000	74G22	G22CA01	176	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	4.78	11.76	5.80	0.73	0.42	0.05	0	0.52	0.99	1.63	3.26	0.61	0.30	69%
Sediment	Phasel	74G36	E0206DA0	167	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	4.65	11.48	5.46	0.73	0.40	0.05	0	0.49	0.94	1.63	3.26	0.58	0.29	68%
Sediment	2000	74G11	G11CA01	165	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	4.62	11.42	5.38	0.73	0.40	0.05	0	0.48	0.93	1.63	3.26	0.57	0.28	67%
Sediment	2000	74G25	G25CA01	155	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	4.46	11.10	5.00	0.73	0.37	0.05	0	0.45	0.87	1.63	3.26	0.53	0.27	66%
Sediment	2000	74G08	G08CA01	140	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	4.21	10.59	4.45	0.73	0.34	0.04	0	0.40	0.78	1.63	3.26	0.48	0.24	65%
Sediment	2000	74G14	G14CA01	131	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	4.06	10.28	4.12	0.73	0.32	0.04	0	0.37	0.73	1.63	3.26	0.45	0.22	63%
Sediment	2000	74G10	G10CA01	130	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	4.04	10.24	4.08	0.73	0.31	0.04	0	0.36	0.72	1.63	3.26	0.44	0.22	62%
Sediment	Phasel	74G15	E0212DA0	127	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.99	10.13	3.97	0.73	0.31	0.04	0	0.36	0.70	1.63	3.26	0.43	0.22	61%
Sediment	2000	74G59	G59CA01	127	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.99	10.13	3.97	0.73	0.31	0.04	0	0.36	0.70	1.63	3.26	0.43	0.22	60%
Sediment	2000	74G28	G28CA01	126	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.97	10.09	3.94	0.73	0.30	0.04	0	0.35	0.70	1.63	3.26	0.43	0.21	59%
Sediment	2000	74G07	G07CA01	121	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.88	9.91	3.76	0.73	0.29	0.04	0	0.34	0.67	1.63	3.26	0.41	0.21	58%
Sediment	2000	74G30	G30CA01	109	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.66	9.45	3.33	0.73	0.26	0.04	0	0.30	0.60	1.63	3.26	0.37	0.18	57%
Sediment	2000	74G15	G15CA01	106	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.60	9.33	3.22	0.73	0.26	0.04	0	0.29	0.58	1.63	3.26	0.36	0.18	56%
Sediment	2000	74G34	G34CA01	104	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.56	9.25	3.15	0.73	0.25	0.04	0	0.28	0.57	1.63	3.26	0.35	0.17	55%
Sediment	2000	74G42	G42CA01	103	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.54	9.20	3.12	0.73	0.25	0.04	0	0.28	0.56	1.63	3.26	0.35	0.17	54%
Sediment	Phasel	74G52	E0215DA0	102	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.53	9.16	3.08	0.73	0.25	0.04	0	0.28	0.56	1.63	3.26	0.34	0.17	53%
Sediment	Bioassay	74G44	B02DB044	94.9	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.39	8.87	2.83	0.73	0.23	0.04	0	0.25	0.52	1.63	3.26	0.32	0.16	52%
Sediment	2000	74G37	G37CA01	84.6	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.17	8.41	2.48	0.73	0.20	0.03	0	0.22	0.46	1.63	3.26	0.28	0.14	51%
Sediment	2000	74G18	G18CA01	80.9	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.10	8.24	2.35	0.73	0.19	0.03	0	0.21	0.44	1.63	3.26	0.27	0.13	49%
Sediment	Phasel	74G28	E0209DA0	76.7	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.01	8.04	2.21	0.73	0.18	0.03	0	0.20	0.41	1.63	3.26	0.25	0.13	48%
Sediment	Bioassay	74G41	B02DB041	76.5	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	3.00	8.03	2.21	0.73	0.18	0.03	0	0.20	0.41	1.63	3.26	0.25	0.13	47%
Sediment	Phasel	74G46	E0203DA0	76.1	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.99	8.01	2.19	0.73	0.18	0.03	0	0.20	0.41	1.63	3.26	0.25	0.13	46%
Sediment	Phasel	74G39	E0214DA0	70.1	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.86	7.72	1.99	0.73	0.17	0.03	0	0.18	0.38	1.63	3.26	0.23	0.12	45%
Sediment	2000	74G20	G20CA01	69.7	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.85	7.70	1.98	0.73	0.17	0.03	0	0.18	0.38	1.63	3.26	0.23	0.12	44%
Sediment	2000	74G47	G47CA01	68.2	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.81	7.62	1.93	0.73	0.16	0.03	0	0.17	0.37	1.63	3.26	0.23	0.11	43%
Sediment	2000	74G60	G60CA01	67.7	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.60	1.91	0.73	0.16	0.03	0	0.17	0.36	1.63	3.26	0.22	0.11	42%
Sediment	2000	74G63	G63CA01	67.7	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.60	1.91	0.73	0.16	0.03	0	0.17	0.36	1.63	3.26	0.22	0.11	41%
Sediment	2000	74G61	G61CA01	67.4	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.58	1.90	0.73	0.16	0.03	0	0.17	0.36	1.63	3.26	0.22	0.11	40%
Sediment	2000	74G31	G31CA01	67	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.79	7.56	1.89	0.73	0.16	0.03	0	0.17	0.36	1.63	3.26	0.22	0.11	39%
Sediment	2000	74G55	G55CA01	65.9	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.76	7.50	1.86	0.73	0.16	0.03	0	0.17	0.35	1.63	3.26	0.22	0.11	38%
Sediment	2000	74G24	G24CA01	65.1	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.74	7.46	1.83	0.73	0.16	0.03	0	0.16	0.35	1.63	3.26	0.21	0.11	37%
Sediment	2000	74G27	G27CA01	64.9	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.74	7.45	1.82	0.73	0.16	0.03	0	0.16	0.35	1.63	3.26	0.21	0.11	35%
Sediment	2000	74G53	G53CA01	61.6	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.66	7.27	1.72	0.73	0.15	0.03	0	0.15	0.33	1.63	3.26	0.20	0.10	34%
Sediment	2000	74G58	G58CA01	61	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.64	7.24	1.70	0.73	0.15	0.03	0	0.15	0.33	1.63	3.26	0.20	0.10	33%
Sediment	2000	74G66	G66CA01	60.6	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.63	7.22	1.68	0.73	0.15	0.03	0	0.15	0.32	1.63	3.26	0.20	0.10	32%
Sediment	2000	74G56	G56CA01	57.4	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.04	1.58	0.73	0.14	0.03	0	0.14	0.31	1.63	3.26	0.19	0.09	31%
Sediment	2000	74G23	G23CA01	57.1	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.73	0.14	0.03	0	0.14	0.31	1.63	3.26	0.19	0.09	30%
Sediment	2000	74G40	G40CA01	56.4	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.53	6.99	1.55	0.73	0.14	0.03	0	0.14	0.30	1.63	3.26	0.18	0.09	29%
Sediment	Phasel	74G44	E0210DA0	54.9	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.49	6.90	1.50	0.73	0.13	0.03	0	0.13	0.29	1.63	3.26	0.18	0.09	28%
Sediment	2000	74G45	G45CA01	54.8	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.49	6.89	1.50	0.73	0.13	0.03	0	0.13	0.29	1.63	3.26	0.18	0.09	27%
Sediment	2000	74G44	G44CA01	52.3	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.43	6.75	1.42	0.73	0.13	0.03	0	0.13	0.28	1.63	3.26	0.17	0.09	26%
Sediment	2000	74G09	G09CA01	52.1	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.42	6.74	1.41	0.73	0.13	0.03	0	0.13	0.28	1.63	3.26	0.17	0.09	25%
Sediment	2000	74G51	G51CA01	51.7	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.41	6.71	1.40	0.73	0.12	0.03	0	0.13	0.28	1.63	3.26	0.17	0.08	24%
Sediment	2000	74G16	G16CA01	51.6	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.41	6.71	1.40	0.73	0.12	0.03	0	0.12	0.27	1.63	3.26	0.17	0.08	23%
Sediment	2000	74G49	G49CA01	50.9	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.39	6.67	1.38	0.73	0.12	0.03	0	0.12	0.27	1.63	3.26	0.17	0.08	22%
Sediment	Phasel	74G05	E0201DA0	50.3	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.37	6.63	1.36	0.73	0.12	0.03	0	0.12	0.27	1.63	3.26	0.16	0.08	20%
Sediment	2000	74G48	G48CA01	49.8	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.36	6.60	1.34	0.73	0.12	0.03	0	0.12	0.26	1.63	3.26	0.16	0.08	19%
Sediment	Bioassay	74G46	B02DB346	48.4	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.32	6.51	1.30	0.73	0.12	0.02	0	0.12	0.26	1.63	3.26	0.16	0.08	18%
Sediment	Refbio	SD2	B03DB002	47.4	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.30	6.45	1.27	0.73	0.11	0.02	0	0.11	0.25	1.63	3.26	0.15	0.08	17%
Sediment	2000	74G33	G33CA01	46.2	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.26	6.38	1.23	0.73	0.11	0.02	0	0.11	0.25	1.63	3.26	0.15	0.08	16%
Sediment	2000	74G39	G39CA01	46.1	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.26	6.37	1.23	0.73	0.11	0.02	0	0.11	0.24	1.63	3.26	0.15	0.08	15%
Sediment	2000	74G32	G32CA01	45	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.23	6.30	1.19	0.73	0.11	0.02	0	0.11	0.24	1.63	3.26	0.15	0.07	14%
Sediment	2000	74G50	G50CA01	43.1	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.18	6.18	1.13	0.73	0.10	0.02	0	0.10	0.23	1.63	3.26	0.14	0.07	13%
Sediment	Phasel	74G41	E0202DA0	42.7	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.15	1.12	0.73	0.10	0.02	0	0.10	0.23	1.63	3.26	0.14	0.07	12%

Table 4-10
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Mallards to Lead in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)								
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Sediment	2000	74G17	G17CA01	41.3	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.73	0.10	0.02	0	0.10	0.22	1.63	3.26	0.13	0.07	11%
Sediment	2000	74G65	G65CA01	39.9	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.08	5.96	1.04	0.73	0.10	0.02	0	0.09	0.21	1.63	3.26	0.13	0.06	10%
Sediment	2000	74G46	G46CA01	39.6	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.08	5.94	1.03	0.73	0.10	0.02	0	0.09	0.21	1.63	3.26	0.13	0.06	9%
Sediment	2000	74G54	G54CA01	39.5	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.07	5.93	1.02	0.73	0.10	0.02	0	0.09	0.21	1.63	3.26	0.13	0.06	8%
Sediment	2000	74G62	G62CA01	39	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	2.06	5.90	1.01	0.73	0.09	0.02	0	0.09	0.21	1.63	3.26	0.13	0.06	6%
Sediment	Refbio	SD1	B03DB001	35.7	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	1.96	5.67	0.91	0.73	0.09	0.02	0	0.08	0.19	1.63	3.26	0.12	0.06	5%
Sediment	2000	74G64	G64CA01	35.4	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	1.95	5.64	0.90	0.73	0.09	0.02	0	0.08	0.19	1.63	3.26	0.11	0.06	4%
Sediment	2000	74G57	G57CA01	34.6	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	1.92	5.59	0.88	0.73	0.08	0.02	0	0.08	0.18	1.63	3.26	0.11	0.06	3%
Sediment	2000	74G29	G29CA01	34.4	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	1.92	5.57	0.87	0.73	0.08	0.02	0	0.08	0.18	1.63	3.26	0.11	0.06	2%
Sediment	2000	74G41	G41CA01	23.2	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	1.54	4.65	0.55	0.73	0.06	0.02	0	0.05	0.12	1.63	3.26	0.07	0.04	1%
Sediment	2000	74G43	G43CA01	8.7	DET	mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24	0.89	2.97	0.18	0.73	0.02	0.01	0	0.02	0.05	1.63	3.26	0.03	0.01	0%
Sediment	2000	74G05	G05CA01			mallard	0.1	0.033	0.106	0	0.894	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.63	3.26	0	0	

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the LOAEL
Shaded samples are those with concentrations that exceeded the LOAEL
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/NOAEL or LOAEL)
LOAEL = lowest observed adverse effect level
ND = non-detect
NOAEL = no observed adverse effect level
Refbio = bioassay sample collected from a reference area
SIR = soil ingestion rate

Table 4-11
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Mallards to Lead as Shot in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)							
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	Annualized LD50 (mg/kg/d)	Annualized LD50 HQ	Percentile [a]
Sediment	Refbio	SD1	B03DB001		mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	
Sediment	Refbio	SD2	B03DB002		mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	
Sediment	Refbio	SD3	B03DB003		mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	
Sediment	2000	74G05	G05CA01D		mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	
Sediment	Phasel	74G26	E0207DA0	7511.5	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	24.79	0	0	0	24.79	1.46	16.98	99%
Sediment	2000	74G13	G13CA01	7481.1	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	24.69	0	0	0	24.69	1.46	16.91	98%
Sediment	2000	74G05	G05CA01	6578.2	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	21.71				21.71	1.46	14.87	97%
Sediment	Phasel	74G38	E0205DA0	5086.65	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	16.79	0	0	0	16.79	1.46	11.50	96%
Sediment	Bioassay	74G05	B02DB005	4979.5	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	16.43	0	0	0	16.43	1.46	11.26	94%
Sediment	Phasel	74G04	E0208DA0	4882.52	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	16.11	0	0	0	16.11	1.46	11.04	93%
Sediment	2000	74G36	G36CA01	4628.53	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	15.27	0	0	0	15.27	1.46	10.46	92%
Sediment	2000	74G03	G03CA01	3643.53	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	12.02	0	0	0	12.02	1.46	8.24	91%
Sediment	2000	74G12	G12CA01	3487.8	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	11.51	0	0	0	11.51	1.46	7.88	90%
Sediment	Bioassay	74G36	B02DB036	3073.11	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	10.14	0	0	0	10.14	1.46	6.95	89%
Sediment	2000	74G04	G04CA01	2481.14	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	8.19	0	0	0	8.19	1.46	5.61	88%
Sediment	Phasel	74G37	E0204DA0	1548.88	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	5.11	0	0	0	5.11	1.46	3.50	87%
Sediment	2000	74G38	G38CA01	1350.57	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	4.46	0	0	0	4.46	1.46	3.05	86%
Sediment	2000	74G02	G02CA01	1027.49	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	3.39	0	0	0	3.39	1.46	2.32	84%
Sediment	2000	74G06	G06CA01	503.69	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.66	0	0	0	1.66	1.46	1.14	83%
Sediment	2000	74G35	G35CA01	388.81	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.28	0	0	0	1.28	1.46	0.88	82%
Sediment	2000	74G19	G19CA01	240.16	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.79	0	0	0	0.79	1.46	0.54	81%
Sediment	2000	74G21	G21CA01	176.28	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.58	0	0	0	0.58	1.46	0.40	80%
Sediment	2000	74G01	G01CA01	133.59	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.44	0	0	0	0.44	1.46	0.30	79%
Sediment	2000	74G07	G07CA01	105.93	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.35	0	0	0	0.35	1.46	0.24	78%
Sediment	Bioassay	74G35	B02DB035	103.31	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.34	0	0	0	0.34	1.46	0.23	77%
Sediment	2000	74G14	G14CA01	97.09	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.32	0	0	0	0.32	1.46	0.22	76%
Sediment	Phasel	74G39	E0214DA0	91.89	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.30	0	0	0	0.30	1.46	0.21	74%
Sediment	2000	74G47	G47CA01	60.56	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.20	0	0	0	0.20	1.46	0.14	73%
Sediment	2000	74G15	G15CA01	52.93	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.17	0	0	0	0.17	1.46	0.12	72%
Sediment	2000	74G10	G10CA01	39.66	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.13	0	0	0	0.13	1.46	0.09	71%
Sediment	2000	74G41	G41CA01	29.7	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.10	0	0	0	0.10	1.46	0.07	70%
Sediment	2000	74G34	G34CA01	26.41	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.09	0	0	0	0.09	1.46	0.06	69%
Sediment	2000	74G08	G08CA01	24.77	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.08	0	0	0	0.08	1.46	0.06	68%
Sediment	2000	74G45	G45CA01	19.05	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.06	0	0	0	0.06	1.46	0.04	67%
Sediment	2000	74G20	G20CA01	15.01	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.05	0	0	0	0.05	1.46	0.03	66%
Sediment	Bioassay	74G15	B02DB015	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	64%
Sediment	Bioassay	74G26	B02DB026	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	63%
Sediment	Bioassay	74G41	B02DB041	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	62%
Sediment	Bioassay	74G44	B02DB044	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	61%
Sediment	Bioassay	74G52	B02DB052	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	60%
Sediment	Bioassay	74G46	B02DB346	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0				0	1.46	0	59%
Sediment	Phasel	74G05	E0201DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	58%
Sediment	Phasel	74G41	E0202DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	57%
Sediment	Phasel	74G46	E0203DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	56%
Sediment	Phasel	74G36	E0206DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	54%
Sediment	Phasel	74G28	E0209DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	53%
Sediment	Phasel	74G44	E0210DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	52%
Sediment	Phasel	74G35	E0211DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	51%
Sediment	Phasel	74G15	E0212DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	50%
Sediment	Phasel	74G16	E0213DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	49%
Sediment	Phasel	74G52	E0215DA0	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	48%
Sediment	2000	74G09	G09CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	47%
Sediment	2000	74G11	G11CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	46%
Sediment	2000	74G16	G16CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	44%
Sediment	2000	74G17	G17CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	43%
Sediment	2000	74G18	G18CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	42%
Sediment	2000	74G22	G22CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	41%
Sediment	2000	74G23	G23CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	40%
Sediment	2000	74G24	G24CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	39%
Sediment	2000	74G25	G25CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	38%
Sediment	2000	74G26	G26CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	37%
Sediment	2000	74G27	G27CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	36%
Sediment	2000	74G28	G28CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	34%
Sediment	2000	74G29	G29CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	33%
Sediment	2000	74G30	G30CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	32%
Sediment	2000	74G31	G31CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	31%
Sediment	2000	74G32	G32CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	30%
Sediment	2000	74G33	G33CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	29%
Sediment	2000	74G37	G37CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	28%
Sediment	2000	74G39	G39CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	27%
Sediment	2000	74G40	G40CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	26%
Sediment	2000	74G42	G42CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	24%
Sediment	2000	74G43	G43CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	23%
Sediment	2000	74G44	G44CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	22%
Sediment	2000	74G46	G46CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	21%

Table 4-11
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Mallards to Lead as Shot in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility		Estimated Exposures (mg/kg/d)						
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	Annualized LD50 (mg/kg/d)	Annualized LD50 HQ	Percentile [a]
Sediment	2000	74G48	G48CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	20%
Sediment	2000	74G49	G49CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	19%
Sediment	2000	74G50	G50CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	18%
Sediment	2000	74G51	G51CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	17%
Sediment	2000	74G52	G52CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	16%
Sediment	2000	74G53	G53CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	14%
Sediment	2000	74G54	G54CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	13%
Sediment	2000	74G55	G55CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	12%
Sediment	2000	74G56	G56CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	11%
Sediment	2000	74G57	G57CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	10%
Sediment	2000	74G58	G58CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	9%
Sediment	2000	74G59	G59CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	8%
Sediment	2000	74G60	G60CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	7%
Sediment	2000	74G61	G61CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	6%
Sediment	2000	74G62	G62CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	4%
Sediment	2000	74G63	G63CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	3%
Sediment	2000	74G64	G64CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	2%
Sediment	2000	74G65	G65CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	1%
Sediment	2000	74G66	G66CA01	0	mallard	0.1	0.033	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	0%

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the annualized LD50
Shaded samples are those with concentrations that exceeded the annualized LD50
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/LD50)
LD50 = median lethal dose
ND = non-detect
Refbio = bioassay sample collected from a reference area
SIR = soil ingestion rate

Table 4-12
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Belding's Savannah Sparrow to Lead in Sediment and Soil at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	Ingestion Rate (FIR) kg/kg/d dry	Ingestion Rate (SIR) Proportion of FIR	Diet Composition (Proportion of FIR) Plants	Diet Composition (Proportion of FIR) Terrestrial Invertebrates	Diet Composition (Proportion of FIR) Aquatic Invertebrates	Plant Uptake Model Slope	Plant Uptake Model Intercept	Terrestrial Invertebrate Uptake Model Slope	Terrestrial Invertebrate Uptake Model Intercept	Aquatic Invertebrate Uptake Model Slope	Aquatic Invertebrate Uptake Model Intercept	Estimated Concentrations (mg/kg dry) Plants	Estimated Concentrations (mg/kg dry) Terrestrial Invertebrates	Estimated Concentrations (mg/kg dry) Aquatic Invertebrates	Bioaccessibility Proportion	Estimated Exposures (mg/kg/d) Soil or Sediment	Estimated Exposures (mg/kg/d) Plants	Estimated Exposures (mg/kg/d) Terrestrial Invertebrates	Estimated Exposures (mg/kg/d) Aquatic Invertebrates	Estimated Exposures (mg/kg/d) Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Sediment	2000	74G05	G05CA01D	154000	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	212.52	261.82	15000.83	0.73	575.59	27.20	0	1920.11	2522.90	1.63	3.26	1547.79	773.90	99%
Sediment	Bioassay	74G36	B02DB036	33100	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	89.84	129.48	2521.11	0.73	123.71	11.50	0	322.70	457.92	1.63	3.26	280.93	140.47	98%
Sediment	2000	74G36	G36CA01	21400	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	70.38	106.04	1520.10	0.73	79.98	9.01	0	194.57	283.57	1.63	3.26	173.97	86.98	97%
Sediment	PhaseI	74G38	E0205DA0	20400	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	68.51	103.74	1438.01	0.73	76.25	8.77	0	184.07	269.08	1.63	3.26	165.08	82.54	96%
Sediment	PhaseI	74G04	E0208DA0	15800	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	59.38	92.28	1069.14	0.73	59.05	7.60	0	136.85	203.50	1.63	3.26	124.85	62.42	95%
Sediment	PhaseI	74G37	E0204DA0	10700	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	47.74	77.19	680.26	0.73	39.99	6.11	0	87.07	133.18	1.63	3.26	81.70	40.85	94%
Sediment	Bioassay	74G05	B02DB005	9020	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	43.38	71.39	558.00	0.73	33.71	5.55	0	71.42	110.69	1.63	3.26	67.91	33.95	92%
Sediment	PhaseI	74G26	E0207DA0	8080	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	40.79	67.88	491.12	0.73	30.20	5.22	0	62.86	98.28	1.63	3.26	60.30	30.15	91%
Sediment	2000	74G13	G13CA01	7280	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	38.48	64.71	435.17	0.73	27.21	4.92	0	55.70	87.84	1.63	3.26	53.89	26.94	90%
Sediment	2000	74G04	G04CA01	7240	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	38.36	64.55	432.40	0.73	27.06	4.91	0	55.35	87.32	1.63	3.26	53.57	26.78	89%
Sediment	2000	74G12	G12CA01	5780	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	33.81	58.22	332.99	0.73	21.60	4.33	0	42.62	68.55	1.63	3.26	42.06	21.03	88%
Sediment	2000	74G38	G38CA01	3230	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	24.41	44.60	169.54	0.73	12.07	3.12	0	21.70	36.90	1.63	3.26	22.64	11.32	87%
Sediment	2000	74G02	G02CA01	2390	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	20.62	38.85	119.55	0.73	8.93	2.64	0	15.30	26.87	1.63	3.26	16.49	8.24	86%
Sediment	2000	74G03	G03CA01	2050	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	18.92	36.22	100.05	0.73	7.66	2.42	0	12.81	22.89	1.63	3.26	14.04	7.02	85%
Sediment	2000	74G06	G06CA01	1500	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.73	5.61	2.03	0	8.91	16.55	1.63	3.26	10.16	5.08	84%
Sediment	2000	74G19	G19CA01	1160	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	13.76	27.90	51.68	0.73	4.34	1.76	0	6.62	12.71	1.63	3.26	7.80	3.90	83%
Sediment	2000	74G35	G35CA01	1020	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	12.80	26.31	44.52	0.73	3.81	1.64	0	5.70	11.15	1.63	3.26	6.84	3.42	82%
Sediment	PhaseI	74G16	E0213DA0	928	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	12.14	25.19	39.90	0.73	3.47	1.55	0	5.11	10.13	1.63	3.26	6.21	3.11	81%
Sediment	2000	74G01	G01CA01	850	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	11.56	24.20	36.03	0.73	3.18	1.48	0	4.61	9.27	1.63	3.26	5.69	2.84	80%
Sediment	PhaseI	74G35	E0211DA0	837	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	11.46	24.03	35.40	0.73	3.13	1.47	0	4.53	9.13	1.63	3.26	5.60	2.80	78%
Sediment	Refbio	SD3	B03DB003	773	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	10.96	23.17	32.28	0.73	2.89	1.40	0	4.13	8.42	1.63	3.26	5.17	2.58	77%
Sediment	Bioassay	74G35	B02DB035	536	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	8.93	19.59	21.11	0.73	2.00	1.14	0	2.70	5.85	1.63	3.26	3.59	1.79	76%
Sediment	2000	74G21	G21CA01	364	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	7.19	16.41	13.47	0.73	1.36	0.92	0	1.72	4.01	1.63	3.26	2.46	1.23	75%
Sediment	2000	74G52	G52CA01	334	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	6.85	15.78	12.19	0.73	1.25	0.88	0	1.56	3.69	1.63	3.26	2.26	1.13	74%
Sediment	Bioassay	74G26	B02DB026	285	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	6.27	14.67	10.14	0.73	1.07	0.80	0	1.30	3.17	1.63	3.26	1.94	0.97	73%
Sediment	2000	74G26	G26CA01	212	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	5.31	12.81	7.20	0.73	0.79	0.68	0	0.92	2.39	1.63	3.26	1.47	0.73	72%
Sediment	Bioassay	74G52	B02DB052	199	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	5.13	12.45	6.69	0.73	0.74	0.66	0	0.86	2.26	1.63	3.26	1.38	0.69	71%
Sediment	Bioassay	74G15	B02DB015	179	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	4.83	11.86	5.91	0.73	0.67	0.62	0	0.76	2.04	1.63	3.26	1.25	0.63	70%
Sediment	2000	74G22	G22CA01	176	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	4.78	11.76	5.80	0.73	0.66	0.61	0	0.74	2.01	1.63	3.26	1.23	0.62	69%
Sediment	PhaseI	74G36	E0206DA0	167	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	4.65	11.48	5.46	0.73	0.62	0.59	0	0.70	1.92	1.63	3.26	1.18	0.59	68%
Sediment	2000	74G11	G11CA01	165	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	4.62	11.42	5.38	0.73	0.62	0.59	0	0.69	1.90	1.63	3.26	1.16	0.58	67%
Sediment	2000	74G25	G25CA01	155	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	4.46	11.10	5.00	0.73	0.58	0.57	0	0.64	1.79	1.63	3.26	1.10	0.55	66%
Sediment	2000	74G08	G08CA01	140	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	4.21	10.59	4.45	0.73	0.52	0.54	0	0.57	1.63	1.63	3.26	1.00	0.50	65%
Sediment	2000	74G14	G14CA01	131	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	4.06	10.28	4.12	0.73	0.49	0.52	0	0.53	1.54	1.63	3.26	0.94	0.47	63%
Sediment	2000	74G10	G10CA01	130	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	4.04	10.24	4.08	0.73	0.49	0.52	0	0.52	1.53	1.63	3.26	0.94	0.47	62%
Sediment	PhaseI	74G15	E0212DA0	127	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.99	10.13	3.97	0.73	0.47	0.51	0	0.51	1.49	1.63	3.26	0.92	0.46	61%
Sediment	2000	74G59	G59CA01	127	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.99	10.13	3.97	0.73	0.47	0.51	0	0.51	1.49	1.63	3.26	0.92	0.46	60%
Sediment	2000	74G28	G28CA01	126	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.97	10.09	3.94	0.73	0.47	0.51	0	0.50	1.48	1.63	3.26	0.91	0.45	59%
Sediment	2000	74G07	G07CA01	121	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.88	9.91	3.76	0.73	0.45	0.50	0	0.48	1.43	1.63	3.26	0.88	0.44	58%
Sediment	2000	74G30	G30CA01	109	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.66	9.45	3.33	0.73	0.41	0.47	0	0.43	1.30	1.63	3.26	0.80	0.40	57%
Sediment	2000	74G15	G15CA01	106	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.60	9.33	3.22	0.73	0.40	0.46	0	0.41	1.27	1.63	3.26	0.78	0.39	56%
Sediment	2000	74G34	G34CA01	104	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.56	9.25	3.15	0.73	0.39	0.46	0	0.40	1.25	1.63	3.26	0.77	0.38	55%
Sediment	2000	74G42	G42CA01	103	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.54	9.20	3.12	0.73	0.38	0.45	0	0.40	1.24	1.63	3.26	0.76	0.38	54%
Sediment	PhaseI	74G52	E0215DA0	102	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.53	9.16	3.08	0.73	0.38	0.45	0	0.39	1.23	1.63	3.26	0.75	0.38	53%
Sediment	Bioassay	74G44	B02DB044	94.9	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.39	8.87	2.83	0.73	0.35	0.43	0	0.36	1.15	1.63	3.26	0.71	0.35	52%
Sediment	2000	74G37	G37CA01	84.6	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.17	8.41	2.48	0.73	0.32	0.41	0	0.32	1.04	1.63	3.26	0.64	0.32	51%
Sediment	2000	74G18	G18CA01	80.9	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.10	8.24	2.35	0.73	0.30	0.40	0	0.30	1.00	1.63	3.26	0.61	0.31	49%
Sediment	PhaseI	74G28	E0209DA0	76.7	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.01	8.04	2.21	0.73	0.29	0.38	0	0.28	0.95	1.63	3.26	0.59	0.29	48%
Sediment	Bioassay	74G41	B02DB041	76.5	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	3.00	8.03	2.21	0.73	0.29	0.38	0	0.28	0.95	1.63	3.26	0.58	0.29	47%
Sediment	PhaseI	74G46	E0203DA0	76.1	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.99	8.01	2.19	0.73	0.28	0.38	0	0.28	0.95	1.63	3.26	0.58	0.29	46%
Sediment	PhaseI	74G39	E0214DA0	70.1	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.86	7.72	1.99	0.73	0.26	0.37	0	0.26	0.88	1.63	3.26	0.54	0.27	45%
Sediment	2000	74G20	G20CA01	69.7	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.85	7.70	1.98	0.73	0.26	0.36	0	0.25	0.88	1.63	3.26	0.54	0.27	44%
Sediment	2000	74G47	G47CA01	68.2	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.81	7.62	1.93	0.73	0.25	0.36	0	0.25	0.86	1.63	3.26	0.53	0.26	43%
Sediment	2000	74G60	G60CA01	67.7	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.60	1.91	0.73	0.25	0.36	0	0.25	0.86	1.63	3.26	0.53	0.26	42%
Sediment	2000	74G63	G63CA01	67.7	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.60	1.91	0.73	0.25	0.36	0	0.25	0.86	1.63	3.26	0.53	0.26	41%
Sediment	2000	74G61	G61CA01	67.4	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.80	7.58	1.90	0.73	0.25	0.36	0	0.24	0.85	1.63	3.26	0.52	0.26	40%
Sediment	2000	74G31	G31CA01	67	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.79	7.56	1.89	0.73	0.25	0.36	0	0.24	0.85	1.63	3.26	0.52	0.26	39%
Sediment	2000	74G55	G55CA01	65.9	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.76	7.50	1.86	0.73	0.25	0.35	0	0.24	0.84	1.63	3.26	0.51	0.26	38%
Sediment	2000	74G24	G24CA01	65.1	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.74	7.46	1.83	0.73	0.24	0.35	0	0.23	0.83	1.63	3.26	0.51	0.25	37%
Sediment	2000	74G27	G27CA01	64.9	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.74	7.45	1.82	0.73	0.24	0.35	0	0.23	0.83	1.63	3.26	0.51	0.25	35%
Sediment	2000	74G53	G53CA01	61.6	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.66	7.27	1.72	0.73	0.23	0.34	0	0.22	0.79	1.63	3.26	0.48	0.24	34%
Sediment	2000	74G58	G58CA01	61	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.64	7.24	1.70	0.73	0.23	0.34	0	0.22	0.78	1.63	3.26	0.48	0.24	33%
Sediment	2000	74G66	G66CA01	60.6	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.63	7.22	1.68	0.73	0.23	0.34	0	0.22	0.78	1.63	3.26	0.48	0.24	32%
Sediment	2000	74G56	G56CA01	57.4	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.04	1.58	0.73	0.21	0.33	0	0.20	0.74	1.63	3.26	0.46	0.23	31%
Sediment	2000	74G23	G23CA01	57.1	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.73	0.21	0.33	0	0.20	0.74	1.63	3.26	0.45	0.23	30%
Sediment	2000	74G40	G40CA01	56.4	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.53	6.99	1.55	0.73	0.21	0.32	0	0.20	0.73	1.63	3.26	0.45	0.22	29%
Sediment	PhaseI	74G44	E0210DA0	54.9	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.49	6.90	1.50	0.73	0.21	0.32	0	0.19	0.72	1.63	3.26	0.44	0.22	28%
Sediment	2000	74G45	G45CA01	54.8	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.49	6.89	1.50	0.73	0.20	0.32	0	0.19	0.72	1.63	3.26	0.44	0.22	27%
Sediment	2000	74G44	G44CA01	52.3	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.43	6.75	1.42	0.73	0.20	0.31	0	0.18	0.69	1.63	3.26	0.42	0.21	26%
Sediment	2000	74G09	G09CA01	52.1	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.42	6.74	1.41	0.73	0.19	0.31	0	0.18	0.69	1.63	3.26	0.42	0.21	25%
Sediment	2000	74G51	G51CA01	51.7	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.41	6.71	1.40	0.73	0.19	0.31	0	0.18	0.68	1.63	3.26	0.42	0.21	24%
Sediment	2000	74G16	G16CA01	51.6	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.41	6.71	1.40	0.73	0.19	0.31	0	0.18	0.68	1.63	3.26	0.42	0.21	23%
Sediment	2000	74G49	G49CA01	50.9	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.39	6.67	1.38	0.73	0.19	0.31	0	0.18	0.67	1.63	3.26	0.41	0.21	22%
Sediment	PhaseI	74G05	E0201DA0	50.3	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.37	6.63	1.36	0.73	0.19	0.30	0	0.17	0.67	1.63	3.26	0.41	0.20	20%
Sediment	2000	74G48	G48CA01	49.8	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.36	6.60	1.34	0.73	0.19	0.30	0	0.17	0.66	1.63	3.26	0.40	0.20	19%
Sediment	Bioassay	74G46	B02DB346	48.4	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.32	6.51	1.30	0.73	0.18	0.30	0	0.17	0.64	1.63	3.26	0.40	0.20	18%
Sediment	Refbio	SD2	B03DB002	47.4	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.30	6.45	1.27	0.73	0.18	0.29	0	0.16	0.63	1.63	3.26	0.39	0.19	17%
Sediment	2000	74G33	G33CA01	46.2	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.26	6.38	1.23	0.73	0.17	0.29	0	0.16	0.62	1.63	3.26	0.38	0.19	16%
Sediment	2000	74G39	G39CA01	46.1	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.26	6.37	1.23	0.73	0.17	0.29	0	0.16	0.62	1.63	3.26	0.38	0.19	15%
Sediment	2000	74G32	G32CA01	45	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.23	6.30	1.19	0.73	0.17	0.29	0	0.15	0.61	1.63	3.26	0.37	0.19	14%
Sediment	2000	74G50	G50CA01	43.1	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.18	6.18	1.13	0.73	0.16	0.28	0	0.15	0.58	1.63	3.26	0.36	0.18	13%
Sediment	PhaseI	74G41	E0202DA0	42.7	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.15	1.12	0.73	0.16	0.28	0	0.14	0.58	1.63	3.26	0.36	0.18	12%
Sediment	2000	74G17	G17CA01	41.3	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.73	0.15	0.27	0	0.14	0.56	1.63	3.26	0.35	0.17	11%
Sediment	2000	74G65	G65CA01	39.9	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.08	5.96	1.04	0.73	0.15	0.27	0	0.13	0.55	1.63	3.26	0.34	0.17	10%
Sediment	2000	74G46	G46CA01	39.6	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.08	5.94	1.03	0.73	0.15	0.27	0	0.13	0.55	1.63	3.26	0.33	0.17	9%
Sediment	2000	74G54	G54CA01	39.5	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.07	5.93	1.02	0.73	0.15	0.27	0	0.13	0.54	1.63	3.26	0.33	0.17	8%
Sediment	2000	74G62	G62CA01	39	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	2.06	5.90	1.01	0.73	0.15	0.26	0	0.13	0.54	1.63	3.26	0.33	0.17	6%
Sediment	Refbio	SD1	B03DB001	35.7	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	1.96	5.67	0.91	0.73	0.13	0.25	0	0.12	0.50	1.63	3.26	0.31	0.15	5%
Sediment	2000	74G64	G64CA01	35.4	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	1.95	5.64	0.90	0.73	0.13	0.25	0	0.12	0.50	1.63	3.26	0.31	0.15	4%
Sediment	2000	74G57	G57CA01	34.6	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	1.92	5.59	0.88	0.73	0.13	0.25	0	0.11	0.49	1.63	3.26	0.30	0.15	3%
Sediment	2000	74G29	G29CA01	34.4	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	1.92	5.57	0.87	0.73	0.13	0.25	0	0.11	0.49	1.63	3.26	0.30	0.15	2%
Sediment	2000	74G41	G41CA01	23.2	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	1.54	4.65	0.55	0.73	0.09	0.20	0	0.07	0.35	1.63	3.26	0.22	0.11	1%
Sediment	2000	74G43	G43CA01	8.7	DET	Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24	0.89	2.97	0.18	0.73	0.03	0.11	0	0.02	0.17	1.63	3.26	0.10	0.05	0%
Sediment	2000	74G05	G05CA01			Sparrow	0.256	0.02	0.5	0	0.5	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0					1.63	3.26	0.00	0.00	
Soil	2000	74B37	B37SA01D	80300	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	147.58	194.31	7047.93	0.87	357.69	18.89	24.87	0	401.45	1.63	3.26	246.29	123.14	99%

Table 4-12
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Belding's Savannah Sparrow to Lead in Sediment and Soil at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Ingestion Rate (FIR)	Ingestion Rate (SIR)	Diet Composition (Proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Soil	2000	74B20	B20SA01	69700	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	136.33	182.11	5980.55	0.87	310.47	17.45	23.31	0	351.23	1.63	3.26	215.48	107.74	98%
Soil	Phasel	74B09	E0104SA0	55200	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	119.64	163.66	4562.90	0.87	245.88	15.31	20.95	0	282.14	1.63	3.26	173.09	86.55	96%
Soil	2000	74B12	B12SA01	53400	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	117.44	161.19	4390.76	0.87	237.86	15.03	20.63	0	273.53	1.63	3.26	167.81	83.90	95%
Soil	Phasel	74B10	E0105SA0	31600	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	87.54	126.76	2389.07	0.87	140.76	11.21	16.23	0	168.19	1.63	3.26	103.18	51.59	94%
Soil	Bioassay	74B10	B01SB010	3430	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	25.24	45.84	181.77	0.87	15.28	3.23	5.87	0	24.38	1.63	3.26	14.96	7.48	93%
Soil	2000	74B19	B19SA01	2680	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	21.99	40.95	136.53	0.87	11.94	2.81	5.24	0	19.99	1.63	3.26	12.27	6.13	91%
Soil	2000	74B10	B10SA01	2170	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	19.53	37.17	106.88	0.87	9.67	2.50	4.76	0	16.92	1.63	3.26	10.38	5.19	90%
Soil	2000	74B11	B11SA01	1700	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	17.04	33.24	80.52	0.87	7.57	2.18	4.25	0	14.01	1.63	3.26	8.59	4.30	89%
Soil	2000	74B22	B22SA01	1500	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.87	6.68	2.03	4.02	0	12.73	1.63	3.26	7.81	3.91	88%
Soil	Bioassay	74B09	B01SB009	1470	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.87	6.55	2.01	3.98	0	12.54	1.63	3.26	7.69	3.85	86%
Soil	2000	74B29	B29SA01	1470	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.87	6.55	2.01	3.98	0	12.54	1.63	3.26	7.69	3.85	85%
Soil	2000	74B08	B08SA01	1270	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.47	29.08	57.41	0.87	5.66	1.85	3.72	0	11.23	1.63	3.26	6.89	3.45	84%
Soil	Phasel	74B30	E0110SA0	1240	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.28	28.77	55.84	0.87	5.52	1.83	3.68	0	11.03	1.63	3.26	6.77	3.38	83%
Soil	Bioassay	74B20	B01SB020	1220	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.15	28.55	54.80	0.87	5.43	1.81	3.66	0	10.90	1.63	3.26	6.69	3.34	81%
Soil	2000	74B31	B31SA01	1200	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.02	28.34	53.76	0.87	5.35	1.79	3.63	0	10.77	1.63	3.26	6.61	3.30	80%
Soil	2000	74B09	B09SA01	1110	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.42	27.35	49.11	0.87	4.94	1.72	3.50	0	10.16	1.63	3.26	6.23	3.12	79%
Soil	2000	74B15	B15SA01	1060	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.08	26.77	46.55	0.87	4.72	1.67	3.43	0	9.82	1.63	3.26	6.03	3.01	78%
Soil	Phasel	74B24	E0107SA0	963	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	12.39	25.62	41.65	0.87	4.29	1.59	3.28	0	9.16	1.63	3.26	5.62	2.81	76%
Soil	Phasel	74B20	E0106SA0	831	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.41	23.95	35.10	0.87	3.70	1.46	3.07	0	8.23	1.63	3.26	5.05	2.52	75%
Soil	2000	74B16	B16SA01	797	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.15	23.50	33.44	0.87	3.55	1.43	3.01	0	7.98	1.63	3.26	4.90	2.45	74%
Soil	Bioassay	74B32	B01SB032	604	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.54	20.69	24.24	0.87	2.69	1.22	2.65	0	6.56	1.63	3.26	4.03	2.01	73%
Soil	Phasel	74B07	E0103SA0	568	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.22	20.12	22.58	0.87	2.53	1.18	2.58	0	6.29	1.63	3.26	3.86	1.93	71%
Soil	Bioassay	74B07	B01SB007	535	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.92	19.58	21.06	0.87	2.38	1.14	2.51	0	6.03	1.63	3.26	3.70	1.85	70%
Soil	2000	74B17	B17SA01	448	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.07	18.05	17.14	0.87	2.00	1.03	2.31	0	5.34	1.63	3.26	3.28	1.64	69%
Soil	Phasel	74B29	E0109SA0	377	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.33	16.68	14.03	0.87	1.68	0.94	2.13	0	4.75	1.63	3.26	2.92	1.46	68%
Soil	2000	74B14	B14SA01	357	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.11	16.26	13.17	0.87	1.59	0.91	2.08	0	4.58	1.63	3.26	2.81	1.41	66%
Soil	2000	74B06	B06SA01	316	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	6.64	15.38	11.43	0.87	1.41	0.85	1.97	0	4.23	1.63	3.26	2.59	1.30	65%
Soil	2000	74B13	B13SA01	256	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.90	13.97	8.96	0.87	1.14	0.76	1.79	0	3.68	1.63	3.26	2.26	1.13	64%
Soil	2000	74B28	B28SA01	232	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.59	13.35	7.99	0.87	1.03	0.71	1.71	0	3.46	1.63	3.26	2.12	1.06	63%
Soil	Phasel	74B49	E0114SA0	221	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.44	13.06	7.55	0.87	0.98	0.70	1.67	0	3.35	1.63	3.26	2.06	1.03	61%
Soil	2000	74B38	B38SA01	205	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.21	12.62	6.92	0.87	0.91	0.67	1.61	0	3.20	1.63	3.26	1.96	0.98	60%
Soil	2000	74B30	B30SA01	198	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.11	12.42	6.65	0.87	0.88	0.65	1.59	0	3.13	1.63	3.26	1.92	0.96	59%
Soil	2000	74B24	B24SA01	191	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.01	12.21	6.38	0.87	0.85	0.64	1.56	0	3.06	1.63	3.26	1.87	0.94	58%
Soil	Refbio	SR2	B03SB002	178	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.82	11.83	5.88	0.87	0.79	0.62	1.51	0	2.92	1.63	3.26	1.79	0.90	56%
Soil	2000	74B27	B27SA01	168	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.87	0.75	0.60	1.47	0	2.82	1.63	3.26	1.73	0.86	55%
Soil	2000	74B44	B44SA01	168	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.87	0.75	0.60	1.47	0	2.82	1.63	3.26	1.73	0.86	54%
Soil	2000	74B34	B34SA01	156	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.47	11.13	5.04	0.87	0.69	0.57	1.42	0	2.69	1.63	3.26	1.65	0.83	53%
Soil	2000	74B47	B47SA01	135	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.12	10.42	4.26	0.87	0.60	0.53	1.33	0	2.46	1.63	3.26	1.51	0.76	51%
Soil	Bioassay	74B27	B01SB027	123	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.92	9.98	3.83	0.87	0.55	0.50	1.28	0	2.33	1.63	3.26	1.43	0.71	50%
Soil	2000	74B32	B32SA01	88.5	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.26	8.59	2.61	0.87	0.39	0.42	1.10	0	1.91	1.63	3.26	1.17	0.59	49%
Soil	2000	74B03	B03SA01	86.6	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.22	8.50	2.55	0.87	0.39	0.41	1.09	0	1.89	1.63	3.26	1.16	0.58	48%
Soil	Phasel	74B32	E0113SA0	84.9	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.18	8.42	2.49	0.87	0.38	0.41	1.08	0	1.86	1.63	3.26	1.14	0.57	46%
Soil	2000	74B02	B02SA01	75.5	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.98	7.98	2.17	0.87	0.34	0.38	1.02	0	1.74	1.63	3.26	1.07	0.53	45%
Soil	2000	74B35	B35SA01	73.8	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.94	7.90	2.12	0.87	0.33	0.38	1.01	0	1.72	1.63	3.26	1.05	0.53	44%
Soil	Phasel	74B27	E0108SA0	72.4	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.91	7.83	2.07	0.87	0.32	0.37	1.00	0	1.70	1.63	3.26	1.04	0.52	43%
Soil	2000	74B07	B07SA01	70.6	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.87	7.74	2.01	0.87	0.31	0.37	0.99	0	1.67	1.63	3.26	1.03	0.51	41%
Soil	2000	74B18	B18SA01	59.6	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.61	7.16	1.65	0.87	0.27	0.33	0.92	0	1.52	1.63	3.26	0.93	0.47	40%
Soil	2000	74B04	B04SA01	57.2	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.87	0.25	0.33	0.90	0	1.48	1.63	3.26	0.91	0.45	39%
Soil	2000	74B23	B23SA01	55.2	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.92	1.51	0.87	0.25	0.32	0.89	0	1.45	1.63	3.26	0.89	0.45	38%
Soil	2000	74B49	B49SA01	55.1	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.91	1.51	0.87	0.25	0.32	0.88	0	1.45	1.63	3.26	0.89	0.44	36%
Soil	2000	74B26	B26SA01	54.2	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.47	6.86	1.48	0.87	0.24	0.32	0.88	0	1.44	1.63	3.26	0.88	0.44	35%
Soil	2000	74B05	B05SA01	51.3	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.40	6.69	1.39	0.87	0.23	0.31	0.86	0	1.39	1.63	3.26	0.85	0.43	34%
Soil	Refbio	SR1	B03SB001	50.5	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.38	6.64	1.36	0.87	0.22	0.30	0.85	0	1.38	1.63	3.26	0.85	0.42	33%
Soil	Refbio	SR3	B03SB003	48	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.31	6.49	1.28	0.87	0.21	0.30	0.83	0	1.34	1.63	3.26	0.82	0.41	31%
Soil	Phasel	74B27	E0108SA0	45	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.23	6.30	1.19	0.87	0.20	0.29	0.81	0	1.29	1.63	3.26	0.79	0.40	30%
Soil	2000	74B43	B43SA01	42.6	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.14	1.12	0.87	0.19	0.28	0.79	0	1.25	1.63	3.26	0.77	0.38	29%
Soil	Phasel	74B41	E0112SA0	41.3	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.87	0.18	0.27	0.78	0	1.23	1.63	3.26	0.76	0.38	28%
Soil	Bioassay	74B01	B01SB001	40.4	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.10	6.00	1.05	0.87	0.18	0.27	0.77	0	1.22	1.63	3.26	0.75	0.37	26%
Soil	Phasel	74B01	E0101SA0	32.9	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.87	5.46	0.83	0.87	0.15	0.24	0.70	0	1.08	1.63	3.26	0.67	0.33	25%
Soil	2000	74B01	B01SA01	32.6	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.86	5.43	0.82	0.87	0.15	0.24	0.70	0	1.08	1.63	3.26	0.66	0.33	24%
Soil	2000	74B39	B39SA01	31.3	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.82	5.33	0.78	0.87	0.14	0.23	0.68	0	1.06	1.63	3.26	0.65	0.32	23%
Soil	2000	74B21	B21SA01	30.1	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.78	5.24	0.75	0.87	0.13	0.23	0.67	0	1.03	1.63	3.26	0.63	0.32	21%
Soil	2000	74B41	B41SA01	29	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.74	5.15	0.72	0.87	0.13	0.22	0.66	0	1.01	1.63	3.26	0.62	0.31	20%
Soil	Bioassay	74B43	B01SB043	26.4	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.65	4.93	0.64	0.87	0.12	0.21	0.63	0	0.96	1.63	3.26	0.59	0.29	19%
Soil	2000	74B36	B36SA01	25.6	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.63	4.87	0.62	0.87	0.11	0.21	0.62	0	0.94	1.63	3.26	0.58	0.29	18%
Soil	Phasel	74B37	E0111SA0	25.5	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.62	4.86	0.62	0.87	0.11	0.21	0.62	0	0.94	1.63	3.26	0.58	0.29	16%
Soil	2000	74B42	B42SA01	22.9	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.53	4.62	0.54	0.87	0.10	0.20	0.59	0	0.89	1.63	3.26	0.55	0.27	15%
Soil	2000	74B50	B50SA01	22	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.49	4.54	0.52	0.87	0.10	0.19	0.58	0	0.87	1.63	3.26	0.53	0.27	14%
Soil	2000	74B46	B46SA01	21.5	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.47	4.49	0.51	0.87	0.10	0.19	0.57	0	0.86	1.63	3.26	0.53	0.26	13%
Soil	2000	74B52	B52SA01	19.1	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.38	4.25	0.44	0.87	0.09	0.18	0.54	0	0.81	1.63	3.26	0.49	0.25	11%
Soil	2000	74B33	B33SA01	17.4	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.31	4.08	0.40	0.87	0.08	0.17	0.52	0	0.77	1.63	3.26	0.47	0.24	10%
Soil	Phasel	74B43	E0115SA0	16.2	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.26	3.95	0.36	0.87	0.07	0.16	0.51	0	0.74	1.63	3.26	0.45	0.23	9%
Soil	Bioassay	74B04	B01SB304	15.1	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.21	3.82	0.34	0.87	0.07	0.15	0.49	0	0.71	1.63	3.26	0.44	0.22	8%
Soil	2000	74B40	B40SA01	13.5	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.14	3.63	0.29	0.87	0.06	0.15	0.46	0	0.67	1.63	3.26	0.41	0.21	6%
Soil	2000	74B45	B45SA01	12.7	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.10	3.53	0.27	0.87	0.06	0.14	0.45	0	0.65	1.63	3.26	0.40	0.20	5%
Soil	Phasel	74B04	E0102SA0	12.6	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.09	3.52	0.27	0.87	0.06	0.14	0.45	0	0.65	1.63	3.26	0.40	0.20	4%
Soil	2000	74B51	B51SA01	11.6	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.04	3.39	0.25	0.87	0.05	0.13	0.43	0	0.62	1.63	3.26	0.38	0.19	3%
Soil	2000	74B48	B48SA01	9.7	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.94	3.12	0.20	0.87	0.04	0.12	0.40	0	0.56	1.63	3.26	0.35	0.17	1%
Soil	2000	74B25	B25SA01	5	DET	Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.65	2.30	0.09	0.87	0.02	0.08	0.29	0	0.40	1.63	3.26	0.25	0.12	0%
Soil	2000	74B37	B37SA01			Sparrow	0.256	0.02	0.5	0.5	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.87	0				0	1.63	3.26	0.00	0.00	

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the NOAEL
Shaded samples are those with concentrations that exceeded the NOAEL
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/NOAEL or LOAEL)
LOAEL = lowest observed adverse effect level
ND = non-detect
NOAEL = no observed adverse effect level
Refbio = bioassay sample collected from a reference area
SIR = soil ingestion rate

Table 4-13
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Belding's Savannah Sparrows to Lead as Shot in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)						
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	Annualized LD50 (mg/kg/d)	Annualized LD50 HQ	Percentile [a]
Sediment	Refbio	SD1	B03DB001		Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73		0	0	0	0	1.46		
Sediment	Refbio	SD2	B03DB002		Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73		0	0	0	0	1.46		
Sediment	Refbio	SD3	B03DB003		Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73		0	0	0	0	1.46		
Sediment	2000	74G05	G05CA01D		Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73		0	0	0	0	1.46		
Sediment	Phasel	74G26	E0207DA0	7511.5	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	38.46	0	0	0	38.46	1.46	26.34	99%
Sediment	2000	74G13	G13CA01	7481.1	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	38.30	0	0	0	38.30	1.46	26.24	98%
Sediment	2000	74G05	G05CA01	6578.2	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	33.68				33.68	1.46	23.07	97%
Sediment	Phasel	74G38	E0205DA0	5086.65	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	26.04	0	0	0	26.04	1.46	17.84	96%
Sediment	Bioassay	74G05	B02DB005	4979.5	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	25.50	0	0	0	25.50	1.46	17.46	94%
Sediment	Phasel	74G04	E0208DA0	4882.52	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	25.00	0	0	0	25.00	1.46	17.12	93%
Sediment	2000	74G36	G36CA01	4628.53	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	23.70	0	0	0	23.70	1.46	16.23	92%
Sediment	2000	74G03	G03CA01	3643.53	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	18.65	0	0	0	18.65	1.46	12.78	91%
Sediment	2000	74G12	G12CA01	3487.8	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	17.86	0	0	0	17.86	1.46	12.23	90%
Sediment	Bioassay	74G36	B02DB036	3073.11	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	15.73	0	0	0	15.73	1.46	10.78	89%
Sediment	2000	74G04	G04CA01	2481.14	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	12.70	0	0	0	12.70	1.46	8.70	88%
Sediment	Phasel	74G37	E0204DA0	1548.88	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	7.93	0	0	0	7.93	1.46	5.43	87%
Sediment	2000	74G38	G38CA01	1350.57	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	6.91	0	0	0	6.91	1.46	4.74	86%
Sediment	2000	74G02	G02CA01	1027.49	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	5.26	0	0	0	5.26	1.46	3.60	84%
Sediment	2000	74G06	G06CA01	503.69	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	2.58	0	0	0	2.58	1.46	1.77	83%
Sediment	2000	74G35	G35CA01	388.81	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.99	0	0	0	1.99	1.46	1.36	82%
Sediment	2000	74G19	G19CA01	240.16	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.23	0	0	0	1.23	1.46	0.84	81%
Sediment	2000	74G21	G21CA01	176.28	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.90	0	0	0	0.90	1.46	0.62	80%
Sediment	2000	74G01	G01CA01	133.59	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.68	0	0	0	0.68	1.46	0.47	79%
Sediment	2000	74G07	G07CA01	105.93	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.54	0	0	0	0.54	1.46	0.37	78%
Sediment	Bioassay	74G35	B02DB035	103.31	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.53	0	0	0	0.53	1.46	0.36	77%
Sediment	2000	74G14	G14CA01	97.09	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.50	0	0	0	0.50	1.46	0.34	76%
Sediment	Phasel	74G39	E0214DA0	91.89	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.47	0	0	0	0.47	1.46	0.32	74%
Sediment	2000	74G47	G47CA01	60.56	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.31	0	0	0	0.31	1.46	0.21	73%
Sediment	2000	74G15	G15CA01	52.93	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.27	0	0	0	0.27	1.46	0.19	72%
Sediment	2000	74G10	G10CA01	39.66	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.20	0	0	0	0.20	1.46	0.14	71%
Sediment	2000	74G41	G41CA01	29.7	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.15	0	0	0	0.15	1.46	0.10	70%
Sediment	2000	74G34	G34CA01	26.41	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.14	0	0	0	0.14	1.46	0.09	69%
Sediment	2000	74G08	G08CA01	24.77	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.13	0	0	0	0.13	1.46	0.09	68%
Sediment	2000	74G45	G45CA01	19.05	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.10	0	0	0	0.10	1.46	0.07	67%
Sediment	2000	74G20	G20CA01	15.01	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.08	0	0	0	0.08	1.46	0.05	66%
Sediment	Bioassay	74G15	B02DB015	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	64%
Sediment	Bioassay	74G26	B02DB026	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	63%
Sediment	Bioassay	74G41	B02DB041	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	62%
Sediment	Bioassay	74G44	B02DB044	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	61%
Sediment	Bioassay	74G52	B02DB052	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	60%
Sediment	Bioassay	74G46	B02DB346	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0				0	1.46	0	59%
Sediment	Phasel	74G05	E0201DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	58%
Sediment	Phasel	74G41	E0202DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	57%
Sediment	Phasel	74G46	E0203DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	56%
Sediment	Phasel	74G36	E0206DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	54%
Sediment	Phasel	74G28	E0209DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	53%
Sediment	Phasel	74G44	E0210DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	52%
Sediment	Phasel	74G35	E0211DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	51%
Sediment	Phasel	74G15	E0212DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	50%
Sediment	Phasel	74G16	E0213DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	49%
Sediment	Phasel	74G52	E0215DA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	48%
Sediment	2000	74G09	G09CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	47%
Sediment	2000	74G11	G11CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	46%
Sediment	2000	74G16	G16CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	44%
Sediment	2000	74G17	G17CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	43%
Sediment	2000	74G18	G18CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	42%
Sediment	2000	74G22	G22CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	41%
Sediment	2000	74G23	G23CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	40%
Sediment	2000	74G24	G24CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	39%
Sediment	2000	74G25	G25CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	38%
Sediment	2000	74G26	G26CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	37%
Sediment	2000	74G27	G27CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	36%
Sediment	2000	74G28	G28CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	34%
Sediment	2000	74G29	G29CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	33%
Sediment	2000	74G30	G30CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	32%
Sediment	2000	74G31	G31CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	31%
Sediment	2000	74G32	G32CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	30%
Sediment	2000	74G33	G33CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	29%
Sediment	2000	74G37	G37CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	28%
Sediment	2000	74G39	G39CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	27%
Sediment	2000	74G40	G40CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	26%
Sediment	2000	74G42	G42CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	24%
Sediment	2000	74G43	G43CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	23%
Sediment	2000	74G44	G44CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	22%

Table 4-13
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Belding's Savannah Sparrows to Lead as Shot in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)							
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	Annualized LD50 (mg/kg/d)	Annualized LD50 HQ	Percentile [a]
Sediment	2000	74G46	G46CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	21%
Sediment	2000	74G48	G48CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	20%
Sediment	2000	74G49	G49CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	19%
Sediment	2000	74G50	G50CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	18%
Sediment	2000	74G51	G51CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	17%
Sediment	2000	74G52	G52CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	16%
Sediment	2000	74G53	G53CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	14%
Sediment	2000	74G54	G54CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	13%
Sediment	2000	74G55	G55CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	12%
Sediment	2000	74G56	G56CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	11%
Sediment	2000	74G57	G57CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	10%
Sediment	2000	74G58	G58CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	9%
Sediment	2000	74G59	G59CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	8%
Sediment	2000	74G60	G60CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	7%
Sediment	2000	74G61	G61CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	6%
Sediment	2000	74G62	G62CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	4%
Sediment	2000	74G63	G63CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	3%
Sediment	2000	74G64	G64CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	2%
Sediment	2000	74G65	G65CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	1%
Sediment	2000	74G66	G66CA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	0%
Soil	Refbio	SR1	B03SB001		Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73		0	0	0	0	1.46	0	
Soil	Refbio	SR2	B03SB002		Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73		0	0	0	0	1.46	0	
Soil	Refbio	SR3	B03SB003		Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73		0	0	0	0	1.46	0	
Soil	2000	74B37	B37SA01D		Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73		0	0	0	0	1.46	0	
Soil	Bioassay	74B10	B01SB010	14404.6	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	73.75	0	0	0	73.75	1.46	50.51	99%
Soil	2000	74B31	B31SA01	13193.31	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	67.55	0	0	0	67.55	1.46	46.27	97%
Soil	2000	74B30	B30SA01	12687.48	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	64.96	0	0	0	64.96	1.46	44.49	96%
Soil	Phasel	74B20	E0106SA0	12193.75	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	62.43	0	0	0	62.43	1.46	42.76	95%
Soil	Bioassay	74B20	B01SB020	11801.32	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	60.42	0	0	0	60.42	1.46	41.39	94%
Soil	2000	74B15	B15SA01	11297.72	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	57.84	0	0	0	57.84	1.46	39.62	92%
Soil	2000	74B22	B22SA01	10768.53	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	55.13	0	0	0	55.13	1.46	37.76	91%
Soil	2000	74B16	B16SA01	9308.19	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	47.66	0	0	0	47.66	1.46	32.64	90%
Soil	Phasel	74B10	E0105SA0	8660.8	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	44.34	0	0	0	44.34	1.46	30.37	88%
Soil	2000	74B19	B19SA01	8143.6	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	41.70	0	0	0	41.70	1.46	28.56	87%
Soil	2000	74B20	B20SA01	7478.01	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	38.29	0	0	0	38.29	1.46	26.22	86%
Soil	2000	74B10	B10SA01	6660.57	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	34.10	0	0	0	34.10	1.46	23.36	84%
Soil	2000	74B17	B17SA01	4851.14	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	24.84	0	0	0	24.84	1.46	17.01	83%
Soil	Phasel	74B24	E0107SA0	4636.21	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	23.74	0	0	0	23.74	1.46	16.26	82%
Soil	2000	74B06	B06SA01	4553.58	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	23.31	0	0	0	23.31	1.46	15.97	81%
Soil	2000	74B09	B09SA01	4529.15	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	23.19	0	0	0	23.19	1.46	15.88	79%
Soil	2000	74B14	B14SA01	3777.5	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	19.34	0	0	0	19.34	1.46	13.25	78%
Soil	Bioassay	74B09	B01SB009	3605.72	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	18.46	0	0	0	18.46	1.46	12.64	77%
Soil	Phasel	74B09	E0104SA0	3560.11	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	18.23	0	0	0	18.23	1.46	12.48	75%
Soil	2000	74B12	B12SA01	2893.2	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	14.81	0	0	0	14.81	1.46	10.15	74%
Soil	Phasel	74B30	E0110SA0	2842.08	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	14.55	0	0	0	14.55	1.46	9.97	73%
Soil	2000	74B24	B24SA01	2553.72	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	13.08	0	0	0	13.08	1.46	8.96	71%
Soil	2000	74B13	B13SA01	2111.58	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	10.81	0	0	0	10.81	1.46	7.40	70%
Soil	2000	74B23	B23SA01	2048.14	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	10.49	0	0	0	10.49	1.46	7.18	69%
Soil	Phasel	74B07	E0103SA0	2038.94	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	10.44	0	0	0	10.44	1.46	7.15	68%
Soil	2000	74B08	B08SA01	1555.05	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	7.96	0	0	0	7.96	1.46	5.45	66%
Soil	2000	74B11	B11SA01	1450.68	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	7.43	0	0	0	7.43	1.46	5.09	65%
Soil	2000	74B03	B03SA01	1333.35	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	6.83	0	0	0	6.83	1.46	4.68	64%
Soil	Phasel	74B32	E0113SA0	1293.98	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	6.63	0	0	0	6.63	1.46	4.54	62%
Soil	2000	74B07	B07SA01	1025.12	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	5.25	0	0	0	5.25	1.46	3.59	61%
Soil	2000	74B43	B43SA01	934.22	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	4.78	0	0	0	4.78	1.46	3.28	60%
Soil	2000	74B37	B37SA01	855.45	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	4.38	0	0	0	4.38	1.46	3.00	58%
Soil	Bioassay	74B07	B01SB007	816.38	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	4.18	0	0	0	4.18	1.46	2.86	57%
Soil	Phasel	74B29	E0109SA0	802.87	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	4.11	0	0	0	4.11	1.46	2.82	56%
Soil	2000	74B35	B35SA01	772.51	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	3.96	0	0	0	3.96	1.46	2.71	55%
Soil	2000	74B29	B29SA01	646.42	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	3.31	0	0	0	3.31	1.46	2.27	53%
Soil	2000	74B36	B36SA01	562.72	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	2.88	0	0	0	2.88	1.46	1.97	52%
Soil	2000	74B05	B05SA01	560.89	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	2.87	0	0	0	2.87	1.46	1.97	51%
Soil	2000	74B18	B18SA01	491.45	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	2.52	0	0	0	2.52	1.46	1.72	49%
Soil	2000	74B26	B26SA01	419.09	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	2.15	0	0	0	2.15	1.46	1.47	48%
Soil	Bioassay	74B01	B01SB001	308.1	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.58	0	0	0	1.58	1.46	1.08	47%
Soil	2000	74B04	B04SA01	304.5	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.56	0	0	0	1.56	1.46	1.07	45%
Soil	2000	74B02	B02SA01	276.06	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.41	0	0	0	1.41	1.46	0.97	44%
Soil	Phasel	74B43	E0115SA0	257.68	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.32	0	0	0	1.32	1.46	0.90	43%
Soil	2000	74B47	B47SA01	237.8	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.22	0	0	0	1.22	1.46	0.83	42%
Soil	Bioassay	74B43	B01SB043	225.48	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.15	0	0	0	1.15	1.46	0.79	40%
Soil	Bioassay	74B32	B01SB032	211.33	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.08	0	0	0	1.08	1.46	0.74	39%
Soil	2000	74B01	B01SA01	202.3	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	1.04	0	0	0	1.04	1.46	0.71	38%
Soil	Phasel	74B01	E0101SA0	153.73	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.79	0	0	0	0.79	1.46	0.54	36%
Soil	2000	74B28	B28SA01	151.75	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.78	0	0	0	0.78	1.46	0.53	35%

Table 4-13
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Belding's Savannah Sparrows to Lead as Shot in Sediment at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)							
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	Annualized LD50 (mg/kg/d)	Annualized LD50 HQ	Percentile [a]
Soil	2000	74B49	B49SA01	131.41	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.67	0	0	0	0.67	1.46	0.46	34%
Soil	2000	74B27	B27SA01	86.58	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.44	0	0	0	0.44	1.46	0.30	32%
Soil	2000	74B38	B38SA01	84.77	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.43	0	0	0	0.43	1.46	0.30	31%
Soil	Phasel	74B37	E0111SA0	83.86	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.43	0	0	0	0.43	1.46	0.29	30%
Soil	2000	74B21	B21SA01	62.34	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.32	0	0	0	0.32	1.46	0.22	29%
Soil	Phasel	74B49	E0114SA0	59.86	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.31	0	0	0	0.31	1.46	0.21	27%
Soil	Bioassay	74B04	B01SB304	57.52	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.29	0	0	0	0.29	1.46	0.20	26%
Soil	2000	74B44	B44SA01	52.5	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.27	0	0	0	0.27	1.46	0.18	25%
Soil	2000	74B32	B32SA01	45.08	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.23	0	0	0	0.23	1.46	0.16	23%
Soil	2000	74B42	B42SA01	38.42	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.20	0	0	0	0.20	1.46	0.13	22%
Soil	2000	74B33	B33SA01	34.32	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.18	0	0	0	0.18	1.46	0.12	21%
Soil	2000	74B40	B40SA01	34.28	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.18	0	0	0	0.18	1.46	0.12	19%
Soil	2000	74B41	B41SA01	30	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.15	0	0	0	0.15	1.46	0.11	18%
Soil	Bioassay	74B27	B01SB027	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	17%
Soil	2000	74B25	B25SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	16%
Soil	2000	74B34	B34SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	14%
Soil	2000	74B39	B39SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	13%
Soil	2000	74B45	B45SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	12%
Soil	2000	74B46	B46SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	10%
Soil	2000	74B48	B48SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	9%
Soil	2000	74B50	B50SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	8%
Soil	2000	74B51	B51SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	6%
Soil	2000	74B52	B52SA01	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	5%
Soil	Phasel	74B04	E0102SA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	4%
Soil	Phasel	74B27	E0108SA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	3%
Soil	Phasel	74B27	E0108SA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	1%
Soil	Phasel	74B41	E0112SA0	0	Sparrow	0.256	0.02	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0	0	0	0	0	1.46	0	0%

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the annualized LD50
Shaded samples are those with concentrations that exceeded the annualized LD50
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/LD50)
LD50 = median lethal dose
ND = non-detect
Refbio = bioassay sample collected from a reference area
SIR = soil ingestion rate

Table 4-14
Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Western Meadowlarks to Lead in Soil at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Soil	2000	74B37	B37SA01D	80300	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	147.58	194.31	7047.93	0.87	42.14	1.57	3.57	0	47.28	1.63	3.26	29.00	14.50	99%
Soil	2000	74B20	B20SA01	69700	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	136.33	182.11	5980.55	0.87	36.58	1.45	3.34	0	41.37	1.63	3.26	25.38	12.69	98%
Soil	Phasel	74B09	E0104SA0	55200	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	119.64	163.66	4562.90	0.87	28.97	1.27	3.00	0	33.25	1.63	3.26	20.40	10.20	96%
Soil	2000	74B12	B12SA01	53400	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	117.44	161.19	4390.76	0.87	28.02	1.25	2.96	0	32.23	1.63	3.26	19.77	9.89	95%
Soil	Phasel	74B10	E0105SA0	31600	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	87.54	126.76	2389.07	0.87	16.58	0.93	2.33	0	19.84	1.63	3.26	12.17	6.09	94%
Soil	Bioassay	74B10	B01SB010	3430	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	25.24	45.84	181.77	0.87	1.80	0.27	0.84	0	2.91	1.63	3.26	1.79	0.89	93%
Soil	2000	74B19	B19SA01	2680	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	21.99	40.95	136.53	0.87	1.41	0.23	0.75	0	2.39	1.63	3.26	1.47	0.73	91%
Soil	2000	74B10	B10SA01	2170	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	19.53	37.17	106.88	0.87	1.14	0.21	0.68	0	2.03	1.63	3.26	1.24	0.62	90%
Soil	2000	74B11	B11SA01	1700	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	17.04	33.24	80.52	0.87	0.89	0.18	0.61	0	1.68	1.63	3.26	1.03	0.52	89%
Soil	2000	74B22	B22SA01	1500	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.87	0.79	0.17	0.58	0	1.53	1.63	3.26	0.94	0.47	88%
Soil	Bioassay	74B09	B01SB009	1470	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.87	0.77	0.17	0.57	0	1.51	1.63	3.26	0.93	0.46	86%
Soil	2000	74B29	B29SA01	1470	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.87	0.77	0.17	0.57	0	1.51	1.63	3.26	0.93	0.46	85%
Soil	2000	74B08	B08SA01	1270	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.47	29.08	57.41	0.87	0.67	0.15	0.53	0	1.35	1.63	3.26	0.83	0.42	84%
Soil	Phasel	74B30	E0110SA0	1240	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.28	28.77	55.84	0.87	0.65	0.15	0.53	0	1.33	1.63	3.26	0.82	0.41	83%
Soil	Bioassay	74B20	B01SB020	1220	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.15	28.55	54.80	0.87	0.64	0.15	0.52	0	1.32	1.63	3.26	0.81	0.40	81%
Soil	2000	74B31	B31SA01	1200	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.02	28.34	53.76	0.87	0.63	0.15	0.52	0	1.30	1.63	3.26	0.80	0.40	80%
Soil	2000	74B09	B09SA01	1110	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.42	27.35	49.11	0.87	0.58	0.14	0.50	0	1.23	1.63	3.26	0.75	0.38	79%
Soil	2000	74B15	B15SA01	1060	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.08	26.77	46.55	0.87	0.56	0.14	0.49	0	1.19	1.63	3.26	0.73	0.36	78%
Soil	Phasel	74B24	E0107SA0	963	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	12.39	25.62	41.65	0.87	0.51	0.13	0.47	0	1.11	1.63	3.26	0.68	0.34	76%
Soil	Phasel	74B20	E0106SA0	831	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.41	23.95	35.10	0.87	0.44	0.12	0.44	0	1.00	1.63	3.26	0.61	0.31	75%
Soil	2000	74B16	B16SA01	797	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.15	23.50	33.44	0.87	0.42	0.12	0.43	0	0.97	1.63	3.26	0.59	0.30	74%
Soil	Bioassay	74B32	B01SB032	604	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.54	20.69	24.24	0.87	0.32	0.10	0.38	0	0.80	1.63	3.26	0.49	0.24	73%
Soil	Phasel	74B07	E0103SA0	568	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.22	20.12	22.58	0.87	0.30	0.10	0.37	0	0.77	1.63	3.26	0.47	0.23	71%
Soil	Bioassay	74B07	B01SB007	535	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.92	19.58	21.06	0.87	0.28	0.09	0.36	0	0.74	1.63	3.26	0.45	0.23	70%
Soil	2000	74B17	B17SA01	448	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.07	18.05	17.14	0.87	0.24	0.09	0.33	0	0.65	1.63	3.26	0.40	0.20	69%
Soil	Phasel	74B29	E0109SA0	377	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.33	16.68	14.03	0.87	0.20	0.08	0.31	0	0.58	1.63	3.26	0.36	0.18	68%
Soil	2000	74B14	B14SA01	357	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.11	16.26	13.17	0.87	0.19	0.08	0.30	0	0.56	1.63	3.26	0.34	0.17	66%
Soil	2000	74B06	B06SA01	316	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	6.64	15.38	11.43	0.87	0.17	0.07	0.28	0	0.52	1.63	3.26	0.32	0.16	65%
Soil	2000	74B13	B13SA01	256	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.90	13.97	8.96	0.87	0.13	0.06	0.26	0	0.45	1.63	3.26	0.28	0.14	64%
Soil	2000	74B28	B28SA01	232	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.59	13.35	7.99	0.87	0.12	0.06	0.25	0	0.43	1.63	3.26	0.26	0.13	63%
Soil	Phasel	74B49	E0114SA0	221	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.44	13.06	7.55	0.87	0.12	0.06	0.24	0	0.41	1.63	3.26	0.25	0.13	61%
Soil	2000	74B38	B38SA01	205	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.21	12.62	6.92	0.87	0.11	0.06	0.23	0	0.39	1.63	3.26	0.24	0.12	60%
Soil	2000	74B30	B30SA01	198	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.11	12.42	6.65	0.87	0.10	0.05	0.23	0	0.39	1.63	3.26	0.24	0.12	59%
Soil	2000	74B24	B24SA01	191	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.01	12.21	6.38	0.87	0.10	0.05	0.22	0	0.38	1.63	3.26	0.23	0.12	58%
Soil	Refbio	SR2	B03SB002	178	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.82	11.83	5.88	0.87	0.09	0.05	0.22	0	0.36	1.63	3.26	0.22	0.11	56%
Soil	2000	74B27	B27SA01	168	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.87	0.09	0.05	0.21	0	0.35	1.63	3.26	0.21	0.11	55%
Soil	2000	74B44	B44SA01	168	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.87	0.09	0.05	0.21	0	0.35	1.63	3.26	0.21	0.11	54%
Soil	2000	74B34	B34SA01	156	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.47	11.13	5.04	0.87	0.08	0.05	0.20	0	0.33	1.63	3.26	0.20	0.10	53%
Soil	2000	74B47	B47SA01	135	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.12	10.42	4.26	0.87	0.07	0.04	0.19	0	0.31	1.63	3.26	0.19	0.09	51%
Soil	Bioassay	74B27	B01SB027	123	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.92	9.98	3.83	0.87	0.06	0.04	0.18	0	0.29	1.63	3.26	0.18	0.09	50%
Soil	2000	74B32	B32SA01	88.5	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.26	8.59	2.61	0.87	0.05	0.03	0.16	0	0.24	1.63	3.26	0.15	0.07	49%
Soil	2000	74B03	B03SA01	86.6	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.22	8.50	2.55	0.87	0.05	0.03	0.16	0	0.24	1.63	3.26	0.14	0.07	48%
Soil	Phasel	74B32	E0113SA0	84.9	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.18	8.42	2.49	0.87	0.04	0.03	0.15	0	0.23	1.63	3.26	0.14	0.07	46%
Soil	2000	74B02	B02SA01	75.5	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.98	7.98	2.17	0.87	0.04	0.03	0.15	0	0.22	1.63	3.26	0.13	0.07	45%
Soil	2000	74B35	B35SA01	73.8	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.94	7.90	2.12	0.87	0.04	0.03	0.15	0	0.22	1.63	3.26	0.13	0.07	44%
Soil	Phasel	74B27	E0108SA0	72.4	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.91	7.83	2.07	0.87	0.04	0.03	0.14	0	0.21	1.63	3.26	0.13	0.07	43%
Soil	2000	74B07	B07SA01	70.6	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.87	7.74	2.01	0.87	0.04	0.03	0.14	0	0.21	1.63	3.26	0.13	0.06	41%
Soil	2000	74B18	B18SA01	59.6	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.61	7.16	1.65	0.87	0.03	0.03	0.13	0	0.19	1.63	3.26	0.12	0.06	40%
Soil	2000	74B04	B04SA01	57.2	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.87	0.03	0.03	0.13	0	0.19	1.63	3.26	0.11	0.06	39%
Soil	2000	74B23	B23SA01	55.2	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.92	1.51	0.87	0.03	0.03	0.13	0	0.18	1.63	3.26	0.11	0.06	38%
Soil	2000	74B49	B49SA01	55.1	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.91	1.51	0.87	0.03	0.03	0.13	0	0.18	1.63	3.26	0.11	0.06	36%
Soil	2000	74B26	B26SA01	54.2	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.47	6.86	1.48	0.87	0.03	0.03	0.13	0	0.18	1.63	3.26	0.11	0.06	35%
Soil	2000	74B05	B05SA01	51.3	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.40	6.69	1.39	0.87	0.03	0.03	0.12	0	0.18	1.63	3.26	0.11	0.05	34%
Soil	Refbio	SR1	B03SB001	50.5	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.38	6.64	1.36	0.87	0.03	0.03	0.12	0	0.17	1.63	3.26	0.11	0.05	33%
Soil	Refbio	SR3	B03SB003	48	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.31	6.49	1.28	0.87	0.03	0.02	0.12	0	0.17	1.63	3.26	0.10	0.05	31%
Soil	2000	74B43	B43SA01	42.6	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.14	1.12	0.87	0.02	0.02	0.11	0	0.16	1.63	3.26	0.10	0.05	29%
Soil	Phasel	74B41	E0112SA0	41.3	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.87	0.02	0.02	0.11	0	0.16	1.63	3.26	0.10	0.05	28%
Soil	Bioassay	74B01	B01SB001	40.4	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.10	6.00	1.05	0.87	0.02	0.02	0.11	0	0.15	1.63	3.26	0.09	0.05	26%
Soil	Phasel	74B01	E0101SA0	32.9	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.87	5.46	0.83	0.87	0.02	0.02	0.10	0	0.14	1.63	3.26	0.08	0.04	25%
Soil	2000	74B01	B01SA01	32.6	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.86	5.43	0.82	0.87	0.02	0.02	0.10	0	0.14	1.63	3.26	0.08	0.04	24%
Soil	2000	74B39	B39SA01	31.3	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.82	5.33	0.78	0.87	0.02	0.02	0.10	0	0.13	1.63	3.26	0.08	0.04	23%
Soil	2000	74B21	B21SA01	30.1	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.78	5.24	0.75	0.87	0.02	0.02	0.10	0	0.13	1.63	3.26	0.08	0.04	21%
Soil	2000	74B41	B41SA01	29	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.74	5.15	0.72	0.87	0.02	0.02	0.09	0	0.13	1.63	3.26	0.08	0.04	20%
Soil	Bioassay	74B43	B01SB043	26.4	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.65	4.93	0.64	0.87	0.01	0.02	0.09	0	0.12	1.63	3.26	0.07	0.04	19%
Soil	2000	74B36	B36SA01	25.6	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.63	4.87	0.62	0.87	0.01	0.02	0.09	0	0.12	1.63	3.26	0.07	0.04	18%
Soil	Phasel	74B37	E0111SA0	25.5	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.62	4.86	0.62	0.87	0.01	0.02	0.09	0	0.12	1.63	3.26	0.07	0.04	16%
Soil	2000	74B42	B42SA01	22.9	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.53	4.62	0.54	0.87	0.01	0.02	0.08	0	0.11	1.63	3.26	0.07	0.03	15%
Soil	2000	74B50	B50SA01	22	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.49	4.54	0.52	0.87	0.01	0.02	0.08	0	0.11	1.63	3.26	0.07	0.03	14%
Soil	2000	74B46	B46SA01	21.5	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.47	4.49	0.51	0.87	0.01	0.02	0.08	0	0.11	1.63	3.26	0.07	0.03	13%
Soil	2000	74B52	B52SA01	19.1	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.38	4.25	0.44	0.87	0.01	0.01	0.08	0	0.10	1.63	3.26	0.06	0.03	11%

Table 4-14

Point-by-Point Toxicity Value Comparison of Estimated Dietary Exposure of Western Meadowlarks to Lead in Soil at Site 74

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

							Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility	Estimated Exposures (mg/kg/d)									
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Qualifier	Species	kg/kg/d dry	Proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Slope	Intercept	Slope	Intercept	Slope	Intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	NOAEL HQ	LOAEL HQ	Percentile [a]
Soil	2000	74B33	B33SA01	17.4	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.31	4.08	0.40	0.87	0.01	0.01	0.07	0	0.10	1.63	3.26	0.06	0.03	10%
Soil	Phasel	74B43	E0115SA0	16.2	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.26	3.95	0.36	0.87	0.01	0.01	0.07	0	0.09	1.63	3.26	0.06	0.03	9%
Soil	Bioassay	74B04	B01SB304	15.1	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.21	3.82	0.34	0.87	0.01	0.01	0.07	0	0.09	1.63	3.26	0.06	0.03	8%
Soil	2000	74B40	B40SA01	13.5	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.14	3.63	0.29	0.87	0.01	0.01	0.07	0	0.09	1.63	3.26	0.05	0.03	6%
Soil	2000	74B45	B45SA01	12.7	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.10	3.53	0.27	0.87	0.01	0.01	0.06	0	0.08	1.63	3.26	0.05	0.03	5%
Soil	Phasel	74B04	E0102SA0	12.6	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.09	3.52	0.27	0.87	0.01	0.01	0.06	0	0.08	1.63	3.26	0.05	0.03	4%
Soil	2000	74B51	B51SA01	11.6	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.04	3.39	0.25	0.87	0.01	0.01	0.06	0	0.08	1.63	3.26	0.05	0.02	3%
Soil	2000	74B48	B48SA01	9.7	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.94	3.12	0.20	0.87	0.01	0.01	0.06	0	0.07	1.63	3.26	0.04	0.02	1%
Soil	2000	74B25	B25SA01	5	DET	Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.65	2.30	0.09	0.87	0.00	0.01	0.04	0	0.05	1.63	3.26	0.03	0.02	0%
Soil	2000	74B37	B37SA01			Meadowlark	0.029	0.0208	0.367	0.633	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.87	0	0	0	0	0	1.63	3.26	0.00	0.00	

Notes:

[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the LOAEL

Shaded samples are those with concentrations that exceeded the LOAEL

DET = detect

FIR = food ingestion rate

HQ = hazard quotient (total exposure/NOAEL or LOAEL)

LOAEL = lowest observed adverse effect level

ND = non-detect

NOAEL = no observed adverse effect level

Refbio = bioassay sample collected from a reference area

SIR = soil ingestion rate

Table 4-15
Point-by-point Toxicity Value Comparison of Estimated Dietary Exposure of Western Meadowlarks to Lead as Shot in Soil at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

						Food Ingestion Rate (FIR)	Soil Ingestion Rate (SIR)	Diet Composition (proportion of FIR)			Plant Uptake Model		Terrestrial Invertebrate Uptake Model		Aquatic Invertebrate Uptake Model		Estimated Concentrations (mg/kg dry)			Site-specific Bioaccessibility		Estimated Exposures (mg/kg/d)						
Matrix	Sample Event	Location	Sample Number	Lead Concentration (mg/kg dry)	Species	kg/kg/d dry	proportion of FIR	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	slope	intercept	slope	intercept	slope	intercept	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	proportion	Soil or Sediment	Plants	Terrestrial Invertebrates	Aquatic Invertebrates	Total	Annualized LD50 (mg/kg/d)	Annualized LD50 HQ	Percentile [a]
Soil	Refbio	SR1	B03SB001	x	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.38	6.64	1.36	0.73		0	0	0	0	1.46	0	
Soil	Refbio	SR2	B03SB002	x	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.82	11.83	5.88	0.73		0	0	0	0	1.46	0	
Soil	Refbio	SR3	B03SB003	x	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.31	6.49	1.28	0.73		0	0	0	0	1.46	0	
Soil	2000	74B37	B37SA01D	x	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	147.58	194.31	7047.93	0.73		0	0	0	0	1.46	0	
Soil	Bioassay	74B10	B01SB010	14404.6	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	25.24	45.84	181.77	0.73	8.69	0	0	0	8.69	1.46	5.95	99%
Soil	2000	74B31	B31SA01	13193.31	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.02	28.34	53.76	0.73	7.96	0	0	0	7.96	1.46	5.45	97%
Soil	2000	74B30	B30SA01	12687.48	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.11	12.42	6.65	0.73	7.65	0	0	0	7.65	1.46	5.24	96%
Soil	Phasel	74B20	E0106SA0	12193.75	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.41	23.95	35.10	0.73	7.36	0	0	0	7.36	1.46	5.04	95%
Soil	Bioassay	74B20	B01SB020	11801.32	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.15	28.55	54.80	0.73	7.12	0	0	0	7.12	1.46	4.88	94%
Soil	2000	74B15	B15SA01	11297.72	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.08	26.77	46.55	0.73	6.81	0	0	0	6.81	1.46	4.67	92%
Soil	2000	74B22	B22SA01	10768.53	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.89	31.39	69.64	0.73	6.50	0	0	0	6.50	1.46	4.45	91%
Soil	2000	74B16	B16SA01	9308.19	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	11.15	23.50	33.44	0.73	5.61	0	0	0	5.61	1.46	3.85	90%
Soil	Phasel	74B10	E0105SA0	8660.8	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	87.54	126.76	2389.07	0.73	5.22	0	0	0	5.22	1.46	3.58	88%
Soil	2000	74B19	B19SA01	8143.6	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	21.99	40.95	136.53	0.73	4.91	0	0	0	4.91	1.46	3.36	87%
Soil	2000	74B20	B20SA01	7478.01	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	136.33	182.11	5980.55	0.73	4.51	0	0	0	4.51	1.46	3.09	86%
Soil	2000	74B10	B10SA01	6660.57	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	19.53	37.17	106.88	0.73	4.02	0	0	0	4.02	1.46	2.75	84%
Soil	2000	74B17	B17SA01	4851.14	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.07	18.05	17.14	0.73	2.93	0	0	0	2.93	1.46	2.00	83%
Soil	Phasel	74B24	E0107SA0	4636.21	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	12.39	25.62	41.65	0.73	2.80	0	0	0	2.80	1.46	1.92	82%
Soil	2000	74B06	B06SA01	4553.58	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	6.64	15.38	11.43	0.73	2.75	0	0	0	2.75	1.46	1.88	81%
Soil	2000	74B09	B09SA01	4529.15	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	13.42	27.35	49.11	0.73	2.73	0	0	0	2.73	1.46	1.87	79%
Soil	2000	74B14	B14SA01	3777.5	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.11	16.26	13.17	0.73	2.28	0	0	0	2.28	1.46	1.56	78%
Soil	Bioassay	74B09	B01SB009	3605.72	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.73	2.17	0	0	0	2.17	1.46	1.49	77%
Soil	Phasel	74B09	E0104SA0	3560.11	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	119.64	163.66	4562.90	0.73	2.15	0	0	0	2.15	1.46	1.47	75%
Soil	2000	74B12	B12SA01	2893.2	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	117.44	161.19	4390.76	0.73	1.75	0	0	0	1.75	1.46	1.20	74%
Soil	Phasel	74B30	E0110SA0	2842.08	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.28	28.77	55.84	0.73	1.71	0	0	0	1.71	1.46	1.17	73%
Soil	2000	74B24	B24SA01	2553.72	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.01	12.21	6.38	0.73	1.54	0	0	0	1.54	1.46	1.06	71%
Soil	2000	74B13	B13SA01	2111.58	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.90	13.97	8.96	0.73	1.27	0	0	0	1.27	1.46	0.87	70%
Soil	2000	74B23	B23SA01	2048.14	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.92	1.51	0.73	1.24	0	0	0	1.24	1.46	0.85	69%
Soil	Phasel	74B07	E0103SA0	2038.94	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.22	20.12	22.58	0.73	1.23	0	0	0	1.23	1.46	0.84	68%
Soil	2000	74B08	B08SA01	1555.05	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	14.47	29.08	57.41	0.73	0.94	0	0	0	0.94	1.46	0.64	66%
Soil	2000	74B11	B11SA01	1450.68	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	17.04	33.24	80.52	0.73	0.88	0	0	0	0.88	1.46	0.60	65%
Soil	2000	74B03	B03SA01	1333.35	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.22	8.50	2.55	0.73	0.80	0	0	0	0.80	1.46	0.55	64%
Soil	Phasel	74B32	E0113SA0	1293.98	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.18	8.42	2.49	0.73	0.78	0	0	0	0.78	1.46	0.53	62%
Soil	2000	74B07	B07SA01	1025.12	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.87	7.74	2.01	0.73	0.62	0	0	0	0.62	1.46	0.42	61%
Soil	2000	74B43	B43SA01	934.22	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.16	6.14	1.12	0.73	0.56	0	0	0	0.56	1.46	0.39	60%
Soil	2000	74B37	B37SA01	855.45	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.52	0	0	0	0.52	1.46	0.35	58%
Soil	Bioassay	74B07	B01SB007	816.38	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	8.92	19.58	21.06	0.73	0.49	0	0	0	0.49	1.46	0.34	57%
Soil	Phasel	74B29	E0109SA0	802.87	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	7.33	16.68	14.03	0.73	0.48	0	0	0	0.48	1.46	0.33	56%
Soil	2000	74B35	B35SA01	772.51	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.94	7.90	2.12	0.73	0.47	0	0	0	0.47	1.46	0.32	55%
Soil	2000	74B29	B29SA01	646.42	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	15.71	31.10	68.03	0.73	0.39	0	0	0	0.39	1.46	0.27	53%
Soil	2000	74B36	B36SA01	562.72	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.63	4.87	0.62	0.73	0.34	0	0	0	0.34	1.46	0.23	52%
Soil	2000	74B05	B05SA01	560.89	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.40	6.69	1.39	0.73	0.34	0	0	0	0.34	1.46	0.23	51%
Soil	2000	74B18	B18SA01	491.45	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.61	7.16	1.65	0.73	0.30	0	0	0	0.30	1.46	0.20	49%
Soil	2000	74B26	B26SA01	419.09	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.47	6.86	1.48	0.73	0.25	0	0	0	0.25	1.46	0.17	48%
Soil	Bioassay	74B01	B01SB001	308.1	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.10	6.00	1.05	0.73	0.19	0	0	0	0.19	1.46	0.13	47%
Soil	2000	74B04	B04SA01	304.5	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.55	7.03	1.57	0.73	0.18	0	0	0	0.18	1.46	0.13	45%
Soil	2000	74B02	B02SA01	276.06	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.98	7.98	2.17	0.73	0.17	0	0	0	0.17	1.46	0.11	44%
Soil	Phasel	74B43	E0115SA0	257.68	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.26	3.95	0.36	0.73	0.16	0	0	0	0.16	1.46	0.11	43%
Soil	2000	74B47	B47SA01	237.8	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.12	10.42	4.26	0.73	0.14	0	0	0	0.14	1.46	0.10	42%
Soil	Bioassay	74B43	B01SB043	225.48	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.65	4.93	0.64	0.73	0.14	0	0	0	0.14	1.46	0.09	40%
Soil	Bioassay	74B32	B01SB032	211.33	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	9.54	20.69	24.24	0.73	0.13	0	0	0	0.13	1.46	0.09	39%
Soil	2000	74B01	B01SA01	202.3	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.86	5.43	0.82	0.73	0.12	0	0	0	0.12	1.46	0.08	38%
Soil	Phasel	74B01	E0101SA0	153.73	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.87	5.46	0.83	0.73	0.09	0	0	0	0.09	1.46	0.06	36%
Soil	2000	74B28	B28SA01	151.75	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.59	13.35	7.99	0.73	0.09	0	0	0	0.09	1.46	0.06	35%
Soil	2000	74B49	B49SA01	131.41	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.50	6.91	1.51	0.73	0.08	0	0	0	0.08	1.46	0.05	34%
Soil	2000	74B27	B27SA01	86.58	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.73	0.05	0	0	0	0.05	1.46	0.04	32%
Soil	2000	74B38	B38SA01	84.77	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.21	12.62	6.92	0.73	0.05	0	0	0	0.05	1.46	0.04	31%
Soil	Phasel	74B37	E0111SA0	83.86	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.62	4.86	0.62	0.73	0.05	0	0	0	0.05	1.46	0.03	30%
Soil	2000	74B21	B21SA01	62.34	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.78	5.24	0.75	0.73	0.04	0	0	0	0.04	1.46	0.03	29%
Soil	Phasel	74B49	E0114SA0	59.86	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	5.44	13.06	7.55	0.73	0.04	0	0	0	0.04	1.46	0.02	27%
Soil	Bioassay	74B04	B01SB304	57.52	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24				0.73	0.03	0	0	0	0.03	1.46	0.02	26%
Soil	2000	74B44	B44SA01	52.5	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.66	11.52	5.49	0.73	0.03	0	0	0	0.03	1.46	0.02	25%
Soil	2000	74B32	B32SA01	45.08	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.26	8.59	2.61	0.73	0.03	0	0	0	0.03	1.46	0.02	23%
Soil	2000	74B42	B42SA01	38.42	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.53	4.62	0.54	0.73	0.02	0	0	0	0.02	1.46	0.02	22%
Soil	2000	74B33	B33SA01	34.32	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.31	4.08	0.40	0.73	0.02	0	0	0	0.02	1.46	0.01	21%
Soil	2000	74B40	B40SA01	34.28	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.14	3.63	0.29	0.73	0.02	0	0	0	0.02	1.46	0.01	19%
Soil	2000	74B41	B41SA01	30	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.74	5.15	0.72	0.73	0.02	0	0	0	0.02	1.46	0.01	18%
Soil	Bioassay	74B27	B01SB027	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	3.92	9.98	3.83	0.73	0	0	0	0	0	1.46	0	17%
Soil	2000	74B25	B25SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.65	2.30	0.09	0.73	0	0	0	0	0	1.46	0	16%
Soil	2000	74B34	B34SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	4.47	11.13	5.04	0.73	0	0	0	0	0	1.46	0	14%
Soil	2000	74B39	B39SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.82	5.33	0.78	0.73	0	0	0	0	0	1.46	0	13%
Soil	2000	74B45	B45SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.10	3.53	0.27	0.73	0	0	0	0	0	1.46	0	12%
Soil	2000	74B46	B46SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.47	4.49	0.51	0.73	0	0	0	0	0	1.46	0	10%
Soil	2000	74B48	B48SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	0.94	3.12	0.20	0.73	0	0	0	0	0	1.46	0	9%
Soil	2000	74B50	B50SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.49	4.54	0.52	0.73	0	0	0	0	0	1.46	0	8%
Soil	2000	74B51	B51SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.04	3.39	0.25	0.73	0	0	0	0	0	1.46	0	6%
Soil	2000	74B52	B52SA01	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.38	4.25	0.44	0.73	0	0	0	0	0	1.46	0	5%
Soil	Phasel	74B04	E0102SA0	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	1.09	3.52	0.27	0.73	0	0	0	0	0	1.46	0	4%
Soil	Phasel	74B27	E0108SA0	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.23	6.30	1.19	0.73	0	0	0	0	0	1.46	0	3%
Soil	Phasel	74B27	E0108SA0	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.91	7.83	2.07	0.73	0	0	0	0	0	1.46	0	1%
Soil	Phasel	74B41	E0112SA0	0	Meadowlark	0.029	0.0208	0	0	0	0.56	-1.33	0.458	0.097	1.16	-4.24	2.12	6.06	1.08	0.73	0	0	0	0	0	1.46	0	0%

Notes:
[a] Indicates the percent of observations that exceed (i.e., HQ > 1) the LOAEL
Shaded samples are those with concentrations that exceeded the annualized LD50
DET = detect
FIR = food ingestion rate
HQ = hazard quotient (total exposure/LD50)
LD50 = median lethal dose
ND = non-detect
Refbio = bioassay sample collected from a reference area
SIR = soil ingestion rate

Table 4-16
Summary of Decision Rules Developed as Part of the Data Quality Objective Process, the Results of Data Evaluation, and the Risk Conclusions for Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Decision Rule	Results of Data Evaluation	Risk Conclusion
Decision Rules for Birds and Mammals		
1. If estimated dietary exposures for bird and mammal receptors, based on site-specific bioavailability and bioaccumulation data, exceed NOAELs for the clapper rail and Belding's savannah sparrow or LOAELs for all other receptors, then significant ecological risks will be presumed.	Dietary exposure estimates for lead exceeded NOAELs for both California clapper rails and Belding's savannah sparrow. Exceedance frequency was 31% of sediment samples for clapper rails and 59% of soil samples for sparrows. Dietary exposure estimates for antimony (mammals only) and lead (both birds and mammals) exceeded LOAELs for all other bird and mammal receptors. Frequency of exceedance ranged from 6.3% for lead in soil for meadowlarks to 33% for lead in soil to shrews	Antimony and lead in sediment and soil present risks to birds and mammals at Site 74 due to dietary exposure.
2a. If measured concentrations of lead in liver exceed concentrations associated with clinical toxicity, then significant ecological risks will be presumed.	Although concentrations of lead measured in livers of meadowlarks and small mammals from Site 74 are significantly greater than those from reference areas, these concentrations do not exceed concentrations associated with clinical toxicity.	Lead does not present a risk to meadowlarks and small mammals at Site 74.
2b. If estimated concentrations of lead in liver exceed concentrations associated with clinical toxicity, then significant ecological risks will be presumed.	Estimated concentrations of lead in livers of mallards, voles, and shrews exceeded concentrations associated with clinical toxicity in some samples. The frequency of exceedances were 9.3% of sediment samples for mallards, 6.25% of soil samples for voles, and 16% and 20% of sediment and soil samples for shrews, respectively.	Lead presents a risk to mallards, voles and shrews at Site 74.
3. If risks are identified, exposure data will be evaluated to identify the level of remediation required for Site 74 to reduce exposure of resident birds and mammals to below risk levels (i.e., given site-specific bioavailability, lead and antimony concentrations in soil/sediment that will result in no significant risk will be derived).	Discussed in Section 5.	Discussed in Section 5.
4. If the measured numbers of pellets in the digestive tract of birds exceed literature-based benchmarks, then significant ecological risk will be presumed.	Although radio-dense particles were observed in some birds, the conclusion of the evaluating radiologist was that they did not indicate ingested lead shot.	No risk conclusion made
5. If any of the animals collected for tissue samples exhibit symptoms of lead or antimony toxicity, significant ecological risk will be presumed.	No animals were identified as exhibiting symptoms of lead or antimony toxicity.	No risk conclusion made
Decision Rules for Directly Exposed Biota		
1. Sediments or soils associated with Site 74 will be assumed to be toxic if statistically significant (relative to laboratory controls and field reference samples) reductions in germination, survival, or growth of plants or invertebrates are observed in bioassays. If statistically significant reductions in germination, survival, or growth of plants or invertebrates are not observed in bioassays, the sediment or soil from the individual sampling location will be assumed not to be toxic.	Statistically significant reductions in survival, growth or reproduction were observed among sediment invertebrates in three of 12 sediment samples. One of the samples displaying effects was a reference sample. No germination was observed among plants in any sediment sample (9 from Site 74 and 3 reference samples). In addition, no germination was observed in 4 of 12 soil samples. Among samples that germinated, survival was significantly reduced in 2 and growth was reduced in all.	Three sediment samples (including one reference) are toxic to sediment invertebrates. All sediment samples (including three reference samples) are toxic to plants. All soil samples are also toxic, but generally less so than sediments.
2. If toxicity is identified in at least one individual sample, visual evaluation and/or regression analyses will be performed on the paired toxic response and sediment or soil concentration for each analyte from all samples for that test species. A dose-response relationship will be assumed to be present if a continuous increasing or decreasing trend is observed in visual analysis or if a statistically significant regression model is obtained. The presence of a dose-response relationship suggests that the analyte may be a risk driver for directly exposed biota. The lack of a continuous trend or statistically significant regression for a particular analyte will indicate no dose-response relationship, suggesting that the analyte is not a risk driver for directly exposed biota.	Lead and antimony in sediment display a strong continuous dose-response with invertebrate survival. Growth and reproduction among sediment invertebrates is not related to lead and antimony concentrations in sediment. Lead and antimony concentrations in soil and sediment do not display a dose-response relationship with plant germination or growth. All responses in the plant bioassays appear to be in relation to sodium (salinity).	Invertebrate survival in sediment appears to be affected by lead and antimony; growth and reproduction are not. Plant responses in soil and sediment appear to be independent of lead and antimony concentrations.
3. If toxicity and a dose-response relationship are identified for a given analyte and bioassay test organism, the highest concentration of the analyte in sediment or soil that caused no statistically significant toxicity that is below the lowest concentration of the analyte in sediment or soil that caused statistically significant toxicity will be identified. The NOEC will represent the site-specific soil/sediment concentration that will result in no significant risk to plants and/or benthic invertebrates.	Site-specific mortality NOECs and LOECs were developed for lead and antimony for sediment invertebrates. When concentrations in all sediment samples were compared, exceedance of at least one site-specific sediment toxicity value was observed in 8 of 94 (8.5%) of sediment samples. Although no dose-response relationship was observed for antimony and lead for plants, the highest antimony and lead concentrations observed in samples in which germination occurred were selected as site-specific NOECs. There is considerable uncertainty about these values.	Antimony and lead in sediment in some samples from Site 74 exceed concentrations that can cause mortality to sediment invertebrates. Antimony and lead concentrations in sediment and soil are not believed to present any significant risk to plants.
4. If toxicity and a dose-response relationship are identified for a given analyte and bioassay test organism, the analytes for which dose-response relationships were observed will be evaluated to determine if they include lead or antimony. If lead or antimony is not identified as a potential risk driver for directly exposed biota, no further evaluation will be performed. If lead or antimony is identified as a potential risk driver for directly exposed biota, the resulting site-specific NOECs for directly exposed biota will be compared to remediation goals developed for birds and mammals. If remediation goals for birds and mammals are lower than site-specific NOECs for directly exposed biota, bird and mammal remediation goals will be assumed to be protective of directly exposed biota. If site-specific NOECs for directly exposed biota are lower than remediation goals for birds and mammals, site-specific NOECs for directly exposed biota will be assumed to be protective of birds and mammals.	Discussed in Section 5.	Discussed in Section 5.

Table 5-1
Point-by-Point Summary of Analytical and Risk Screening Results for All Assessment Endpoints Evaluated at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

					Lead (mg/kg)		Antimony (mg/kg)		Lead Shot Results																				
Matrix Type	Data Group	Sample Location	Sample Number	Sampling Date	Concentration	Qualifier	Concentration	Qualifier	Lead concentration as Shot (mg/kg)	Mean Shot Size (g)	Number of Shot /kg Soil	Sediment Invertebrate Joint Exceedances	Soil Invertebrate Joint Exceedances	Vole Antimony LOAEL HQ	Vole Lead LOAEL HQ	Shrew Antimony LOAEL HQ	Shrew Lead LOAEL HQ	Rail Lead NOAEL HQ	Rail Lead Shot Annualized LD50 HQ	Mallard Lead LOAEL HQ	Mallard Lead Shot Annualized LD50 HQ	Sparrow Lead NOAEL HQ	Sparrow Lead Shot Annualized LD50 HQ	Meadowlark Lead LOAEL HQ	Meadowlark Lead Shot Annualized LD50 HQ	Risk Category for Estimated Mallard Liver Concentrations	Risk Category for Estimated Vole Liver Concentrations	Risk Category for Estimated Shrew Liver Concentrations
Sediment	2000	74G05-00	74G05CA01D	3/7/2000	154000	DET						1				17.10	703.66	1311.77		525.86		1547.79				Severe Clinical		Clinical poisoning
Sediment	Bioassay	74G36-03	74B02DB036	12/15/2003	33100	DET	282	DET	3073.11	0.027	114.58	2				2.03	124.31	249.68	18.73	93.89	6.95	280.93	10.78			Severe Clinical		Clinical poisoning
Sediment	2000	74G36-00	74G36CA01	3/1/2000	21400	DET	282	DET	4628.53	0.037	125.13	2				2.03	76.17	156.42	28.22	57.73	10.46	173.97	16.23			Clinical		Clinical poisoning
Sediment	Phasel	74G38-03	74E0205DA0	8/14/2003	20400	DET	176	DET	5086.65	0.032	159.02	2				1.44	72.18	148.61	31.01	54.73	11.50	165.08	17.84			Clinical		Clinical poisoning
Sediment	Phasel	74G04-03	74E0208DA0	8/14/2003	15800	DET	142	DET	4882.52	0.032	154.52	2				1.25	54.20	113.08	29.76	41.19	11.04	124.85	17.12			Clinical		Clinical poisoning
Sediment	Phasel	74G37-03	74E0204DA0	8/14/2003	10700	DET	182	DET	1548.88	0.025	62.48	2				1.47	35.03	74.61	9.44	26.72	3.50	81.70	5.43			Clinical		Clinical poisoning
Sediment	Bioassay	74G05-03	74B02DB005	12/14/2003	9020	DET	109	DET	4979.5	0.034	145.47	2				1.07	28.94	62.21	30.35	22.11	11.26	67.91	17.46			Clinical		Clinical poisoning
Sediment	Phasel	74G26-03	74E0207DA0	8/14/2003	8080	DET	60.1	DET	7511.5	0.045	166.84	0				0.79	25.59	55.33	45.79	19.57	16.98	60.30	26.34			Clinical		Clinical poisoning
Sediment	2000	74G13-00	74G13CA01	3/1/2000	7280	DET	81.2	DET	7481.1	0.044	170.22	0				0.91	22.77	49.53	45.60	17.44	16.91	53.89	26.24			Clinical		Clinical poisoning
Sediment	2000	74G04-00	74G04CA01	3/1/2000	7240	DET	32.1	ND	2481.14	0.035	70.54	0				0.64	22.63	49.24	15.12	17.33	5.61	53.57	8.70			Subclinical		Clinical poisoning
Sediment	2000	74G12-00	74G12CA01	3/1/2000	5780	DET	54.3	DET	3487.8	0.038	92.52	0				0.76	17.60	38.77	21.26	13.51	7.88	42.06	12.23			Subclinical		Clinical poisoning
Sediment	2000	74G38-00	74G38CA01	3/1/2000	3230	DET	37.4	DET	1350.57	0.032	42.64	0				0.67	9.20	20.94	8.23	7.12	3.05	22.64	4.74			Subclinical		Clinical poisoning
Sediment	2000	74G02-00	74G02CA01	3/1/2000	2390	DET	30.2	ND	1027.49	0.039	26.42	0				0.63	6.58	15.24	6.26	5.11	2.32	16.49	3.60			Subclinical		Clinical poisoning
Sediment	2000	74G03-00	74G03CA01	3/1/2000	2050	DET	50	ND	3643.53	0.034	105.88	0				0.74	5.55	12.97	22.21	4.32	8.24	14.04	12.78			Subclinical		Clinical poisoning
Sediment	2000	74G06-00	74G06CA01	3/7/2000	1500	DET	29.2	ND	503.69	0.029	17.43	0				0.62	3.93	9.34	3.07	3.07	1.14	10.16	1.77			Background		Clinical poisoning
Sediment	2000	74G19-00	74G19CA01	3/1/2000	1160	DET	38	ND	240.16	0.024	10.15	0				0.67	2.95	7.14	1.46	2.32	0.54	7.80	0.84			Background		Not defined
Sediment	2000	74G35-00	74G35CA01	3/1/2000	1020	DET	55.2	ND	388.81	0.052	7.41	0				0.77	2.56	6.24	2.37	2.02	0.88	6.84	1.36			Background		Not defined
Sediment	Phasel	74G16-03	74E0213DA0	8/15/2003	928	DET	7.8	DET	0		0	0				0.50	2.31	5.65	0.00	1.82	0.00	6.21	0.00			Background		Not defined
Sediment	2000	74G01-00	74G01CA01	3/1/2000	850	DET	35.5	ND	133.59	0.03	4.47	0				0.66	2.09	5.16	0.81	1.65	0.30	5.69	0.47			Background		Not defined
Sediment	Phasel	74G35-03	74E0211DA0	8/15/2003	837	DET	3.3	DET	0		0	0				0.48	2.06	5.07	0.00	1.63	0.00	5.60	0.00			Background		Not defined
Sediment	Refbio	SD3-03	74B03DB003	12/15/2003	773	DET	0.3	DET				0				0.46	1.88	4.67		1.49	0.00	5.17				Background		Not defined
Sediment	Bioassay	74G35-03	74B02DB035	12/15/2003	536	DET	3.8	DET	103.31	0.054	1.93	0				0.48	1.26	3.19	0.63	1.00	0.23	3.59	0.36			Background		Not defined
Sediment	2000	74G21-00	74G21CA01	3/1/2000	364	DET	46.7	ND	176.28	0.03	5.9	0				0.72	0.82	2.14	1.07	0.66	0.40	2.46	0.62			Background		Not defined
Sediment	2000	74G52-00	74G52CA01	3/17/2000	334	DET	33.2	ND	0		0	0				0.64	0.75	1.95	0.00	0.60	0.00	2.26	0.00			Background		Not defined
Sediment	Bioassay	74G26-03	74B02DB026	12/15/2003	285	DET	1.8	DET	0		0	0				0.47	0.63	1.66	0.00	0.51	0.00	1.94	0.00			Background		No effect
Sediment	2000	74G26-00	74G26CA01	3/1/2000	212	DET	83.3	ND	0		0	0				0.92	0.45	1.22	0.00	0.37	0.00	1.47	0.00			Background		No effect
Sediment	Bioassay	74G52-03	74B02DB052	12/15/2003	199	DET	4.2	DET	0		0	0				0.48	0.42	1.15	0.00	0.35	0.00	1.38	0.00			Background		No effect
Sediment	Bioassay	74G15-03	74B02DB015	12/14/2003	179	DET	1.1	DET	0		0	0				0.46	0.38	1.03	0.00	0.31	0.00	1.25	0.00			Background		No effect
Sediment	2000	74G22-00	74G22CA01	3/1/2000	176	DET	50.8	ND	0		0	0				0.74	0.37	1.01	0.00	0.30	0.00	1.23	0.00			Background		No effect
Sediment	Phasel	74G36-03	74E0206DA0	8/14/2003	167	DET	1.2	DET	0		0	0				0.46	0.35	0.96	0.00	0.29	0.00	1.18	0.00			Background		No effect
Sediment	2000	74G11-00	74G11CA01	3/1/2000	165	DET	21.6	ND	0		0	0				0.58	0.34	0.95	0.00	0.28	0.00	1.16	0.00			Background		No effect
Sediment	2000	74G25-00	74G25CA01	3/1/2000	155	DET	22.2	ND	0		0	0				0.58	0.32	0.89	0.00	0.27	0.00	1.10	0.00			Background		No effect
Sediment	2000	74G08-00	74G08CA01	3/1/2000	140	DET	28.3	ND	24.77	0.024	1.05	0				0.62	0.29	0.80	0.15	0.24	0.06	1.00	0.09			Background		No effect
Sediment	2000	74G14-00	74G14CA01	3/1/2000	131	DET	23.8	ND	97.09	0.092	1.06	0				0.59	0.27	0.75	0.59	0.22	0.22	0.94	0.34			Background		No effect
Sediment	2000	74G10-00	74G10CA01	3/1/2000	130	DET	26.7	ND	39.66	0.069	0.57	0				0.61	0.27	0.74	0.24	0.22	0.09	0.94	0.14			Background		No effect
Sediment	2000	74G59-00	74G59CA01	3/31/2000	127	DET	62.1	DET	0		0	0				0.80	0.26	0.72	0.00	0.22	0.00	0.92	0.00			Background		No effect
Sediment	Phasel	74G15-03	74E0212DA0	8/15/2003	127	DET	1.6	DET	0		0	0				0.47	0.26	0.72	0.00	0.22	0.00	0.92	0.00			Background		No effect
Sediment	2000	74G28-00	74G28CA01	3/1/2000	126	DET	52.1	ND	0		0	0				0.75	0.26	0.72	0.00	0.21	0.00	0.91	0.00			Background		No effect
Sediment	2000	74G07-00	74G07CA01	3/7/2000	121	DET	24.4	ND	105.93	0.047	2.27	0				0.59	0.25	0.69	0.65	0.21	0.24	0.88	0.37			Background		No effect
Sediment	2000	74G30-00	74G30CA01	3/1/2000	109	DET	47.2	ND	0		0	0				0.72	0.22	0.62	0.00	0.18	0.00	0.80	0.00			Background		No effect
Sediment	2000	74G15-00	74G15CA01	3/1/2000	106	DET	20	ND	52.93	0.053	1	0				0.57	0.21	0.60	0.32	0.18	0.12	0.78	0.19			Background		No effect
Sediment	2000	74G34-00	74G34CA01	3/1/2000	104	DET	29.9	ND	26.41	0.045	0.59	0				0.62	0.21	0.59	0.16	0.17	0.06	0.77	0.09			Background		No effect
Sediment	2000	74G42-00	74G42CA01	3/10/2000	103	DET	62.9	ND	0		0	0				0.81	0.21	0.58	0.00	0.17	0.00	0.76	0.00			Background		No effect
Sediment	Phasel	74G52-03	74E0215DA0	8/15/2003	102	DET	1.4	DET	0		0	0				0.47	0.20	0.58	0.00	0.17	0.00	0.75	0.00			Background		No effect
Sediment	Bioassay	74G44-03	74B02DB044	12/14/2003	94.9	DET	0.7	DET	0		0	0				0.46	0.19	0.54	0.00	0.16	0.00	0.71	0.00			Background		No effect
Sediment	2000	74G37-00	74G37CA01	3/1/2000	84.6	DET	22.5	ND	0		0	0				0.58	0.17	0.48	0.00	0.14	0.00	0.64	0.00			Background		No effect
Sediment	2000	74G18-00	74G18CA01	3/1/2000	80.9	DET	19.8	ND	0		0	0				0.57	0.16	0.46	0.00	0.13	0.00	0.61	0.00			Background		No effect
Sediment	Phasel	74G28-03	74E0209DA0	8/15/2003	76.7	DET	0.7	DET	0		0	0				0.46	0.15	0.43	0.00	0.13	0.00	0.59	0.00			Background		No effect
Sediment	Bioassay	74G41-03	74B02DB041	12/15/2003	76.5	DET	0.8	DET	0		0	0				0.46	0.15	0.43	0.00	0.13	0.00	0.58	0.00			Background		No effect
Sediment	Phasel	74G46-03	74E0203DA0	8/14/2003	76.1	DET	0.4	DET	0		0	0				0.46	0.15	0.43	0.00	0.13	0.00	0.58	0.00			Background		No effect
Sediment	Phasel	74G39-03	74E0214DA0	8/15/2003	70.1	DET	1.4	DET	91.89	0.043	2.12	0				0.47	0.14	0.40	0.56	0.12	0.21	0.54	0.32			Background		No effect
Sediment	2000	74G20-00	74G20CA01	3/1/2000	69.7	DET	22.7	ND	15.01	0.027	0.56	0				0.58	0.13	0.39	0.09	0.12	0.03	0.54	0.05			Background		No effect
Sediment	2000	74G47-00	74G47CA01	3/16/2000	68.2	DET	22.5	ND	60.56	0.093	0.65	0				0.58	0.13	0.38	0.37	0.11	0.14	0.53	0.21			Background		No effect
Sediment	2000	74G60-00	74G60CA01	3/31/2000	67.7	DET	59.2	DET	0		0	0				0.79	0.13	0.38	0.00	0.11	0.00	0.53	0.00			Background		No effect
Sediment	2000	74G63-00	74G63CA01	3/31/2000	67.7	DET	38.6	DET	0		0	0				0.67	0.13	0.38	0.00	0.11	0.00	0.53	0.00			Background		No effect
Sediment	2000	74G61-00	74G61CA01	3/31/2000	67.4	DET	43.5	DET	0		0	0				0.70	0.13	0.38	0.00	0.11	0.00	0.52	0.00			Background		No effect
Sediment	2000	74G31-00	74G31CA01	3/1/2000	67	DET	51.8	ND	0		0	0				0.75	0.13	0.38	0.00	0.11	0.00	0.52	0.00			Background		No effect
Sediment	2000	74G55-00	74G55CA01	3/21/2000	65.9	DET	71.4	ND	0		0	0				0.86	0.13	0.37	0.00	0.11	0.00	0.51	0.00			Background		No effect
Sediment	2000	74G24-00	74G24CA01	3/1/2000	65.1	DET	48.3	ND	0		0	0				0.73	0.12	0.37	0.00	0.11	0.00	0.51	0.00			Background		No effect
Sediment	2000	74G27-00	74G27CA01	3/1/2000	64.9	DET	23.5	ND	0		0	0				0.59	0.12	0.37	0.00	0.11	0.00	0.51	0.00			Background		No effect
Sediment	2000	74G53-00	74G53CA01	3/23/2000	61.6	DET			0		0	0				0.46	0.12	0.35	0.00	0.10	0.00	0.48	0.00			Background		No effect
Sediment	2000	74G58-00	74G58CA01	3/31/2000	61	DET	22.6	DET	0		0	0				0.58	0.12	0.34	0.00	0.10	0.00	0.48	0.00			Background		No effect
Sediment	2000	74G66-00	74G66CA01	3/31/2000	60.6	DET	48.8	DET	0		0	0				0.73	0.12	0.34	0.00	0.10	0.00	0.48	0.00			Background		No effect
Sediment	2000	74G56-00	74G56CA01	3/21/2000	57.4	DET	26	ND	0		0	0				0.60	0.11	0.32	0.00	0.09	0.00	0.46	0.00			Background		No effect
Sediment	2000	74G23-00	74G23CA01	3/1/2000	57.1	DET	24.6	ND	0		0	0				0.59	0.11	0.32	0.00	0.09	0.00	0.45	0.00			Background		No effect
Sediment	2000	74G40-00	74G40CA01	3/8/2000	56.4	DET	32.5	ND	0		0	0				0.64	0.11	0.32	0.00	0.09	0.00	0.45	0.00			Background		No effect
Sediment	Phasel	74G44-03	74E0210DA0	8/15/2003	54.9	DET	0.4	DET	0		0	0				0.46	0.10	0.31	0.00	0.09	0.00	0.44	0.00			Background		No effect
Sediment	2000	74G45-00	74G45CA01	3/13/2000	54.8	DET	55.9	ND	19.05	0.03	0.63	0				0.77	0.10	0.31	0.12	0.09	0.04	0.44	0.07			Background		No effect
Sediment	2000	74G44-00	74G44CA01	3/13/2000	52.3	DET	31.9	ND	0		0	0				0.64	0.10	0.29	0.00	0.09	0.00	0.42	0.00			Background		No effect
Sediment	2000	74G09-00	74G09CA01	3/7/2000	52.1	DET	32.1	ND	0		0	0				0.64	0.10	0.29	0.00	0.09	0.00	0.42	0.00			Background		No effect
Sediment	2000	74G51-00	74G51CA01	3/17/2000	51.7	DET	51.3	ND	0		0	0				0.74	0.10	0.29	0.00	0.08	0.00	0.42	0.00			Background		No effect
Sediment	2000	74G16-00	74G16CA01	3/7/2000	51.6	DET	83.3	ND	0		0	0				0.92	0.10	0.29	0.00	0.08	0.00	0.42	0.00			Background		No effect
Sediment	2000	74G49-00	74G49CA01	3/16/2000	50.9	DET	24.9	ND	0		0	0				0.60	0.10	0.29	0.00	0.08	0.00	0.41	0.00			Background		No effect
Sediment	Phasel	74G05-03	74E0201DA0	8/15/2003	50.3	DET	0.9	DET	0		0	0				0.46	0.09	0.28	0.00	0.08	0.00	0.41	0.00			Background		No effect
Sediment	2000	74G48-00	74G48CA01	3/16/2000	49.8	DET	40	ND	0		0	0				0.68	0.09	0.28	0.00	0.08	0.00	0.40	0.00			Background		No effect

Table 5-1
Point-by-Point Summary of Analytical and Risk Screening Results for All Assessment Endpoints Evaluated at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

					Lead (mg/kg)		Antimony (mg/kg)		Lead Shot Results																			
Matrix Type	Data Group	Sample Location	Sample Number	Sampling Date	Concentration	Qualifier	Concentration	Qualifier	Lead concentration as Shot (mg/kg)	Mean Shot Size (g)	Number of Shot /kg Soil	Sediment Invertebrate Joint Exceedances	Soil Invertebrate Joint Exceedances	Vole Antimony LOAEL HQ	Vole Lead LOAEL HQ	Shrew Antimony LOAEL HQ	Shrew Lead LOAEL HQ	Rail Lead NOAEL HQ	Rail Lead Shot Annualized LD50 HQ	Mallard Lead LOAEL HQ	Mallard Lead Shot Annualized LD50 HQ	Sparrow Lead NOAEL HQ	Sparrow Lead Shot Annualized LD50 HQ	Meadowlark Lead LOAEL HQ	Meadowlark Lead Shot Annualized LD50 HQ	Risk Category for Estimated Mallard Liver Concentrations	Risk Category for Estimated Vole Liver Concentrations	Risk Category for Estimated Shrew Liver Concentrations
Sediment	Bioassay	74G46-03	74B02DB346	12/14/2003	48.4	DET	0.2	DET	0		0	0				0.46	0.09	0.27	0.00	0.08	0.00	0.40	0.00			Background		No effect
Sediment	Refbio	SD2-03	74B03DB002	12/15/2003	47.4	DET	0.2	DET				0				0.46	0.09	0.27		0.08	0.00	0.39				Background		No effect
Sediment	2000	74G33-00	74G33CA01	3/1/2000	46.2	DET	55.9	ND	0		0	0				0.77	0.09	0.26	0.00	0.08	0.00	0.38	0.00			Background		No effect
Sediment	2000	74G39-00	74G39CA01	3/8/2000	46.1	DET	65.4	ND	0		0	0				0.82	0.09	0.26	0.00	0.08	0.00	0.38	0.00			Background		No effect
Sediment	2000	74G32-00	74G32CA01	3/1/2000	45	DET	30.9	ND	0		0	0				0.63	0.08	0.25	0.00	0.07	0.00	0.37	0.00			Background		No effect
Sediment	2000	74G50-00	74G50CA01	3/16/2000	43.1	DET	30.2	ND	0		0	0				0.63	0.08	0.24	0.00	0.07	0.00	0.36	0.00			Background		No effect
Sediment	Phase1	74G41-03	74E0202DA0	8/14/2003	42.7	DET	0.3	DET	0		0	0				0.46	0.08	0.24	0.00	0.07	0.00	0.36	0.00			Background		No effect
Sediment	2000	74G17-00	74G17CA01	3/1/2000	41.3	DET	27.4	ND	0		0	0				0.61	0.08	0.23	0.00	0.07	0.00	0.35	0.00			Background		No effect
Sediment	2000	74G65-00	74G65CA01	3/31/2000	39.9	DET	48.5	DET	0		0	0				0.73	0.07	0.22	0.00	0.06	0.00	0.34	0.00			Background		No effect
Sediment	2000	74G46-00	74G46CA01	3/16/2000	39.6	DET	32.9	ND	0		0	0				0.64	0.07	0.22	0.00	0.06	0.00	0.33	0.00			Background		No effect
Sediment	2000	74G54-00	74G54CA01	3/21/2000	39.5	DET	25.4	ND	0		0	0				0.60	0.07	0.22	0.00	0.06	0.00	0.33	0.00			Background		No effect
Sediment	2000	74G62-00	74G62CA01	3/31/2000	39	DET	39.2	DET	0		0	0				0.68	0.07	0.22	0.00	0.06	0.00	0.33	0.00			Background		No effect
Sediment	Refbio	SD1-03	74B03DB001	12/13/2003	35.7	DET	0.1	DET				0				0.46	0.06	0.20		0.06	0.00	0.31				Background		No effect
Sediment	2000	74G64-00	74G64CA01	3/31/2000	35.4	DET			0		0	0				0.46	0.06	0.20	0.00	0.06	0.00	0.31	0.00			Background		No effect
Sediment	2000	74G57-00	74G57CA01	3/21/2000	34.6	DET			0		0	0				0.46	0.06	0.19	0.00	0.06	0.00	0.30	0.00			Background		No effect
Sediment	2000	74G29-00	74G29CA01	3/1/2000	34.4	DET	67.6	ND	0		0	0				0.84	0.06	0.19	0.00	0.06	0.00	0.30	0.00			Background		No effect
Sediment	2000	74G41-00	74G41CA01	3/10/2000	23.2	DET			29.7	0.038	0.78	0				0.46	0.04	0.13	0.18	0.04	0.07	0.22	0.10			Background		No effect
Sediment	2000	74G43-00	74G43CA01	3/10/2000	8.7	DET			0		0	0				0.46	0.01	0.05	0.00	0.01	0.00	0.10	0.00			Background		No effect
Sediment	2000	74G05-00	74G05CA01	3/7/2000			2980	DET	6578.2	0.04	165.09	1				0.46	0.00	0.00	40.10	0	14.87	0.00	23.07			Subclinical		
Soil	2000	74B37-00	74B37SA01D	3/23/2000	80300	DET							1	0.60	79.96	0.46	87.71					246.29	0.00	14.50	0.00		Clinical poisoning	Clinical poisoning
Soil	2000	74B20-00	74B20SA01	3/1/2000	69700	DET	3930	DET	7478.01	0.053	141.07		2	33.42	69.76	36.43	76.64					215.48	26.22	12.69	3.09		Clinical poisoning	Clinical poisoning
Soil	Phase1	74B09-03	74E0104SA0	8/13/2003	55200	DET	2380	DET	3560.11	0.039	90.89		2	20.43	55.76	22.24	61.44					173.09	12.48	10.20	1.47		Clinical poisoning	Clinical poisoning
Soil	2000	74B12-00	74B12SA01	3/1/2000	53400	DET	1780	DET	2893.2	0.052	55.62		2	15.40	54.02	16.75	59.55					167.81	10.15	9.89	1.20		Clinical poisoning	Clinical poisoning
Soil	Phase1	74B10-03	74E0105SA0	8/13/2003	31600	DET	1430	DET	8660.8	0.045	191.85		2	12.47	32.76	13.55	36.44					103.18	30.37	6.09	3.58		Clinical poisoning	Clinical poisoning
Soil	Bioassay	74B10-03	74B01SB010	12/13/2003	3430	DET	28.6	DET	14404.6	0.046	309.84		1	0.73	4.25	0.72	5.18					14.96	50.51	0.89	5.95		Not defined	Clinical poisoning
Soil	2000	74B19-00	74B19SA01	3/1/2000	2680	DET	13.9	ND	8143.6	0.039	206.88		1	0.61	3.42	0.55	4.25					12.27	28.56	0.73	3.36		Not defined	Clinical poisoning
Soil	2000	74B10-00	74B10SA01	3/1/2000	2170	DET	20.4	DET	6660.57	0.038	176.55		1	0.66	2.84	0.64	3.59					10.38	23.36	0.62	2.75		Not defined	Clinical poisoning
Soil	2000	74B11-00	74B11SA01	3/1/2000	1700	DET	19	DET	1450.68	0.049	29.73		1	0.65	2.30	0.63	2.97					8.59	5.09	0.52	0.60		Not defined	Clinical poisoning
Soil	2000	74B22-00	74B22SA01	3/8/2000	1500	DET	14	ND	10768.53	0.051	212.6		1	0.61	2.07	0.56	2.70					7.81	37.76	0.47	4.45		Not defined	Clinical poisoning
Soil	2000	74B29-00	74B29SA01	3/16/2000	1470	DET	18.4	DET	646.42	0.024	27.21		1	0.64	2.03	0.63	2.66					7.69	2.27	0.46	0.27		Not defined	Clinical poisoning
Soil	Bioassay	74B09-03	74B01SB009	12/13/2003	1470	DET	10.4	DET	3605.72	0.036	100.05		1	0.58	2.03	0.58	2.66					7.69	12.64	0.46	1.49		Not defined	Clinical poisoning
Soil	2000	74B08-00	74B08SA01	2/29/2000	1270	DET	12.1	ND	1555.05	0.029	53.95		1	0.59	1.80	0.46	2.38					6.89	5.45	0.42	0.64		Not defined	Clinical poisoning
Soil	Phase1	74B30-03	74E0110SA0	8/13/2003	1240	DET	9.5	DET	2842.08	0.044	64.36		1	0.57	1.76	0.58	2.34					6.77	9.97	0.41	1.17		Not defined	Clinical poisoning
Soil	Bioassay	74B20-03	74B01SB020	12/13/2003	1220	DET	7	DET	11801.32	0.052	225.68		1	0.55	1.74	0.57	2.31					6.69	41.39	0.40	4.88		Not defined	Clinical poisoning
Soil	2000	74B31-00	74B31SA01	3/16/2000	1200	DET	19.4	DET	13193.31	0.048	275.86		1	0.65	1.71	0.64	2.28					6.61	46.27	0.40	5.45		Not defined	Clinical poisoning
Soil	2000	74B09-00	74B09SA01	3/1/2000	1110	DET	12.7	ND	4529.15	0.039	116.49		1	0.60	1.60	0.49	2.16					6.23	15.88	0.38	1.87		Not defined	Not defined
Soil	2000	74B15-00	74B15SA01	3/1/2000	1060	DET	12.8	ND	11297.72	0.054	210.2		1	0.60	1.54	0.49	2.08					6.03	39.62	0.36	4.67		Not defined	Not defined
Soil	Phase1	74B24-03	74E0107SA0	8/13/2003	963	DET	6.3	DET	4636.21	0.044	104.21		1	0.54	1.42	0.57	1.94					5.62	16.26	0.34	1.92		Not defined	Not defined
Soil	Phase1	74B20-03	74E0106SA0	8/13/2003	831	DET	4.6	DET	12193.75	0.051	240.15		0	0.53	1.26	0.57	1.75					5.05	42.76	0.31	5.04		Not defined	Not defined
Soil	2000	74B16-00	74B16SA01	3/1/2000	797	DET	11.9	ND	9308.19	0.055	168.59		0	0.59	1.22	0.46	1.70					4.90	32.64	0.30	3.85		Not defined	Not defined
Soil	Bioassay	74B32-03	74B01SB032	12/13/2003	604	DET	5	DET	211.33	0.032	6.71		0	0.53	0.97	0.57	1.40					4.03	0.74	0.24	0.09		No effect	Not defined
Soil	Phase1	74B07-03	74E0103SA0	8/13/2003	568	DET	3.3	DET	2038.94	0.043	47.11		0	0.52	0.92	0.57	1.34					3.86	7.15	0.23	0.84		No effect	Not defined
Soil	Bioassay	74B07-03	74B01SB007	12/13/2003	535	DET	3.4	DET	816.38	0.045	18.04		0	0.52	0.88	0.57	1.28					3.70	2.86	0.23	0.34		No effect	Not defined
Soil	2000	74B17-00	74B17SA01	3/1/2000	448	DET	12.1	ND	4851.14	0.06	81.29		0	0.59	0.76	0.46	1.14					3.28	17.01	0.20	2.00		No effect	Not defined
Soil	Phase1	74B29-03	74E0109SA0	8/13/2003	377	DET	2.4	DET	802.87	0.055	14.62		0	0.51	0.67	0.57	1.02					2.92	2.82	0.18	0.33		No effect	Not defined
Soil	2000	74B14-00	74B14SA01	3/1/2000	357	DET	11.9	ND	3777.5	0.055	68.24		0	0.59	0.64	0.60	0.98					2.81	13.25	0.17	1.56		No effect	Not defined
Soil	2000	74B06-00	74B06SA01	3/1/2000	316	DET	13.3	ND	4553.58	0.049	93.36		0	0.60	0.58	0.55	0.90					2.59	15.97	0.16	1.88		No effect	Not defined
Soil	2000	74B13-00	74B13SA01	3/1/2000	256	DET	12.2	ND	2111.58	0.053	40.15		0	0.59	0.49	0.46	0.79					2.26	7.40	0.14	0.87		No effect	No effect
Soil	2000	74B28-00	74B28SA01	3/16/2000	232	DET	12.9	ND	151.75	0.032	4.78		0	0.60	0.46	0.50	0.74					2.12	0.53	0.13	0.06		No effect	No effect
Soil	Phase1	74B49-03	74E0114SA0	8/13/2003	221	DET	1.5	DET	59.86	0.038	1.6		0	0.50	0.44	0.57	0.72					2.06	0.21	0.13	0.02		No effect	No effect
Soil	2000	74B38-00	74B38SA01	3/23/2000	205	DET	13.9	ND	84.77	0.106	0.8		0	0.61	0.42	0.55	0.69					1.96	0.30	0.12	0.04		No effect	No effect
Soil	2000	74B30-00	74B30SA01	3/16/2000	198	DET	12.2	ND	12687.48	0.054	236.61		0	0.59	0.41	0.46	0.67					1.92	44.49	0.12	5.24		No effect	No effect
Soil	2000	74B24-00	74B24SA01	3/8/2000	191	DET	13.2	ND	2553.72	0.048	53.4		0	0.60	0.39	0.54	0.66					1.87	8.96	0.12	1.06		No effect	No effect
Soil	Refbio	SR2-03	74B03SB002	12/13/2003	178	DET	0.2	ND					0	0.49	0.37	0.56	0.63					1.79	0.00	0.11	0.00		No effect	No effect
Soil	2000	74B27-00	74B27SA01	3/10/2000	168	DET	14.7	ND	86.58	0.036	2.42		0	0.61	0.36	0.57	0.61					1.73	0.30	0.11	0.04		No effect	No effect
Soil	2000	74B44-00	74B44SA01	3/31/2000	168	DET	10.3	DET	52.5	0.046	1.15		0	0.58	0.36	0.58	0.61					1.73	0.18	0.11	0.02		No effect	No effect
Soil	2000	74B34-00	74B34SA01	3/23/2000	156	DET	10.8	ND	0		0		0	0.58	0.34	0.58	0.58					1.65	0.00	0.10	0.00		No effect	No effect
Soil	2000	74B47-00	74B47SA01	3/31/2000	135	DET	12	DET	237.8	0.059	4.03		0	0.59	0.30	0.46	0.53					1.51	0.83	0.09	0.10		No effect	No effect
Soil	Bioassay	74B27-03	74B01SB027	12/14/2003	123	DET	0.9	DET	0		0		0	0.50	0.28	0.57	0.51					1.43	0.00	0.09	0.00		No effect	No effect
Soil	2000	74B32-00	74B32SA01	3/16/2000	88.5	DET			45.08	0.058	0.78		0		0.22	0.46	0.42					1.17	0.16	0.07	0.02		No effect	No effect
Soil	2000	74B03-00	74B03SA01	2/29/2000	86.6	DET	12.4	ND	1333.35	0.048	27.81		0	0.59	0.22	0.47	0.41					1.16	4.68	0.07	0.55		No effect	No effect
Soil	Phase1	74B32-03	74E0113SA0	8/13/2003	84.9	DET	0.6	DET	1293.98	0.039	32.8		0	0.49	0.22	0.57	0.41					1.14	4.54	0.07	0.53		No effect	No effect
Soil	2000	74B02-00	74B02SA01	2/29/2000	75.5	DET	12.2	ND	276.06	0.059	4.65		0	0.59	0.20	0.46	0.38					1.07	0.97	0.07	0.11		No effect	No effect
Soil	2000	74B35-00	74B35SA01	3/23/2000	73.8	DET	11.6	ND	772.51	0.049	15.84		0	0.59	0.20	0.59	0.38					1.05	2.71	0.07	0.32		No effect	No effect
Soil	Phase1	74B27-03	74E0108SA0	8/13/2003	72.4	DET	0.7	DET	0		0		0	0.49	0.19	0.57	0.37					1.04	0.00	0.07	0.00		No effect	No effect
Soil	2000	74B07-00	74B07SA01	3/1/2000	70.6	DET	12.5	ND	1025.12	0.055	18.75		0	0.59	0.19	0.48	0.37					1.03	3.59	0.06	0.42		No effect	No effect
Soil	2000	74B18-00	74B18SA01	3/1/2000	59.6	DET	11.5	ND	491.45	0.065	7.53		0	0.59	0.17	0.58	0.33					0.93	1.72	0.06	0.20		No effect	No effect
Soil	2000	74B04-00	74B04SA01	2/29/2000	57.2	DET	11.8	ND	304.5	0.048	6.36		0	0.59	0.16	0.59	0.33					0.91	1.07	0.06	0.13		No effect	No effect
Soil	2000	74B23-00	74B23SA01	3/8/2000	55.2	DET	15.4	ND	2048.14	0.057	36.11		0	0.62	0.16	0.58	0.32					0.89	7.18	0.06	0.85		No effect	No effect
Soil	2000	74B49-00	74B49SA01	3/31/2000	55.1	DET	10.4	DET	131.41	0.049	2.68		0	0.58	0.16	0.58	0.32					0.89	0.46	0.06	0.05		No effect	No effect
Soil	2000	74B26-00	74B26SA01	3/8/2000	54.2	DET	13.1	ND	419.09	0.059	7.06		0	0.60	0.16	0.52	0.32					0.88	1.47	0.06	0.17		No effect	No effect
Soil	2000	74B05-00	74B05SA01	3/1/2000	51.3	DET	13.2	ND	560.89	0.041	13.62		0	0.60	0.15	0.52	0.31					0.85	1.97	0.05	0.23		No effect	No effect
Soil	Refbio	SR1-03	74B03SB001	12/13/2003	50.5	DET	0.1	ND					0	0.49	0.15	0.46	0.30					0.85	0.00	0.05	0.00		No effect	No effect
Soil	Refbio	SR3-03	74B03SB003	12/13/2003	48	DET	0.2	ND					0	0.49	0.15	0.56	0.30					0.82	0.00	0.05	0.00		No effect	No effect
Soil	2000	74B43-00	74B43SA01	3/23/2000	42.6	DET	1780	DET	934.22	0.051	18.22		1	15.40	0.13	16.75	0.28					0.77	3.28	0.05	0.39		No effect	No effect

Table 5-1
Point-by-Point Summary of Analytical and Risk Screening Results for All Assessment Endpoints Evaluated at Site 74
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

					Lead (mg/kg)		Antimony (mg/kg)		Lead Shot Results																		
Matrix Type	Data Group	Sample Location	Sample Number	Sampling Date	Concentration	Qualifier	Concentration	Qualifier	Lead concentration as Shot (mg/kg)	Mean Shot Size (g)	Number of Shot /kg Soil	Sediment Invertebrate Joint Exceedances	Soil Invertebrate Joint Exceedances	Vole Antimony LOAEL HQ	Vole Lead LOAEL HQ	Shrew Antimony LOAEL HQ	Shrew Lead LOAEL HQ	Rail Lead NOAEL HQ	Rail Lead Shot Annualized LD50 HQ	Mallard Lead LOAEL HQ	Mallard Lead Shot Annualized LD50 HQ	Sparrow Lead NOAEL HQ	Sparrow Lead Shot Annualized LD50 HQ	Meadowlark Lead LOAEL HQ	Meadowlark Lead Shot Annualized LD50 HQ	Risk Category for Estimated Mallard Liver Concentrations	Risk Category for Estimated Vole Liver Concentrations	Risk Category for Estimated Shrew Liver Concentrations
Soil	Phase1	74B41-03	74E0112SA0	8/13/2003	41.3	DET	0.6	DET	0		0		0	0.49	0.13	0.57	0.27					0.76	0.00	0.05	0.00		No effect	No effect
Soil	Bioassay	74B01-03	74B01SB001	12/13/2003	40.4	DET	0.3	ND	308.1	0.051	6.04		0	0.49	0.13	0.57	0.27					0.75	1.08	0.05	0.13		No effect	No effect
Soil	Phase1	74B01-03	74E0101SA0	8/13/2003	32.9	DET	0.3	DET	153.73	0.076	2.04		0	0.49	0.11	0.56	0.24					0.67	0.54	0.04	0.06		No effect	No effect
Soil	2000	74B01-00	74B01SA01	2/29/2000	32.6	DET	12.3	ND	202.3	0.049	4.12		0	0.59	0.11	0.47	0.24					0.66	0.71	0.04	0.08		No effect	No effect
Soil	2000	74B39-00	74B39SA01	3/23/2000	31.3	DET			0		0		0		0.11	0.46	0.24					0.65	0.00	0.04	0.00		No effect	No effect
Soil	2000	74B21-00	74B21SA01	2/29/2000	30.1	DET	12.2	ND	62.34	0.038	1.64		0	0.59	0.11	0.46	0.23					0.63	0.22	0.04	0.03		No effect	No effect
Soil	2000	74B41-00	74B41SA01	3/23/2000	29	DET			30	0.067	0.45		0		0.10	0.46	0.23					0.62	0.11	0.04	0.01		No effect	No effect
Soil	Bioassay	74B43-03	74B01SB043	12/14/2003	26.4	DET	0.2	ND	225.48	0.058	3.9		0	0.49	0.10	0.46	0.22					0.59	0.79	0.04	0.09		No effect	No effect
Soil	2000	74B36-00	74B36SA01	3/23/2000	25.6	DET			562.72	0.048	11.72		0		0.09	0.46	0.21					0.58	1.97	0.04	0.23		No effect	No effect
Soil	Phase1	74B37-03	74E0111SA0	8/13/2003	25.5	DET	0.5	DET	83.86	0.051	1.64		0	0.49	0.09	0.57	0.21					0.58	0.29	0.04	0.03		No effect	No effect
Soil	2000	74B42-00	74B42SA01	3/23/2000	22.9	DET			38.42	0.054	0.71		0		0.09	0.46	0.20					0.55	0.13	0.03	0.02		No effect	No effect
Soil	2000	74B50-00	74B50SA01	4/4/2000	22	DET			0		0		0		0.09	0.46	0.20					0.53	0.00	0.03	0.00		No effect	No effect
Soil	2000	74B46-00	74B46SA01	3/31/2000	21.5	DET	10.7	DET	0		0		0	0.58	0.08	0.58	0.19					0.53	0.00	0.03	0.00		No effect	No effect
Soil	2000	74B52-00	74B52SA01	4/4/2000	19.1	DET			0		0		0		0.08	0.46	0.18					0.49	0.00	0.03	0.00		No effect	No effect
Soil	2000	74B33-00	74B33SA01	3/16/2000	17.4	DET			34.32	0.054	0.64		0		0.07	0.46	0.17					0.47	0.12	0.03	0.01		No effect	No effect
Soil	Phase1	74B43-03	74E0115SA0	8/13/2003	16.2	DET	0.2	DET	257.68	0.065	3.96		0	0.49	0.07	0.46	0.17					0.45	0.90	0.03	0.11		No effect	No effect
Soil	Bioassay	74B04-03	74B01SB304	12/14/2003	15.1	DET	0.2	DET	57.52	0.063	0.92		0	0.49	0.07	0.46	0.16					0.44	0.20	0.03	0.02		No effect	No effect
Soil	2000	74B40-00	74B40SA01	3/23/2000	13.5	DET			34.28	0.049	0.7		0		0.06	0.46	0.15					0.41	0.12	0.03	0.01		No effect	No effect
Soil	2000	74B45-00	74B45SA01	3/31/2000	12.7	DET	10.4	DET	0		0		0	0.58	0.06	0.58	0.15					0.40	0.00	0.03	0.00		No effect	No effect
Soil	Phase1	74B04-03	74E0102SA0	8/13/2003	12.6	DET	0.2	DET	0		0		0	0.49	0.06	0.46	0.15					0.40	0.00	0.03	0.00		No effect	No effect
Soil	2000	74B51-00	74B51SA01	4/4/2000	11.6	DET			0		0		0		0.06	0.46	0.14					0.38	0.00	0.02	0.00		No effect	No effect
Soil	2000	74B48-00	74B48SA01	3/31/2000	9.7	DET	13	DET	0		0		0	0.60	0.05	0.50	0.13					0.35	0.00	0.02	0.00		No effect	No effect
Soil	2000	74B25-00	74B25SA01	3/8/2000	5	DET			0		0		0		0.03	0.46	0.09					0.25	0.00	0.02	0.00		No effect	No effect
Soil	2000	74B37-00	74B37SA01	3/23/2000			13.7	ND	855.45	0.038	22.81		0		0.00	0.55	0.00					0.00	3.00	0.00	0.35			

Notes:
Shaded cells are those samples with HQs greater than one for relevant toxicity values or with concentrations associated with clinical toxicity.
DET = detect
HQ = hazard quotient (total exposure/toxicity value)
LD50 = median lethal dose
LOAEL = lowest observed adverse effect level
ND = non-detect
NOAEL = no observed adverse effect level
Refbio = bioassay sample collected from a reference area

Table 5-2

Back-Calculated Preliminary Remedial Goals for Wildlife Receptors at Site 74

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

	Dietary Exposure-Based PRGs				Tissue Exposure-Based PRGs			
Receptor	**Sediment/Soil PRG for Antimony (mg/kg dry)**	**Sediment/Soil PRG for Lead (mg/kg dry)**	**PRG for Lead as Shot (mg/kg dry)**	**PRG for Lead as Shot (no. shot/kg sed or soil dry)**	**Sediment PRG for Lead (mg/kg dry)**	**Soil PRG for Lead (mg/kg dry)**	**Sediment/Soil PRG for Lead (mg/kg dry)**	**Background Lead Concentration (mg/kg dry)**
California Vole	61	626	NA	NA	NA	7787	NA	35.7
Ornate Shrew	59	435	NA	NA	NA	NA	1191	35.7
Light-footed Clapper Rail	NA	174[a]	164	35	NA	NA	NA	35.7
Mallard	NA	534	442	94	11318	NA	NA	35.7
Belding's Savannah Sparrow	NA	140[a]	285	61	NA	NA	NA	35.7
Western Meadowlark	NA	3945	2420	516	NA	NA	NA	35.7

Notes:

[a] PRG based on NOAEL. Sediment/soil PRGs for all other wildlife receptors based on LOAELs

NA = not applicable

PRG = preliminary remediation goal

Table 5-3

Comparison of Concentrations of Lead and Antimony in Soil and Sediment and Lead as Shot Projected to be Removed or to Remain Under the Larger and Smaller Potential Remedial Footprints

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

		Sediment				Soil			
		Larger Footprint		Smaller Footprint		Larger Footprint		Smaller Footprint	
		Samples to be Removed	Samples to Remain	Samples to be Removed	Samples to Remain	Samples to be Removed	Samples to Remain	Samples to be Removed	Samples to Remain
Lead in soil or sediment (mg/kg dry)	Sample Size	33	60	29	64	55	24	31	48
	Mean	9408	66	10684	72	5831	25	10256	70
	Standard Deviation	27067	29	28694	36	17416	13	22352	66
	Minimum	140	8.7	176	8.7	25.6	5	42.6	5
	Median	1020	59	1500	61.3	316	22.45	1200	49.25
	Maximum	154000	131	154000	167	80300	55.1	80300	256
Antimony in soil or sediment (mg/kg dry)	Sample Size	33	55	29	59	53	15	30	38
	Mean	150	31	169	30	223	5	387	8
	Standard Deviation	513	22	546	22	719	6	929	6
	Minimum	0.3	0.1	0.3	0.1	0.2	0.1	2.4	0.1
	Median	37.4	27.4	46.7	26.7	12.2	0.5	12.75	10.75
	Maximum	2980	83.3	2980	83.3	3930	13	3930	15.4
Lead as shot in soil or sediment (mg/kg dry)	Sample Size	32	58	28	62	54	22	30	46
	Mean	1854	9	2118	9	3443	60	5762	313
	Standard Deviation	2465	25	2530	24	4208	82	4421	508
	Minimum	0	0	0	0	0	0	211	0
	Median	314	0	766	0	1392	32	4541	84
	Maximum	7512	106	7512	106	14405	258	14405	2112
Lead as shot in soil or sediment (no. shot/mg sed or soil dry)	Sample Size	32	58	28	62	54	22	30	46
	Mean	395	2	452	2	734	13	1229	67
	Standard Deviation	526	5	539	5	897	17	943	108
	Minimum	0	0	0	0	0	0	45	0
	Median	67	0	163	0	297	7	968	18
	Maximum	1602	23	1602	23	3071	55	3071	450

FIGURES

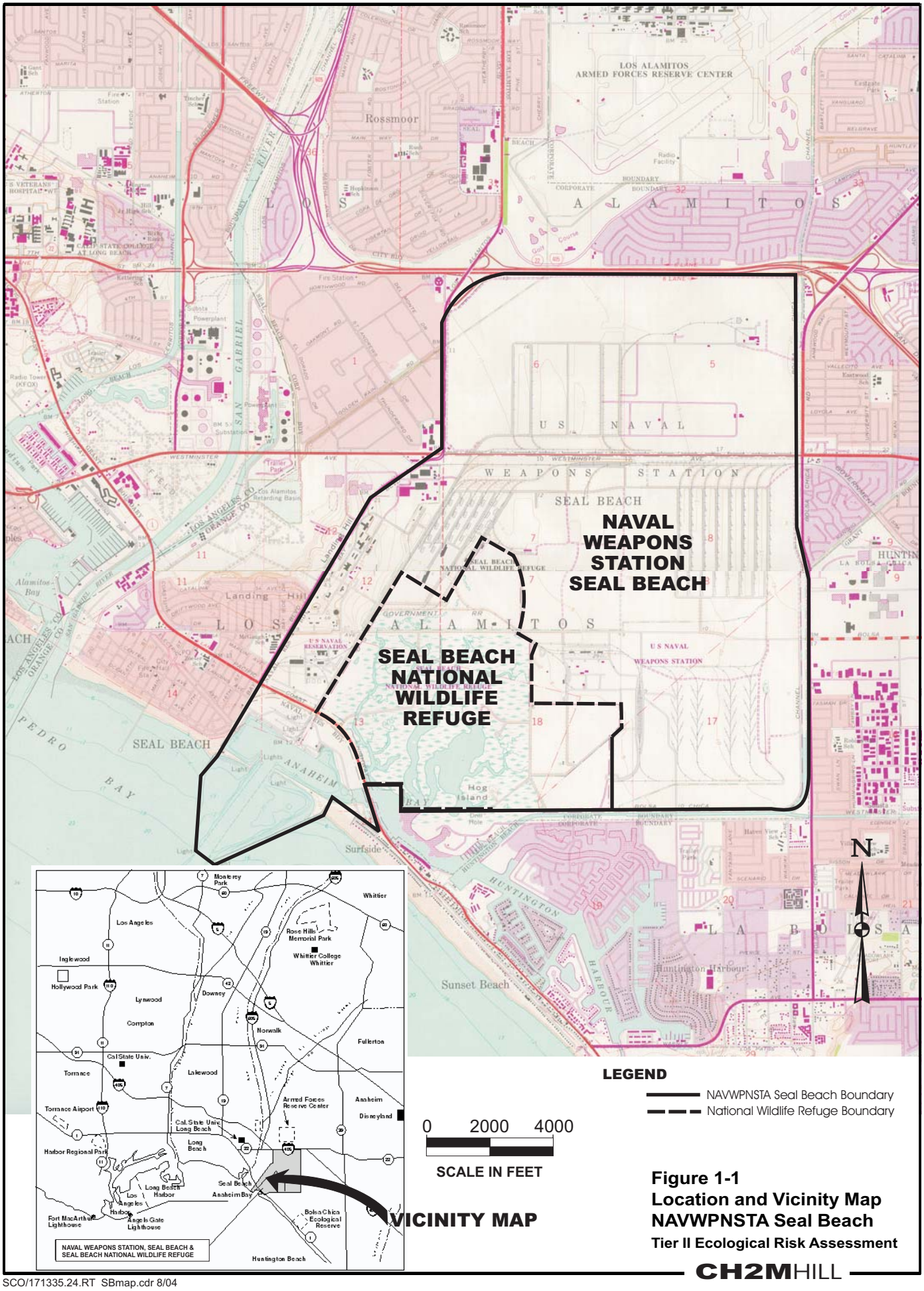

Figure 1-1
Location and Vicinity Map
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

SCO/171335.24.RT SBmap.cdr 8/04

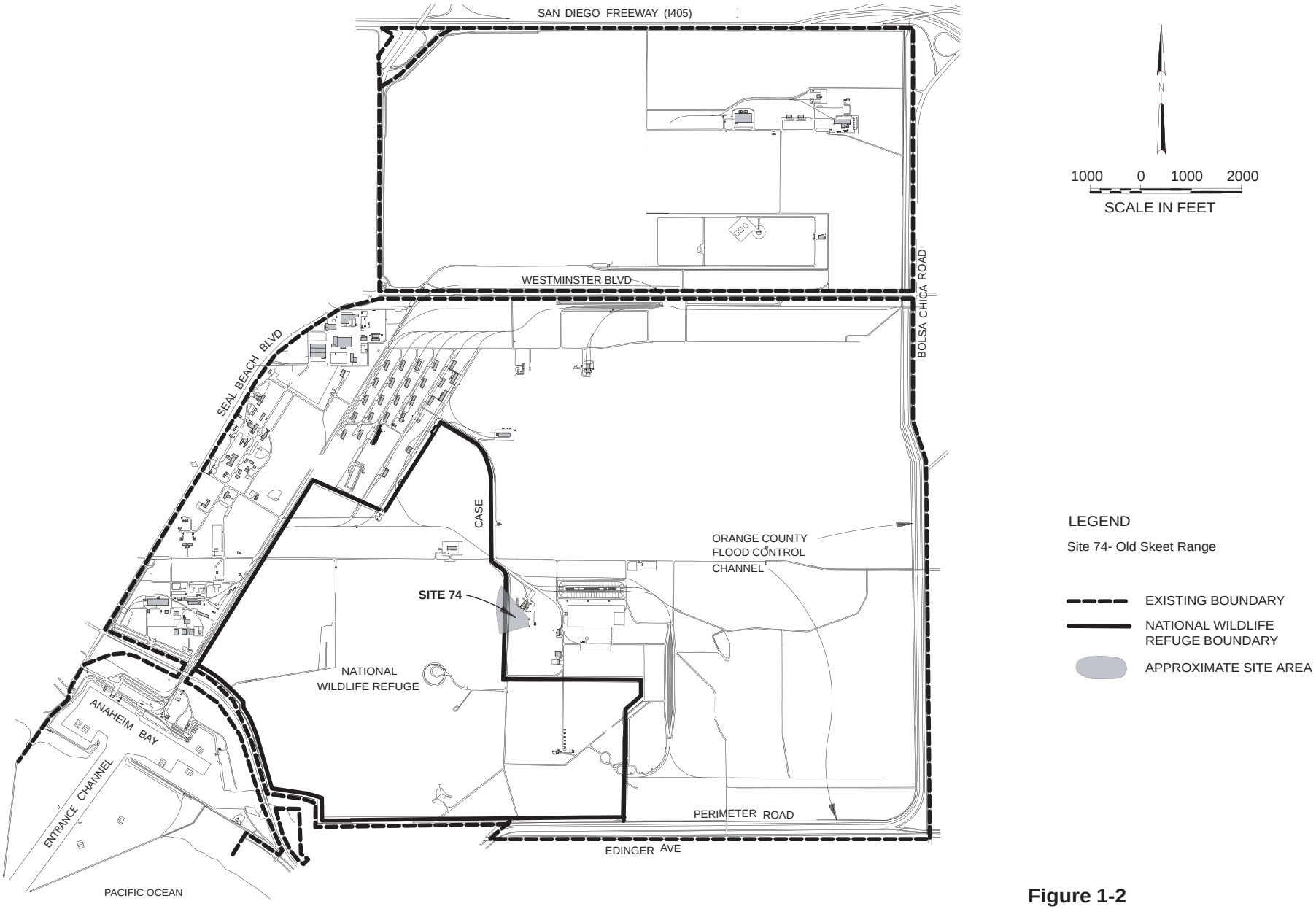

Figure 1-2

Site 74 Location Map

NAVWPNSTA Seal Beach

Tier II Ecological Risk Assessment

CH2MHILL

SCO171335.24.RT exhibit_103_site.ai 8/04 (dfacile)

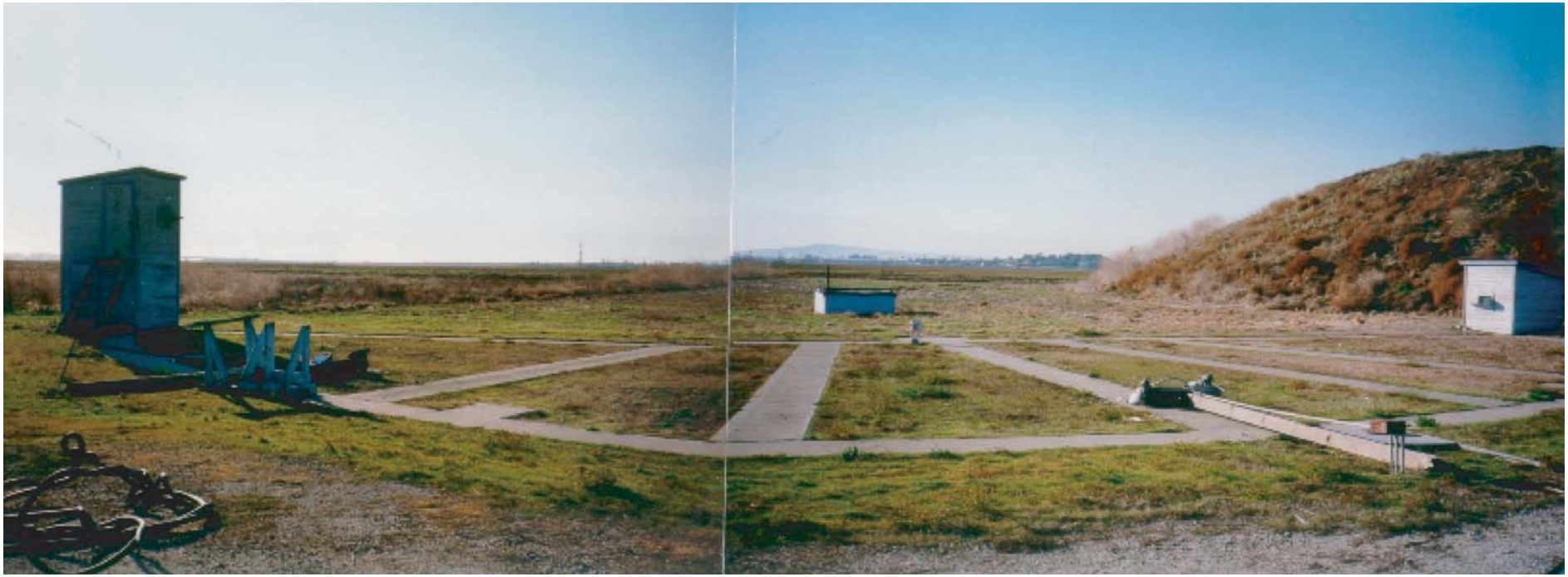

Figure 1-3
View of Old Skeet Range
(looking west)
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

SCO171335.24.RT NSBPhotoPg.ai 08/04

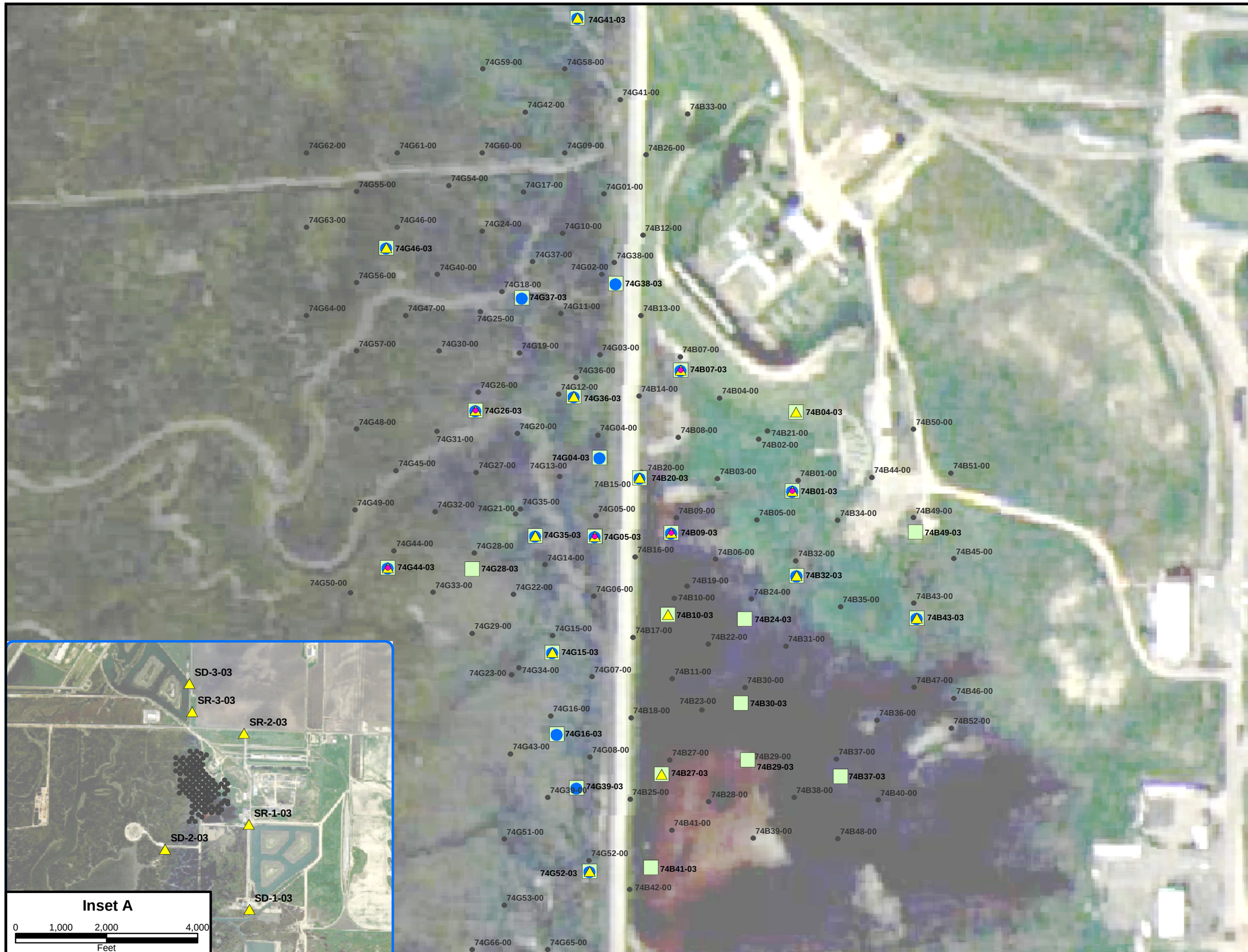

Figure 1-4
Sample Type Location Map
For Site 74
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

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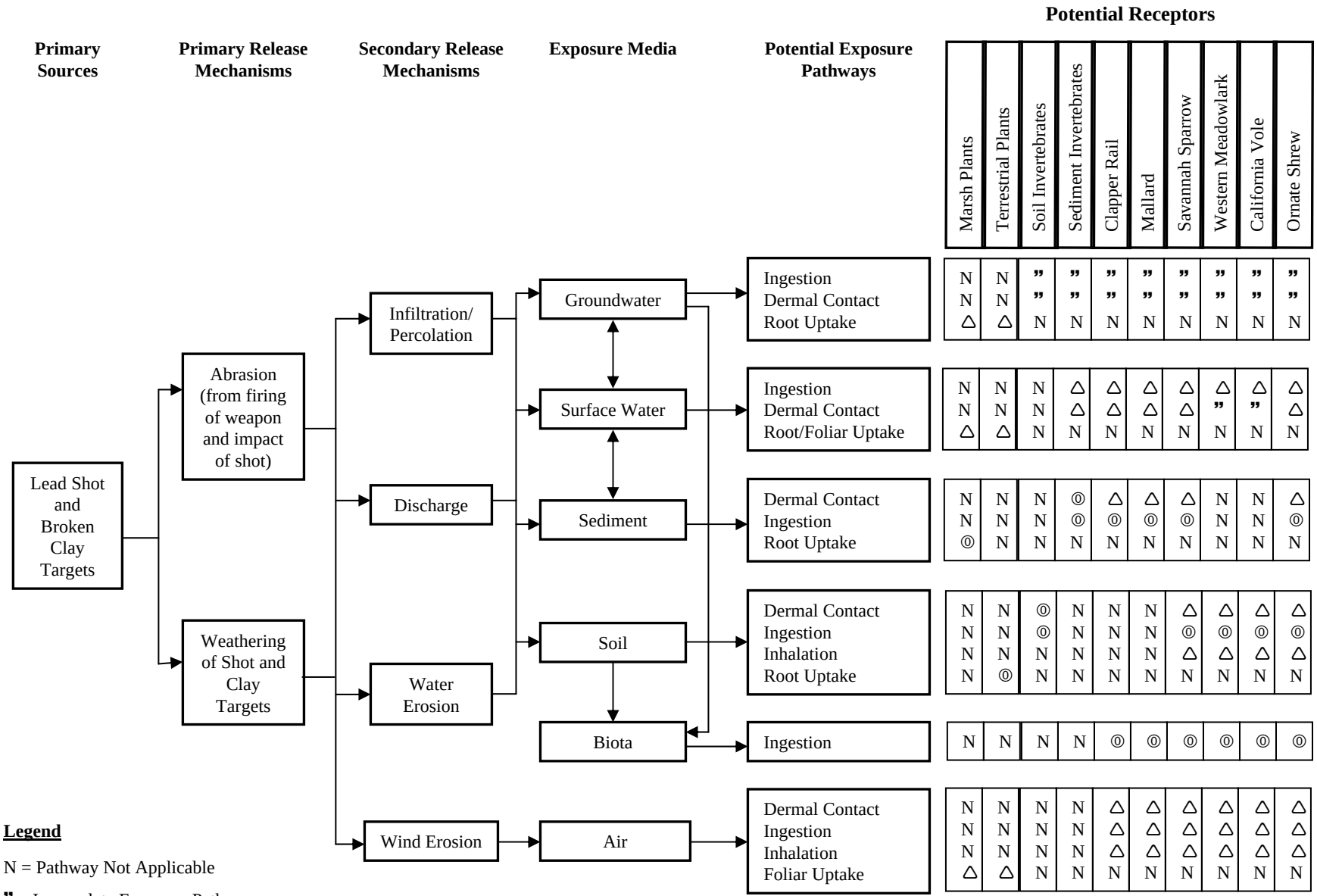


Legend

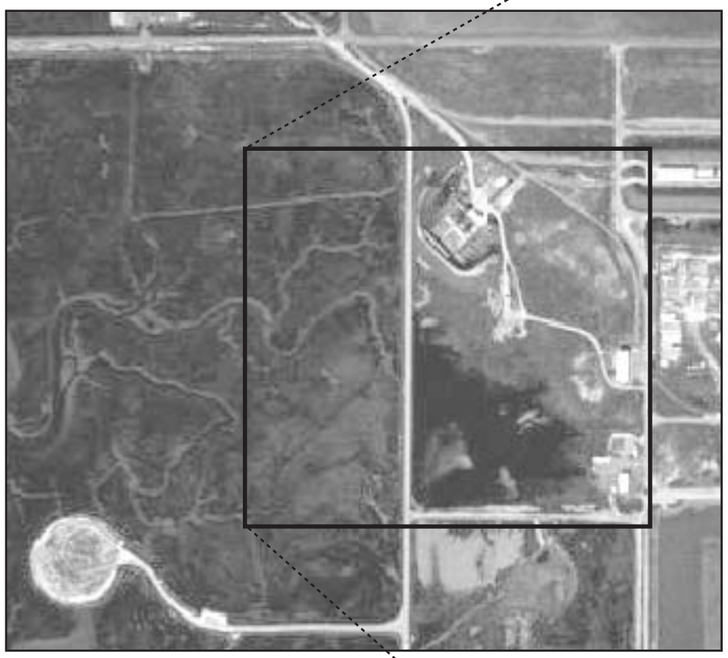
N = Pathway Not Applicable

” = Incomplete Exposure Pathway

⓪ = Potentially Complete Exposure Pathway

△ = Possibly Complete Exposure Pathway
Likely not significant or insufficient data for analysis.

Figure 2-1
Ecological Conceptual Site Model for Site 74
NAVWPNSTA Seal Beach Site 74
Tier II Ecological Risk Assessment

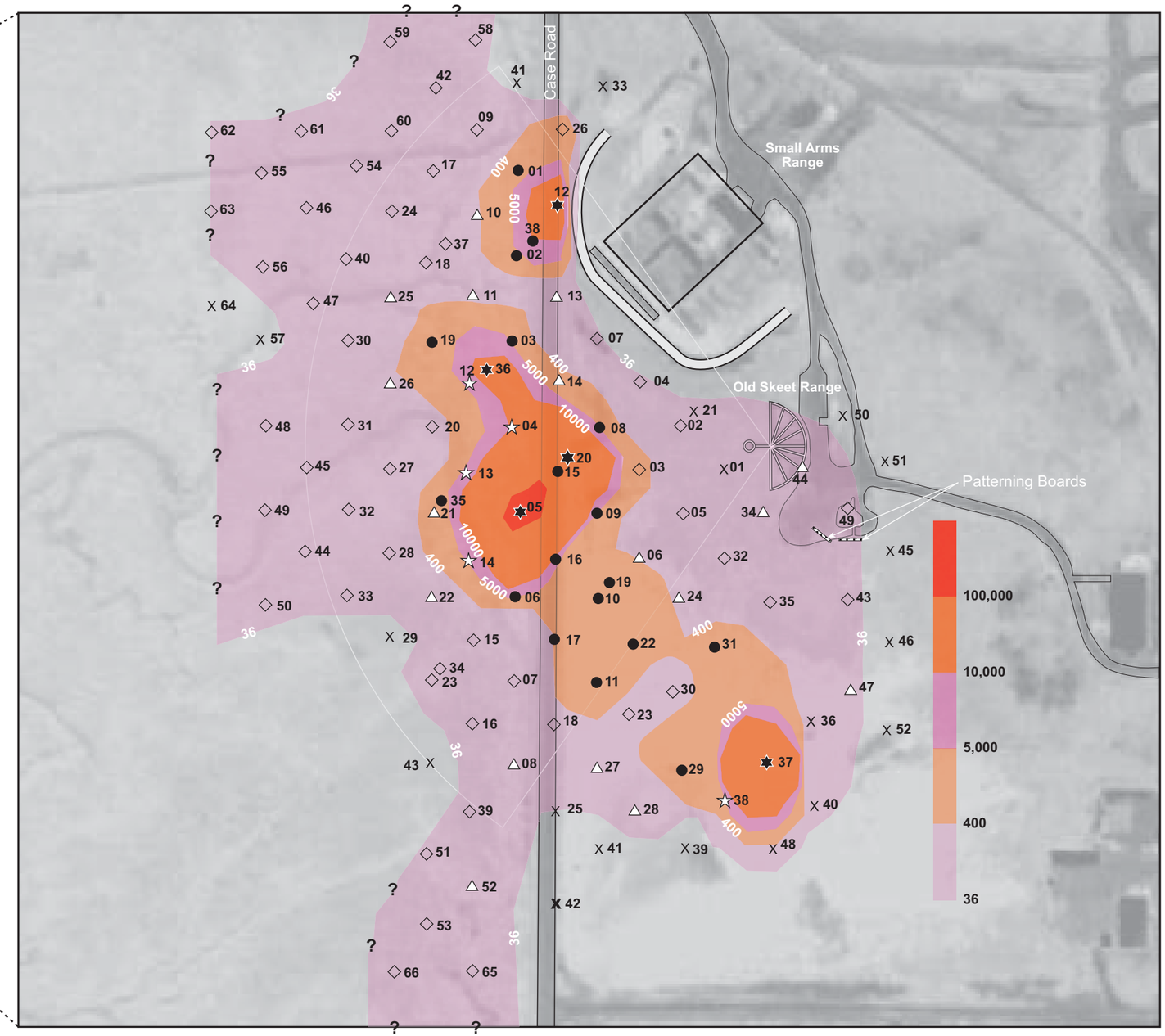


0 675

Scale in Feet

Legend:

- X 0 to 36 mg/Kg Lead
- ◇ 36 to 130 mg/Kg Lead
- △ 130 to 400 mg/Kg Lead
- ● 400 to 5,000 mg/Kg Lead
- ☆ 5,000 to 10,000 mg/Kg Lead
- ✸ 10,000 to 160,000 mg/Kg Lead
- ? Extent (to background levels of lead) not defined



N

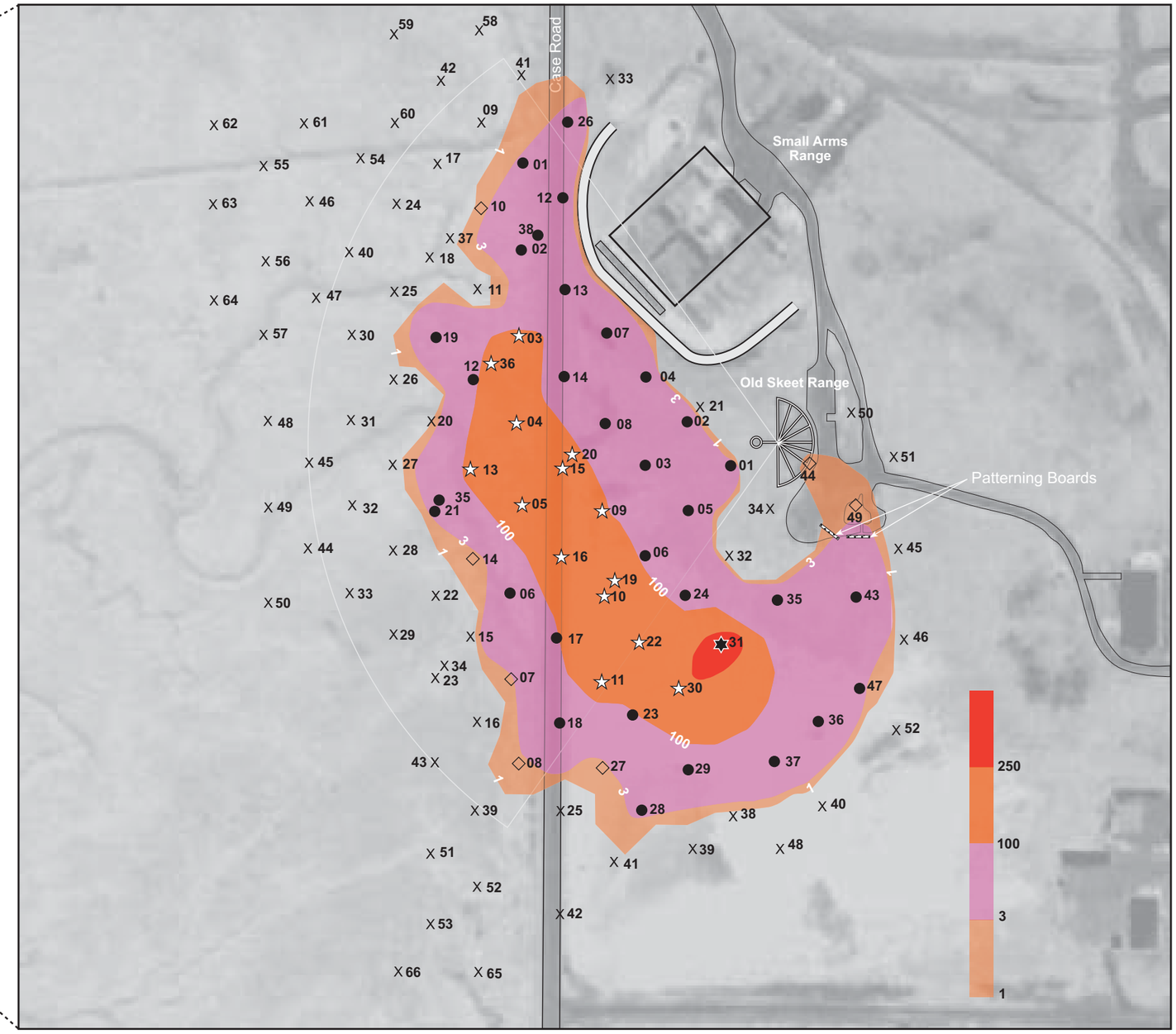
0 200

Scale in Feet

Figure 2-2
Lead Distribution in Year 2000 Surface Soil/Sediment Samples at Site 74
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

SCO171335.24.RT skeetrev2a2 fh10 8/04



Legend:

- X ≥0 and <1 lead shots
- ◇ ≥1 and <3 lead shots
- ● ≥3 and <100 lead shots
- ☆ ≥100 and <250 lead shots
- ★ ≥250 and 500 lead shots

Note:
Number of lead shots normalized per unit weight (kg) of soil. Samples on or east of Case Road are soil. Samples west of Case Road are considered sediment.

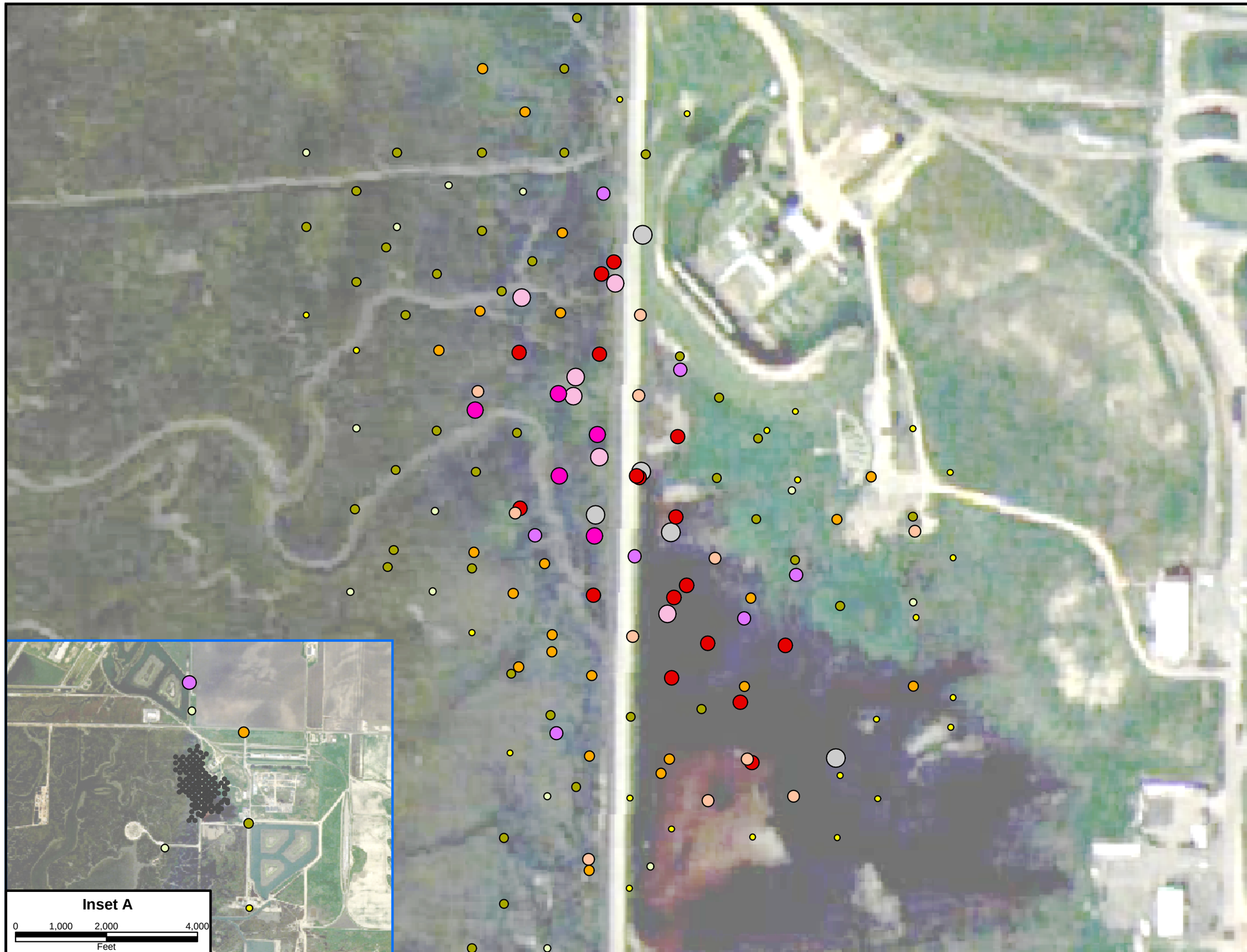
N

0 200
Scale in Feet

Figure 2-3
Lead Shot Distribution in Year 2000
Surface Soil/Sediment Samples at Site 74
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

SCO171335.24.RT skeetrev2c2 fh10 8/04



Legend

Lead (mg/kg)

- <= 35.7
- 35.7 - 50
- 50 - 100
- 100 - 200
- 200 - 500
- 500 - 1000
- 1000 - 5000
- 5000 - 10000
- 10000 - 50000
- 50000 - 154000

Note:
Includes 2000 and 2003 data.

0 80 160 320
Feet

Figure 2-4
Lead Soil or Sediment Sampling Location and Concentration Map For Site 74
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

File Path: K:\NWSSB\plots\11X17_lead_in_soilsed_draftv4.mxd, Date: August 11, 2004, User: NYOUNG

Legend

Number of Shot /kg soil or sediment

- 0
- 0 - 1
- 1 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 200
- >200

Notes:
Number of shot/kg soil or sediment was not measured at the reference areas.

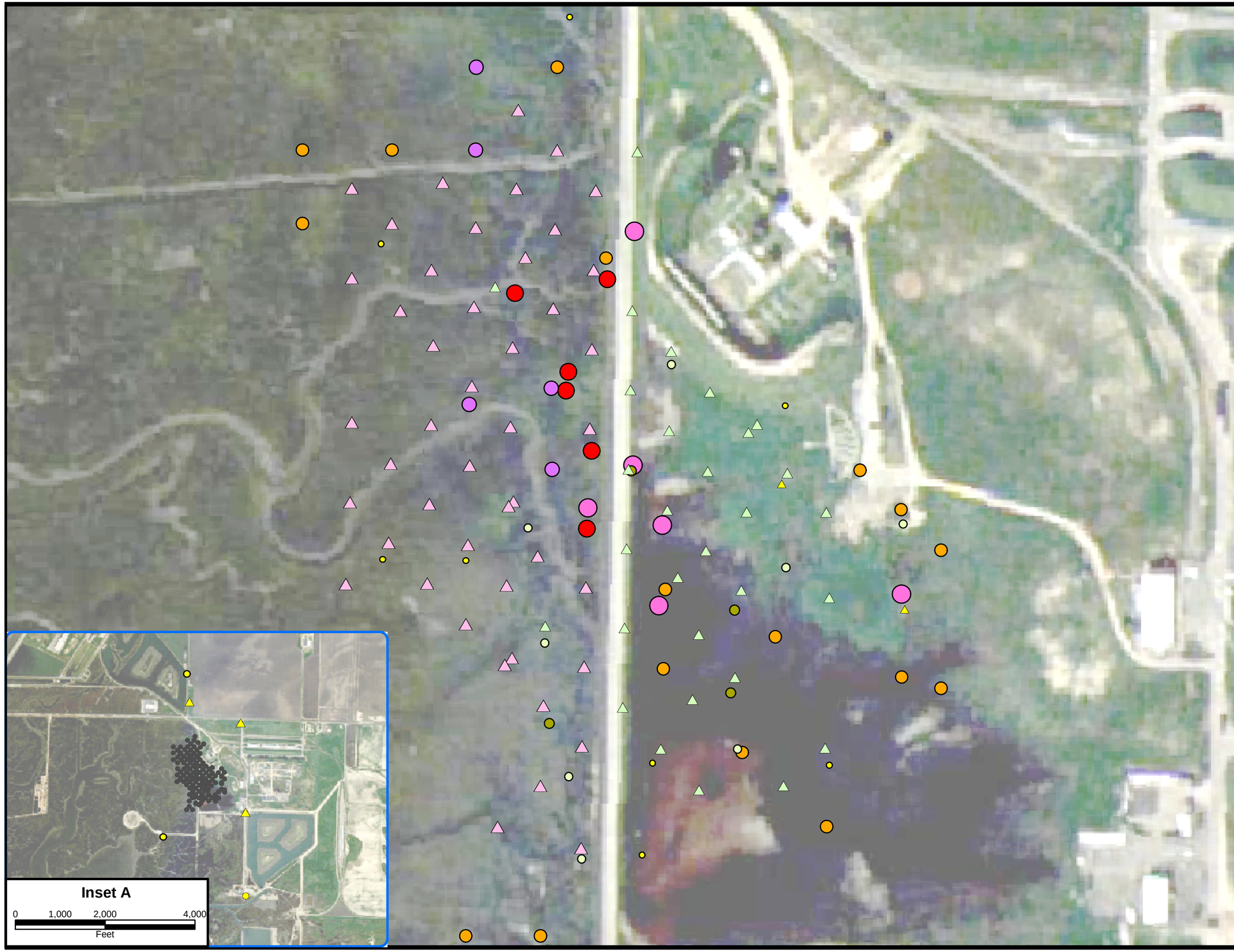
Includes 2000 and 2003 data.

0 80 160 320
Feet

Figure 2-5
Lead Shot Soil or Sediment Sampling Location Map For Site 74
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

File Path: K:\NWSSB\plots\11X17_shot_in_soilsed_draftv4.mxd, Date: August 11, 2004, User: NYOUNG



Legend

Antimony (mg/kg) - Detect

- <1
- 1 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 500
- >1000

Antimony (mg/kg) - Non-detect

- <1
- 10 - 20
- 20 - 83

Note:
Includes 2000 and 2003 data.

0 80 160 320
Feet

Figure 2-6
Antimony Soil or Sediment Sampling Location and Concentration Map For Site 74
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

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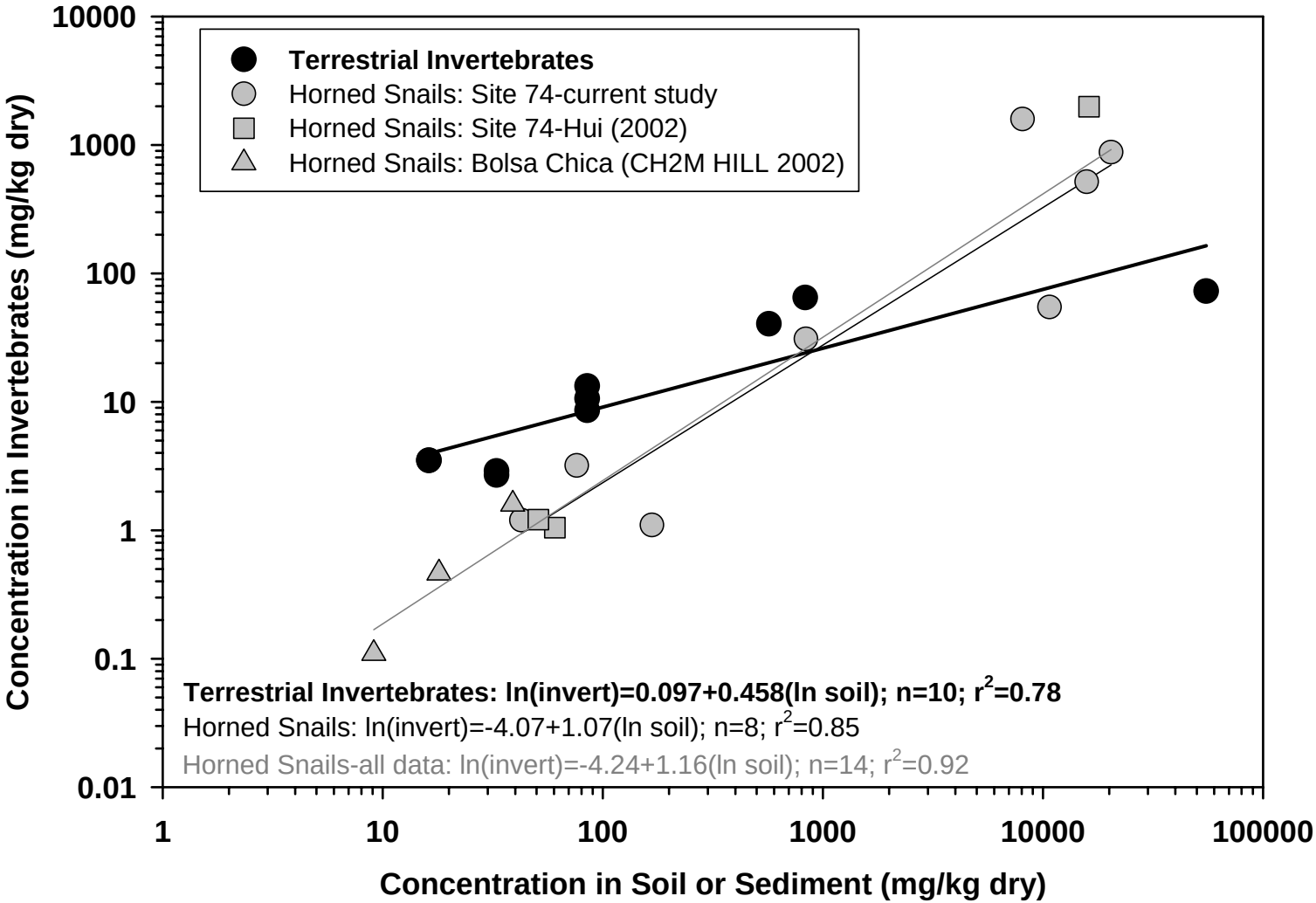


Figure 3-1. Scatter plot of the relationships between lead in sediment or soil from Site 74 and lead in invertebrate tissues.

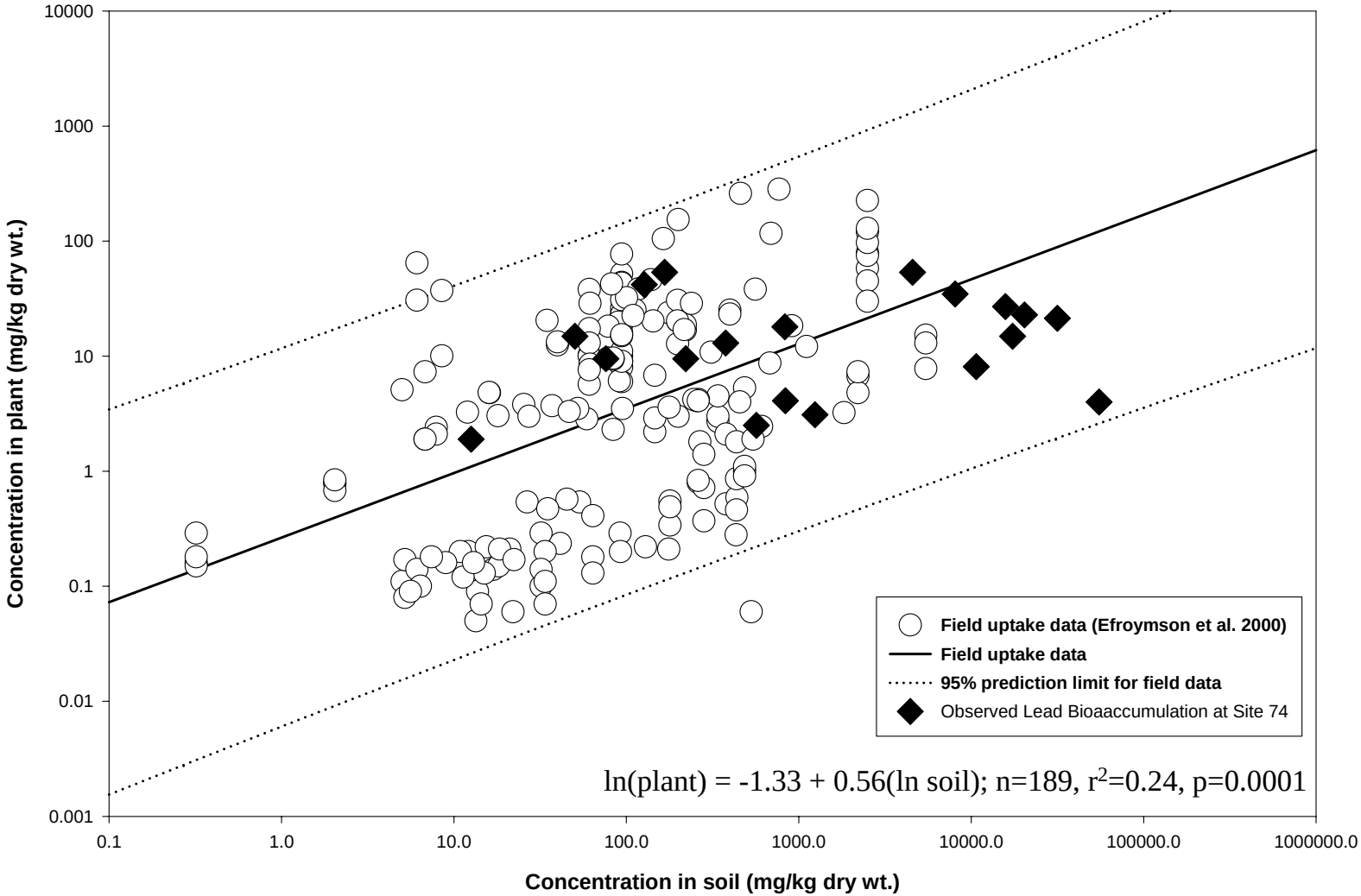


Figure 3-2. Comparison of bioaccumulation of lead by plants at Site 74, NAVWPNSTA, Seal Beach to that observed at other contaminated sites and presented in Efroymson et al. (2000).

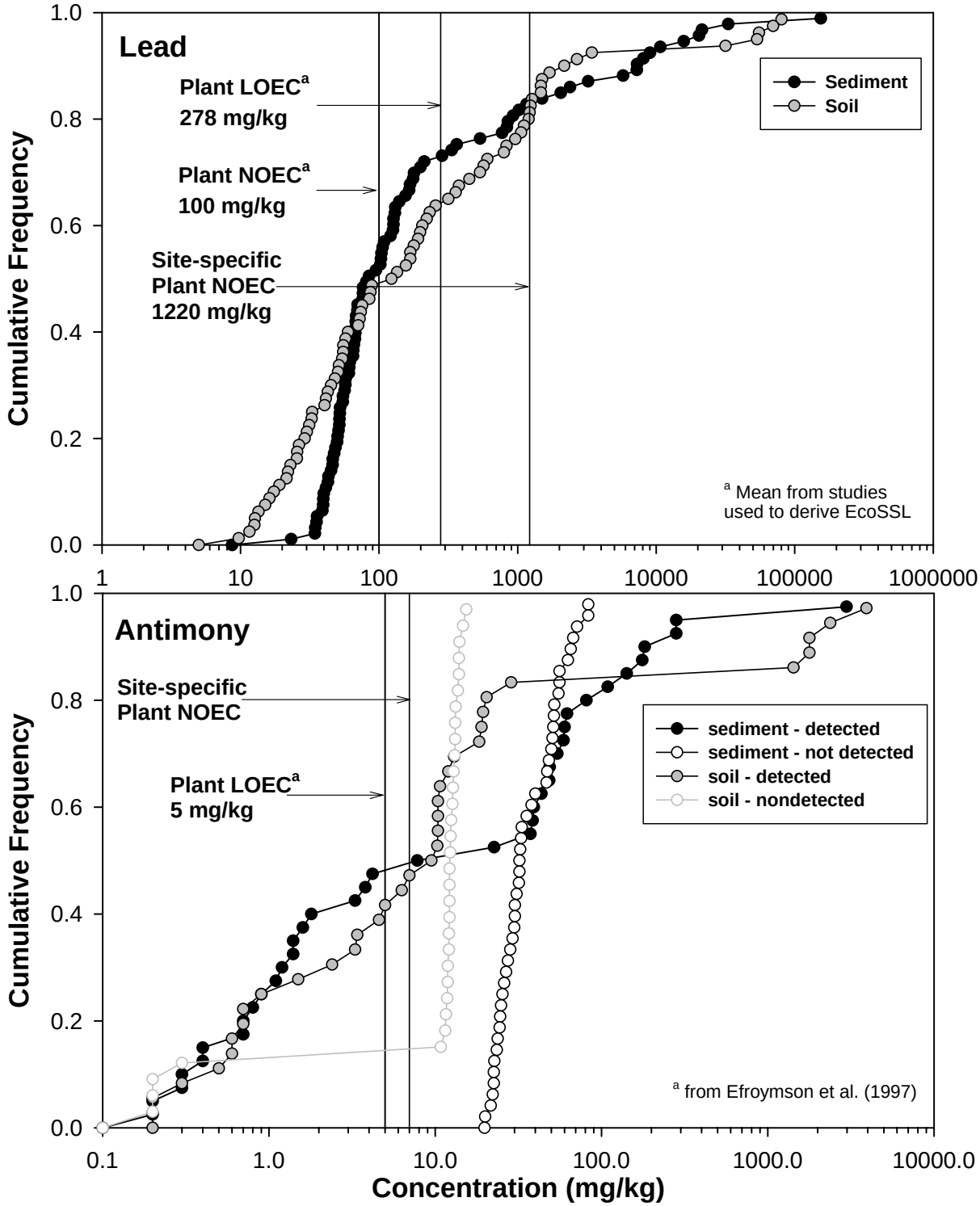


Figure 4-1. Point-by-point screening of lead and antimony in soil and sediment from Site 74 versus literature and site-specific plant toxicity values.

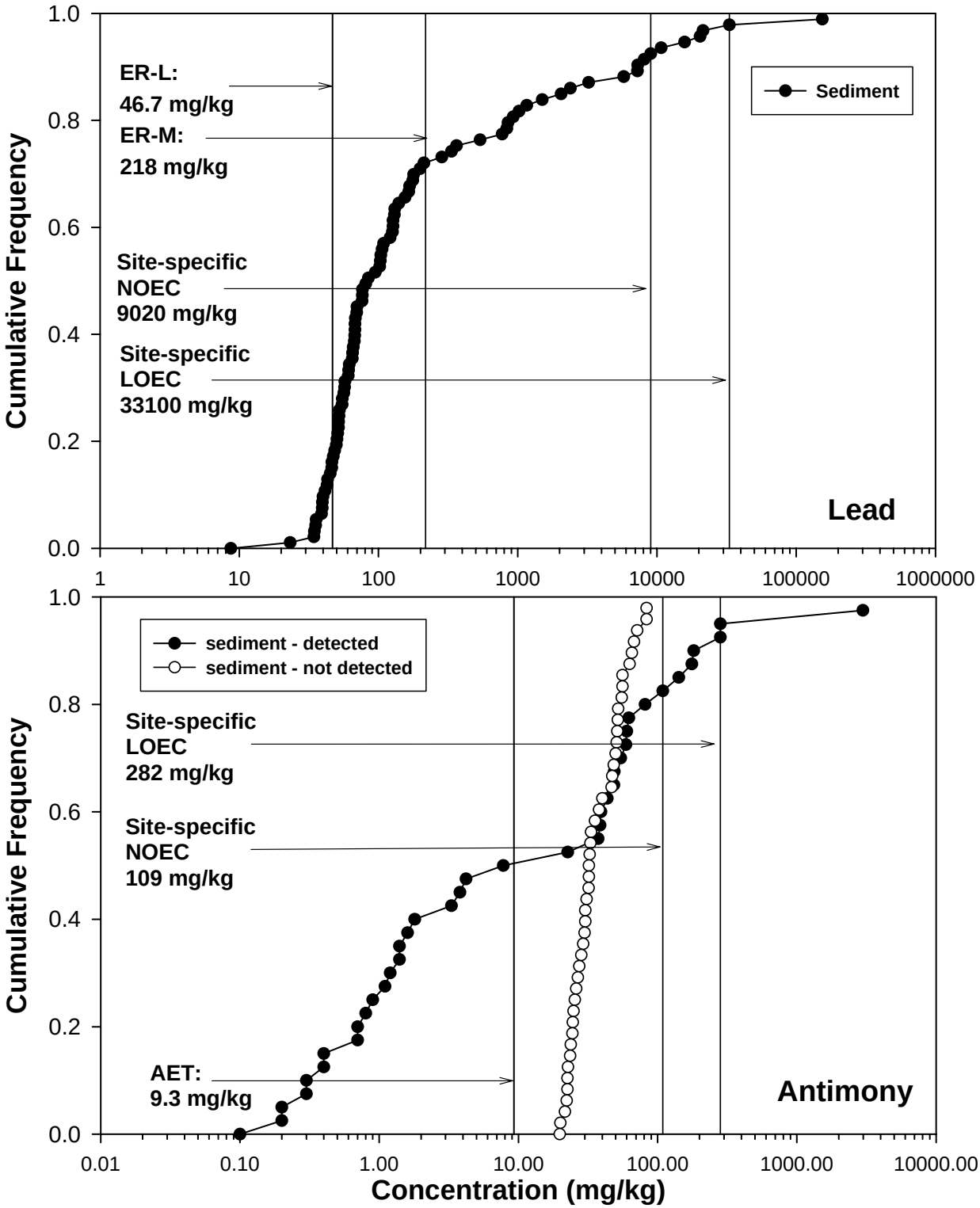


Figure 4-2. Point-by-point screening of lead and antimony in sediment from Site 74 versus literature and site-specific sediment toxicity values.

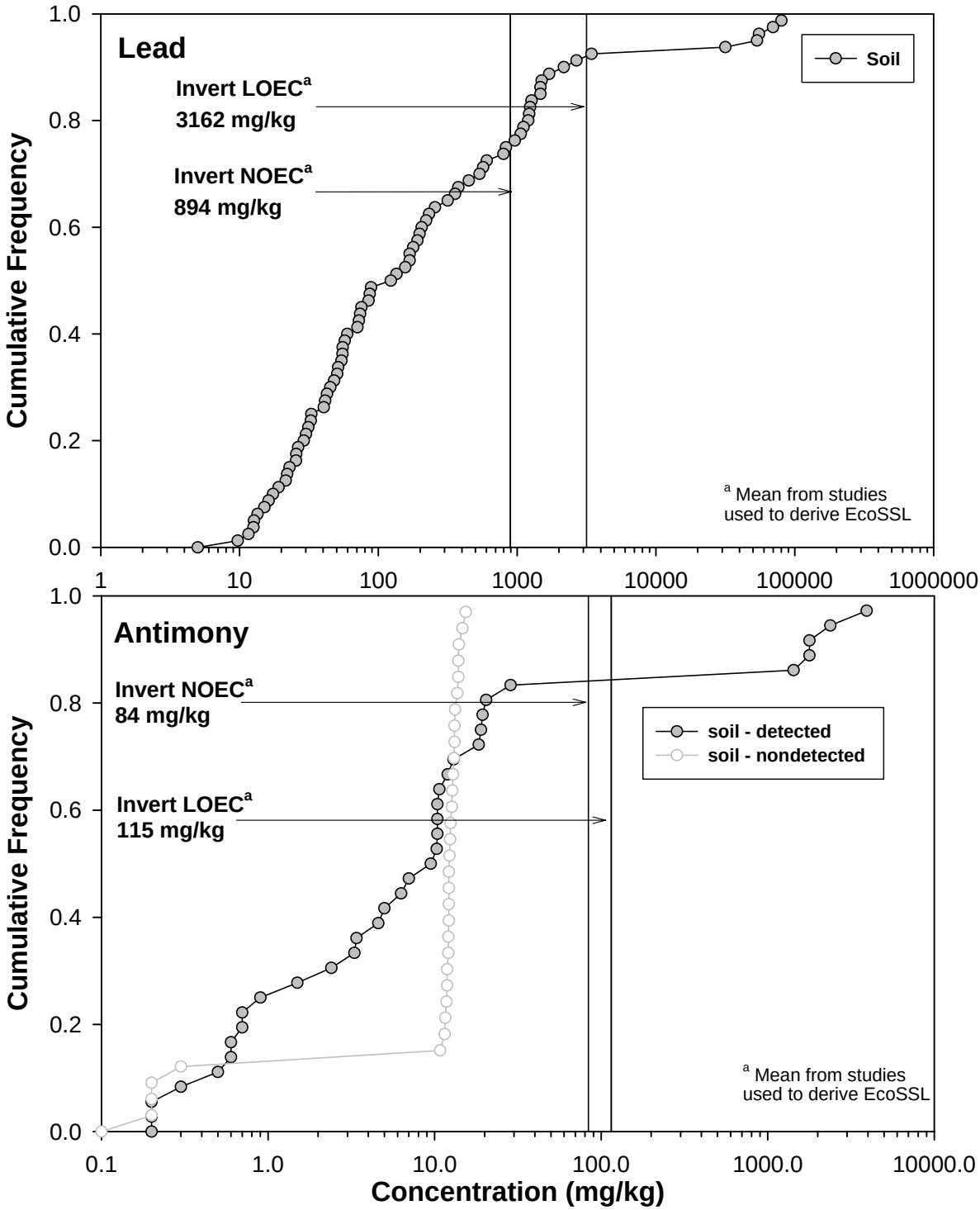


Figure 4-3. Point-by-point screening of lead and antimony in soil from Site 74 versus literature soil invertebrate toxicity values.

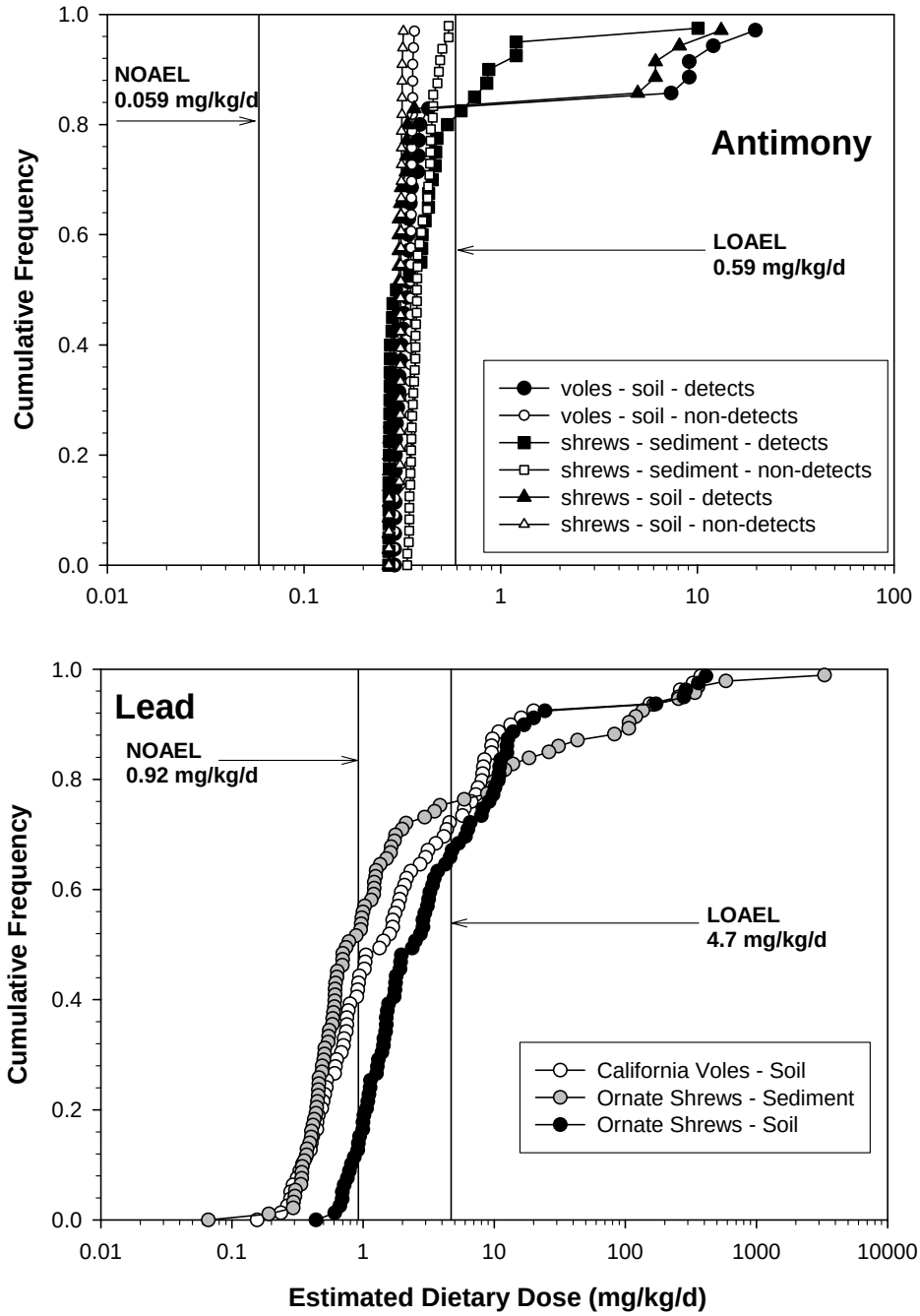


Figure 4-4. Comparison of cumulative distributions of estimated dietary exposure of mammalian receptors at Site 74 to antimony and lead to literature-derived NOAELs and LOAELs.

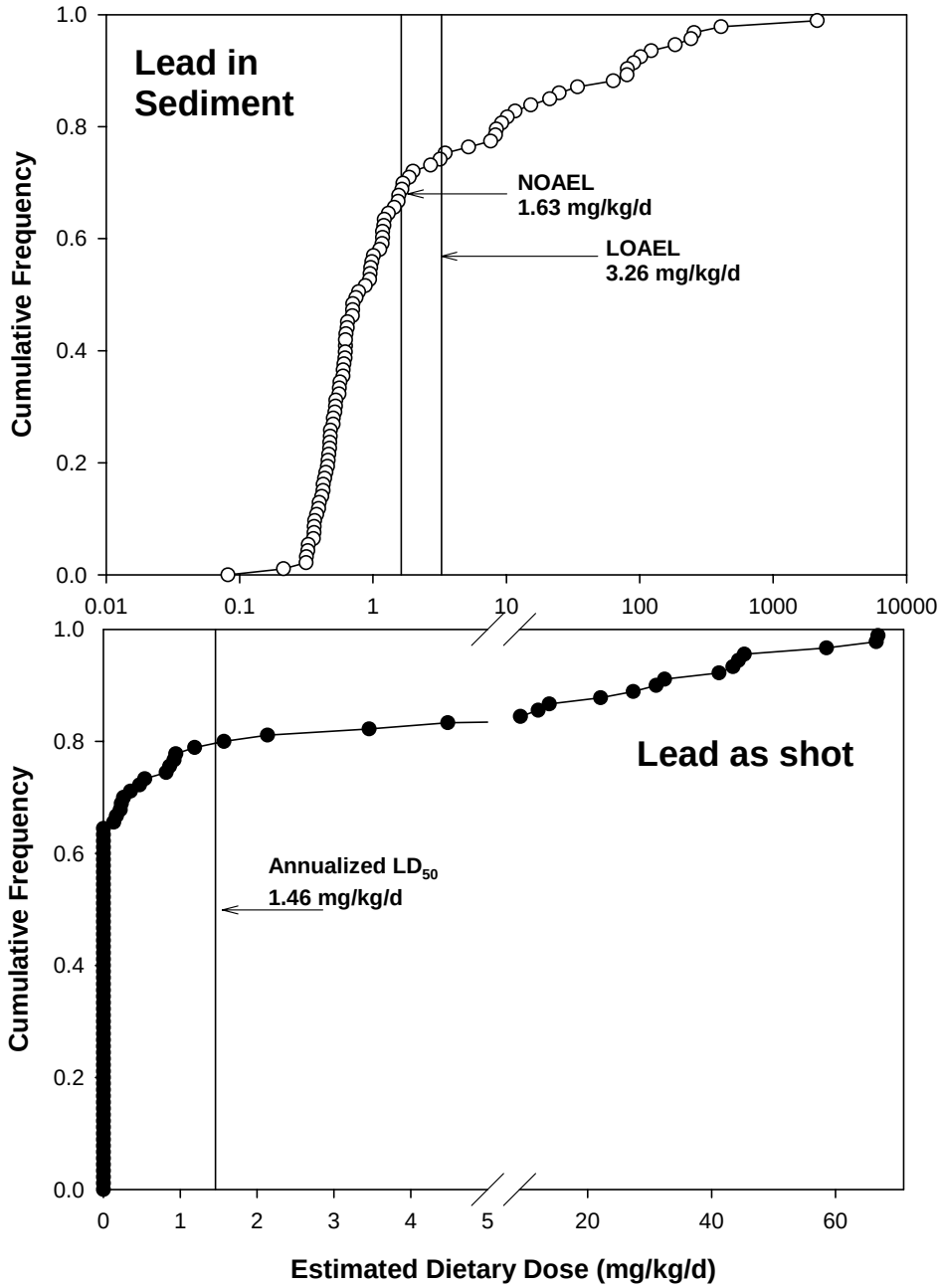


Figure 4-5. Comparison of cumulative distributions of estimated dietary exposures of light-footed clapper rails at Site 74 to lead in sediment and lead shot to literature-derived toxicity values.

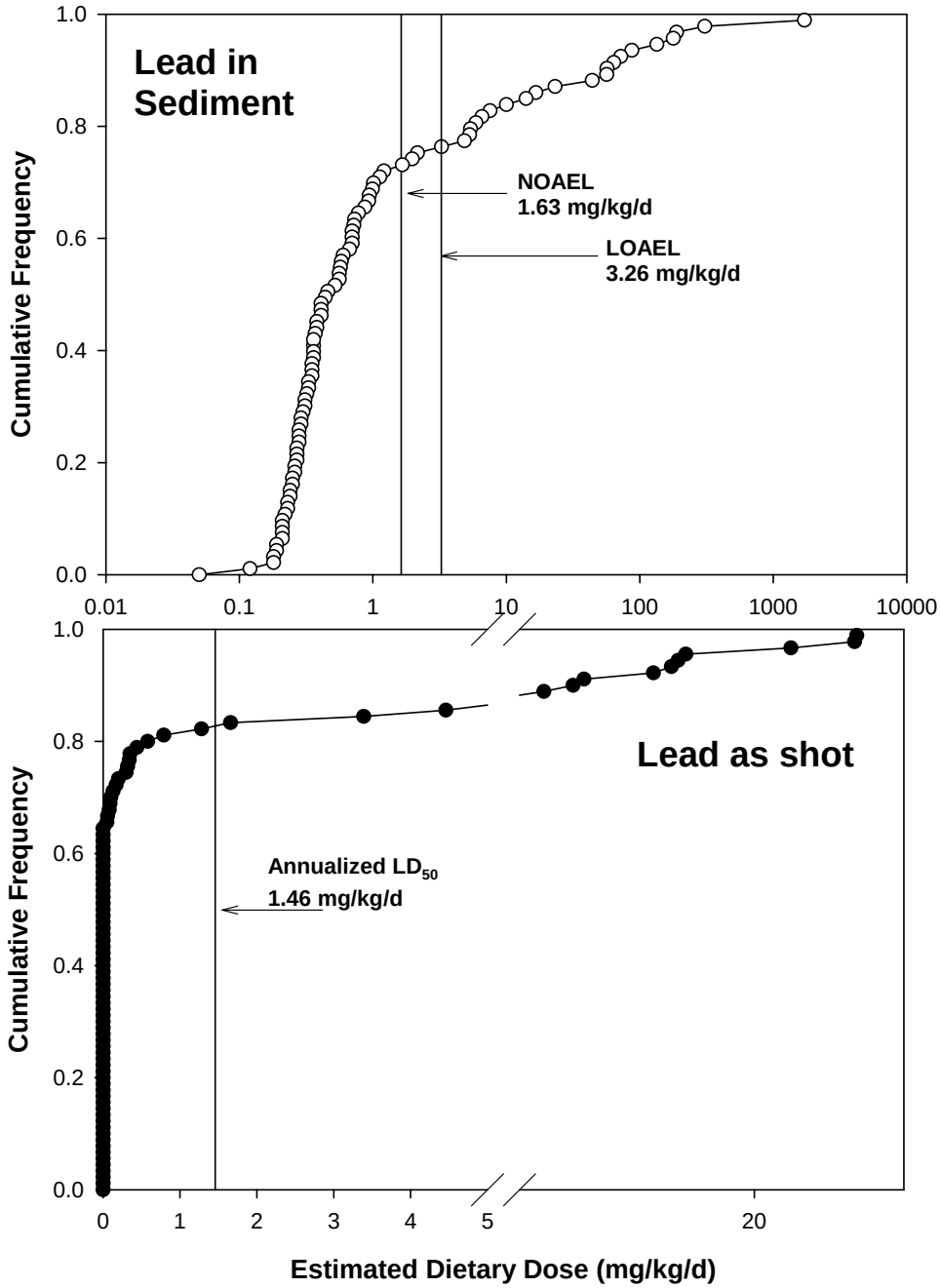


Figure 4-6. Comparison of cumulative distributions of estimated dietary exposures of mallards at Site 74 to lead in sediment and lead shot to literature-derived toxicity values.

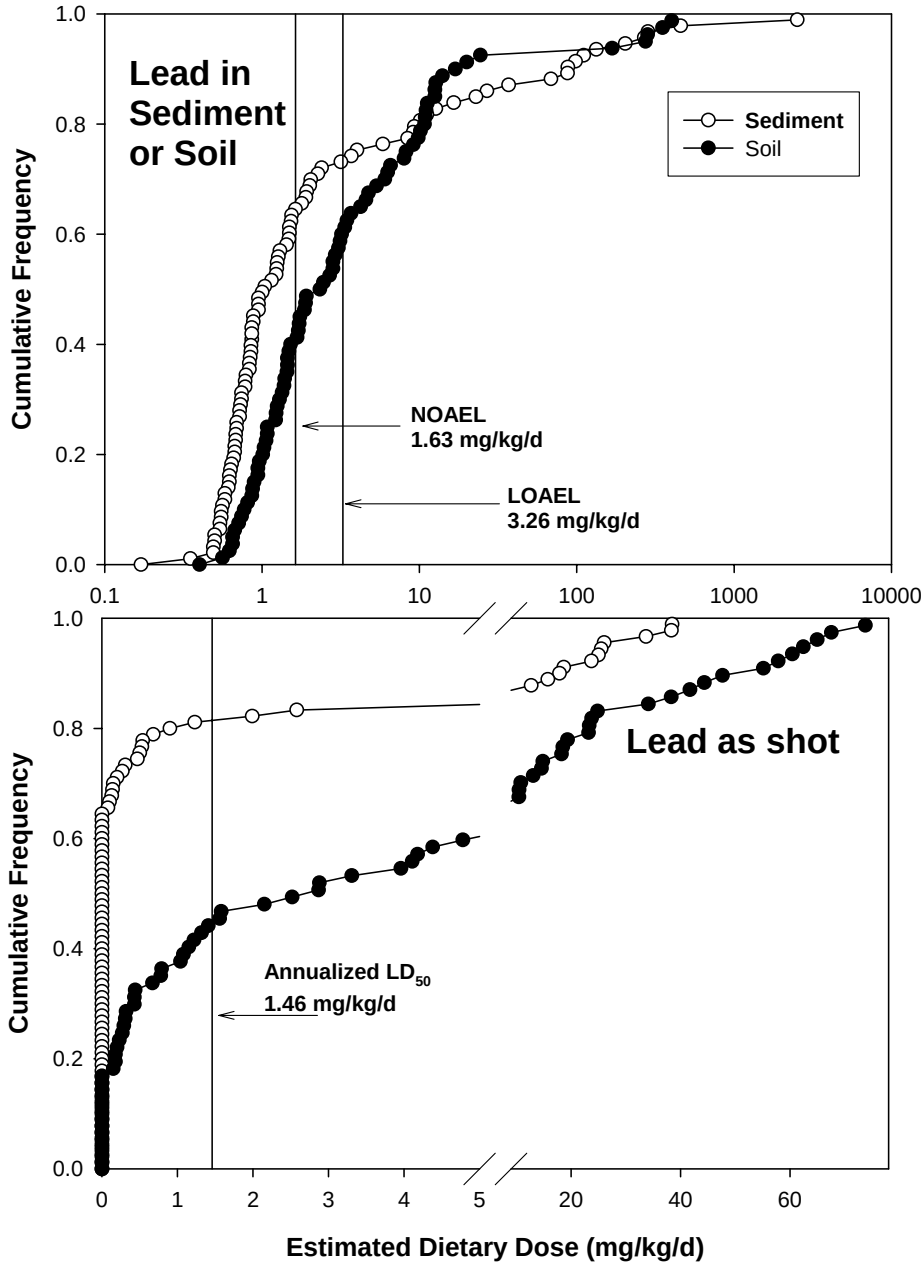


Figure 4-7. Comparison of cumulative distributions of estimated dietary exposures of Belding's savannah sparrows at Site 74 to lead and lead shot in sediment and soil to literature-derived toxicity values.

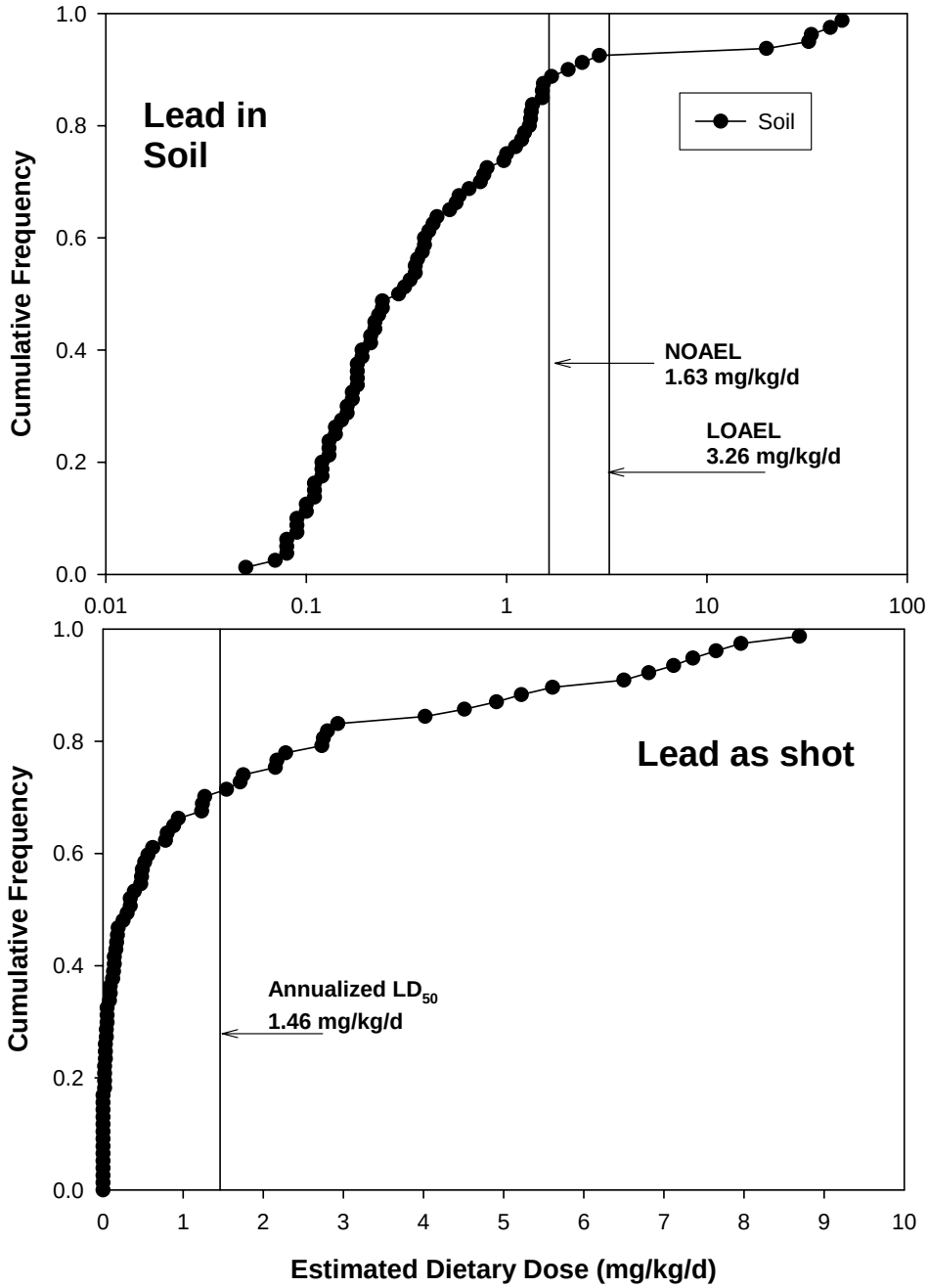


Figure 4-8. Comparison of cumulative distributions of estimated dietary exposures of western meadowlarks at Site 74 to lead and lead shot in soil to literature-derived toxicity values.

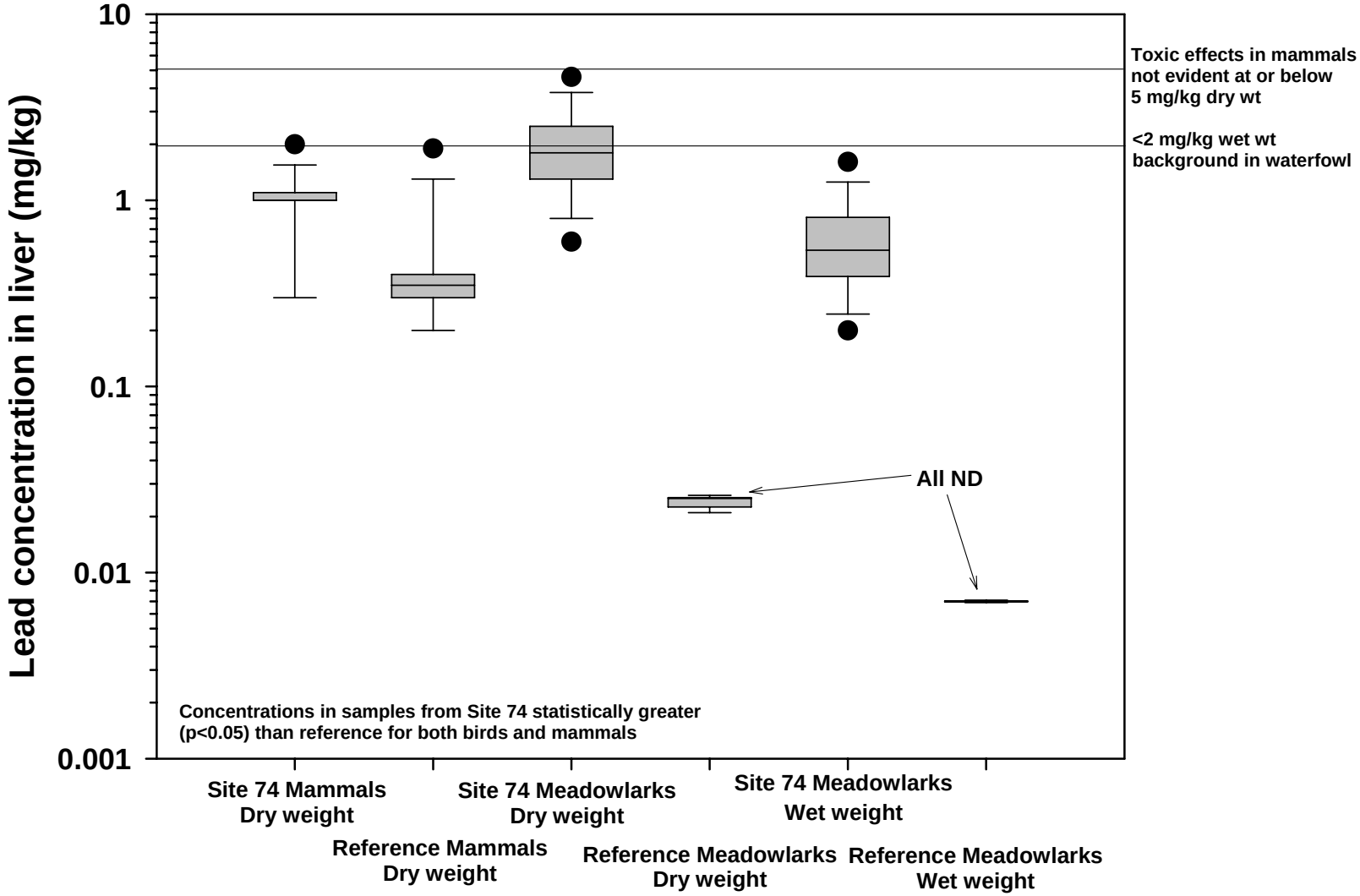


Figure 4-9. Comparison of distribution of measured concentrations of lead in liver of small mammals and western meadowlarks collected from Site 74 and from reference areas to literature-derived thresholds.

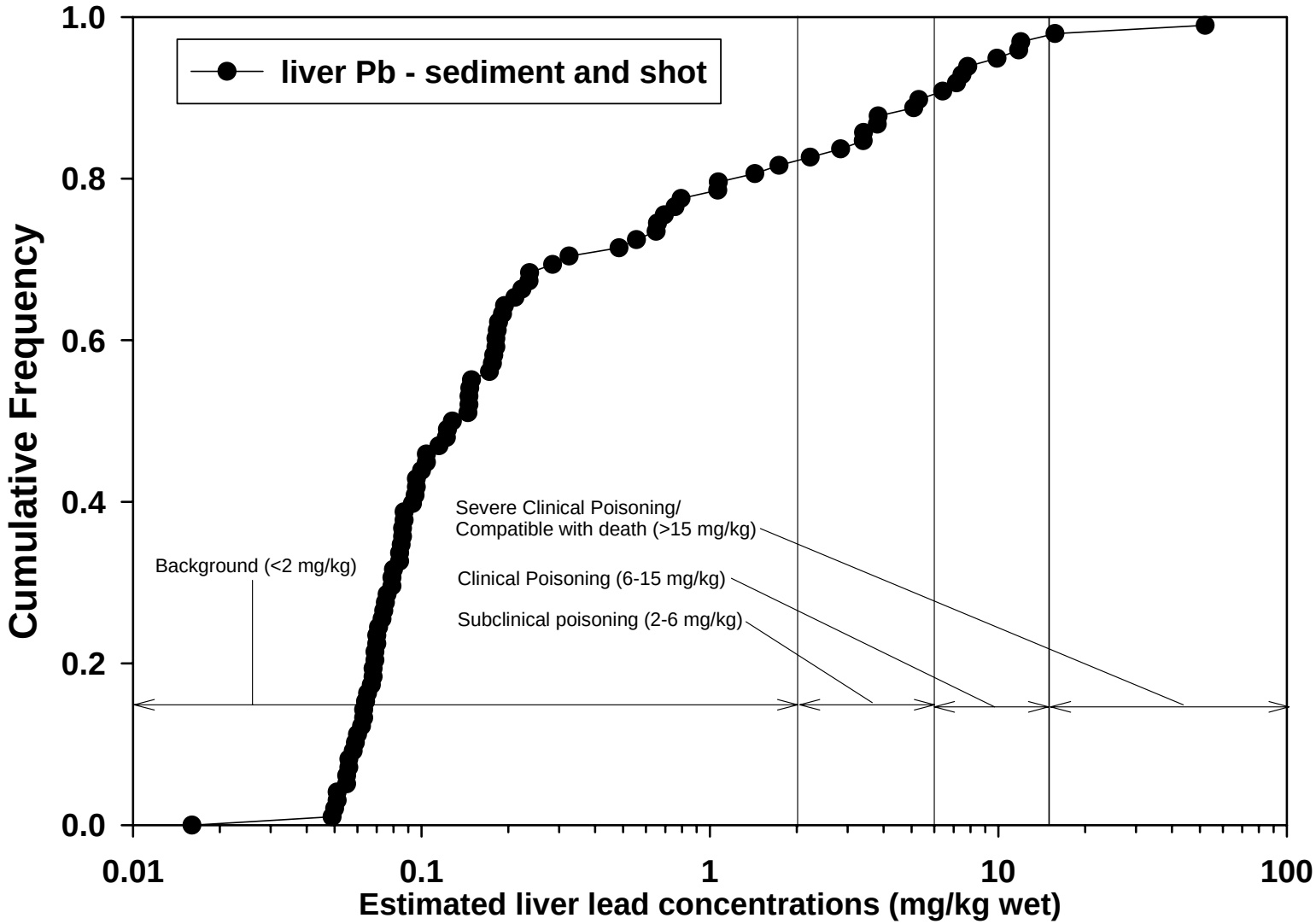


Figure 4-10. Estimated liver lead concentrations in mallards at Seal Beach Site 74 using the Coeur d'Alene sediment-liver bioaccumulation model.

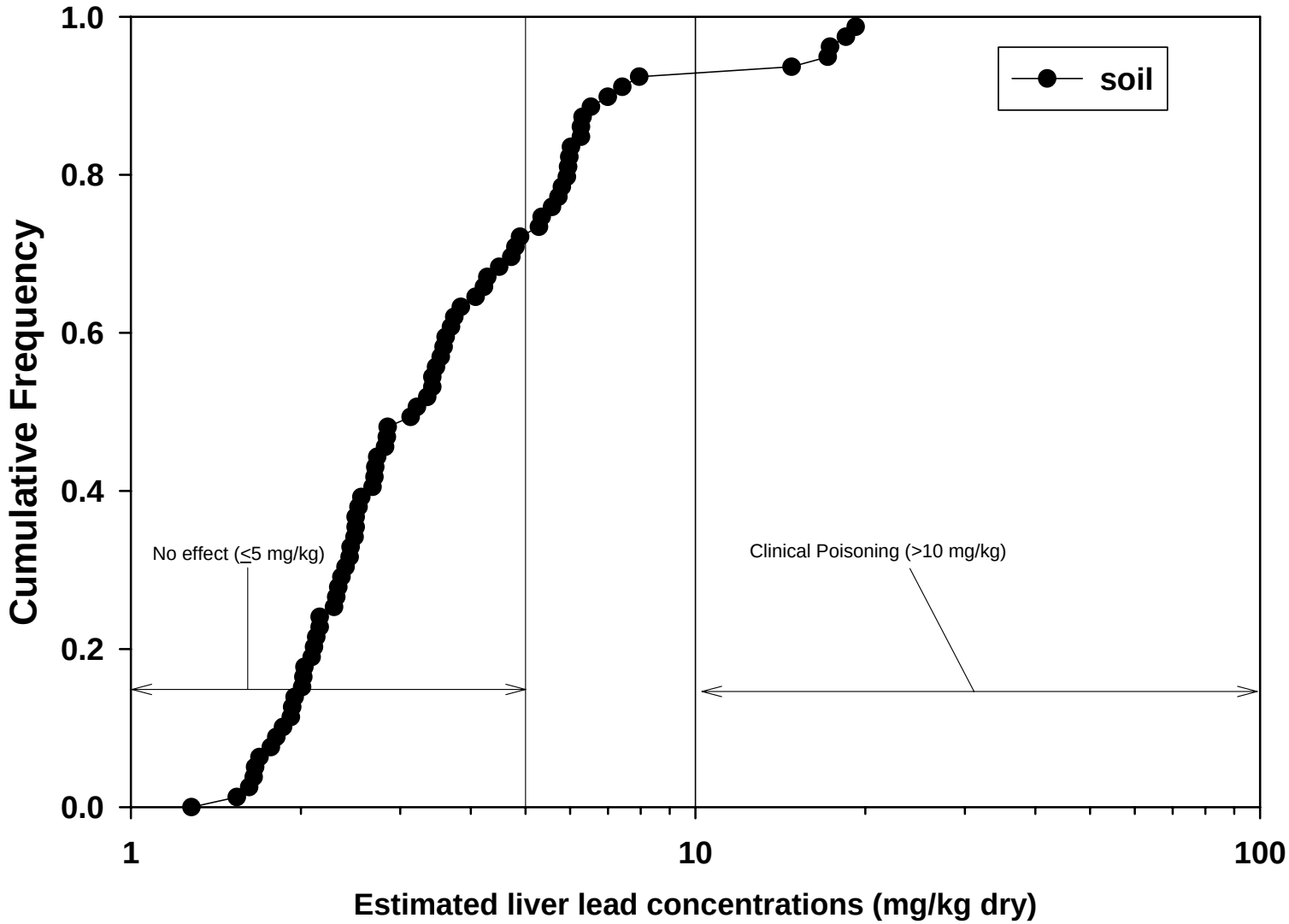


Figure 4-11. Estimated liver lead concentrations in voles at Seal Beach Site 74 using literature-based soil-liver bioaccumulation model.

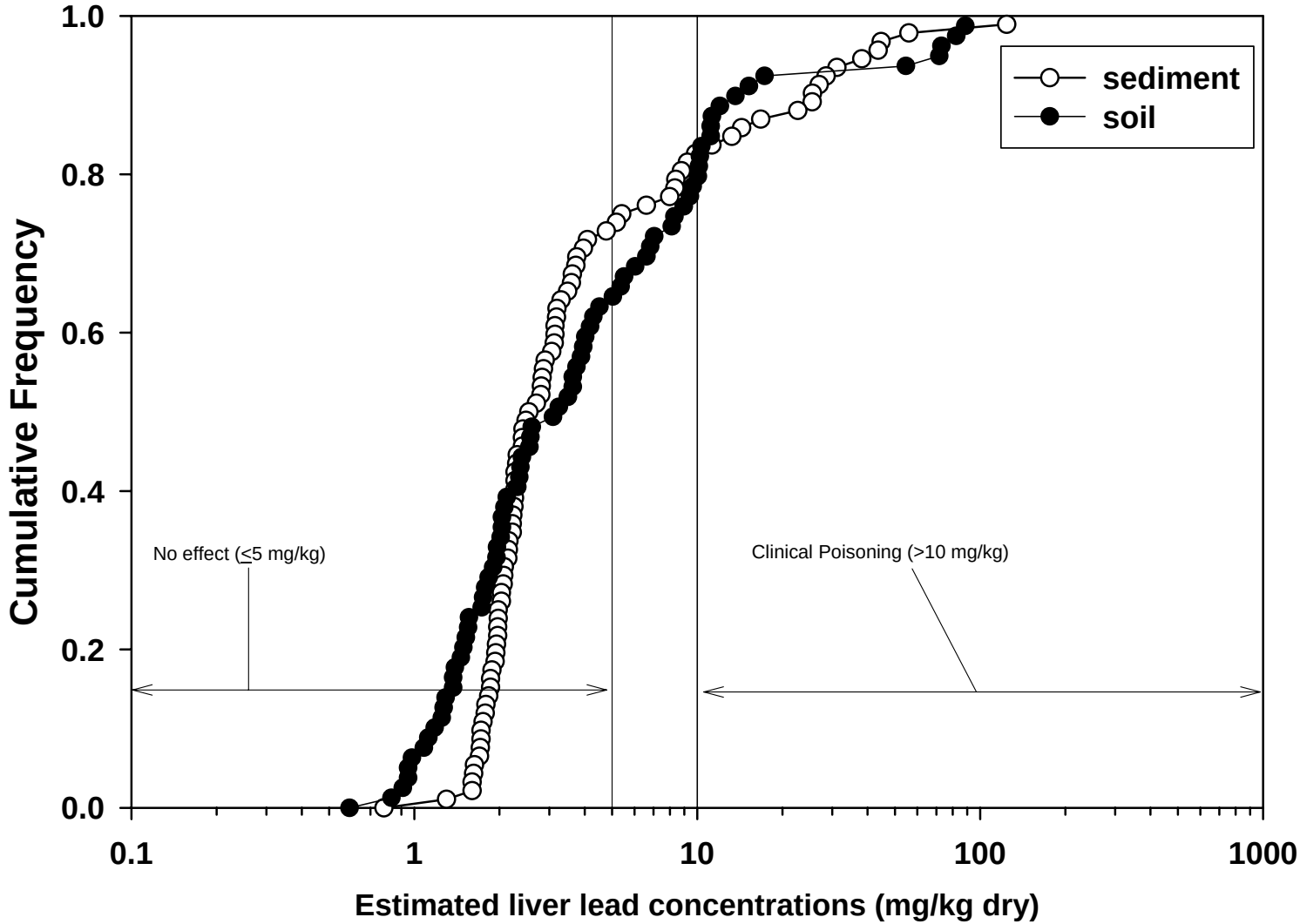
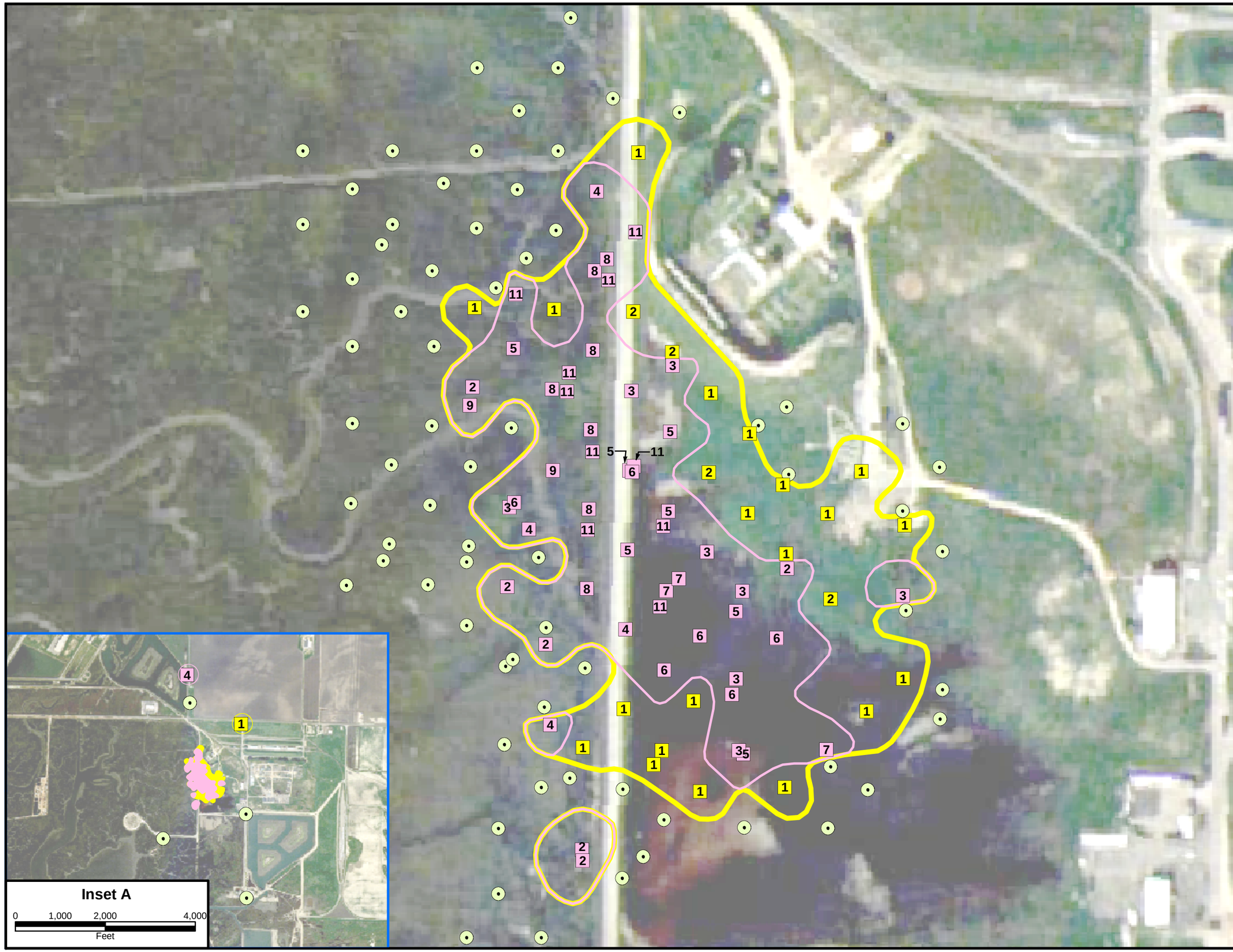


Figure 4-12. Estimated liver lead concentrations in shrews at Seal Beach Site 74 using literature-based soil-liver bioaccumulation model.



Legend

- Potential cleanup based on risks to California clapper rail from sediment, ornate shrew from soil, and western meadowlarks from lead shot
- Potential cleanup based on risks to Belding's savannah sparrow
- Leave in Place
- Potential cleanup footprint based on risks to California clapper rail from sediment, ornate shrew from soil, and western meadowlarks from lead shot
- Potential cleanup footprint based on risks to Belding's savannah sparrow

Notes:
Numbers represent the number of lines of evidence that exceeded risk decision criteria. See Table 5-1.

Potential cleanup areas based on 2000 and 2003 sampling events.

0 80 160 320
Feet

Figure 5-1
Potential Cleanup Footprints For Site 74
NAVWPNSTA Seal Beach
Tier II Ecological Risk Assessment

CH2MHILL

File Path: K:\NWSSB\plots\11X17_Prop_Action_draftv4.mxd, Date: August 11, 2004, User: NYOUNG

APPENDIXES

Appendix A
Field Data and Analytical Results

Appendix A.1
Field Notes

APPENDIX A.1

Field Notes

General Field Notes on Soil and Sediment Characteristics

Earl Byron
December 2003 Sampling

Soil

Most soil sampling locations were either barren or lightly covered by dried vegetation. The soil was dry, sandy, and powdery at most locations. The only soil invertebrates observed (and sampled) were low densities of beetle larvae and various-sized instars of Jerusalem crickets (*Orthoptera: Stenopelmatinae*), biota characteristic of these dry, sandy conditions.

Sediment

The sediment samples collected from the saltmarsh were uniformly water-saturated and mostly clay-like in nature. Samples were completely enmeshed with pickleweed roots in many locations and invertebrate burrows, plant stems, and roots permeated most samples.

CH2M HILL
Species Collection
Seal Beach National Wildlife Refuge
Site 74
Statement of Work

W.L. Ross
3640 Radnor Av.
Long Beach CA 90808

Purchase Order # 65322
Prime Contract No. N62474-96-D-6115
Project 171335.24.FW

On December 13, 2003 collection of avian species for CH2M Hill at Seal Beach Naval weapons station, project site 74, began under purchase order 65323. The project included a total of eight days of collection and monitoring. The project required 19.75 hours by the subcontractor. The field project contact, Gary Santola on February 09, 2004 notified the subcontractor that due to unfavorable field conditions it was no longer necessary to collect avian species from the area. The subcontractor had satisfactorily completed the scope of work.

Discussion

Prior to the start of the project, six scouting visits were made to site 74 during November and December 2003 to determine if any of the target species were using the site. On December 13, 2003 a field meeting to review the scope of work and procedures (including safety) was conducted prior to beginning species collection. The meeting included Gary Santola, Wally Ross and two other CH2M Hill field assistants. Station security was notified and species collection began at 07:30 a.m. The only target species available in site 74 was the Western Meadowlark (*Sturnella neglecta*). A total of nine meadowlarks were collected by the sub contractor and retained by Gary Santola. On December 14, 2003 a field meeting was conducted, station security was notified, and one

meadowlark was collected to complete the sample section of meadowlarks. One or more weekly visits to site 74 were made between December 14, 2003 and February 9, 2004 to determine if the remaining upland and shore bird sample species were using the area. A combination of high tides and rain were expected to enhance conditions so that some of the shore bird species would begin to use the area for roosting and foraging. On December 25, 2003 one-half inch of rain was recorded. A review of the area revealed that conditions did not provide enough moisture to wet the substrate enough to attract any shore birds. On January 2, 2004 two-tenths of an inch of rain was recorded, and on January 16, an additional three-tenths was recorded with no observation of target species using the area. On February 3, 2004, six-tenths of rain was recorded. It was observed that no additional species were using the area. Each time phone calls were made to Gary Santola to inform him of the site situation. On February 9, 2004 it was determined that it was not likely that a timely collection of species would be possible. Avian species collection was terminated at the request of Gary Santola.

Avian species observed:

Rufous Crowned Sparrow	Horned Lark
Song Sparrow	Red-tailed Hawk
Meadowlark	American Crow
Starling	Common Raven
Northern Harrier	Killdeer
American Kestrel	Black Phoebe
White-Crowned Sparrow	Northern Mockingbird
Say's Phoebe	Mourning Dove
Loggerhead Shrike	

SUPPLIMENTAL FIELD NOTES

CH2MHILL

SBNWR

DATE DEC 13, 2003 **LOCATION** AREA 74 **NAME** W ROSS

0600 →

0620 ARRIVED SECURITY OFFICE - NOTIFIED SECURITY OF ACTIVITIES AREA 74

0628 ARRIVED 226 PICKED UP RADIO -

0630 ARRIVED AREA 74

0730 BEGIN - CALLED DISPATCH

0915 2 MEADOWLARKS TAKEN OUTSIDE 74

0945 REMOVED 2 MEADOW LARKS OUTSIDE 74

0948 REMOVED 1 MEADOW LARK OUTSIDE 74

1000 CONTACTED BY SECURITY ABOUT WEAPONS

1030 OK

1030 COMPLETED UNTIL PM.

1100 -

1240 →

1300 ARRIVED SITE

1345 CALLED SECURITY

SEE PAGE 2

NOTE: RUFOUS-CROWNED SPARROW - SONG SPARROW - STARLING HARRIER - KESTREL - WHITE-CROWNED SPARROW SAYS PHOBE SHRIKE

SEE PAGE 1

2

SUPPLIMENTAL FIELD NOTES

CH2MHILL

DATE DEC, 13.2003 **LOCATION** SBNWR AREA 74 **NAME** W ROSS

1600 REMOVED 3 MEADOW LARKS OUTSIDE AREA

- REMOVED 1 MEADOW LARK INSIDE AREA.

1605 DEPARTING - CHECKED OUT WITH DISPATCH

1630

NOTE: BLACK PHOBE

TOTAL FOR DAY
8 MEADOWLARKS OUT
1 INSIDE ARE 74

2.0

SUPPLIMENTAL FIELD NOTES

CH2MHILL

DATE DEC. 14, 2003 LOCATION SBNWR AREA 74 NAME W ROSS

0940 -

1000 ARRIVED REFERENCE SITE

1020 CALLED SECURITY

1100 REMOVED 1 MEADOW LARK

1145 CHECKED OUT WITH DISPATCH - END

NO WILLITS IN AREA OR BLACKBELLIED PLOVERS

NOTE: HORNED LARK

TOTAL 10 FOR PROJECT

12

1.5

SUPPLIMENTAL FIELD NOTES

CH2MHILL

DATE DEC. 25, 2003 LOCATION AREA 74 SBNWR NAME W ROSS

RAINING

0900 –

0930 ALLOWED TO COME ON BASE

0940 AREA 74 S END BEGINING TO FILL WITH TIDE WATERS DUE TO PLUS TIDES. ALSO IF RAIN CONTINUES WILL HELP ADD WATER. WILLETS BEGINING TO USE AREA DUE TO WATER & MUD FLAT CONDITIONS MORE MEADOWLARKS IN AREA ALSO. THIS MAY BRING BLACK BELLIED PLOVERS IF TIDES & RAIN CONTINUE.

→ WILL CALL GARY TO LET HIM KNOW STATUS.

0940 DEPARTING

0959 –

1019 CALLED GARY S WITH INFO

1030 END –

NOTE:

1,5

SUPPLIMENTAL FIELD NOTES

CH2MHILL

DATE 1/12/2K04 **LOCATION** SBNWR AREA 74 **NAME** W ROSS

0900 ARRIVED 226 PICKED UP RADIO -

0920 ARRIVED AREA 74

2 SAYS PHOEBE

3 SONG SPARROWS

1 BLACK PHOEBE

0945 CALLED GARY TO FYI. HIGH TIDES TO 7FT BETWEEN JAN 18 → 24 MAY ENHANCE AREA FOR ROOSTING SHORE BIRDS.

1020 —

NOTE:

1.25

SUPPLIMENTAL FIELD NOTES

CH2MHILL

DATE JAN 23, 2K04 **LOCATION** AREA 74 SBNWR **NAME** W ROSS

0845 ARRIVED 226 FOR RADIO

0900 PASS & I.D.

0920 ARRIVED AREA 74

0930 SOME WATER VERY FAR CORNER SW

IN CELL NO WILLETS OR BB PLOVERS.

0945 CALLED GARY S. LEFT MESSAGE

ON VOICE MAIL

1000 —

NOTE:

1.0

SUPPLIMENTAL FIELD NOTES

CH2MHILL

DATE JAN. 29, 2004 **LOCATION** AREA 74 SBNWR **NAME** W ROSS

0740 ARRIVED 226 FOR RADIO

0750 ARRIVED AREA 74

0800 2 COYOTES IN IMPACT AREA.

1 SAYS PHOEBE ROUFOUS CROWNED SPARROW

0815 CALLED GARY S. (VOICE MAIL UPDATE)

0840 ←

NOTE:

1.5

SUPPLIMENTAL FIELD NOTES

CH2MHILL

DATE FEB 9 2K04 LOCATION SBNWR AREA 74 NAME W ROSS

0800 PICKED UP RADIO FROM 226

0810 8 KILLDEER ON AREA 74

0908 CALLED GARY S. WORK FOR ME HAS BEEN COMPLETED AS OF TODAY PER GARY S.

0930 —

NOTE:

Appendix A.2
Field Photographs

APPENDIX A.2

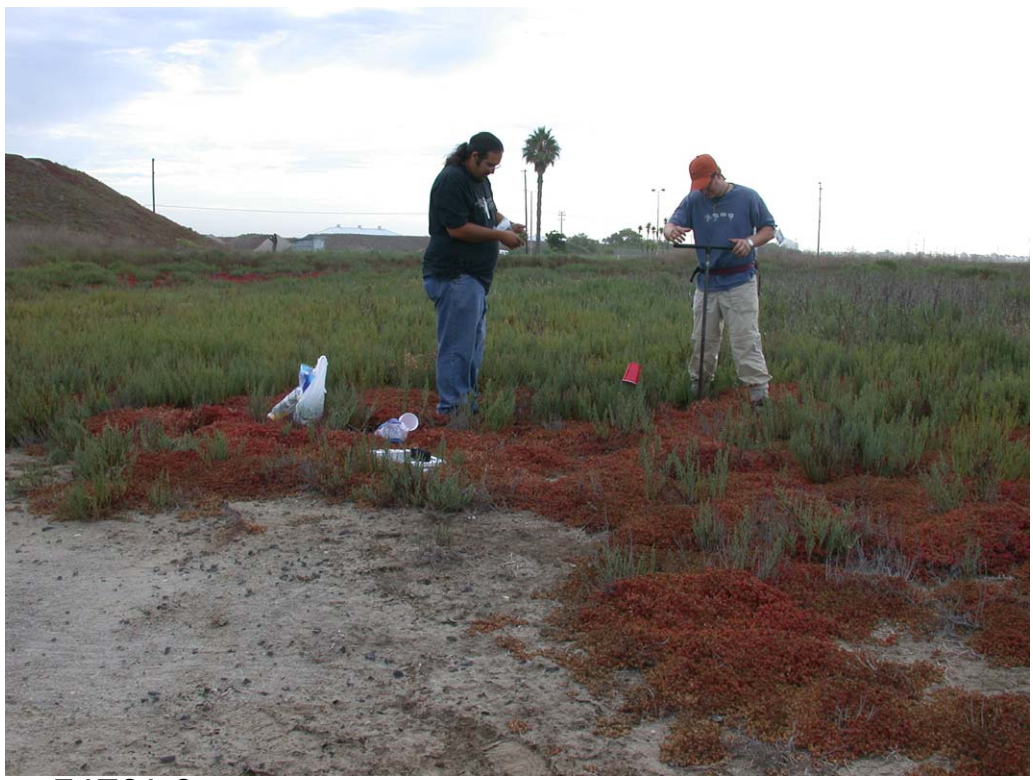
Field Photographs

74E01-1

74E01-4

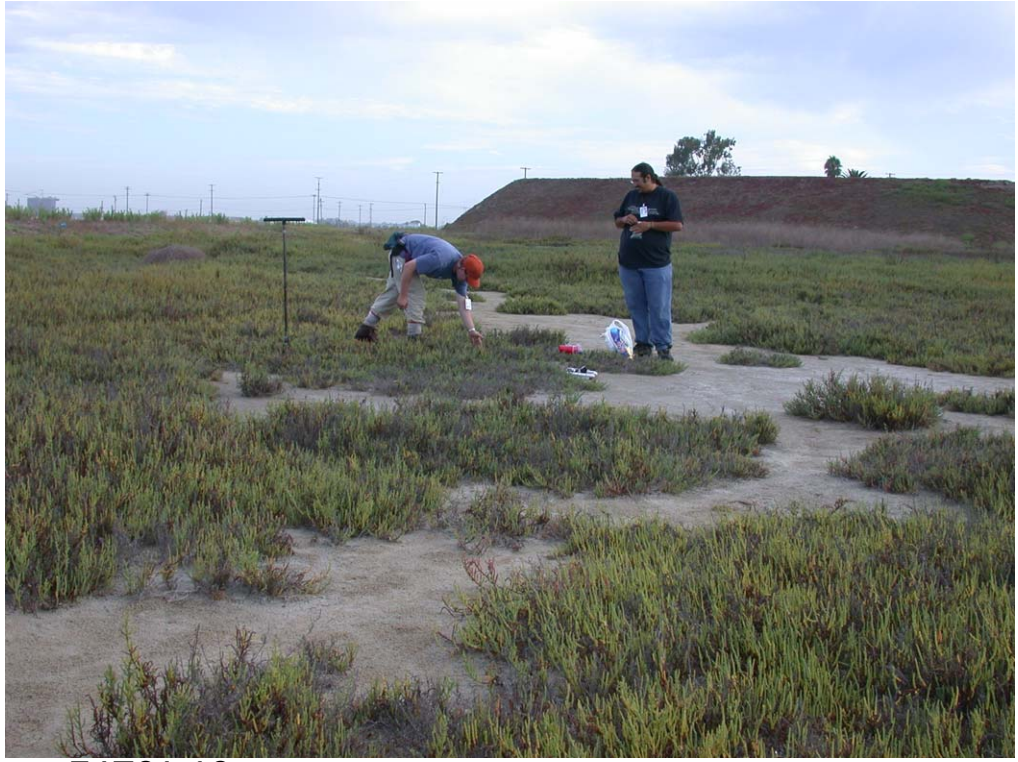
Figure A.2-1. Sampling locations 74E01-1 and 74E01-4, August 2003.

74E01-7



74E01-9

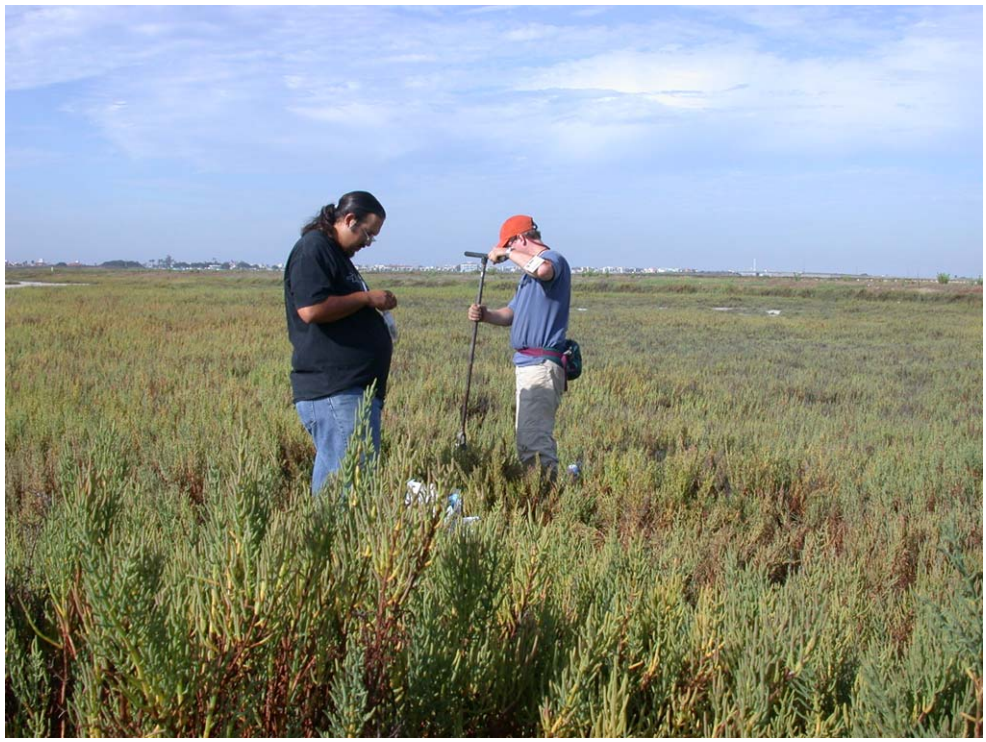
Figure A.2-2. Sampling locations 74E01-7 and 74E01-9, August 2003.



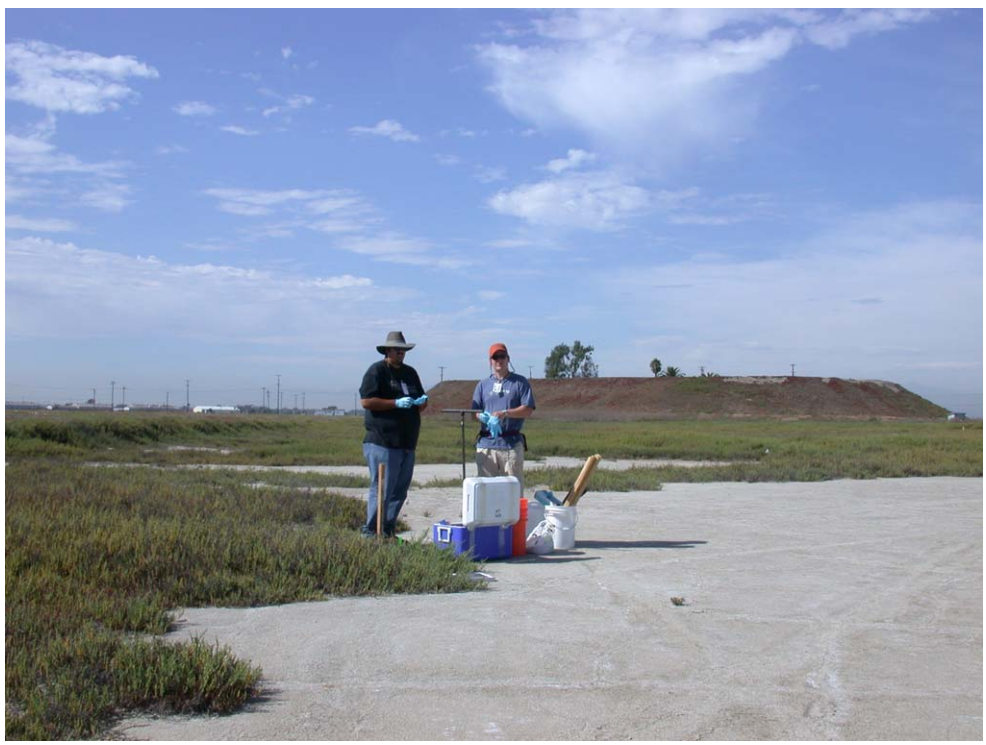
74E01-10

74E01-20

Figure A.2-3. Sampling locations 74E01-10 and 74E01-20, August 2003.



74E01-24



74E01-27

Figure A.2-4. Sampling locations 74E01-24 and 74E01-27, August 2003.

74E01-29

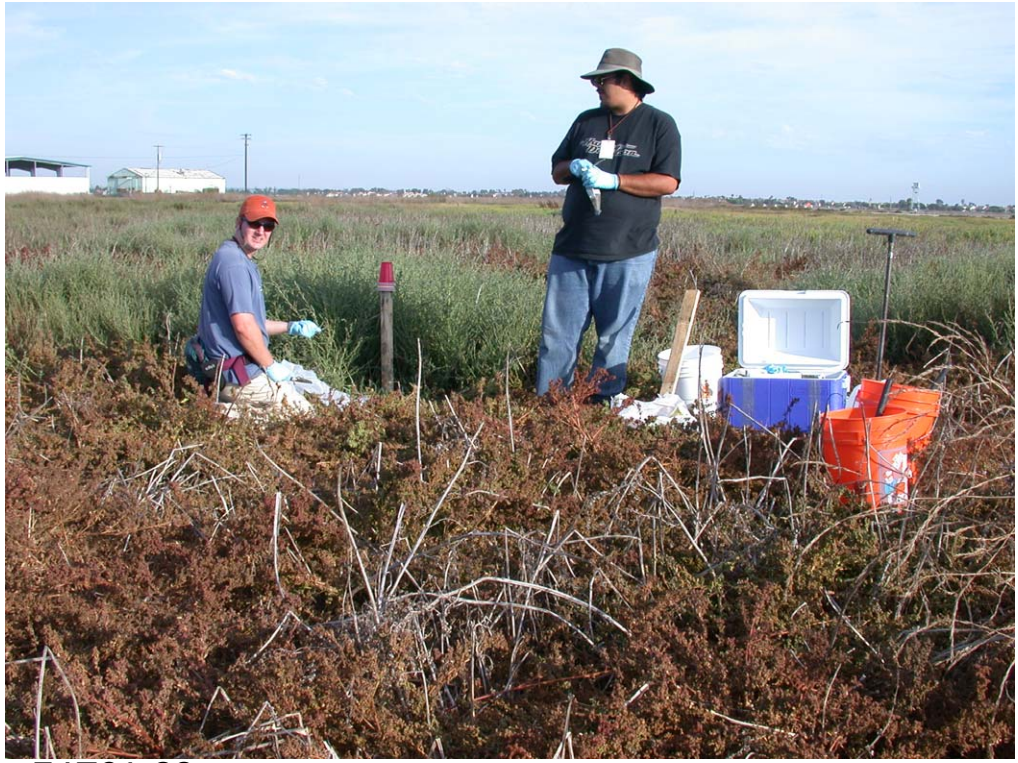
74E01-30

Figure A.2-5. Sampling locations 74E01-29 and 74E01-30, August 2003.

74E01-37

74E01-41

Figure A.2-6. Sampling locations 74E01-37 and 74E01-41, August 2003.



74E01-32

74E01-49

Figure A.2-7. Sampling locations 74E01-32 and 74E01-49, August 2003.

74E01-43a

74E01-43b

Figure A.2-8. Sampling location 74E01-43 (two views), August 2003.

74E02-41

74E02-46

Figure A.2-9. Sampling locations 74E02-41 and 74E02-46, August 2003.

74E02-37a

74E02-37b

Figure A.2-10. Sampling location 74E02-37 (two views), August 2003.

74E02-38

74E02-36

Figure A.2-11. Sampling locations 74E02-38 and 74E02-36, August 2003.

74E02-26

74E02-4

Figure A.2-12. Sampling locations 74E02-26 and 74E02-4, August 2003.

74E02-5

74E02-28

Figure A.2-13. Sampling locations 74E02-5 and 74E02-28, August 2003.

74E02-44

74E02-35

Figure A.2-14. Sampling locations 74E02-44 and 74E02-35, August 2003.

74E02-15

74E02-16

Figure A.2-15. Sampling locations 74E02-15 and 74E02-16, August 2003.

74E02-52a

74E02-52b

Figure A.2-16. Sampling location 74E02-52 (two views), August 2003.

74E02-39

Figure A.2-17. Sampling location 74E02-39, August 2003.

74B02-52

74B02-41

Figure A.2-18. Sampling locations 74B02-52 and 74B02-41, December 2003.

74B02-35

74B02-36

Figure A.2-19. Sampling locations 74B02-35 and 74B02-36, December 2003.

74B02-26

74B03-3 (sediment)

Figure A.2-20. Sampling locations 74B02-26 and 74B03-3 (sediment), December 2003.

74B01-27

74B01-10

Figure A.2-21. Sampling locations 74B01-27 and 74B01-10, December 2003.

74B01-43

74B02-15

Figure A.2-22. Sampling locations 74B01-43 and 74B02-15, December 2003.

74B02-5

74B02-46

Figure A.2-23. Sampling locations 74B02-5 and 74B02-46, December 2003.

74B01-20

74B01-9

Figure A.2-24. Sampling locations 74B01-20 and 74B01-9, December 2003.

74B01-4

74B03-2 (sediment)

Figure A.2-25. Sampling locations 74B01-4 and 74B03-2 (sediment), December 2003.

74B03-1 (sediment)

74B03-3 (soil)

Figure A.2-26. Sampling locations 74B03-1(sediment) and 74B03-3 (soil), December 2003.

74B03-2 (soil)

74B03-1 (soil)

Figure A.2-27. Sampling locations 74B03-2(soil) and 74B03-1 (soil), December 2003.

74B01-32

74B01-7

Figure A.2-28. Sampling locations 74B01-32 and 74B01-7, December 2003.

74B01-1

Figure A.2-29. Sampling location 74B01-1, December 2003. (Note: a photograph was not available for location 74B02-44, also sampled December 2003.)

	UTM ZONE 11	UTM ZONE 11			UTM ZONE 11	NAD 27
DESIGNATIO	NORTHING	EASTING	ELEVATION	Comments	NORTHING	EASTING
74B01	12250678.85	1315854.276	3.922898		3734006.913	401072.38
74B04	12250822.71	1315715.49	5.046287		3734050.762	401030.08
74B07	12250894.65	1315645.967	4.236794		3734072.69	401008.89
74B09	12250611.93	1315641.022	3.167428		3733986.516	401007.38
74B10	12250470.51	1315638.563	2.643375		3733943.412	401006.63
74B20	12250691.51	1315579.48	4.853364		3734010.773	400988.63
74B24	12250470.16	1315774.076	3.245903		3733943.304	401047.94
74B27	12250186.22	1315632.588	2.500107		3733856.761	401004.81
74B29	12250180.9	1315777.506	2.591567		3733855.138	401048.98
74B30	12250314.88	1315763.654	2.103191		3733895.975	401044.76
74B32	12250537.88	1315851.504	3.693214		3733963.946	401071.54
74B37	12250190.05	1315925.052	2.801		3733857.929	401093.96
74B41	12250033.3	1315637.073	2.978		3733810.15	401006.18
74B43	12250464.77	1316059.413	3.722		3733941.663	401134.91
74B49	12250615.13	1316057.684	4.105		3733987.491	401134.38
74G04	12250755.84	1315502.067	1.61694		3734030.38	400965.03
74G05	12250614.42	1315499.626	2.093431		3733987.275	400964.29
74G09	12251251.71	1315440.128	1.839717		3734181.52	400946.15
74G15	12250403.6	1315425.21	0.904223		3733923.018	400941.6
74G16	12250262.3	1315422.749	2.178624		3733879.949	400940.85
74G26	12250830.13	1315291.332	1.208818		3734053.025	400900.8
74G28	12250547.48	1315286.386	2.125467		3733966.871	400899.29
74G35	12250625.34	1315367.016	1.608385		3733990.604	400923.87
74G36	12250856.88	1315462.861	2.002362		3734061.177	400953.08
74G37	12251059.99	1315385.394	1.555069		3734123.084	400929.47
74G38	12251059.44	1315528.809	1.638184		3734122.917	400973.18
74G39	12250119.26	1315418.527	2.147042		3733836.352	400939.57
74G44	12250550.31	1315144.87	2.044014		3733967.735	400856.16
74G46	12251118.86	1315146.938	1.654129		3734141.028	400856.79
74G52	12250008.7	1315491.886	2.461702		3733802.652	400961.93

Table A.2-1

Photograph Log for the August 2003 Sampling at Site 74

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Date	Time	Site	Station	Photo No.	Subject	Task	Orientation	Name
13-Aug-03	727	74E01	1	1	Soil	Sampling	E	GMS
13-Aug-03	730	74E01	4	2	Soil	Sampling	NE	GMS
13-Aug-03	755	74E01	7	3	Soil	Sampling	W	GMS
13-Aug-03	811	74E01	9	4	Soil	Sampling	E	GMS
13-Aug-03	826	74E01	10	5	Soil	Sampling	N	GMS
13-Aug-03	837	74E01	20	6	Soil	Sampling	N	GMS
13-Aug-03	854	74E01	24	7	Soil	Sampling	S	GMS
13-Aug-03	1607	74E01	27	8	Soil	Sampling	N	GMS
13-Aug-03	1630	74E01	29	9	Soil	Sampling	E	GMS
13-Aug-03	1644	74E01	30	10	Soil	Sampling	E	GMS
13-Aug-03	1707	74E01	37	11	Soil	Sampling	E	GMS
13-Aug-03	1728	74E01	41	12	Soil	Sampling	N	GMS
13-Aug-03	1802	74E01	32	13	Soil	Sampling	S	GMS
13-Aug-03	1832	74E01	49	14	Soil	Sampling	S	GMS
13-Aug-03	1847	74E01	43	15	Soil	Sampling	W	GMS
14-Aug-03	937	74E02	41	1	Sed	Sampling	W	GMS
14-Aug-03	1722	74E02	46	2	Sed	Sampling	W	GMS
14-Aug-03	1715	74E02	37	3	Sed	Sampling	W&N	GMS
14-Aug-03	1618	74E02	38	4	Sed	Sampling	S	GMS
14-Aug-03	1738	74E02	36	5	Sed	Sampling	E	GMS
14-Aug-03	1745	74E02	26	6	Sed	Sampling	E	GMS
14-Aug-03	1837	74E02	4	7	Sed	Sampling	E	GMS
14-Aug-03	1841	74E02	5	8	Sed	Sampling	E	GMS
15-Aug-03	700	74E02	28	9	Sed	Sampling	W	GMS
15-Aug-03	711	74E02	44	10	Sed	Sampling	W	GMS
15-Aug-03	727	74E02	35	11	Sed	Sampling	W	GMS
15-Aug-03	809	74E02	15	12	Sed	Sampling	W	GMS
15-Aug-03	835	74E02	16	13	Sed	Sampling	W	GMS
15-Aug-03	952	74E02	52	15	Sed	Sampling	W	GMS
15-Aug-03	843	74E02	39	14	Sed	Sampling	W	GMS

Table A.2-2

Photograph Log for the December 2003 Sampling at Site 74

Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Date	Time	Site	Station	Subject	Photo No.	Task	Orientation	Name
15-Dec-03	1530	74B02	52	Sed	1	Sampling	W	GMS
15-Dec-03	1215	74B02	41	Sed	2	Sampling	NNW	GMS
15-Dec-03	1115	74B02	35	Sed	3	Sampling	NW	GMS
15-Dec-03	1030	74B02	36	Sed	4	Sampling	NW	GMS
15-Dec-03	915	74B02	26	Sed	5	Sampling	N	GMS
15-Dec-03	800	74B03	3	Sed	6	Sampling	N	GMS
14-Dec-03	1600	74B01	27	Soil	7	Sampling	SE	GMS
14-Dec-03	1530	74B01	10	Soil	8	Sampling	SE	GMS
14-Dec-03	1500	74B01	43	Soil	9	Sampling	SE	GMS
14-Dec-03	1145	74B02	15	Sed	10	Sampling	N	GMS
14-Dec-03	1100	74B02	5	Sed	11	Sampling	N	GMS
13-Dec-03	1700	74B02	46	Sed	12	Sampling	W	GMS
13-Dec-03	1550	74B01	20	Soil	13	Sampling	N	GMS
13-Dec-03	1525	74B01	9	Soil	14	Sampling	SSE	GMS
13-Dec-03	1500	74B01	4	Soil	15	Sampling	NE	GMS
13-Dec-03	1440	74B03	2	Sed	16	Sampling	N	GMS
13-Dec-03	1415	74B03	1	Sed	17	Sampling	SE	GMS
13-Dec-03	1130	74B03	3	Soil	18	Sampling	N	GMS
13-Dec-03	1100	74B03	2	Soil	19	Sampling	NW	GMS
13-Dec-03	830	74B03	1	Soil	20	Sampling	NW	GMS
13-Dec-03	945	74B01	32	Soil	21	Sampling	SE	GMS
13-Dec-03	930	74B01	7	Soil	22	Sampling	NW	GMS
13-Dec-03	1030	74B01	1	Soil	24	Sampling	NE	GMS
14-Dec-03	945	74B02	44	Sed	none	Sampling		GMS

Notes:

Photograph number 23 was of a location that was not sampled.

Appendix A.3
Analytical Chemistry Database

APPENDIX A.3

Analytical Chemistry Database

Complete project analytical chemistry database for Site 74, NAVWPNSTA Seal Beach. Provided on attached CD.

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
Coords	.	74B01BA0-008	74E01BA0-008	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	008	13-Dec-03	0-Jan-00	71738	MISC	AP63171	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.5	.		g		Lead	0.02	1.9	1	6020	17-Dec-03	67.7	LDC		.				5
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	12.3	UN		g		Y	.	.		(Total)		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	32.6	.		g		LEAD	.	.		(Total)		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	10000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	20000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	620	J		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	7600	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	18000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	12000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	14000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	7700	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	11000	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	2100	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	8000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	2100	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	15000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	10000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	2300	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-1	74B01SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	9300	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	13	UN		g		Y	.	.		(Total)		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	5.6	.		g		LEAD	.	.		(Total)		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	210	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	9	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	8	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	13	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	20	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	7.9	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	16	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B01	74B01-00	74B01SA0-2	74B01SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B01SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	11	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63639	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	7.7	.		pH Units		pH	0	0	1	9045C	24-Dec-03	4.2	LDC		.				43437
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	95	.		ug/kg		Methylnap	11.2	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	790	.		ug/kg		ene	18.7	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	70	U		ug/kg		ylene	18.2	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	540	.		ug/kg		e	15.9	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	6100	.		ug/kg		nthracene	19.4	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	10000	.		ug/kg		rene	15.5	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	6500	.		ug/kg		uoranthene	23.4	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	3300	.		ug/kg		)perylene	21	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	3900	.		ug/kg		oranthene	19.7	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	9200	.		ug/kg		Chrysene	19.3	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	1000	.		ug/kg		)anthracen	19.8	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	3500	.		ug/kg		ne	21.1	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	170	.		ug/kg		Fluorene	15.7	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	2000	.		ug/kg		3-	16.4	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	81	.		ug/kg		ne	10.3	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	2400	.		ug/kg		ene	23.8	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	10000	.		ug/kg		Pyrene	22.7	70	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	0	*DO		%		Fluorobiph	.	.	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	0	*DO		%		ne-d5	.	.	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63639	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	0	*DO		%		d14	.	.	20	SIM	24-Dec-03	4.2	LDC		.				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	4.3	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	91.8	.		g		Barium	0	42	1	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	4.2	LDC		UJ				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	20.3	.		g		Chromium	0.07	2	1	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	10	U		g		Cobalt	0.01	10	1	6020	24-Dec-03	4.2	LDC		UJ				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	19.4	.		g		Copper	0.02	5	1	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	13.7	.		g		Nickel	0.02	8	1	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	4.2	LDC		UJ				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2.1	U		g		Silver	0.01	2.1	1	6020	24-Dec-03	4.2	LDC		UJ				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2.1	U		g		Thallium	0	2.1	1	6020	24-Dec-03	4.2	LDC		UJ				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	86	.		g		Zinc	0.12	4	1	6020	24-Dec-03	4.2	LDC		J,J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	11600	.		g		Aluminum	0.08	84	2	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.1	U		g		Beryllium	0.01	2.1	2	6020	24-Dec-03	4.2	LDC		UJ				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	7540	.		g		Calcium	5.45	2090	2	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	17300	.		g		Iron	4.11	42	2	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	5960	.		g		m	1.23	2090	2	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	336	.		g		e	0.01	6.3	2	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	4590	.		g		Potassium	1.89	2090	2	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	2090	U		g		Sodium	5.41	2090	2	6020	24-Dec-03	4.2	LDC		UJ				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63639	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	34.6	.		g		Vanadium	0.02	21	2	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	72742	SOIL	AP63639	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	0.3	.		g		Antimony	0	0.1	1	6020	24-Dec-03	4.2	LDC		UJ			0.3	7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	72742	SOIL	AP63639	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	40.4	.		g		Lead	0.02	3	5	6020	24-Dec-03	4.2	LDC		J				7
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	.	Soil	K2310196-001	Phase II			12-Jan-04				TRG	NA	1.94	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B01	74B01-03	74B01SB0-01	74B01SB0-01	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB0-01	13-Dec-03	0-Jan-00	.	Soil	K2310196-001	Phase II		14-Jan-04	15-Jan-04				TRG	NA	71.3	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63640	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	8.2	.		pH Units		pH	0	0	1	9045C	24-Dec-03	11	LDC		.				43437
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	5.6	U		ug/kg		Methylnap	0.9	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	5.6	U		ug/kg		ene	1.5	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	5.6	U		ug/kg		ylene	1.5	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	5.6	U		ug/kg		e	1.27	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	7.6	.		ug/kg		nthracene	1.56	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	13	.		ug/kg		rene	1.24	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	12	.		ug/kg		uoranthene	1.88	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	12	.		ug/kg		)perylene	1.7	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	5.9	.		ug/kg		oranthene	1.58	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	9.6	.		ug/kg		Chrysene	1.55	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	5.6	U		ug/kg		)anthracen	1.59	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	14	.		ug/kg		ne	1.7	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	5.6	U		ug/kg		Fluorene	1.27	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	7.6	.		ug/kg		3-	1.32	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	5.6	U		ug/kg		ne	0.83	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	3.9	J		ug/kg		ene	1.9	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	10	.		ug/kg		Pyrene	1.82	5.6	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	60	.		%		Fluorobiph	.	.	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	70.4	.		%		ne-d5	.	.	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71784	SOIL	AP63640	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	58.8	.		%		d14	.	.	1	SIM	24-Dec-03	11	LDC		.				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	4.9	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	11	LDC		J				7

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	98.7	.		g		Barium	0	45	1	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	11	LDC		UJ				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	21.3	.		g		Chromium	0.08	2	1	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	11	U		g		Cobalt	0.01	11	1	6020	24-Dec-03	11	LDC		UJ				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	33.6	.		g		Copper	0.02	6	1	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	16.5	.		g		Nickel	0.02	9	1	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	11	LDC		UJ				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	1	6020	24-Dec-03	11	LDC		UJ				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	1	6020	24-Dec-03	11	LDC		UJ				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	77.9	.		g		Zinc	0.13	5	1	6020	24-Dec-03	11	LDC		J,J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	14200	.		g		Aluminum	0.09	90	2	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.2	U		g		Beryllium	0.01	2.2	2	6020	24-Dec-03	11	LDC		UJ				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	22500	.		g		Calcium	5.87	2250	2	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	19900	.		g		Iron	4.43	45	2	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	7560	.		g		m	1.32	2250	2	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	399	.		g		e	0.01	6.7	2	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	4810	.		g		Potassium	2.04	2250	2	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	5670	.		g		Sodium	5.82	2250	2	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	71970	SOIL	AP63640	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	40.2	.		g		Vanadium	0.03	22	2	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	72742	SOIL	AP63640	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	3.4	.		g		Antimony	0	0.1	1	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	13-Dec-03	0-Jan-00	72742	SOIL	AP63640	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	535	.		g		Lead	0.23	34	50	6020	24-Dec-03	11	LDC		J				7
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-07	.	.	.	Soil	K2310196-002	Phase II			12-Jan-04				TRG	NA	0.89	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B07	74B07-03	74B01SB0-07	74B01SB0-07	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB0-07	.	.	.	Soil	K2310196-002	Phase II		14-Jan-04	15-Jan-04				TRG	NA	72.7	.		meq/100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63641	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	6.9	.		pH Units		pH	0	0	1	9045C	24-Dec-03	12.5	LDC		.				4343 7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	2.6	J		ug/kg		Methylnap	0.9	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	25	.		ug/kg		ene	1.53	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	5.7	U		ug/kg		ylene	1.5	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	9.4	.		ug/kg		e	1.3	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	140	.		ug/kg		nthracene	1.59	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	250	.		ug/kg		rene	1.26	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	210	.		ug/kg		uoranthene	1.91	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	160	.		ug/kg		)perylene	1.7	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	110	.		ug/kg		oranthene	1.61	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	190	.		ug/kg		Chrysene	1.58	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	46	.		ug/kg		)anthracen	1.62	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	190	.		ug/kg		ne	1.73	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	3.7	J		ug/kg		Fluorene	1.29	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	140	.		ug/kg		3-	1.34	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	3.9	J		ug/kg		ne	0.84	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	60	.		ug/kg		ene	1.9	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	180	.		ug/kg		Pyrene	1.85	5.7	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	53.8	.		%		Fluorobiph	.	.	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	61	.		%		ne-d5	.	.	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63641	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	58.2	.		%		d14	.	.	1	SIM	24-Dec-03	12.5	LDC		.				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	6.3	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	105	.		g		Barium	0.01	46	1	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1.1	U		g		Cadmium	0	1.1	1	6020	24-Dec-03	12.5	LDC		UJ				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	18.7	.		g		Chromium	0.08	2	1	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	11	U		g		Cobalt	0.01	11	1	6020	24-Dec-03	12.5	LDC		UJ				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	25.3	.		g		Copper	0.02	6	1	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	15.5	.		g		Nickel	0.02	9	1	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	12.5	LDC		UJ				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2.3	U		g		Silver	0.01	2.3	1	6020	24-Dec-03	12.5	LDC		UJ				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2.3	U		g		Thallium	0.01	2.3	1	6020	24-Dec-03	12.5	LDC		UJ				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	97	.		g		Zinc	0.13	5	1	6020	24-Dec-03	12.5	LDC		J,J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	12100	.		g		Aluminum	0.09	91	2	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.3	U		g		Beryllium	0.01	2.3	2	6020	24-Dec-03	12.5	LDC		UJ				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	7490	.		g		Calcium	5.97	2290	2	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	17700	.		g		Iron	4.5	46	2	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	7940	.		g		m	1.34	2290	2	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	359	.		g		e	0.01	6.9	2	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	4640	.		g		Potassium	2.07	2290	2	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	7360	.		g		Sodium	5.92	2290	2	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63641	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	32.3	.		g		Vanadium	0.03	23	2	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	72742	SOIL	AP63641	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	10.4	.		g		Antimony	0	0.1	1	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	13-Dec-03	0-Jan-00	72742	SOIL	AP63641	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	1470	.		g		Lead	0.91	137	200	6020	24-Dec-03	12.5	LDC		J				7
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-09	.	.	.	Soil	K2310196-003	Phase II			12-Jan-04				TRG	NA	1.44	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B09	74B09-03	74B01SB0-09	74B01SB0-09	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB0-09	.	.	.	Soil	K2310196-003	Phase II		14-Jan-04	15-Jan-04				TRG	NA	71.4	.		meq/100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63642	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	7.7	.		pH Units		pH	0	0	1	9045C	24-Dec-03	21.3	LDC		.				4343 7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	6.4	U		ug/kg		Methylnap	1	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	6.4	U		ug/kg		ene	1.7	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	6.4	U		ug/kg		ylene	1.7	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	6.4	U		ug/kg		e	1.44	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	3.6	J		ug/kg		nthracene	1.76	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	4.8	J		ug/kg		rene	1.41	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	5.2	J		ug/kg		uoranthene	2.13	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	7.1	.		ug/kg		)perylene	1.9	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	2.6	J		ug/kg		oranthene	1.79	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	4.5	J		ug/kg		Chrysene	1.76	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	5.8	J		ug/kg		)anthracen	1.8	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	7.2	.		ug/kg		ne	1.92	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	6.4	U		ug/kg		Fluorene	1.43	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	2.5	J		ug/kg		3-	1.49	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	6.4	U		ug/kg		ne	0.94	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	2.3	J		ug/kg		ene	2.2	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	6.4	U		ug/kg		Pyrene	2.06	6.4	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	62.1	.		%		Fluorobiph	.	.	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	72.7	.		%		ne-d5	.	.	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71784	SOIL	AP63642	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	73.3	.		%		d14	.	.	1	SIM	24-Dec-03	21.3	LDC		.				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	12.8	.		g		Arsenic	0.02	3	1	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	141	.		g		Barium	0.01	51	1	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	21.3	LDC		UJ				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	25	.		g		Chromium	0.09	3	1	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	13	U		g		Cobalt	0.01	13	1	6020	24-Dec-03	21.3	LDC		UJ				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	26.9	.		g		Copper	0.02	6	1	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	24.5	.		g		Nickel	0.02	10	1	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	21.3	LDC		UJ				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	3	U		g		Silver	0.01	3	1	6020	24-Dec-03	21.3	LDC		UJ				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	3	U		g		Thallium	0.01	3	1	6020	24-Dec-03	21.3	LDC		UJ				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	96.1	.		g		Zinc	0.14	5	1	6020	24-Dec-03	21.3	LDC		J,J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	17700	.		g		Aluminum	0.1	102	2	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.5	U		g		Beryllium	0.01	2.5	2	6020	24-Dec-03	21.3	LDC		UJ				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	11900	.		g		Calcium	6.63	2540	2	6020	24-Dec-03	21.3	LDC		J				7

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	24400	.		g		Iron	5.01	51	2	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	12400	.		g		m	1.49	2540	2	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	408	.		g		e	0.01	7.6	2	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	6700	.		g		Potassium	2.31	2540	2	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	17300	.		g		Sodium	6.58	2540	2	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	71970	SOIL	AP63642	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	50.7	.		g		Vanadium	0.03	25	2	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	72742	SOIL	AP63642	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	3430	.		g		Lead	2.03	305	400	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	13-Dec-03	0-Jan-00	72742	SOIL	AP63642	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	28.6	.		g		Antimony	0.01	0.6	5	6020	24-Dec-03	21.3	LDC		J				7
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-10	.	.	.	Soil	K2310196-004	Phase II			12-Jan-04				TRG	NA	0.27	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B10	74B10-03	74B01SB0-10	74B01SB0-10	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytic al	TRUE	74B01SB0-10	.	.	.	Soil	K2310196-004	Phase II		14-Jan-04	15-Jan-04				TRG	NA	71.9	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytic al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	O031230A- 71599	SOIL	AP63643	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A- 71599BLK	WETLAB	TRG	10-29-7	7.4	.		pH Units		pH	0	0	1	9045C	24-Dec-03	7.1	LDC		.				4343 7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	5.4	U		ug/kg		Methylnap	0.9	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	1.1	J		ug/kg		ene	1.44	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	5.4	U		ug/kg		ylene	1.4	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	5.4	U		ug/kg		e	1.22	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	6.9	.		ug/kg		nthracene	1.49	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	11	.		ug/kg		rene	1.19	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	10	.		ug/kg		uoranthene	1.8	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	11	.		ug/kg		)perylene	1.6	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	5.2	J		ug/kg		oranthene	1.51	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	8.4	.		ug/kg		Chrysene	1.49	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	5.4	U		ug/kg		)anthracen	1.53	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	11	.		ug/kg		ne	1.63	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	5.4	U		ug/kg		Fluorene	1.21	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	5.2	J		ug/kg		3-	1.26	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	5.4	U		ug/kg		ne	0.79	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	3.8	J		ug/kg		ene	1.8	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	7.9	.		ug/kg		Pyrene	1.75	5.4	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	67.1	.		%		Fluorobiph	.	.	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	72.2	.		%		ne-d5	.	.	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71784	SOIL	AP63643	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	78.7	.		%		d14	.	.	1	SIM	24-Dec-03	7.1	LDC		.				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	7	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	92	.		g		Barium	0	43	1	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	7.1	LDC		UJ				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	24.4	.		g		Chromium	0.07	2	1	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	11	U		g		Cobalt	0.01	11	1	6020	24-Dec-03	7.1	LDC		UJ				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	22.4	.		g		Copper	0.02	5	1	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	20	.		g		Nickel	0.02	9	1	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	7.1	LDC		UJ				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	1	6020	24-Dec-03	7.1	LDC		UJ				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	1	6020	24-Dec-03	7.1	LDC		UJ				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	68.7	.		g		Zinc	0.12	4	1	6020	24-Dec-03	7.1	LDC		J,J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	11900	.		g		Aluminum	0.09	86	2	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.2	U		g		Beryllium	0.01	2.2	2	6020	24-Dec-03	7.1	LDC		UJ				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	10300	.		g		Calcium	5.62	2150	2	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	18100	.		g		Iron	4.24	43	2	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	7970	.		g		m	1.26	2150	2	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	299	.		g		e	0.01	6.5	2	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	4050	.		g		Potassium	1.95	2150	2	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	2150	U		g		Sodium	5.58	2150	2	6020	24-Dec-03	7.1	LDC		UJ				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	71970	SOIL	AP63643	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	37.6	.		g		Vanadium	0.02	22	2	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	72742	SOIL	AP63643	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	7	.		g		Antimony	0	0.1	1	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	13-Dec-03	0-Jan-00	72742	SOIL	AP63643	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	1220	.		g		Lead	0.86	129	200	6020	24-Dec-03	7.1	LDC		J				7
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-20	.	.	.	Soil	K2310196-005	Phase II			12-Jan-04				TRG	NA	1.21	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B20	74B20-03	74B01SB0-20	74B01SB0-20	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytic al	TRUE	74B01SB0-20	.	.	.	Soil	K2310196-005	Phase II		14-Jan-04	15-Jan-04				TRG	NA	63.5	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Primary Sample	.	.	.	14-Dec-03	Phase II	Analytic al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	O031230A- 71599	SOIL	AP63644	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A- 71599BLK	WETLAB	TRG	10-29-7	8	.		pH Units		pH	0	0	1	9045C	24-Dec-03	25.2	LDC		.				4343 7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	6.7	U		ug/kg		Methylnap	1.1	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	6.7	U		ug/kg		ene	1.78	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	6.7	U		ug/kg		ylene	1.7	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	6.7	U		ug/kg		e	1.52	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	6.7	U		ug/kg		nthracene	1.85	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	6.7	U		ug/kg		rene	1.48	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	6.7	U		ug/kg		uoranthene	2.24	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	4.2	J		ug/kg		)perylene	2	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	6.7	U		ug/kg		oranthene	1.88	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	6.7	U		ug/kg		Chrysene	1.85	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	5.6	J		ug/kg		)anthracen	1.89	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	6.7	U		ug/kg		ne	2.02	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	6.7	U		ug/kg		Fluorene	1.51	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	6.7	U		ug/kg		3-	1.56	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	6.7	U		ug/kg		ne	0.98	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	6.7	U		ug/kg		ene	2.3	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	6.7	U		ug/kg		Pyrene	2.17	6.7	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	62.4	.		%		Fluorobiph	.	.	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	68.3	.		%		ne-d5	.	.	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71784	SOIL	AP63644	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	73.7	.		%		d14	.	.	1	SIM	24-Dec-03	25.2	LDC		.				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	6.4	.		g		Arsenic	0.02	3	1	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	150	.		g		Barium	0.01	53	1	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	25.2	LDC		UJ				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	24.6	.		g		Chromium	0.09	3	1	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	13	U		g		Cobalt	0.01	13	1	6020	24-Dec-03	25.2	LDC		UJ				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	25.9	.		g		Copper	0.02	7	1	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	22.6	.		g		Nickel	0.02	11	1	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	25.2	LDC		UJ				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	3	U		g		Silver	0.01	3	1	6020	24-Dec-03	25.2	LDC		UJ				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	3	U		g		Thallium	0.01	3	1	6020	24-Dec-03	25.2	LDC		UJ				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	88.5	.		g		Zinc	0.15	5	1	6020	24-Dec-03	25.2	LDC		J,J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	15800	.		g		Aluminum	0.11	107	2	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.7	U		g		Beryllium	0.01	2.7	2	6020	24-Dec-03	25.2	LDC		UJ				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	13800	.		g		Calcium	6.98	2670	2	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	22900	.		g		Iron	5.27	53	2	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	13800	.		g		m	1.57	2670	2	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	441	.		g		e	0.01	8	2	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	6120	.		g		Potassium	2.43	2670	2	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	20900	.		g		Sodium	6.93	2670	2	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	71970	SOIL	AP63644	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	43.3	.		g		Vanadium	0.03	27	2	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	72742	SOIL	AP63644	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	0.9	.		g		Antimony	0	0.1	1	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	14-Dec-03	0-Jan-00	72742	SOIL	AP63644	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	123	.		g		Lead	0.05	8	10	6020	24-Dec-03	25.2	LDC		J				7
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB0-27	.	.	.	Soil	K2310196-006	Phase II			12-Jan-04				TRG	NA	0.41	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B27	74B27-03	74B01SB0-27	74B01SB0-27	Primary Sample	.	.	.	14-Dec-03	Phase II	Analytic al	TRUE	74B01SB0-27	.	.	.	Soil	K2310196-006	Phase II		14-Jan-04	15-Jan-04				TRG	NA	77.5	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytic al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	O031230A- 71599	SOIL	AP63645	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A- 71599BLK	WETLAB	TRG	10-29-7	7.2	.		pH Units		pH	0	0	1	9045C	24-Dec-03	8.7	LDC		.				4343 7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	120	J		ug/kg		Methylnap	117	730	200	SIM	24-Dec-03	8.7	LDC		.				7

complete analytical dataset

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPlanName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	2600	.	.	ug/kg	.	ene	196	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	730	U	.	ug/kg	.	ylene	191	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	3900	.	.	ug/kg	.	e	166	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	34000	.	.	ug/kg	.	nthracene	204	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	44000	.	.	ug/kg	.	rene	162	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	35000	.	.	ug/kg	.	uoranthene	246	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	27000	.	.	ug/kg	.	perylene	220	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	21000	.	.	ug/kg	.	oranthene	206	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	41000	.	.	ug/kg	.	Chrysene	203	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	8400	.	.	ug/kg	.	anthracen	208	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	45000	.	.	ug/kg	.	ne	222	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	1200	.	.	ug/kg	.	Fluorene	165	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	25000	.	.	ug/kg	.	3-	172	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	210	J	.	ug/kg	.	ne	108	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	13000	.	.	ug/kg	.	ene	250	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	51000	.	.	ug/kg	.	Pyrene	238	730	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	0	*DO	.	%	.	Fluorobiph	.	.	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	0	*DO	.	%	.	ne-d5	.	.	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71784	SOIL	AP63645	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	0	*DO	.	%	.	d14	.	.	200	SIM	24-Dec-03	8.7	LDC	.	.	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	3.6	.	.	g	.	Arsenic	0.02	2	1	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	110	.	.	g	.	Barium	0	44	1	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U	.	g	.	Cadmium	0	1	1	6020	24-Dec-03	8.7	LDC	.	UJ	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	23.1	.	.	g	.	Chromium	0.07	2	1	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	11	U	.	g	.	Cobalt	0.01	11	1	6020	24-Dec-03	8.7	LDC	.	UJ	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	25.6	.	.	g	.	Copper	0.02	6	1	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	16.3	.	.	g	.	Nickel	0.02	9	1	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U	.	g	.	Selenium	0.02	1	1	6020	24-Dec-03	8.7	LDC	.	UJ	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U	.	g	.	Silver	0.01	2	1	6020	24-Dec-03	8.7	LDC	.	UJ	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U	.	g	.	Thallium	0	2	1	6020	24-Dec-03	8.7	LDC	.	UJ	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	112	.	.	g	.	Zinc	0.12	4	1	6020	24-Dec-03	8.7	LDC	.	J,J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	12700	.	.	g	.	Aluminum	0.09	88	2	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.2	U	.	g	.	Beryllium	0.01	2.2	2	6020	24-Dec-03	8.7	LDC	.	UJ	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	9320	.	.	g	.	Calcium	5.72	2190	2	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	18800	.	.	g	.	Iron	4.32	44	2	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	6780	.	.	g	.	m	1.29	2190	2	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	387	.	.	g	.	e	0.01	6.6	2	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	5170	.	.	g	.	Potassium	1.99	2190	2	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	2190	U	.	g	.	Sodium	5.67	2190	2	6020	24-Dec-03	8.7	LDC	.	UJ	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	71970	SOIL	AP63645	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	37	.	.	g	.	Vanadium	0.02	22	2	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	72742	SOIL	AP63645	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	5	.	.	g	.	Antimony	0	0.1	1	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	13-Dec-03	0-Jan-00	72742	SOIL	AP63645	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	604	.	.	g	.	Lead	0.44	66	100	6020	24-Dec-03	8.7	LDC	.	J	.	.	.	7
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB0-32	.	.	.	Soil	K2310196-007	Phase II			12-Jan-04				TRG	NA	3.72	.	.	CEN	.	Total	.	0.05	1	Black		.		J				0196
74B32	74B32-03	74B01SB0-32	74B01SB0-32	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB0-32	.	.	.	Soil	K2310196-007	Phase II		14-Jan-04	15-Jan-04				TRG	NA	86.3	.	.	meq/100g	.	Exchange Capacity	.	0.5	10	6010B		.		.				K231 0196
74B43	74B43-03	74B01SB0-43	74B01SB0-43	Sample	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB0-43	14-Dec-03	0-Jan-00	71599	SOIL	AP63646	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	8	.	.	pH Units	.	pH	0	0	1	9045C	24-Dec-03	2.7	LDC	.	.	.	.	.	4343 7
74B43	74B43-03	74B01SB0-43	74B01SB0-43	Primary Sample	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB0-43	.	.	.	Soil	K2310196-008	Phase II			12-Jan-04				TRG	NA	0.83	.	.	CEN	.	Total	.	0.05	1	Black		.		J				0196
74B43	74B43-03	74B01SB0-43	74B01SB0-43	Primary Sample	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB0-43	.	.	.	Soil	K2310196-008	Phase II		14-Jan-04	15-Jan-04				TRG	NA	58.1	.	.	meq/100g	.	Exchange Capacity	.	0.5	10	6010B		.		.				K231 0196
74B43	74B43-03	74B01SB0-43	74B01SB0-43	Sample	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB0-43	14-Dec-03	0-Jan-00	71599	SOIL	AP63646	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	6.9	.	.	pH Units	.	pH	0	0	1	9045C	24-Dec-03	2.7	LDC	.	.	.	.	.	4343 7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Field Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	39	J	.	ug/kg	.	Methylnap	12.3	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	300	.	.	ug/kg	.	ene	20.6	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	25	J	.	ug/kg	.	ylene	20	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	390	.	.	ug/kg	.	e	17.5	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	2100	.	.	ug/kg	.	nthracene	21.4	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	3100	.	.	ug/kg	.	rene	17.1	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	2500	.	.	ug/kg	.	uoranthene	25.8	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	1600	.	.	ug/kg	.	perylene	23.1	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	1600	.	.	ug/kg	.	oranthene	21.7	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	3300	.	.	ug/kg	.	Chrysene	21.3	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	560	.	.	ug/kg	.	anthracen	21.9	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	2500	.	.	ug/kg	.	ne	23.3	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	120	.	.	ug/kg	.	Fluorene	17.4	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	1500	.	.	ug/kg	.	3-	18	77	20	SIM	24-Dec-03	13.1	LDC	.	.	.	.	.	7

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	41	J		ug/kg		ne	11.3	77	20	SIM	24-Dec-03	13.1	LDC		.				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	1400	.		ug/kg		ene	26.2	77	20	SIM	24-Dec-03	13.1	LDC		.				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	4300	.		ug/kg		Pyrene	25	77	20	SIM	24-Dec-03	13.1	LDC		.				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	0	*DO		%		Fluorobiph	.	.	20	SIM	24-Dec-03	13.1	LDC		.				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	0	*DO		%		ne-d5	.	.	20	SIM	24-Dec-03	13.1	LDC		.				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71784	SOIL	AP63648	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	0	*DO		%		d14	.	.	20	SIM	24-Dec-03	13.1	LDC		.				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	5.2	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	101	.		g		Barium	0.01	46	1	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	13.1	LDC		UJ				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	20.4	.		g		Chromium	0.08	2	1	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	12	U		g		Cobalt	0.01	12	1	6020	24-Dec-03	13.1	LDC		UJ				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	25.7	.		g		Copper	0.02	6	1	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	16	.		g		Nickel	0.02	9	1	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	13.1	LDC		UJ				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	1	6020	24-Dec-03	13.1	LDC		UJ				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0.01	2	1	6020	24-Dec-03	13.1	LDC		UJ				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	96.5	.		g		Zinc	0.13	5	1	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	13200	.		g		Aluminum	0.09	92	2	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.3	U		g		Beryllium	0.01	2.3	2	6020	24-Dec-03	13.1	LDC		UJ				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	7760	.		g		Calcium	6.01	2300	2	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	19300	.		g		Iron	4.53	46	2	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	8260	.		g		m	1.35	2300	2	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	362	.		g		e	0.01	6.9	2	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	4680	.		g		Potassium	2.09	2300	2	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	7480	.		g		Sodium	5.96	2300	2	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	71970	SOIL	AP63648	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	39.7	.		g		Vanadium	0.03	23	2	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	72742	SOIL	AP63648	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	2140	.		g		Lead	0.92	138	200	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	13-Dec-03	0-Jan-00	72742	SOIL	AP63648	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	13.5	.		g		Antimony	0.01	0.6	5	6020	24-Dec-03	13.1	LDC		J				7
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	al	TRUE	74B01SB1-09	.	.	.	Soil	K2310196-010	Phase II			12-Jan-04				TRG	NA	1.33	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B09	74B09-03	74B01SB1-09	74B01SB1-09	Field Duplicate	74B01SB0-09	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B01SB1-09	.	.	.	Soil	K2310196-010	Phase II		14-Jan-04	15-Jan-04				TRG	NA	71.4	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Field Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63649	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	8	.		pH Units		pH	0	0	1	9045C	24-Dec-03	2.6	LDC		.				4343 7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	5.1	U		ug/kg		Methylnap	0.8	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	5.1	U		ug/kg		ene	1.37	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	5.1	U		ug/kg		ylene	1.3	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	5.1	U		ug/kg		e	1.16	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	5.8	.		ug/kg		nthracene	1.42	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	9.2	.		ug/kg		rene	1.14	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	9.6	.		ug/kg		uoranthene	1.72	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	10	.		ug/kg		)perylene	1.5	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	4.6	J		ug/kg		oranthene	1.44	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	5.7	.		ug/kg		Chrysene	1.42	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	6.5	.		ug/kg		)anthracen	1.46	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	9	.		ug/kg		ne	1.55	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	5.1	U		ug/kg		Fluorene	1.16	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	6.3	.		ug/kg		3-	1.2	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	5.1	U		ug/kg		ne	0.76	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	3.6	J		ug/kg		ene	1.7	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	7.2	.		ug/kg		Pyrene	1.66	5.1	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	64.5	.		%		Fluorobiph	.	.	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	65.9	.		%		ne-d5	.	.	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71784	SOIL	AP63649	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	77.6	.		%		d14	.	.	1	SIM	24-Dec-03	2.6	LDC		.				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	3.6	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	81.1	.		g		Barium	0	41	1	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	2.6	LDC		UJ				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	14.9	.		g		Chromium	0.07	2	1	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	10	U		g		Cobalt	0.01	10	1	6020	24-Dec-03	2.6	LDC		UJ				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	15.1	.		g		Copper	0.02	5	1	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	13.9	.		g		Nickel	0.02	8	1	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	2.6	LDC		UJ				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	1	6020	24-Dec-03	2.6	LDC		UJ				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	1	6020	24-Dec-03	2.6	LDC		UJ				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	58.6	.		g		Zinc	0.12	4	1	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	9720	.		g		Aluminum	0.08	82	2	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.1	U		g		Beryllium	0.01	2.1	2	6020	24-Dec-03	2.6	LDC		UJ				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	5800	.		g		Calcium	5.36	2050	2	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	15800	.		g		Iron	4.05	41	2	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	5440	.		g		m	1.21	2050	2	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	256	.		g		e	0.01	6.2	2	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	3920	.		g		Potassium	1.86	2050	2	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	2050	U		g		Sodium	5.32	2050	2	6020	24-Dec-03	2.6	LDC		UJ				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	71970	SOIL	AP63649	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	33.6	.		g		Vanadium	0.02	21	2	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	72742	SOIL	AP63649	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	0.2	.		g		Antimony	0	0.1	1	6020	24-Dec-03	2.6	LDC		UJ			0.2	7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	14-Dec-03	0-Jan-00	72742	SOIL	AP63649	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	21.9	.		g		Lead	0.02	3.1	5	6020	24-Dec-03	2.6	LDC		J				7
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB1-43	.	.	.	Soil	K2310196-011	Phase II			12-Jan-04				TRG	NA	0.72	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B43	74B43-03	74B01SB1-43	74B01SB1-43	Field Duplicate	74B01SB0-43	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB1-43	.	.	.	Soil	K2310196-011	Phase II		14-Jan-04	15-Jan-04				TRG	NA	55.5	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63647	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	8.2	.		pH Units		pH	0	0	1	9045C	24-Dec-03	3.5	LDC		.				4343 7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	1.1	J		ug/kg		Methylnap	0.8	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	5.2	U		ug/kg		ene	1.38	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	5.2	U		ug/kg		ylene	1.3	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	5.2	U		ug/kg		e	1.18	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	7.3	.		ug/kg		nthracene	1.44	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	13	.		ug/kg		rene	1.15	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	9.5	.		ug/kg		uoranthene	1.74	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	11	.		ug/kg		)perylene	1.6	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	4.4	J		ug/kg		oranthene	1.46	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	11	.		ug/kg		Chrysene	1.43	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	5.2	U		ug/kg		)anthracen	1.47	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	6.8	.		ug/kg		ne	1.57	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	5.2	U		ug/kg		Fluorene	1.17	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	6.6	.		ug/kg		3-	1.21	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	1.2	J		ug/kg		ne	0.76	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	3.2	J		ug/kg		ene	1.8	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	9.9	.		ug/kg		Pyrene	1.68	5.2	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	50	.		%		Fluorobiph	.	.	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	50.6	.		%		ne-d5	.	.	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71784	SOIL	AP63647	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	65.2	.		%		d14	.	.	1	SIM	24-Dec-03	3.5	LDC		.				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	4.5	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	114	.		g		Barium	0	41	1	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	0.4	J		g		Beryllium	0.01	1	1	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	3.5	LDC		UJ				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	883000	J		g		Calcium	2.7	1040	1	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	26.1	.		g		Chromium	0.07	2	1	6020	24-Dec-03	3.5	LDC		J,J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	10.8	.		g		Cobalt	0.01	10	1	6020	24-Dec-03	3.5	LDC		J,J				7

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	26.1	.		g		Copper	0.02	5	1	6020	24-Dec-03	3.5	LDC		J,J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	6420	J		g		m	0.61	1040	1	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	19.3	.		g		Nickel	0.02	8	1	6020	24-Dec-03	3.5	LDC		J,J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	4300	J		g		Potassium	0.94	1040	1	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	3.5	LDC		UJ				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	1	6020	24-Dec-03	3.5	LDC		UJ				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	103000	J		g		Sodium	2.68	1040	1	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	1	6020	24-Dec-03	3.5	LDC		UJ				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	35.3	J		g		Vanadium	0.01	10	1	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	92.2	.		g		Zinc	0.12	4	1	6020	24-Dec-03	3.5	LDC		J,J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	21-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	22100	.		g		Aluminum	0.21	207	5	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	21-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	29700	.		g		Iron	10.2	104	5	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	71970	SOIL	AP63647	Phase II	APPL	27-Jan-04	21-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	589	.		g		e	0.02	16	5	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	72742	SOIL	AP63647	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	0.2	.		g		Antimony	0	0.1	1	6020	24-Dec-03	3.5	LDC		UJ			0.2	7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	72742	SOIL	AP63647	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	15.1	.		g		Lead	0.02	3	5	6020	24-Dec-03	3.5	LDC		J				7
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	.	Soil	K2310196-009	Phase II			12-Jan-04				TRG	NA	1.01	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	.	Soil	009DUP	Phase II			12-Jan-04				DUP	NA	0.84	.		CEN		Total	.	0.05	1	Black		.			J				0196
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	.	Soil	K2310196-009	Phase II		14-Jan-04	15-Jan-04				TRG	NA	79.8	.		meq/100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B04	74B04-03	74B01SB3-04	74B01SB3-04	MS/MSD	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B01SB3-04	14-Dec-03	0-Jan-00	.	Soil	K2310196-009DUP	Phase II		14-Jan-04	15-Jan-04				DUP	NA	79	.		meq/100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	.	.	Soil	K2400188-007	Phase II			14-Jan-04				TRG	NA	23.4	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	.	.	Soil	K2400188-007	Phase II			15-Jan-04				TRG	NA	1.55	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Primary Sample	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B02DB0-05	14-Dec-03	.	.	Soil	K2400188-007	Phase II		27-Jan-04	28-Jan-04				TRG	NA	417	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K240 0188
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	72042	SOIL	AP64134	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.3	.		Units		pH	0	0	1	9045C	13-Jan-04	78.5	LDC		J				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73432	SOIL	AP64134	Phase II	APPL	4-Feb-04	8-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	9020	.		g		Lead	372	5580	2000	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73431	SOIL	AP64134	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	109	.		g		Antimony	0.5	5	10	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	5	U		g		Cadmium	0.2	5	1	6020	13-Jan-04	78.5	LDC		UJ				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	77.7	J		g		Barium	0.2	186	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.09	9	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	44300	.		g		Sodium	25	4650	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	15000	.		g		m	1.9	4650	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	8740	.		g		Potassium	13	4650	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	6980	.		g		Calcium	61	4650	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	104	.		g		Arsenic	0.3	9	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	28700	.		g		Iron	14	93	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	26200	.		g		Aluminum	7.8	186	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	0.5	J		g		Silver	0.5	9	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.9	J		g		Beryllium	0.5	5	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	18.1	.		g		Selenium	0.4	5	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	56.7	.		g		Vanadium	0.2	47	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	35.3	.		g		Chromium	0.3	9	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	394	.		g		e	0.3	14	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	9.3	J		g		Cobalt	0.3	47	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	28.4	J		g		Nickel	0.2	37	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	43.7	.		g		Copper	0.9	23	1	6020	13-Jan-04	78.5	LDC		.				5
74G05	74G05-03	74B02DB0-05	74B02DB0-05	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-05	14-Dec-03	0-Jan-00	73261	SOIL	AP64134	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	125	.		g		Zinc	5.6	19	1	6020	13-Jan-04	78.5	LDC		J				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	.	.	Soil	K2400188-004	Phase II			14-Jan-04				TRG	NA	28.4	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	.	.	Soil	K2400188-004	Phase II			15-Jan-04				TRG	NA	1.75	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Primary Sample	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B02DB0-15	14-Dec-03	.	.	Soil	K2400188-004	Phase II		27-Jan-04	28-Jan-04				TRG	NA	329	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K240 0188
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73431	SOIL	AP64131	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	1.1	.		g		Antimony	0.04	0.4	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	72042	SOIL	AP64131	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.5	.		Units		pH	0	0	1	9045C	13-Jan-04	73	LDC		J				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73432	SOIL	AP64131	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	179	.		g		Lead	1.5	22	10	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	8780	.		g		Potassium	10	3700	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	29400	.		g		Sodium	20	3700	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	6740	.		g		Calcium	48	3700	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	14100	.		g		m	1.5	3700	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.07	7	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	4	U		g		Cadmium	0.2	4	1	6020	13-Jan-04	73	LDC		UJ				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	7	U		g		Silver	0.4	7	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	7.4	.		g		Selenium	0.3	4	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	18.1	.		g		Arsenic	0.2	7	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	121	.		g		Zinc	4.4	15	1	6020	13-Jan-04	73	LDC		J				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	37.4	.		g		Copper	0.7	19	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	27.4	J		g		Nickel	0.1	30	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	82.2	J		g		Barium	0.1	148	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	32700	.		g		Iron	12	74	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	11.5	J		g		Cobalt	0.2	37	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	27000	.		g		Aluminum	6.2	148	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	39.3	.		g		Chromium	0.2	7	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	34.1	J		g		Vanadium	0.1	37	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.7	J		g		Beryllium	0.4	4	1	6020	13-Jan-04	73	LDC		.				5
74G15	74G15-03	74B02DB0-15	74B02DB0-15	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64131	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	681	.		g		e	0.2	11	1	6020	13-Jan-04	73	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	.	.	Soil	K2400188-003	Phase II			14-Jan-04				TRG	NA	16.7	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	.	.	Soil	K2400188-003	Phase II			15-Jan-04				TRG	NA	1.91	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Primary Sample	.	.	.	15-Dec-03	Phase II	Analytical	TRUE	74B02DB0-26	15-Dec-03	.	.	Soil	K2400188-003	Phase II		27-Jan-04	28-Jan-04				TRG	NA	524	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K240 0188
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73431	SOIL	AP64130	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	1.8	J		g		Antimony	0.06	3.6	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	72042	SOIL	AP64130	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.4	.		Units		pH	0	0	1	9045C	13-Jan-04	83.2	LDC		J				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73432	SOIL	AP64130	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	285	.		g		Lead	2.4	36	10	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	24900	.		g		Aluminum	10	238	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	35.7	.		g		Chromium	0.4	12	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	738	.		g		e	0.4	18	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	75.6	J		g		Barium	0.2	238	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	28100	.		g		Iron	19	119	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	7680	.		g		Calcium	77	5950	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	9170	.		g		Potassium	16	5950	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	16400	.		g		m	2.4	5950	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	44.6	J		g		Vanadium	0.2	60	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.1	12	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	0.5	J		g		Cadmium	0.3	6	1	6020	13-Jan-04	83.2	LDC		J				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	12	U		g		Silver	0.6	12	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	17.9	.		g		Selenium	0.5	6	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	24.4	.		g		Arsenic	0.4	12	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	147	.		g		Zinc	7.1	24	1	6020	13-Jan-04	83.2	LDC		J				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	42.9	.		g		Copper	1.2	30	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	28	J		g		Nickel	0.2	48	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	11.3	J		g		Cobalt	0.4	60	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	56800	.		g		Sodium	32	5950	1	6020	13-Jan-04	83.2	LDC		.				5
74G26	74G26-03	74B02DB0-26	74B02DB0-26	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-26	15-Dec-03	0-Jan-00	73261	SOIL	AP64130	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.6	J		g		Beryllium	0.6	6	1	6020	13-Jan-04	83.2	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	.	.	Soil	K2400188-008	Phase II			14-Jan-04				TRG	NA	30.1	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	.	.	Soil	K2400188-008	Phase II			15-Jan-04				TRG	NA	1.54	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Primary Sample	.	.	.	15-Dec-03	Phase II	Analytical	TRUE	74B02DB0-35	15-Dec-03	.	.	Soil	K2400188-008	Phase II		27-Jan-04	28-Jan-04				TRG	NA	328	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K240 0188
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73431	SOIL	AP64135	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	3.8	.		g		Antimony	0.03	0.3	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	72042	SOIL	AP64135	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.7	.		Units		pH	0	0	1	9045C	13-Jan-04	70.9	LDC		J				5

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73432	SOIL	AP64135	Phase II	APPL	4-Feb-04	8-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	536	.		g		Lead	14	206	100	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	23-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	2310	.		g		e	1	52	5	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	44000	.		g		Iron	21	137	2	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	1	J		g		Beryllium	0.3	3	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	30.6	.		g		Arsenic	0.2	7	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	33200	.		g		Aluminum	5.8	137	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	74.6	.		g		Vanadium	0.1	34	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	45.7	.		g		Chromium	0.2	7	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	16.5	J		g		Cobalt	0.2	34	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	34.7	.		g		Nickel	0.1	27	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	43	.		g		Copper	0.7	17	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	10.7	.		g		Selenium	0.3	3	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	205	.		g		Zinc	4.1	14	1	6020	13-Jan-04	70.9	LDC		J				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	7	U		g		Silver	0.3	7	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	0.2	J		g		Cadmium	0.2	3	1	6020	13-Jan-04	70.9	LDC		J				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	99.7	J		g		Barium	0.1	137	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.07	7	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	24600	.		g		Sodium	18	3440	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	14800	.		g		m	1.4	3440	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	9660	.		g		Potassium	9.3	3440	1	6020	13-Jan-04	70.9	LDC		.				5
74G35	74G35-03	74B02DB0-35	74B02DB0-35	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-35	15-Dec-03	0-Jan-00	73261	SOIL	AP64135	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	7290	.		g		Calcium	45	3440	1	6020	13-Jan-04	70.9	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	.	.	Soil	K2400188-006	Phase II			14-Jan-04				TRG	NA	21	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	.	.	Soil	K2400188-006	Phase II			15-Jan-04				TRG	NA	1.94	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Primary Sample	.	.	.	15-Dec-03	Phase II	Analytical	TRUE	74B02DB0-36	15-Dec-03	.	.	Soil	K2400188-006	Phase II		27-Jan-04	28-Jan-04				TRG	NA	427	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K2400188
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	72042	SOIL	AP64133	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.3	.		Units		pH	0	0	1	9045C	13-Jan-04	80.7	LDC		J				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73432	SOIL	AP64133	Phase II	APPL	4-Feb-04	8-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	33100	.		g		Lead	415	6220	2000	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73431	SOIL	AP64133	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	282	.		g		Antimony	0.5	5	10	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	10	U		g		Silver	0.5	10	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	72	.		g		Arsenic	0.3	10	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	1	J		g		Beryllium	0.5	5	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	5	U		g		Cadmium	0.3	5	1	6020	13-Jan-04	80.7	LDC		UJ				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	82.9	J		g		Barium	0.2	207	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.1	10	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	50400	.		g		Sodium	28	5180	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	16500	.		g		m	2.1	5180	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	9270	.		g		Potassium	14	5180	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	7410	.		g		Calcium	67	5180	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	29100	.		g		Iron	16	104	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	18.1	.		g		Selenium	0.4	5	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	161	.		g		Copper	1	26	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	29	J		g		Nickel	0.2	41	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	9.3	J		g		Cobalt	0.3	52	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	344	.		g		e	0.3	16	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	38.3	.		g		Chromium	0.3	10	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	47.2	J		g		Vanadium	0.2	52	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	26600	.		g		Aluminum	8.7	207	1	6020	13-Jan-04	80.7	LDC		.				5
74G36	74G36-03	74B02DB0-36	74B02DB0-36	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64133	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	119	.		g		Zinc	6.2	21	1	6020	13-Jan-04	80.7	LDC		J				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	12500	.		g		m	1.1	2650	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	6530	.		g		Calcium	34	2650	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	8100	.		g		Potassium	7.1	2650	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	.	.	Soil	K2400188-001	Phase II			14-Jan-04				TRG	NA	37.6	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	.	.	Soil	001DUP	Phase II			14-Jan-04				DUP	NA	36.9	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	.	.	Soil	K2400188-001	Phase II			15-Jan-04				TRG	NA	1.42	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Primary Sample	.	.	.	15-Dec-03	Phase II	Analytical	TRUE	74B02DB0-41	15-Dec-03	.	.	Soil	K2400188-001	Phase II		27-Jan-04	28-Jan-04				TRG	NA	231	.		meq/100g		Exchange Capacity	.	0.5	10	6010B		.			.				K2400188
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	32.8	.		g		Nickel	0.1	21	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	40.7	.		g		Copper	0.5	13	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	138	.		g		Zinc	3.2	11	1	6020	13-Jan-04	62.2	LDC		J				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	11.4	.		g		Arsenic	0.2	5	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	9.8	.		g		Selenium	0.2	3	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	5	U		g		Silver	0.3	5	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	0.3	J		g		Cadmium	0.1	3	1	6020	13-Jan-04	62.2	LDC		J				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	124	.		g		Barium	0.1	106	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.5	J		g		Thallium	0.05	5	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	17500	.		g		Sodium	14	2650	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	12.2	J		g		Cobalt	0.2	26	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	25300	.		g		Aluminum	4.4	106	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73431	SOIL	AP64128	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	0.8	.		g		Antimony	0.03	0.3	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	72042	SOIL	AP64128	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.7	.		Units		pH	0	0	1	9045C	13-Jan-04	62.2	LDC		J				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73432	SOIL	AP64128	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	76.5	.		g		Lead	1.1	16	10	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	33300	.		g		Iron	16	106	2	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	579	.		g		e	0.3	16	2	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.8	J		g		Beryllium	0.3	3	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	39.7	.		g		Chromium	0.2	5	1	6020	13-Jan-04	62.2	LDC		.				5
74G41	74G41-03	74B02DB0-41	74B02DB0-41	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-41	15-Dec-03	0-Jan-00	73261	SOIL	AP64128	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	64.6	.		g		Vanadium	0.1	26	1	6020	13-Jan-04	62.2	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	.	.	Soil	K2400188-002	Phase II			14-Jan-04				TRG	NA	32.6	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	.	.	Soil	K2400188-002	Phase II			15-Jan-04				TRG	NA	1.34	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Primary Sample	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B02DB0-44	14-Dec-03	.	.	Soil	K2400188-002	Phase II		27-Jan-04	28-Jan-04				TRG	NA	281	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K2400188
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	65.5	.		g		Vanadium	0.1	34	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	31700	.		g		Aluminum	5.7	135	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	1	J		g		Beryllium	0.3	3	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73431	SOIL	AP64129	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	0.7	.		g		Antimony	0.03	0.3	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	72042	SOIL	AP64129	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.5	.		Units		pH	0	0	1	9045C	13-Jan-04	70.4	LDC		J				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73432	SOIL	AP64129	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	94.9	.		g		Lead	1.4	20	10	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	109	J		g		Barium	0.1	135	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	34100	.		g		Iron	11	68	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	7500	.		g		Calcium	44	3380	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	9490	.		g		Potassium	9.1	3380	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	14600	.		g		m	1.4	3380	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.07	7	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	3	U		g		Cadmium	0.2	3	1	6020	13-Jan-04	70.4	LDC		UJ				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	7	U		g		Silver	0.3	7	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	11.1	.		g		Selenium	0.3	3	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	13.5	.		g		Arsenic	0.2	7	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	148	.		g		Zinc	4.1	14	1	6020	13-Jan-04	70.4	LDC		J				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	46.3	.		g		Copper	0.7	17	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	34.1	.		g		Nickel	0.1	27	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	12.8	J		g		Cobalt	0.2	34	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	23200	.		g		Sodium	18	3380	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	578	.		g		e	0.2	10	1	6020	13-Jan-04	70.4	LDC		.				5
74G44	74G44-03	74B02DB0-44	74B02DB0-44	Sample	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB0-44	14-Dec-03	0-Jan-00	73261	SOIL	AP64129	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	48	.		g		Chromium	0.2	7	1	6020	13-Jan-04	70.4	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	.	.	Soil	K2400188-005	Phase II			14-Jan-04				TRG	NA	25.1	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	.	.	Soil	K2400188-005	Phase II			15-Jan-04				TRG	NA	2.7	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Primary Sample	.	.	.	15-Dec-03	Phase II	Analytical	TRUE	74B02DB0-52	15-Dec-03	.	.	Soil	K2400188-005	Phase II		27-Jan-04	28-Jan-04				TRG	NA	433	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K2400188

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73431	SOIL	AP64132	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	4.2	.		g		Antimony	0.04	0.4	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	72042	SOIL	AP64132	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.2	.		Units		pH	0	0	1	9045C	13-Jan-04	73.7	LDC		J				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73432	SOIL	AP64132	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	199	.		g		Lead	1.5	23	10	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	46400	.		g		Sodium	40	7600	2	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	12.2	.		g		Arsenic	0.2	8	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	21700	.		g		Iron	12	76	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	7150	.		g		Calcium	49	3800	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	7760	.		g		Potassium	10	3800	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	13600	.		g		m	1.5	3800	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.2	J		g		Thallium	0.08	8	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	96.2	J		g		Barium	0.1	152	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	1.5	J		g		Cadmium	0.2	4	1	6020	13-Jan-04	73.7	LDC		J				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.8	J		g		Beryllium	0.4	4	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	19	.		g		Selenium	0.3	4	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	734	.		g		Zinc	4.6	15	1	6020	13-Jan-04	73.7	LDC		J				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	213	.		g		Copper	0.8	19	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	30	.		g		Nickel	0.1	30	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	7.6	J		g		Cobalt	0.2	38	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	361	.		g		e	0.2	11	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	36.5	.		g		Chromium	0.2	8	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	30.4	J		g		Vanadium	0.1	38	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	20600	.		g		Aluminum	6.4	152	1	6020	13-Jan-04	73.7	LDC		.				5
74G52	74G52-03	74B02DB0-52	74B02DB0-52	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB0-52	15-Dec-03	0-Jan-00	73261	SOIL	AP64132	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	0.8	J		g		Silver	0.4	8	1	6020	13-Jan-04	73.7	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	.	.	Soil	K2400188-011	Phase II			14-Jan-04				TRG	NA	25.3	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	.	.	Soil	K2400188-011	Phase II			15-Jan-04				TRG	NA	1.93	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Field Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B02DB1-15	14-Dec-03	.	.	Soil	K2400188-011	Phase II		27-Jan-04	28-Jan-04				TRG	NA	345	.		meq/ 100g		Exchange Capacity	0	0.5	10	6010B		.			.				K240 0188
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	38.9	.		g		Chromium	0.2	8	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	8	U		g		Silver	0.4	8	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	68.3	.		g		Vanadium	0.2	40	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	28200	.		g		Aluminum	6.7	159	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.8	J		g		Beryllium	0.4	4	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73431	SOIL	AP64138	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	1.6	.		g		Antimony	0.04	0.4	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	72042	SOIL	AP64138	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.4	.		Units		pH	0	0	1	9045C	13-Jan-04	74.8	LDC		J				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73432	SOIL	AP64138	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	195	.		g		Lead	1.6	24	10	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	817	.		g		e	0.2	24	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.08	8	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	11.1	J		g		Cobalt	0.2	40	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	26.2	J		g		Nickel	0.2	32	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	38.1	.		g		Copper	0.8	20	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	131	.		g		Zinc	4.8	16	1	6020	13-Jan-04	74.8	LDC		J				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	15.1	.		g		Selenium	0.3	4	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	82.5	J		g		Barium	0.2	159	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	33000	.		g		Sodium	21	3970	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	14600	.		g		m	1.6	3970	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	8930	.		g		Potassium	11	3970	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	7260	.		g		Calcium	52	3970	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	33100	.		g		Iron	12	79	1	6020	13-Jan-04	74.8	LDC		.				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	4	U		g		Cadmium	0.2	4	1	6020	13-Jan-04	74.8	LDC		UJ				5
74G15	74G15-03	74B02DB1-15	74B02DB1-15	Duplicate	74B02DB0-15	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB1-15	14-Dec-03	0-Jan-00	73261	SOIL	AP64138	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	40.1	.		g		Arsenic	0.2	8	1	6020	13-Jan-04	74.8	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	1.1	J		g		Beryllium	0.6	6	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	28.9	J		g		Nickel	0.2	44	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	6.7	J		g		Cobalt	0.3	56	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	258	.		g		e	0.3	17	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	33.3	.		g		Chromium	0.3	11	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	60.6	.		g		Vanadium	0.2	56	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	.	.	Soil	K2400188-010	Phase II			14-Jan-04				TRG	NA	17.5	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	.	.	Soil	K2400188-010	Phase II			15-Jan-04				TRG	NA	1.83	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Field Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	Analytical	TRUE	74B02DB1-36	15-Dec-03	.	.	Soil	K2400188-010	Phase II		27-Jan-04	28-Jan-04				TRG	NA	508	.		meq/ 100g		Exchange Capacity	0	0.5	10	6010B		.			.				K240 0188
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	23700	.		g		Aluminum	9.3	222	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	96.1	.		g		Zinc	6.7	22	1	6020	13-Jan-04	82	LDC		J				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	29800	.		g		Iron	17	111	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	156	.		g		Copper	1.1	28	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	348	.		g		Arsenic	0.3	11	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.1	11	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	8220	.		g		Potassium	15	5560	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	15200	.		g		m	2.2	5560	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	12.8	.		g		Selenium	0.4	6	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	7440	.		g		Calcium	72	5560	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	1.1	J		g		Silver	0.6	11	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	76.7	J		g		Barium	0.2	222	1	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	6	U		g		Cadmium	0.3	6	1	6020	13-Jan-04	82	LDC		UJ				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	72042	SOIL	AP64137	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.2	.		Units		pH	0	0	1	9045C	13-Jan-04	82	LDC		J				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73432	SOIL	AP64137	Phase II	APPL	4-Feb-04	8-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	22800	.		g		Lead	444	6670	2000	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73431	SOIL	AP64137	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	253	.		g		Antimony	0.6	56	10	6020	13-Jan-04	82	LDC		.				5
74G36	74G36-03	74B02DB1-36	74B02DB1-36	Duplicate	74B02DB0-36	.	.	15-Dec-03	Phase II	al	TRUE	74B02DB1-36	15-Dec-03	0-Jan-00	73261	SOIL	AP64137	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	58900	.		g		Sodium	59	####	2	6020	13-Jan-04	82	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B02DB3-46	15-Dec-03	.	.	Soil	K2400188-009DUP	Phase II		27-Jan-04	28-Jan-04				DUP	NA	265	.		meq/ 100g		Exchange Capacity	.	0.1	1	6010B		.			.				K240 0188
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	.	.	Soil	K2400188-009	Phase II			14-Jan-04				TRG	NA	33.9	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	.	.	Soil	009DUP	Phase II			14-Jan-04				DUP	NA	33.8	.		CEN		Total	.	.	1	160.3M		.			.				0188
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	.	.	Soil	K2400188-009	Phase II			15-Jan-04				TRG	NA	1.25	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	.	.	Soil	009DUP	Phase II			15-Jan-04				DUP	NA	1.46	.		CEN		Total	.	0.05	1	Black		.			J				0188
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	Analytical	TRUE	74B02DB3-46	14-Dec-03	.	.	Soil	K2400188-009	Phase II		27-Jan-04	28-Jan-04				TRG	NA	279	.		meq/ 100g		Exchange Capacity	0	0.5	10	6010B		.			.				K240 0188
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73431	SOIL	AP64136	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	0.2	J		g		Antimony	0.03	0.3	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	72042	SOIL	AP64136	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.2	.		Units		pH	0	0	1	9045C	13-Jan-04	65.7	LDC		J				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73432	SOIL	AP64136	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	48.4	.		g		Lead	1.2	17	10	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	23-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	1500	.		g		e	0.2	44	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	42300	.		g		Iron	18	117	2	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	36400	.		g		Aluminum	9.8	233	2	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	6	U		g		Silver	0.3	6	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	0.1	J		g		Cadmium	0.1	3	1	6020	13-Jan-04	65.7	LDC		J				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	98.8	J		g		Barium	0.1	117	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.06	6	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	19600	.		g		Sodium	16	2920	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	13600	.		g		m	1.2	2920	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	9240	.		g		Potassium	7.9	2920	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	186	.		g		Zinc	3.5	12	1	6020	13-Jan-04	65.7	LDC		J				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	6910	.		g		Calcium	38	2920	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	1.2	J		g		Beryllium	0.3	3	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	6.7	.		g		Selenium	0.2	3	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	19.5	.		g		Arsenic	0.2	6	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	75.5	.		g		Vanadium	0.1	29	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	45.5	.		g		Chromium	0.2	6	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	14.9	J		g		Cobalt	0.2	29	1	6020	13-Jan-04	65.7	LDC		.				5
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	30.3	.		g		Nickel	0.1	23	1	6020	13-Jan-04	65.7	LDC		.				5

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74G46	74G46-03	74B02DB3-46	74B02DB3-46	MS/MSD	.	.	.	14-Dec-03	Phase II	al	TRUE	74B02DB3-46	14-Dec-03	0-Jan-00	73261	SOIL	AP64136	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	41.7	.		g		Copper	0.6	15	1	6020	13-Jan-04	65.7	LDC		.				5
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	12.2	UN		g		Y	.	.		(Total)		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	75.5	.		g		LEAD	.	.		(Total)		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	10000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	20000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	3600	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	28000	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	36000	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	29000	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	19000	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	21000	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	32000	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	6300	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	44000	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	2100	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	22000	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	10000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	14000	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1	74B02SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	42000	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	50000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	100000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	3700	J		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	27000	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	33000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	26000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	16000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	17000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	30000	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	4600	J		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	40000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	10000	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	21000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	50000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	13000	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-1DL	74B02SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	39000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	12.9	UN		g		Y	.	.		(Total)		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	4.3	.		g		LEAD	.	.		(Total)		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	100	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	22	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	23	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA0-2	74B02SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B02SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	12.2	UN		g		Y	.	.		(Total)		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	52.3	.		g		LEAD	.	.		(Total)		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	10000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	8100	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	7000	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	36000	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	56000	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	48000	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	38000	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	38000	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	44000	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	8900	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	50000	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	2100	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	40000	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	10000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	13000	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1	74B02SA1-1	Duplicate	74B02SA0-1	.	.	29-Feb-00	2000	al	TRUE	74B02SA1-1	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	51000	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	51000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	100000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	4700	J		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	51000	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	87000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	63000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	42000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	48000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	63000	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	13000	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	57000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	10000	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	54000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	51000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	16000	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B02	74B02-00	74B02SA1-1DL	74B02SA1-1DL	Duplicate	1DL	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	72000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	2.3	.		g		Selenium	0.1	1	1	6020	13-Jan-04	20.7	LDC		U			3.7	5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	3	U		g		Silver	0.1	3	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	.	.	Soil	K2400188-012	Phase II			14-Jan-04				TRG	NA	79.3	.		CEN		Total	.	.	1	160.3M		.			.				0188
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	.	.	Soil	K2400188-012	Phase II			15-Jan-04				TRG	NA	0.54	.		CEN		Total	.	0.05	1	Black		.			J				0188
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B03DB0-01	13-Dec-03	.	.	Soil	K2400188-012	Phase II		27-Jan-04	28-Jan-04				TRG	NA	83.4	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K240 0188
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73431	SOIL	AP64139	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	0.1	.		g		Antimony	0.01	0.1	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	72042	SOIL	AP64139	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	8.3	.		Units		pH	0	0	1	9045C	13-Jan-04	20.7	LDC		J				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73432	SOIL	AP64139	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	35.7	.		g		Lead	0.5	8	10	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	23-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	477	.		g		e	0.4	19	5	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	19200	.		g		m	1	2520	2	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	23300	.		g		Iron	7.8	50	2	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	17800	.		g		Aluminum	4.2	101	2	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	21600	.		g		Calcium	33	2520	2	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	9	J		g		Cobalt	0.08	13	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.5	J		g		Beryllium	0.1	1	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	35.8	.		g		Vanadium	0.05	13	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	23	.		g		Chromium	0.08	3	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	6390	.		g		Sodium	6.7	1260	1	6020	13-Jan-04	20.7	LDC		.				5

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	4460	.		g		Potassium	3.4	1260	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	0.3	J		g		Cadmium	0.06	1	1	6020	13-Jan-04	20.7	LDC		J				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.03	3	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	18.7	.		g		Nickel	0.05	10	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	113	.		g		Barium	0.05	50	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	23.5	.		g		Copper	0.3	6	1	6020	13-Jan-04	20.7	LDC		.				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	87.4	.		g		Zinc	1.5	5	1	6020	13-Jan-04	20.7	LDC		J				5
SD-1	SD-1-03	74B03DB0-01	74B03DB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03DB0-01	13-Dec-03	0-Jan-00	73261	SOIL	AP64139	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	3.8	.		g		Arsenic	0.08	3	1	6020	13-Jan-04	20.7	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	0.2	J		g		Cadmium	0.1	2	1	6020	13-Jan-04	55.1	LDC		J				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	.	.	Soil	K2400188-013	Phase II			14-Jan-04				TRG	NA	45	.		CEN		Total	.	.	1	160.3M		.			.				0188
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	.	.	Soil	K2400188-013	Phase II			15-Jan-04				TRG	NA	2.05	.		CEN		Total	.	0.05	1	Black		.			J				0188
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Primary Sample	.	.	.	15-Dec-03	Phase II	Analytical	TRUE	74B03DB0-02	15-Dec-03	.	.	Soil	K2400188-013	Phase II		27-Jan-04	28-Jan-04				TRG	NA	223	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K2400188
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73431	SOIL	AP64140	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	0.2	.		g		Antimony	0.02	0.2	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	72042	SOIL	AP64140	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.1	.		Units		pH	0	0	1	9045C	13-Jan-04	55.1	LDC		J				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73432	SOIL	AP64140	Phase II	APPL	4-Feb-04	5-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	47.4	.		g		Lead	0.9	13	10	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	474	.		g		e	0.3	13	2	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	33000	.		g		Aluminum	7.5	178	2	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	38300	.		g		Iron	14	89	2	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.9	J		g		Beryllium	0.2	2	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	6440	.		g		Calcium	29	2230	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	53.7	.		g		Copper	0.5	11	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	210	.		g		Zinc	2.7	9	1	6020	13-Jan-04	55.1	LDC		J				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	30.5	.		g		Nickel	0.09	18	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	13.1	J		g		Cobalt	0.1	22	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	44.8	.		g		Chromium	0.1	5	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	63.5	.		g		Vanadium	0.09	22	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	12	.		g		Arsenic	0.1	5	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	0.2	J		g		Silver	0.2	5	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	8260	.		g		Potassium	6	2230	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	12500	.		g		m	0.9	2230	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	15000	.		g		Sodium	12	2230	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.4	J		g		Thallium	0.04	5	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	98.4	.		g		Barium	0.09	89	1	6020	13-Jan-04	55.1	LDC		.				5
SD-2	SD-2-03	74B03DB0-02	74B03DB0-02	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-02	15-Dec-03	0-Jan-00	73261	SOIL	AP64140	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	7.6	.		g		Selenium	0.2	2	1	6020	13-Jan-04	55.1	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-28-0	0.3	J		g		Thallium	0.03	3	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-70-2	12300	.		g		Calcium	19	1440	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	.	.	Soil	K2400188-014	Phase II			14-Jan-04				TRG	NA	70.2	.		CEN		Total	.	.	1	160.3M		.			.				0188
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	.	.	Soil	K2400188-014	Phase II			15-Jan-04				TRG	NA	1.09	.		CEN		Total	.	0.05	1	Black		.			J				0188
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Primary Sample	.	.	.	15-Dec-03	Phase II	Analytical	TRUE	74B03DB0-03	15-Dec-03	.	.	Soil	K2400188-014	Phase II		27-Jan-04	28-Jan-04				TRG	NA	71.3	.		meq/100g		Exchange Capacity	0	0.5	10	6010B		.			.				K2400188
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-23-5	4760	.		g		Sodium	7.6	1440	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-95-4	8050	.		g		m	0.6	1440	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-09-7	4990	.		g		Potassium	3.9	1440	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7782-49-2	3	.		g		Selenium	0.1	1	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-22-4	0.1	J		g		Silver	0.1	3	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-43-9	0.3	J		g		Cadmium	0.07	1	1	6020	13-Jan-04	30.4	LDC		J				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-39-3	134	.		g		Barium	0.06	57	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73431	SOIL	AP64141	Phase II	APPL	14-Jan-04	8-Mar-04	0-Jan-00	73431BLK	METALS	TRG	7440-36-0	0.3	.		g		Antimony	0.01	0.1	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	72042	SOIL	AP64141	Phase II	APPL	15-Jan-04	15-Jan-04	0-Jan-00	72042BLK	WETLAB	TRG	2007-10-29	7.9	.		Units		pH	0	0	1	9045C	13-Jan-04	30.4	LDC		J				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73432	SOIL	AP64141	Phase II	APPL	4-Feb-04	8-Mar-04	0-Jan-00	73432BLK	METALS	TRG	7439-92-1	773	.		g		Lead	5.8	86	100	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-96-5	545	.		g		e	0.2	8.6	2	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7429-90-5	21600	.		g		Aluminum	4.8	115	2	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7439-89-6	27300	.		g		Iron	8.9	57	2	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-02-0	20	.		g		Nickel	0.06	11	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-48-4	10.6	J		g		Cobalt	0.09	14	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-66-6	119	.		g		Zinc	1.7	6	1	6020	13-Jan-04	30.4	LDC		J				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-38-2	7.3	.		g		Arsenic	0.09	3	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-47-3	32.9	.		g		Chromium	0.09	3	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-62-2	39.7	.		g		Vanadium	0.06	14	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-41-7	0.6	J		g		Beryllium	0.1	1	1	6020	13-Jan-04	30.4	LDC		.				5
SD-3	SD-3-03	74B03DB0-03	74B03DB0-03	Sample	.	.	.	15-Dec-03	Phase II	al	TRUE	74B03DB0-03	15-Dec-03	0-Jan-00	73261	SOIL	AP64141	Phase II	APPL	4-Feb-04	21-Feb-04	0-Jan-00	73261BLK	METALS	TRG	7440-50-8	36.8	.		g		Copper	0.3	7	1	6020	13-Jan-04	30.4	LDC		.				5
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	12.4	UN		g		Y	.	.		(Total)		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	86.6	.		g		LEAD	.	.		(Total)		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	1000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	2000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	60	J		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	710	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	1400	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	1100	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	1600	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	840	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	1000	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	500	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	1000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	210	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	1100	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	1000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	300	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-1	74B03SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	1000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	13.3	UN		g		Y	.	.		(Total)		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	21.5	.		g		LEAD	.	.		(Total)		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	220	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	23	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	23	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	23	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	23	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	23	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	5.3	J		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B03	74B03-00	74B03SA0-2	74B03SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B03SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63650	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	8.3	.		pH Units		pH	0	0	1	9045C	24-Dec-03	3	LDC		.				43437
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	2.7	J		ug/kg		Methylnap	0.8	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	5.8	.		ug/kg		ene	1.38	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	5.2	U		ug/kg		ylene	1.3	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	6.7	.		ug/kg		e	1.17	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	32	.		ug/kg		nthracene	1.43	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	48	.		ug/kg		rene	1.14	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	44	.		ug/kg		uoranthene	1.73	5.2	1	SIM	24-Dec-03	3	LDC		.				7

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	51	.		ug/kg		)perylene	1.5	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	24	.		ug/kg		oranthene	1.45	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	48	.		ug/kg		Chrysene	1.42	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	5.2	U		ug/kg		)anthracen	1.46	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	52	.		ug/kg		ne	1.56	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	1.7	J		ug/kg		Fluorene	1.16	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	24	.		ug/kg		3-	1.21	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	1.6	J		ug/kg		ne	0.76	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	24	.		ug/kg		ene	1.8	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	59	.		ug/kg		Pyrene	1.67	5.2	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	62.5	.		%		Fluorobiph	.	.	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	65	.		%		ne-d5	.	.	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71784	SOIL	AP63650	Phase II	APPL	########	2-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	82.6	.		%		d14	.	.	1	SIM	24-Dec-03	3	LDC		.				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	3	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	71.6	.		g		Barium	0	41	1	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	3	LDC		UJ				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	19	.		g		Chromium	0.07	2	1	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	10	U		g		Cobalt	0.01	10	1	6020	24-Dec-03	3	LDC		UJ				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	17.7	.		g		Copper	0.02	5	1	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	12.9	.		g		Nickel	0.02	8	1	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	3	LDC		UJ				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	1	6020	24-Dec-03	3	LDC		UJ				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	1	6020	24-Dec-03	3	LDC		UJ				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	65.5	.		g		Zinc	0.12	4	1	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	11400	.		g		Aluminum	0.08	82	2	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2.1	U		g		Beryllium	0.01	2.1	2	6020	24-Dec-03	3	LDC		UJ				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	9750	.		g		Calcium	5.38	2060	2	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	16500	.		g		Iron	4.06	41	2	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	5430	.		g		m	1.21	2060	2	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	308	.		g		e	0.01	6.2	2	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	3710	.		g		Potassium	1.87	2060	2	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	2060	U		g		Sodium	5.34	2060	2	6020	24-Dec-03	3	LDC		UJ				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	71970	SOIL	AP63650	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	34	.		g		Vanadium	0.02	21	2	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	72742	SOIL	AP63650	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	0.1	.		g		Antimony	0	0.1	1	6020	24-Dec-03	3	LDC		UJ			0.1	7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	13-Dec-03	0-Jan-00	72742	SOIL	AP63650	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	50.5	.		g		Lead	0.02	3	5	6020	24-Dec-03	3	LDC		J				7
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-01	.	.	.	Soil	K2310196-012	Phase II			12-Jan-04				TRG	NA	0.69	.		CEN		Total	.	0.05	1	Black		.			J				0196
SR-1	SR-1-03	74B03SB0-01	74B03SB0-01	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B03SB0-01	.	.	.	Soil	K2310196-012	Phase II		14-Jan-04	15-Jan-04				TRG	NA	55.5	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63651	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	8.3	.		pH Units		pH	0	0	1	9045C	24-Dec-03	2.4	LDC		.				4343 7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	69	U		ug/kg		Methylnap	11	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	69	U		ug/kg		ene	18.3	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	69	U		ug/kg		ylene	17.8	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	18	J		ug/kg		e	15.6	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	70	.		ug/kg		nthracene	19	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	73	.		ug/kg		rene	15.2	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	64	J		ug/kg		uoranthene	23	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	160	.		ug/kg		)perylene	20.6	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	41	J		ug/kg		oranthene	19.3	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	61	J		ug/kg		Chrysene	19	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	39	J		ug/kg		)anthracen	19.5	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	40	J		ug/kg		ne	20.8	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	69	U		ug/kg		Fluorene	15.5	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	66	J		ug/kg		3-	16.1	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	69	U		ug/kg		ne	10.1	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	29	J		ug/kg		ene	23.4	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	83	.		ug/kg		Pyrene	22.3	69	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	0	*DO		%		Fluorobiph	.	.	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	0	*DO		%		ne-d5	.	.	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71784	SOIL	AP63651	Phase II	APPL	########	20-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	0	*DO		%		d14	.	.	20	SIM	24-Dec-03	2.4	LDC		.				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	6	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	115	.		g		Barium	0	41	1	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	2.4	LDC		UJ				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	24.7	.		g		Chromium	0.07	2	1	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	10	U		g		Cobalt	0.01	10	1	6020	24-Dec-03	2.4	LDC		UJ				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	23.4	.		g		Copper	0.02	5	1	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	14.4	.		g		Nickel	0.02	8	1	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	2.4	LDC		UJ				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	1	6020	24-Dec-03	2.4	LDC		UJ				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	1	6020	24-Dec-03	2.4	LDC		UJ				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	85.8	.		g		Zinc	0.12	4	1	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	10200	.		g		Aluminum	0.08	82	2	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	2	U		g		Beryllium	0.01	2	2	6020	24-Dec-03	2.4	LDC		UJ				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	9980	.		g		Calcium	5.35	2050	2	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	15400	.		g		Iron	4.04	41	2	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	5230	.		g		m	1.2	2050	2	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	295	.		g		e	0.01	6.1	2	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	3080	.		g		Potassium	1.86	2050	2	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	2050	U		g		Sodium	5.31	2050	2	6020	24-Dec-03	2.4	LDC		UJ				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	71970	SOIL	AP63651	Phase II	APPL	27-Jan-04	3-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	34.1	.		g		Vanadium	0.02	20	2	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	72742	SOIL	AP63651	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	0.2	.		g		Antimony	0	0.1	1	6020	24-Dec-03	2.4	LDC		UJ			0.2	7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	13-Dec-03	0-Jan-00	72742	SOIL	AP63651	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	178	.		g		Lead	0.08	12	20	6020	24-Dec-03	2.4	LDC		J				7
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-02	.	.	.	Soil	K2310196-013	Phase II			12-Jan-04				TRG	NA	1	.		CEN		Total	.	0.05	1	Black		.			J				0196
SR-2	SR-2-03	74B03SB0-02	74B03SB0-02	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B03SB0-02	.	.	.	Soil	K2310196-013	Phase II		14-Jan-04	15-Jan-04				TRG	NA	51.2	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytical	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	O031230A-71599	SOIL	AP63652	Phase II	APPL	########	30-Dec-03	0-Jan-00	O031230A-71599BLK	WETLAB	TRG	10-29-7	7.9	.		pH Units		pH	0	0	1	9045C	24-Dec-03	5	LDC		.				4343 7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-57-6	18	U		ug/kg		Methylnap	2.8	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	83-32-9	18	U		ug/kg		ene	4.78	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	208-96-8	18	U		ug/kg		ylene	4.6	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	120-12-7	4.5	J		ug/kg		e	4.06	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	56-55-3	22	.		ug/kg		nthracene	4.96	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	50-32-8	19	.		ug/kg		rene	3.96	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	205-99-2	18	.		ug/kg		uoranthene	6	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	191-24-2	36	.		ug/kg		)perylene	5.4	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	207-08-9	7.4	J		ug/kg		oranthene	5.03	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	218-01-9	31	.		ug/kg		Chrysene	4.94	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	53-70-3	18	U		ug/kg		)anthracen	5.07	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	206-44-0	11	J		ug/kg		ne	5.41	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	86-73-7	18	U		ug/kg		Fluorene	4.03	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	193-39-5	13	J		ug/kg		3-	4.19	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	91-20-3	18	U		ug/kg		ne	2.63	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	85-01-8	4.1	J		ug/kg		ene	6.1	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	TRG	129-00-0	12	J		ug/kg		Pyrene	5.8	18	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	321-60-8	60.3	.		%		Fluorobiph	.	.	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	20810-28-0	66.4	.		%		ne-d5	.	.	5	SIM	24-Dec-03	5	LDC		.				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71784	SOIL	AP63652	Phase II	APPL	########	5-Jan-04	0-Jan-00	71784BLK	GC	SRG	98904-43-9	76.3	.		%		d14	.	.	5	SIM	24-Dec-03	5	LDC		.				7

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-38-2	7.1	.		g		Arsenic	0.02	2	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-39-3	127	.		g		Barium	0	42	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-41-7	0.4	J		g		Beryllium	0.01	1	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	1	6020	24-Dec-03	5	LDC		UJ				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-70-2	9410	J		g		Calcium	2.75	1050	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-47-3	28	.		g		Chromium	0.07	2	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-48-4	11	U		g		Cobalt	0.01	11	1	6020	24-Dec-03	5	LDC		UJ				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-50-8	34.9	.		g		Copper	0.02	5	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-95-4	6220	J		g		m	0.62	1050	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-02-0	19.9	.		g		Nickel	0.02	8	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-09-7	3720	J		g		Potassium	0.96	1050	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	1	6020	24-Dec-03	5	LDC		UJ				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	1	6020	24-Dec-03	5	LDC		UJ				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-23-5	243	J		g		Sodium	2.73	1050	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	1	6020	24-Dec-03	5	LDC		UJ				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-62-2	35.6	J		g		Vanadium	0.01	11	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	2-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7440-66-6	96.5	.		g		Zinc	0.12	4	1	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	21-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7429-90-5	20800	.		g		Aluminum	0.21	211	5	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	21-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-89-6	26200	.		g		Iron	10.4	105	5	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	71970	SOIL	AP63652	Phase II	APPL	27-Jan-04	21-Feb-04	0-Jan-00	71970BLK	METALS	TRG	7439-96-5	534	.		g		e	0.02	16	5	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	72742	SOIL	AP63652	Phase II	APPL	########	9-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7440-36-0	0.2	.		g		Antimony	0	0.1	1	6020	24-Dec-03	5	LDC		UJ			0.2	7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	13-Dec-03	0-Jan-00	72742	SOIL	AP63652	Phase II	APPL	########	12-Jan-04	0-Jan-00	72742BLK	METALS	TRG	7439-92-1	48	.		g		Lead	0.02	3	5	6020	24-Dec-03	5	LDC		J				7
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Sample	.	.	.	13-Dec-03	Phase II	al	TRUE	74B03SB0-03	.	.	.	Soil	K2310196-014	Phase II			12-Jan-04				TRG	NA	1.39	.		CEN		Total	.	0.05	1	Black		.			J				0196
SR-3	SR-3-03	74B03SB0-03	74B03SB0-03	Primary Sample	.	.	.	13-Dec-03	Phase II	Analytic al	TRUE	74B03SB0-03	.	.	.	Soil	K2310196-014	Phase II		14-Jan-04	15-Jan-04				TRG	NA	78.9	.		meq/ 100g		Exchange Capacity	.	0.5	10	6010B		.			.				K231 0196
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	11.8	UN		g		Y	.	.		(Total)		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	57.2	.		g		LEAD	.	.		(Total)		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	9800	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	19000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	1100	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	9100	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	16000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	11000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	12000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	8800	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	12000	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	2200	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	15000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	2000	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	12000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	9800	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	4600	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-1	74B04SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	14000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	11.8	UN		g		Y	.	.		(Total)		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	28.9	.		g		LEAD	.	.		(Total)		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	98	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	190	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	9.8	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	37	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	82	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	60	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	61	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	46	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	46	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	38	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	73	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	98	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	11	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B04	74B04-00	74B04SA0-2	74B04SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B04SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	48	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.2	UN		g		Y	.	.		(Total)		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	51.3	*		g		LEAD	.	.		(Total)		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	220	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	320	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	2900	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	4200	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	3100	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	3400	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	2300	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	3300	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	530	J		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	5100	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	140	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	3100	E		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	1100	J		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1	74B05SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	4700	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	11000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	22000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	1100	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	2800	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	3800	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	2900	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	3000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	2000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	3400	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	2200	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	4800	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	2200	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	2900	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	11000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	960	J		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-1DL	74B05SA0-1DL	Sample	.	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	4800	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.9	UN		g		Y	.	.		(Total)		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	6.3	*		g		LEAD	.	.		(Total)		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	210	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	22	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy

complete analytical dataset

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA0-2	74B05SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B05SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	14	UN		g		Y	.	.		(Total)		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	9.9	*		g		LEAD	.	.		(Total)		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	230	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	12	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	24	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	24	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	12	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	12	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	24	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	24	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	24	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	12	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B05	74B05-00	74B05SA1-2	74B05SA1-2	Duplicate	74B05SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B05SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.3	U		g		Y	.	.		(Total)		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	316	.		g		LEAD	.	.		(Total)		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	220	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9.7	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	17	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	19	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	7.3	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	24	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	23	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	34	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	23	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	16	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-1	74B06SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	14	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.9	U		g		Y	.	.		(Total)		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	16.2	.		g		LEAD	.	.		(Total)		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	210	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	22	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B06	74B06-00	74B06SA0-2	74B06SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B06SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.5	UN		g		Y	.	.		(Total)		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	70.6	N		g		LEAD	.	.		(Total)		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	99	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	10	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	10	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	2.9	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	21	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	10	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	10	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	21	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	21	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	21	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	10	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	10	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-1	74B07SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.9	UN		g		Y	.	.		(Total)		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	42.8	*		g		LEAD	.	.		(Total)		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	210	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	22	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B07	74B07-00	74B07SA0-2	74B07SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B07SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	12.1	U		g		Y	.	.		(Total)		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	1270	.		g		LEAD	.	.		(Total)		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	200	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	10	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	47	N		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	98	N		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	72	N		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	78	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	57	N		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	73	N		µg/kg		E	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	21	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	75	N		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	21	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	81	N		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	21	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-1	74B08SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	72	N		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	15.1	U		g		Y	.	.		(Total)		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	12.3	.		g		LEAD	.	.		(Total)		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	130	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	120	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	13	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	13	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	13	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	26	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	26	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	13	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	13	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	26	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	26	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	26	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	13	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	130	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	13	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B08	74B08-00	74B08SA0-2	74B08SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B08SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	13	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.7	UN		g		Y	.	.		(Total)		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1110	*		g		LEAD	.	.		(Total)		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	210	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	5.5	J		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	67	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	140	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	95	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	140	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	73	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	100	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	16	J		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	130	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	120	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	45	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-1	74B09SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	110	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	14.9	UN		g		Y	.	.		(Total)		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	17.5	*		g		LEAD	.	.		(Total)		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	240	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	12	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	4.5	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	25	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	25	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	12	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	3.9	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	25	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	25	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	25	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	12	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B09	74B09-00	74B09SA0-2	74B09SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B09SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	20.4	.		g		Y	.	.		(Total)		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	2170	.		g		LEAD	.	.		(Total)		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	220	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	5.2	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	5.6	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	23	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	7.6	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	23	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	10	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	23	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	5.6	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	7.7	J		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-1	74B10SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	14.2	U		g		Y	.	.		(Total)		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	16.4	.		g		LEAD	.	.		(Total)		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	70	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	12	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	24	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	24	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	12	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	12	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	24	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	24	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	24	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	12	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B10	74B10-00	74B10SA0-2	74B10SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B10SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	19	.		g		Y	.	.		(Total)		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1700	.		g		LEAD	.	.		(Total)		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	230	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	12	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	3.4	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	24	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	12	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	12	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	24	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	13	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	24	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	12	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-1	74B11SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	7.3	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.9	U		g		Y	.	.		(Total)		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	4.7	U		g		LEAD	.	.		(Total)		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	210	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	22	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B11	74B11-00	74B11SA0-2	74B11SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B11SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	1780	.		g		Y	.	.		(Total)		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	53400	.		g		LEAD	.	.		(Total)		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	66	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	5.6	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	25	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	18	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	18	N		µg/kg		E	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	14	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	12	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-1	74B12SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	10.7	U		g		Y	.	.		(Total)		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	6	.		g		LEAD	.	.		(Total)		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	89	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	92	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	8.9	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	8.9	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	8.9	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	18	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	18	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	8.9	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	8.9	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	18	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	18	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	18	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	8.9	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	89	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	8.9	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B12	74B12-00	74B12SA0-2	74B12SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B12SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	8.9	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.2	UN		g		Y	.	.		(Total)		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	256	N		g		LEAD	.	.		(Total)		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	64	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	10	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	10	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	4.7	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	21	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	10	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	10	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	21	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	21	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	21	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	10	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	10	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-1	74B13SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	5.8	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.9	UN		g		Y	.	.		(Total)		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	10.8	N		g		LEAD	.	.		(Total)		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	75	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	22	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA0-2	74B13SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B13SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12	UN		g		Y	.	.		(Total)		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	271	N		g		LEAD	.	.		(Total)		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	120	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	17	.		µg/kg		ENE	.	.		SVOCs		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	200	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	500	E		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	300	E		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	410	E		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	250	E		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	260	E		µg/kg		E	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	88	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	250	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	390	E		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	71	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1	74B13SA1-1	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	74B13SA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	250	E		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	2000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	3900	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	200	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	190	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	410	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	290	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	380	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	200	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	260	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	320	N		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	180	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	410	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	360	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	2000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	53	J		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B13	74B13-00	74B13SA1-1DL	74B13SA1-1DL	Duplicate	74B13SA0-1	.	.	1-Mar-00	2000	al	TRUE	1DL	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	160	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	11.9	UN		g		Y	.	.		(Total)		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	357	N		g		LEAD	.	.		(Total)		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	99	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	200	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.9	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9.9	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	20	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	20	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	9.9	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	N		µg/kg		E	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	13	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	7	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	99	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	9.9	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-1	74B14SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	9.9	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	11.6	UN		g		Y	.	.		(Total)		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	11.5	N		g		LEAD	.	.		(Total)		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	96	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	67	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.6	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9.6	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	9.6	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	20	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	20	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	9.6	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	9.6	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	20	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	9.6	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	96	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	9.6	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B14	74B14-00	74B14SA0-2	74B14SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B14SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	9.6	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.8	UN		g		Y	.	.		(Total)		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1060	N		g		LEAD	.	.		(Total)		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	87	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	6.6	N		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	65	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	130	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	96	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	97	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	50	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	88	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	110	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	110	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	48	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-1	74B15SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	110	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	11.7	UN		g		Y	.	.		(Total)		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	6.8	N		g		LEAD	.	.		(Total)		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	97	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	97	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.7	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9.7	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	9.7	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	20	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	20	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	9.7	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	9.7	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	20	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	9.7	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	97	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	9.7	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B15	74B15-00	74B15SA0-2	74B15SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B15SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	9.7	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	11.9	UN		g		Y	.	.		(Total)		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	797	N		g		LEAD	.	.		(Total)		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	99	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	200	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.9	U		µg/kg		ENE	.	.		SVOCs		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9.9	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	10	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	6.5	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	20	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	9.9	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	9.7	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	20	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	7.9	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	99	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	13	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-1	74B16SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	9.8	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.1	UN		g		Y	.	.		(Total)		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	3.4	U		g		LEAD	.	.		(Total)		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	59	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	10	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	10	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	21	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	21	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	10	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	10	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	21	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	21	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	21	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	10	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	10	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B16	74B16-00	74B16SA0-2	74B16SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B16SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.1	UN		g		Y	.	.		(Total)		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	448	N		g		LEAD	.	.		(Total)		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	73	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	10	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	10	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	21	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	21	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	10	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	10	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	21	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	21	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	21	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	10	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	10	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-1	74B17SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12	UN		g		Y	.	.		(Total)		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	6.2	*		g		LEAD	.	.		(Total)		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	94	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	10	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	10	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	20	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	20	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	10	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	10	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	20	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	10	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	10	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B17	74B17-00	74B17SA0-2	74B17SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B17SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	11.5	U		g		Y	.	.		(Total)		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	59.6	.		g		LEAD	.	.		(Total)		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	96	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	69	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.6	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9.6	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	9.6	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	20	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	20	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	9.6	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	5.2	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	20	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	9.6	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	96	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-1	74B18SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	9.6	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.6	U		g		Y	.	.		(Total)		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	14.5	.		g		LEAD	.	.		(Total)		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	100	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	23	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	23	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	23	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	23	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	23	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA0-2	74B18SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B18SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.3	U		g		Y	.	.		(Total)		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	9.5	.		g		LEAD	.	.		(Total)		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	67	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	23	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	23	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	23	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	23	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	23	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B18	74B18-00	74B18SA1-2	74B18SA1-2	Duplicate	74B18SA0-2	.	.	1-Mar-00	2000	al	TRUE	74B18SA1-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.9	UN		g		Y	.	.		(Total)		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	2680	*		g		LEAD	.	.		(Total)		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	230	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	6.8	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	7.4	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	24	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	9.1	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	24	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	24	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	24	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	7.7	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-1	74B19SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	8.5	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	14.6	UN		g		Y	.	.		(Total)		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	24.8	*		g		LEAD	.	.		(Total)		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	240	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	12	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	7.6	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	4.1	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	25	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	12	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	12	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	25	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	25	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	25	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	12	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	15	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA0-2	74B19SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B19SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	899	N		g		Y	.	.		(Total)		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	87	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	12	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	5.7	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	6.8	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	24	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	12	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	9.3	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	24	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	24	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	24	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	7.1	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1	74B19SA1-1	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	74B19SA1-1	7-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	8.2	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B19	74B19-00	74B19SA1-1DL	74B19SA1-1DL	Duplicate	74B19SA0-1	.	.	7-Mar-00	2000	al	TRUE	1DL	7-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	38000	E		g		LEAD	.	.		(Total)		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	3930	N		g		Y	.	.		(Total)		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	69700	N		g		LEAD	.	.		(Total)		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	200	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	10	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	10	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	29	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	28	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	21	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	10	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	22	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	21	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	17	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	21	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	9.8	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-1	74B20SA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	15	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.8	UN		g		Y	.	.		(Total)		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	2.4	U		g		LEAD	.	.		(Total)		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	120	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	22	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B20	74B20-00	74B20SA0-2	74B20SA0-2	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74B20SA0-2	1-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	12.2	U		g		Y	.	.		(Total)		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	30.1	.		g		LEAD	.	.		(Total)		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	1000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	2000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	230	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	3700	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	6700	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	4200	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	4700	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	180	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	6600	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	210	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	2500	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	210	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	2800	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	1000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	1300	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1	74B21SA0-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-1	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	3900	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	10000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	20000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	1000	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	3800	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	6100	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	3500	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	4000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	1000	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	6900	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	2100	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	2100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	2100	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	3000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	10000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	1200	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-1DL	74B21SA0-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	4100	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7440-36-0	12.5	U		g		Y	.	.		(Total)		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	7439-92-1	4.9	.		g		LEAD	.	.		(Total)		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	110	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	7	J		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	78	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	150	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	120	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	130	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	80	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	99	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	21	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	83	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	21	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	130	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	34	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B21	74B21-00	74B21SA0-2	74B21SA0-2	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74B21SA0-2	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	99	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	14	UJ		g		Y	.	.		(Total)		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1500	.		g		LEAD	.	.		(Total)		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	230	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	12	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	9.6	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	11	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	9.4	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	12	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	12	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	24	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	24	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	24	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	12	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B22	74B22-00	74B22SA0-1	74B22SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B22SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	15.4	UJ		g		Y	.	.		(Total)		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	55.2	.		g		LEAD	.	.		(Total)		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	130	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	250	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	13	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	13	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	4.3	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	26	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	26	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	13	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	13	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	26	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	26	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	26	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	13	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	130	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	13	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B23	74B23-00	74B23SA0-1	74B23SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B23SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	13	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.2	UJ		g		Y	.	.		(Total)		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	191	.		g		LEAD	.	.		(Total)		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	220	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	20	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	49	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	34	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	31	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	16	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	35	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	35	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	15	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B24	74B24-00	74B24SA0-1	74B24SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B24SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	33	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	5	.		g		LEAD	.	.		(Total)		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	97	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	190	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.7	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9.7	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	9.7	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	20	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	20	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	9.7	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	9.7	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	20	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	9.7	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	97	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	9.7	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B25	74B25-00	74B25SA0-1	74B25SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B25SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	9.7	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.1	UJ		g		Y	.	.		(Total)		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	54.2	.		g		LEAD	.	.		(Total)		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	210	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	22	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	6.1	J		µg/kg		E	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B26	74B26-00	74B26SA0-1	74B26SA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74B26SA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	14.7	U		g		Y	.	.		(Total)		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	168	.		g		LEAD	.	.		(Total)		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	240	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	12	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	25	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	25	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	12	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	12	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	25	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	25	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	25	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	12	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B27	74B27-00	74B27SA0-1	74B27SA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74B27SA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.9	U		g		Y	.	.		(Total)		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	232	*		g		LEAD	.	.		(Total)		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	210	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	7.6	J		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	9.2	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	22	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	22	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	22	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	9.5	J		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B28	74B28-00	74B28SA0-1	74B28SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B28SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	18.4	.		g		Y	.	.		(Total)		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1470	*		g		LEAD	.	.		(Total)		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	220	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	11	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	23	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	23	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	11	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	11	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	23	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	23	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	23	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	11	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B29	74B29-00	74B29SA0-1	74B29SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B29SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12.2	U		g		Y	.	.		(Total)		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	198	*		g		LEAD	.	.		(Total)		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	100	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	200	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	10	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	10	U		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	21	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	21	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	10	U		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	10	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	21	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	21	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	21	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	10	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	100	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	10	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B30	74B30-00	74B30SA0-1	74B30SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B30SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	10	U		µg/kg		PYRENE	.	.		SVOCs		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	19.4	.		g		Y	.	.		(Total)		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1200	*		g		LEAD	.	.		(Total)		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	120	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	240	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	12	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	14	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	30	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	22	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	25	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	14	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	29	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	33	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	25	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	25	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	41	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	120	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B31	74B31-00	74B31SA0-1	74B31SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B31SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	19	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	88.5	*		g		LEAD	.	.		(Total)		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	110	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	180	N		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	11	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	1500	E		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	2300	E		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	2000	E		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	2600	E		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	1300	E		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	1700	E		µg/kg		E	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	400	E		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	1500	E		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	23	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	2500	E		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	110	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	230	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1	74B32SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B32SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	1600	E		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	5500	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	11000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	550	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	1300	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	2300	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	1900	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	2200	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	1100	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	1500	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	340	J		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	1700	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	1100	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	2200	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	5500	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	170	J		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B32	74B32-00	74B32SA0-1DL	74B32SA0-1DL	Sample	.	.	.	16-Mar-00	2000	al	TRUE	1DL	16-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	1600	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	17.4	*		g		LEAD	.	.		(Total)		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	98	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	190	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.8	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	33	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	49	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	40	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	38	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	23	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	49	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	100	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	37	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	98	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	9.8	U		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B33	74B33-00	74B33SA0-1	74B33SA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74B33SA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	76	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	10.8	U		g		Y	.	.		(Total)		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	156	.		g		LEAD	.	.		(Total)		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	2700	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	5300	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	2000	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	33000	E		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	58000	E		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	47000	E		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	47000	E		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	36000	E		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	40000	E		µg/kg		E	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	5700	E		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	37000	E		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	550	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	52000	E		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	2700	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	7400	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1	74B34SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B34SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	37000	E		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	140000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	270000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	14000	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	30000	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	51000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	47000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	47000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	34000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	37000	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	22000	J		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	32000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	28000	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	54000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	140000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	6000	J		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B34	74B34-00	74B34SA0-1DL	74B34SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	34000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	11.6	U		g		Y	.	.		(Total)		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	73.8	.		g		LEAD	.	.		(Total)		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	96	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	69	J		µg/kg		THYLENE	.	.		SVOCs		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.6	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	8.6	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	12	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	13	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	20	U		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	6.2	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	16	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	20	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	9.6	U		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	96	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	15	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B35	74B35-00	74B35SA0-1	74B35SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B35SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B36	74B36-00	74B36SA0-1	74B36SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B36SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	25.6	.		g		LEAD	.	.		(Total)		.			.				cy
74B37	74B37-00	74B37SA0-1	74B37SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B37SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.7	U		g		Y	.	.		(Total)		.			.				cy
74B37	74B37-00	74B37SA0-1DL	74B37SA0-1DL	Sample	.	.	.	23-Mar-00	2000	al	TRUE	1DL	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	80300	.		g		LEAD	.	.		(Total)		.			.				cy
74B38	74B38-00	74B38SA0-1	74B38SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B38SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13.9	U		g		Y	.	.		(Total)		.			.				cy
74B38	74B38-00	74B38SA0-1	74B38SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B38SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	205	.		g		LEAD	.	.		(Total)		.			.				cy
74B39	74B39-00	74B39SA0-1	74B39SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B39SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	31.3	.		g		LEAD	.	.		(Total)		.			.				cy
74B40	74B40-00	74B40SA0-1	74B40SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B40SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	13.5	.		g		LEAD	.	.		(Total)		.			.				cy
74B41	74B41-00	74B41SA0-1	74B41SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B41SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	29	.		g		LEAD	.	.		(Total)		.			.				cy
74B42	74B42-00	74B42SA0-1	74B42SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B42SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	22.9	.		g		LEAD	.	.		(Total)		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	1780	.		g		Y	.	.		(Total)		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	42.6	.		g		LEAD	.	.		(Total)		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	96	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	190	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	9.6	U		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9.6	J		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	19	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	15	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	16	J		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	7.9	J		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	16	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	20	U		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	18	J		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	20	U		µg/kg		E	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	16	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	96	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	10	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B43	74B43-00	74B43SA0-1	74B43SA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74B43SA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	10.3	.		g		Y	.	.		(Total)		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	168	.		g		LEAD	.	.		(Total)		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	85	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	170	.		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	630	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	7800	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	10000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	8800	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	14000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	9000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	6000	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	2000	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	12000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	17	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	11000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	2800	.		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	2900	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1	74B44SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B44SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	11000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	8500	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	17000	.		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	710	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	9200	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	14000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	13000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	13000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	9800	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	12000	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	2900	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	13000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	1700	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	14000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	8500	.		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	3400	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B44	74B44-00	74B44SA0-1DL	74B44SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	12000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	10.4	.		g		Y	.	.		(Total)		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	12.7	.		g		LEAD	.	.		(Total)		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	86	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	170	.		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	8.6	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	8.6	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	8.6	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	18	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	18	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	8.6	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	8.6	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	18	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	18	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	18	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	8.6	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	86	.		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	8.6	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B45	74B45-00	74B45SA0-1	74B45SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B45SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	5.9	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	10.7	.		g		Y	.	.		(Total)		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	21.5	.		g		LEAD	.	.		(Total)		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	86	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	170	.		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	8.6	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	8.6	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	4	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	5.6	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	18	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	8.6	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	7.3	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	18	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	13	.		µg/kg		THENE	.	.		SVOCs		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	18	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	7.1	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	86	.		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	12	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA0-1	74B46SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B46SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	7.5	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	21.6	.		g		LEAD	.	.		(Total)		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	89	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	180	.		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	8.9	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	8.9	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	4.8	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	6.5	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	18	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	7.2	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	8.1	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	18	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	10	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	18	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	6.2	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	89	.		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	8.9	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B46	74B46-00	74B46SA1-1	74B46SA1-1	Duplicate	74B46SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B46SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	8.9	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B47	74B47-00	74B47SA0-1	74B47SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B47SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	12	.		g		Y	.	.		(Total)		.			.				cy
74B47	74B47-00	74B47SA0-1	74B47SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B47SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	135	.		g		LEAD	.	.		(Total)		.			.				cy
74B48	74B48-00	74B48SA0-1	74B48SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B48SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	13	.		g		Y	.	.		(Total)		.			.				cy
74B48	74B48-00	74B48SA0-1	74B48SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B48SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	9.7	.		g		LEAD	.	.		(Total)		.			.				cy
74B48	74B48-00	74B48SA1-1	74B48SA1-1	Duplicate	74B48SA0-1	.	.	31-Mar-00	2000	al	TRUE	74B48SA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	7.5	.		g		LEAD	.	.		(Total)		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	10.4	.		g		Y	.	.		(Total)		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	55.1	.		g		LEAD	.	.		(Total)		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	86	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	170	.		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	8.6	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	160	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	310	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	260	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	360	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	190	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	220	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	49	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	230	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	18	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	330	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	86	.		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	52	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1	74B49SA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74B49SA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	210	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	83-32-9	1700	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	208-96-8	3400	.		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	120-12-7	170	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	56-55-3	160	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	50-32-8	290	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	205-99-2	260	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	191-24-2	310	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	207-08-9	160	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	218-01-9	200	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	53-70-3	43	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	206-44-0	180	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	86-73-7	350	.		µg/kg		E	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	193-39-5	310	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	91-20-3	1700	.		µg/kg		LENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	85-01-8	56	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
74B49	74B49-00	74B49SA0-1DL	74B49SA0-1DL	Sample	.	.	.	31-Mar-00	2000	al	TRUE	1DL	31-Mar-00	.	.	Soil	.	2000							TRG	129-00-0	200	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B50	74B50-00	74B50SA0-1	74B50SA0-1	Sample	.	.	.	4-Apr-00	2000	al	TRUE	74B50SA0-1	4-Apr-00	.	.	Soil	.	2000							TRG	7439-92-1	22	.		g		LEAD	.	.		(Total)		.			.				cy
74B51	74B51-00	74B51SA0-1	74B51SA0-1	Sample	.	.	.	4-Apr-00	2000	al	TRUE	74B51SA0-1	4-Apr-00	.	.	Soil	.	2000							TRG	7439-92-1	11.6	.		g		LEAD	.	.		(Total)		.			.				cy
74B52	74B52-00	74B52SA0-1	74B52SA0-1	Sample	.	.	.	4-Apr-00	2000	al	TRUE	74B52SA0-1	4-Apr-00	.	.	Soil	.	2000							TRG	7439-92-1	19.1	J		g		LEAD	.	.		(Total)		.			.				cy
74B01	74B01-03	74E0101	74E0101	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0101	13-Aug-03	0-Jan-00	72517	MISC	AP63899	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	0.1	J		g		Antimony	0.02	0.2	1	6020	6-Jan-04	57.9	LDC		U			.1	3
74B01	74B01-03	74E0101	74E0101	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0101	13-Aug-03	0-Jan-00	72517	MISC	AP63899	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	2.9	.		g		Lead	0.02	1.4	1	6020	6-Jan-04	57.9	LDC		.				3
74B01	74B01-03	74E0101A	74E0101A	Sample	.	rate	posit	13-Dec-03	Phase II	al	TRUE	74E0101A	13-Dec-03	0-Jan-00	72517	MISC	AP63911	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	0.1	J		g		Antimony	0.02	0.3	1	6020	6-Jan-04	63.5	LDC		U			.1	3
74B01	74B01-03	74E0101A	74E0101A	Sample	.	rate	posit	13-Dec-03	Phase II	al	TRUE	74E0101A	13-Dec-03	0-Jan-00	72517	MISC	AP63911	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	2.7	.		g		Lead	0.02	1.6	1	6020	6-Jan-04	63.5	LDC		.				3
74B01	74B01-03	74E0101PA0-0	74E0101PA0-0	Sample	.	Plant	a	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55840	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.4	U		g		Antimony	0.03	0.4	1	6020	16-Aug-03	76.8	LDC		.				8
74B01	74B01-03	74E0101PA0-0	74E0101PA0-0	Sample	.	Plant	a	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55840	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	2.6	U		g		Lead	0.03	2.6	1	6020	16-Aug-03	76.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55822	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	0.3	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55822	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	32.9	.		g		Lead	0.01	0.6	1	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67416	SOIL	AP55822	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67416BLK	METALS	TRG	7440-47-3	19.4	.		g		Chromium	0.07	2	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67416	SOIL	AP55822	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67416BLK	METALS	TRG	7440-62-2	41.4	.		g		Vanadium	0.01	10	20	6020	16-Aug-03	2.8	LDC		J				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7429-90-5	9980	.		g		Aluminum	0.04	41	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-38-2	4.3	.		g		Arsenic	0.02	2	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-39-3	87.4	.		g		Barium	0	41	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-41-7	1	U		g		Beryllium	0.01	1	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-70-2	7660	.		g		Calcium	2.69	1030	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-48-4	10	U		g		Cobalt	0.01	10	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-50-8	18	.		g		Copper	0.02	5	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-89-6	18200	.		g		Iron	4.05	41	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-95-4	6120	.		g		m	0.6	1030	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-96-5	338	.		g		e	0	3	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-02-0	13.8	.		g		Nickel	0.02	8	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-09-7	4420	.		g		Potassium	0.93	1030	20	6020	16-Aug-03	2.8	LDC		J				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-23-5	1030	U		g		Sodium	2.66	1030	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	20	6020	16-Aug-03	2.8	LDC		.				8
74B01	74B01-03	74E0101SA0-1	74E0101SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55822	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-66-6	85.1	.		g		Zinc	0.12	4	20	6020	16-Aug-03	2.8	LDC		.				8
74B04	74B04-03	74E0102PA0-0	74E0102PA0-0	Sample	.	Plant	ex	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55841	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.3	U		g		Antimony	0.02	0.3	1	6020	16-Aug-03	63.7	LDC		.				8
74B04	74B04-03	74E0102PA0-0	74E0102PA0-0	Sample	.	Plant	ex	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55841	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	1.9	.		g		Lead	0.02	1.7	1	6020	16-Aug-03	63.7	LDC		.				8
74B04	74B04-03	74E0102SA0-1	74E0102SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55823	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	0.2	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	3.6	LDC		.				8
74B04	74B04-03	74E0102SA0-1	74E0102SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55823	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	12.6	.		g		Lead	0.01	0.6	1	6020	16-Aug-03	3.6	LDC		.				8
74B07	74B07-03	74E0103	74E0103	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0103	13-Aug-03	0-Jan-00	72517	MISC	AP63901	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	1.3	.		g		Antimony	0.02	0.3	1	6020	6-Jan-04	61.7	LDC		.				3
74B07	74B07-03	74E0103	74E0103	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0103	13-Aug-03	0-Jan-00	72517	MISC	AP63901	Phase II	APPL	9-Jan-04	27-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	40.5	.		g		Lead	0.09	7.8	10	6020	6-Jan-04	61.7	LDC		.				3
74B07	74B07-03	74E0103PA0-0	74E0103PA0-0	Sample	.	Plant	a	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55842	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.4	U		g		Antimony	0.03	0.4	1	6020	16-Aug-03	72.3	LDC		.				8
74B07	74B07-03	74E0103PA0-0	74E0103PA0-0	Sample	.	Plant	a	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55842	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	2.5	.		g		Lead	0.03	2.2	1	6020	16-Aug-03	72.3	LDC		.				8
74B07	74B07-03	74E0103SA0-1	74E0103SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55824	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	3.3	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	10.4	LDC		.				8
74B07	74B07-03	74E0103SA0-1	74E0103SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55824	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	568	.		g		Lead	0.78	67	100	6020	16-Aug-03	10.4	LDC		.				8
74B09	74B09-03	74E0104-74E0107	74E0104-74E0107	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0107	13-Aug-03	0-Jan-00	72517	MISC	AP63902	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	0.2	U		g		Antimony	0.02	0.2	1	6020	6-Jan-04	55.6	LDC		.				3
74B09	74B09-03	74E0104-74E0107	74E0104-74E0107	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0107	13-Aug-03	0-Jan-00	72517	MISC	AP63902	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	1.4	U		g		Lead	0.02	1.4	1	6020	6-Jan-04	55.6	LDC		.				3
74B09	74B09-03	74E0104A	74E0104A	Sample	.	rate	posit	16-Dec-03	Phase II	al	TRUE	74E0104A	16-Dec-03	0-Jan-00	72517	MISC	AP63907	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	1.2	.		g		Antimony	0.03	0.4	1	6020	6-Jan-04	75.3	LDC		.				3
74B09	74B09-03	74E0104A	74E0104A	Sample	.	rate	posit	16-Dec-03	Phase II	al	TRUE	74E0104A	16-Dec-03	0-Jan-00	72517	MISC	AP63907	Phase II	APPL	9-Jan-04	27-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	72.9	.		g		Lead	0.14	12	5	6020	6-Jan-04	75.3	LDC		.				3

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B09	74B09-03	74E0104PA0-0	74E0104PA0-0	Sample	.	Plant	lwee	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55843	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.4	U		g		Antimony	0.04	0.4	1	6020	16-Aug-03	77.7	LDC		.				8
74B09	74B09-03	74E0104PA0-0	74E0104PA0-0	Sample	.	Plant	lwee	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55843	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	4	.		g		Lead	0.03	2.7	1	6020	16-Aug-03	77.7	LDC		.				8
74B09	74B09-03	74E0104SA0-1	74E0104SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55825	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	2380	.		g		Antimony	91.4	1140	10000	6020	16-Aug-03	12.5	LDC		.				8
74B09	74B09-03	74E0104SA0-1	74E0104SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55825	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	55200	.		g		Lead	80	6860	10000	6020	16-Aug-03	12.5	LDC		.				8
74B10	74B10-03	74E0105PA0-0	74E0105PA0-0	Sample	.	Plant	lwee	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55844	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.5	.		g		Antimony	0.04	0.5	1	6020	16-Aug-03	81.7	LDC		.				8
74B10	74B10-03	74E0105PA0-0	74E0105PA0-0	Sample	.	Plant	lwee	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55844	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	21.3	.		g		Lead	0.04	3.3	1	6020	16-Aug-03	81.7	LDC		.				8
74B10	74B10-03	74E0105SA0-1	74E0105SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55826	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	1430	.		g		Antimony	2.01	25	4000	6020	16-Aug-03	20.5	LDC		.				8
74B10	74B10-03	74E0105SA0-1	74E0105SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55826	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	31600	.		g		Lead	35.2	3020	4000	6020	16-Aug-03	20.5	LDC		.				8
74B20	74B20-03	74E0106	74E0106	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0106	13-Aug-03	0-Jan-00	72517	MISC	AP63904	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	1.2	.		g		Antimony	0.02	0.2	1	6020	6-Jan-04	58.4	LDC		.				3
74B20	74B20-03	74E0106	74E0106	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0106	13-Aug-03	0-Jan-00	72517	MISC	AP63904	Phase II	APPL	9-Jan-04	27-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	64.9	.		g		Lead	0.08	7.2	5	6020	6-Jan-04	58.4	LDC		.				3
74B20	74B20-03	74E0106PA0-0	74E0106PA0-0	Sample	.	Plant	ass	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55845	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.5	.		g		Antimony	0.01	0.2	1	6020	16-Aug-03	38.9	LDC		.				8
74B20	74B20-03	74E0106PA0-0	74E0106PA0-0	Sample	.	Plant	ass	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55845	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	18	.		g		Lead	0.01	1	1	6020	16-Aug-03	38.9	LDC		.				8
74B20	74B20-03	74E0106SA0-1	74E0106SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55827	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	4.6	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	3.5	LDC		.				8
74B20	74B20-03	74E0106SA0-1	74E0106SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55827	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	831	.		g		Lead	0.73	62	100	6020	16-Aug-03	3.5	LDC		.				8
74B24	74B24-03	74E0107PA0-0	74E0107PA0-0	Sample	.	Plant	lwee	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55846	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.05	0.7	1	6020	16-Aug-03	84.8	LDC		.				8
74B24	74B24-03	74E0107PA0-0	74E0107PA0-0	Sample	.	Plant	lwee	13-Aug-03	Phase I	al	TRUE	0	13-Aug-03	0-Jan-00	67366	MISC	AP55846	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	3.9	U		g		Lead	0.05	3.9	1	6020	16-Aug-03	84.8	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55828	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	6.3	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55828	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	963	.		g		Lead	0.8	69	100	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67416	SOIL	AP55828	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67416BLK	METALS	TRG	7440-47-3	28.8	.		g		Chromium	0.08	2	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67416	SOIL	AP55828	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67416BLK	METALS	TRG	7440-62-2	70.6	.		g		Vanadium	0.01	11	20	6020	16-Aug-03	12.7	LDC		J				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7429-90-5	17100	.		g		Aluminum	0.05	46	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-38-2	8	.		g		Arsenic	0.02	2	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-39-3	157	.		g		Barium	0.01	46	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-41-7	1	U		g		Beryllium	0.01	1	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-70-2	9300	.		g		Calcium	2.99	1150	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-48-4	12.7	.		g		Cobalt	0.01	11	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-50-8	29.7	.		g		Copper	0.02	6	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-89-6	28900	.		g		Iron	4.51	46	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-95-4	10400	.		g		m	0.67	1150	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-96-5	428	.		g		e	0.01	3	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-02-0	26.9	.		g		Nickel	0.02	9	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-09-7	6460	.		g		Potassium	1.04	1150	20	6020	16-Aug-03	12.7	LDC		J				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-23-5	4790	.		g		Sodium	2.97	1150	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0.01	2	20	6020	16-Aug-03	12.7	LDC		.				8
74B24	74B24-03	74E0107SA0-1	74E0107SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55828	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-66-6	93.1	.		g		Zinc	0.13	5	20	6020	16-Aug-03	12.7	LDC		.				8
74B27	74B27-03	74E0108PA0-0	74E0108PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55847	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.6	U		g		Antimony	0.05	0.6	1	6020	16-Aug-03	82.7	LDC		.				8
74B27	74B27-03	74E0108PA0-0	74E0108PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55847	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	3.5	U		g		Lead	0.04	3.5	1	6020	16-Aug-03	82.7	LDC		.				8
74B27	74B27-03	74E0108SA0-1	74E0108SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55829	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	0.7	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	26.9	LDC		.				8
74B27	74B27-03	74E0108SA0-1	74E0108SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55829	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	45	.		g		Lead	0.01	0.8	1	6020	16-Aug-03	26.9	LDC		.				8
74B27	74B27-03	74E0108SA0-1	74E0108SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55829	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	72.4	.		g		Lead	0.1	8	10	6020	16-Aug-03	26.9	LDC		.				8
74B29	74B29-03	74E0109PA0-0	74E0109PA0-0	Sample	.	Plant	enia	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55848	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.7	.		g		Antimony	0.01	0.2	1	6020	16-Aug-03	42.2	LDC		.				8
74B29	74B29-03	74E0109PA0-0	74E0109PA0-0	Sample	.	Plant	enia	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55848	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	13	.		g		Lead	0.01	1	1	6020	16-Aug-03	42.2	LDC		.				8
74B29	74B29-03	74E0109SA0-1	74E0109SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55830	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	2.4	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	8.5	LDC		.				8
74B29	74B29-03	74E0109SA0-1	74E0109SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55830	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	377	.		g		Lead	0.77	66	100	6020	16-Aug-03	8.5	LDC		.				8
74B30	74B30-03	74E0110PA0-0	74E0110PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55849	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.5	.		g		Antimony	0.04	0.5	1	6020	16-Aug-03	80.9	LDC		.				8
74B30	74B30-03	74E0110PA0-0	74E0110PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55849	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	3.1	.		g		Lead	0.04	3.1	1	6020	16-Aug-03	80.9	LDC		.				8
74B30	74B30-03	74E0110SA0-1	74E0110SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55831	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	9.5	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	25	LDC		.				8
74B30	74B30-03	74E0110SA0-1	74E0110SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55831	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	1240	.		g		Lead	0.93	80	100	6020	16-Aug-03	25	LDC		.				8
74B37	74B37-03	74E0111PA0-0	74E0111PA0-0	Sample	.	Plant	enia	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55850	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.2	.		g		Antimony	0.02	0.2	1	6020	16-Aug-03	57.6	LDC		.				8
74B37	74B37-03	74E0111PA0-0	74E0111PA0-0	Sample	.	Plant	enia	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55850	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	1.4	U		g		Lead	0.02	1.4	1	6020	16-Aug-03	57.6	LDC		.				8
74B37	74B37-03	74E0111SA0-1	74E0111SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55832	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	0.5	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	3.4	LDC		.				8
74B37	74B37-03	74E0111SA0-1	74E0111SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55832	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	25.5	.		g		Lead	0.01	0.6	1	6020	16-Aug-03	3.4	LDC		.				8
74B41	74B41-03	74E0112PA0-0	74E0112PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55851	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	1.1	.		g		Antimony	0.05	0.6	1	6020	16-Aug-03	82.6	LDC		.				8
74B41	74B41-03	74E0112PA0-0	74E0112PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55851	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	3.4	U		g		Lead	0.04	3.4	1	6020	16-Aug-03	82.6	LDC		.				8
74B41	74B41-03	74E0112SA0-1	74E0112SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55833	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	0.6	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	32.7	LDC		.				8
74B41	74B41-03	74E0112SA0-1	74E0112SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55833	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	41.3	.		g		Lead	0.01	0.9	1	6020	16-Aug-03	32.7	LDC		.				8
74B32	74B32-03	74E0113	74E0113	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0113	13-Aug-03	0-Jan-00	72517	MISC	AP63914	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	0.1	J		g		Antimony	0.02	0.2	1	6020	6-Jan-04	50.2	LDC		U			.1	3
74B32	74B32-03	74E0113	74E0113	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0113	13-Aug-03	0-Jan-00	72517	MISC	AP63914	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	10.6	.		g		Lead	0.01	1.2	1	6020	6-Jan-04	50.2	LDC		.				3
74B32	74B32-03	74E0113B	74E0113B	Sample	.	rate	posit	15-Dec-03	Phase II	al	TRUE	74E0113B	15-Dec-03	0-Jan-00	72517	MISC	AP63910	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	0.1	J		g		Antimony	0.02	0.2	1	6020	6-Jan-04	50.2	LDC		U			.1	3
74B32	74B32-03	74E0113B	74E0113B	Sample	.	rate	posit	15-Dec-03	Phase II	al	TRUE	74E0113B	15-Dec-03	0-Jan-00	72517	MISC	AP63910	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	13.3	.		g		Lead	0.01	1.2	1	6020	6-Jan-04	50.2	LDC		.				3
74B32	74B32-03	74E0113IO	74E0113IO	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0113IO	13-Aug-03	0-Jan-00	72540	MISC	AP63917	Phase II	APPL	13-Jan-04	27-Jan-04	0-Jan-00	72540BLK	METALS	TRG	7440-36-0	0.2	U		g		Antimony	0.02	0.2	1	6020	6-Jan-04	52.4	LDC		.				3
74B32	74B32-03	74E0113IO	74E0113IO	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0113IO	13-Aug-03	0-Jan-00	72540	MISC	AP63917	Phase II	APPL	13-Jan-04	27-Jan-04	0-Jan-00	72540BLK	METALS	TRG	7439-92-1	8.6	.		g		Lead	0.02	1.3	1	6020	6-Jan-04	52.4	LDC		.				3
74B32	74B32-03	74E0113PA0-0	74E0113PA0-0	Sample	.	Plant	a	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55852	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.3	.		g		Antimony	0.03	0.3	1	6020	16-Aug-03	70.8	LDC		.				8
74B32	74B32-03	74E0113PA0-0	74E0113PA0-0	Sample	.	Plant	a	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55852	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.02	2.1	1	6020	16-Aug-03	70.8	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55834	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	0.6	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55834	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	84.9	.		g		Lead	0.01	0.6	1	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67416	SOIL	AP55834	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67416BLK	METALS	TRG	7440-47-3	23.9	.		g		Chromium	0.07	2	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67416	SOIL	AP55834	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67416BLK	METALS	TRG	7440-62-2	52	.		g		Vanadium	0.01	11	20	6020	16-Aug-03	7.1	LDC		J				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7429-90-5	11700	.		g		Aluminum	0.04	43	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-38-2	2.6	.		g		Arsenic	0.02	2	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-39-3	110	.		g		Barium	0	43	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-41-7	1	U		g		Beryllium	0.01	1	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-43-9	1	U		g		Cadmium	0	1	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-70-2	9660	.		g		Calcium	2.81	1080	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-48-4	11	U		g		Cobalt	0.01	11	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-50-8	25.9	.		g		Copper	0.02	5	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-89-6	21200	.		g		Iron	4.24	43	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-95-4	6860	.		g		m	0.63	1080	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7439-96-5	427	.		g		e	0	3	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-02-0	17	.		g		Nickel	0.02	9	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-09-7	5090	.		g		Potassium	0.98	1080	20	6020	16-Aug-03	7.1	LDC		J				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7782-49-2	1	U		g		Selenium	0.02	1	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-22-4	2	U		g		Silver	0.01	2	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-23-5	1310	.		g		Sodium	2.79	1080	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-28-0	2	U		g		Thallium	0	2	20	6020	16-Aug-03	7.1	LDC		.				8
74B32	74B32-03	74E0113SA0-1	74E0113SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67417	SOIL	AP55834	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67417BLK	METALS	TRG	7440-66-6	107	.		g		Zinc	0.12	4	20	6020	16-Aug-03	7.1	LDC		.				8
74B49	74B49-03	74E0114PA0-0	74E0114PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55853	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.5	U		g		Antimony	0.04	0.5	1	6020	16-Aug-03	80	LDC		.				8
74B49	74B49-03	74E0114PA0-0	74E0114PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55853	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	9.5	.		g		Lead	0.04	3	1	6020	16-Aug-03	80	LDC		.				8
74B49	74B49-03	74E0114SA0-1	74E0114SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55835	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	1.5	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	4.1	LDC		.				8
74B49	74B49-03	74E0114SA0-1	74E0114SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55835	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	221	.		g		Lead	0.73	63	100	6020	16-Aug-03	4.1	LDC		.				8
74B43	74B43-03	74E0115	74E0115	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0115	13-Aug-03	0-Jan-00	72540	MISC	AP64110	Phase II	APPL	13-Jan-04	27-Jan-04	0-Jan-00	72540BLK	METALS	TRG	7440-36-0	0.2	U		g		Antimony	0.02	0.2	1	6020	6-Jan-04	51.2	LDC		.				3
74B43	74B43-03	74E0115	74E0115	Sample	.	rate	posit	13-Aug-03	Phase II	al	TRUE	74E0115	13-Aug-03	0-Jan-00	72540	MISC	AP64110	Phase II	APPL	13-Jan-04	27-Jan-04	0-Jan-00	72540BLK	METALS	TRG	7439-92-1	3.5	.		g		Lead	0.01	1.2	1	6020	6-Jan-04	51.2	LDC		.				3
74B43	74B43-03	74E0115A	74E0115A	Sample	.	rate	posit	14-Dec-03	Phase II	al	TRUE	74E0115A	14-Dec-03	0-Jan-00	72517	MISC	AP63908	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	0.3	U		g		Antimony	0.02	0.3	1	6020	6-Jan-04	63.2	LDC		.				3
74B43	74B43-03	74E0115A	74E0115A	Sample	.	rate	posit	14-Dec-03	Phase II	al	TRUE	74E0115A	14-Dec-03	0-Jan-00	72517	MISC	AP63908	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	3.5	.		g		Lead	0.02	1.6	1	6020	6-Jan-04	63.2	LDC		.				3
74B43	74B43-03	74E0115PA0-0	74E0115PA0-0	Sample	.	Plant	a	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55854	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.3	U		g		Antimony	0.02	0.3	1	6020	16-Aug-03	65.7	LDC		.				8
74B43	74B43-03	74E0115PA0-0	74E0115PA0-0	Sample	.	Plant	a	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55854	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	1.7	U		g		Lead	0.02	1.7	1	6020	16-Aug-03	65.7	LDC		.				8
74B43	74B43-03	74E0115SA0-1	74E0115SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55836	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	0.2	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	0	LDC		.				8
74B43	74B43-03	74E0115SA0-1	74E0115SA0-1	Sample	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55836	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	16.2	.		g		Lead	0.01	0.6	1	6020	16-Aug-03	0	LDC		.				8
74B11	74B11-03	74E0116SA1-1	74E0116SA1-1	Duplicate	1	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67366	SOIL	AP55839	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.5	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	2.7	LDC		.				8
74B11	74B11-03	74E0116SA1-1	74E0116SA1-1	Duplicate	1	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67366	SOIL	AP55839	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	29.7	.		g		Lead	0.01	0.6	1	6020	16-Aug-03	2.7	LDC		.				8
74B15	74B15-03	74E0117SA1-1	74E0117SA1-1	Duplicate	1	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55837	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	0.3	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	0	LDC		.				8
74B15	74B15-03	74E0117SA1-1	74E0117SA1-1	Duplicate	1	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55837	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	15.4	.		g		Lead	0.01	0.6	1	6020	16-Aug-03	0	LDC		.				8
D	.	74E0118PA3-0	74E0118PA3-0	MS/MSD	.	Plant	.	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55855	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.4	U		g		Antimony	0.03	0.4	1	6020	16-Aug-03	71.5	LDC		.				8

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
D	.	74E0118PA3-0	74E0118PA3-0	MS/MSD	.	Plant	.	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55855	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.03	2.1	1	6020	16-Aug-03	71.5	LDC		.				8
D	.	74E0118SA3-1	74E0118SA3-1	MS/MSD	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55838	Phase I	APPL	2-Sep-03	3-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7440-36-0	7.4	.		g		Antimony	0.01	0.1	1	6020	16-Aug-03	19	LDC		.				8
D	.	74E0118SA3-1	74E0118SA3-1	MS/MSD	.	.	.	13-Aug-03	Phase I	al	TRUE	1	13-Aug-03	0-Jan-00	67365	SOIL	AP55838	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67365BLK	METALS	TRG	7439-92-1	991	.		g		Lead	0.86	74	100	6020	16-Aug-03	19	LDC		.				8
Coords	.	74E01BA	74E0113A	Sample	.	rate	posit	15-Dec-03	Phase II	al	TRUE	74E01BA	15-Dec-03	0-Jan-00	72517	MISC	AP63909	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7440-36-0	0.2	U		g		Antimony	0.02	0.2	1	6020	6-Jan-04	59.1	LDC		.				3
Coords	.	74E01BA	74E0113A	Sample	.	rate	posit	15-Dec-03	Phase II	al	TRUE	74E01BA	15-Dec-03	0-Jan-00	72517	MISC	AP63909	Phase II	APPL	9-Jan-04	12-Jan-04	0-Jan-00	72517BLK	METALS	TRG	7439-92-1	6.1	.		g		Lead	0.02	1.5	1	6020	6-Jan-04	59.1	LDC		.				3
Coords	.	74E01BA0-001	74E01BA0-001	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	001	13-Dec-03	0-Jan-00	71738	MISC	AP63167	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	1.9	.		g		Lead	0.02	1.9	1	6020	17-Dec-03	68.8	LDC		.				5
Coords	.	74E01BA0-002	74E01BA0-002	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	002	13-Dec-03	0-Jan-00	71813	MISC	AP63188	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2	U		g		Lead	0.02	2	1	6020	17-Dec-03	70.6	LDC		.				5
Coords	.	74E01BA0-003	74E01BA0-003	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	003	13-Dec-03	0-Jan-00	71738	MISC	AP63175	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2	U		g		Lead	0.02	2	1	6020	17-Dec-03	69.8	LDC		.				5
Coords	.	74E01BA0-004	74E01BA0-004	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	004	13-Dec-03	0-Jan-00	71738	MISC	AP63174	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.02	2.1	1	6020	17-Dec-03	70.9	LDC		.				5
Coords	.	74E01BA0-005	74E01BA0-005	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	005	13-Dec-03	0-Jan-00	71738	MISC	AP63168	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.3	.		g		Lead	0.02	2	1	6020	17-Dec-03	70	LDC		.				5
Coords	.	74E01BA0-006	74E01BA0-006	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	006	13-Dec-03	0-Jan-00	71738	MISC	AP63169	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	1.8	U		g		Lead	0.02	1.8	1	6020	17-Dec-03	67.4	LDC		.				5
Coords	.	74E01BA0-007	74E01BA0-007	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	007	13-Dec-03	0-Jan-00	71738	MISC	AP63170	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	4.6	.		g		Lead	0.02	1.7	1	6020	17-Dec-03	65.1	LDC		.				5
Coords	.	74E01BA0-009	74E01BA0-009	Sample	.	Liver	Bird	13-Dec-03	Phase II	al	TRUE	009	13-Dec-03	0-Jan-00	71738	MISC	AP63172	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	3	.		g		Lead	0.02	2	1	6020	17-Dec-03	70.1	LDC		.				5
Coords	.	74E01BA0-010	74E01BA0-010	Sample	.	Liver	Bird	14-Dec-03	Phase II	al	TRUE	010	14-Dec-03	0-Jan-00	71738	MISC	AP63173	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2	U		g		Lead	0.02	2	1	6020	17-Dec-03	70.1	LDC		.				5
Coords	.	74E01MA0-001	74E01MA0-001	Sample	.	Liver	mal	13-Dec-03	Phase II	al	TRUE	001	13-Dec-03	0-Jan-00	71813	MISC	AP63190	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2	U		g		Lead	0.02	2	1	6020	17-Dec-03	69.8	LDC		.				5
Coords	.	74E01MA0-002	74E01MA0-002	Sample	.	Liver	mal	13-Dec-03	Phase II	al	TRUE	002	13-Dec-03	0-Jan-00	71813	MISC	AP63191	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.03	2.1	1	6020	17-Dec-03	71.6	LDC		.				5
Coords	.	74E01MA0-003	74E01MA0-003	Sample	.	Liver	mal	13-Dec-03	Phase II	al	TRUE	003	13-Dec-03	0-Jan-00	71813	MISC	AP63189	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.02	2.1	1	6020	17-Dec-03	71.4	LDC		.				5
Coords	.	74E01MA0-004	74E01MA0-004	Sample	.	Liver	mal	15-Dec-03	Phase II	al	TRUE	004	15-Dec-03	0-Jan-00	71813	MISC	AP63196	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2	.		g		Lead	0.02	2	1	6020	17-Dec-03	70.6	LDC		.				5
Coords	.	74E01MA0-005	74E01MA0-005	Sample	.	Liver	mal	13-Dec-03	Phase II	al	TRUE	005	13-Dec-03	0-Jan-00	71813	MISC	AP63195	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.02	2.1	1	6020	17-Dec-03	71.1	LDC		.				5
Coords	.	74E01MA0-006	74E01MA0-006	Sample	.	Liver	mal	13-Dec-03	Phase II	al	TRUE	006	13-Dec-03	0-Jan-00	71813	MISC	AP63192	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2	U		g		Lead	0.02	2	1	6020	17-Dec-03	69.7	LDC		.				5
Coords	.	74E01MA0-007	74E01MA0-007	Sample	.	Liver	mal	13-Dec-03	Phase II	al	TRUE	007	13-Dec-03	0-Jan-00	71813	MISC	AP63193	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	1.9	U		g		Lead	0.02	1.9	1	6020	17-Dec-03	68.7	LDC		.				5
Coords	.	74E01MA0-008	74E01MA0-008	Sample	.	Liver	mal	15-Dec-03	Phase II	al	TRUE	008	15-Dec-03	0-Jan-00	71813	MISC	AP63187	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.02	2.1	1	6020	17-Dec-03	71.2	LDC		.				5
Coords	.	74E01MA0-009	74E01MA0-009	Sample	.	Liver	mal	13-Dec-03	Phase II	al	TRUE	009	13-Dec-03	0-Jan-00	71738	MISC	AP63176	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.03	2.1	1	6020	17-Dec-03	72	LDC		.				5
Coords	.	74E01MA0-010	74E01MA0-010	Sample	.	Liver	mal	14-Dec-03	Phase II	al	TRUE	010	14-Dec-03	0-Jan-00	71813	MISC	AP63194	Phase II	APPL	########	8-Jan-04	0-Jan-00	71813BLK	METALS	TRG	7439-92-1	2.3	U		g		Lead	0.03	2.3	1	6020	17-Dec-03	73.4	LDC		.				5
74G05	74G05-03	74E0201DA0-1	74E0201DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67501	SOIL	AP55874	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.9	.		g		Antimony	0.03	0.3	1	6020	16-Aug-03	68.4	LDC		.				8
74G05	74G05-03	74E0201DA0-1	74E0201DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67501	SOIL	AP55874	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	50.3	.		g		Lead	0.02	1.9	1	6020	16-Aug-03	68.4	LDC		.				8
74G05	74G05-03	74E0201IA0-0	74E0201IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56007	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	5	6020	19-Aug-03	24.4	LDC		.				1
74G05	74G05-03	74E0201IA0-0	74E0201IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56007	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	0.8	U		g		Lead	0.01	0.8	5	6020	19-Aug-03	24.4	LDC		.				1
74G05	74G05-03	74E0201PA0-0	74E0201PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55883	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	0.6	U		g		Antimony	0.05	0.6	1	6020	16-Aug-03	83.4	LDC		.				8
74G05	74G05-03	74E0201PA0-0	74E0201PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55883	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	3.6	U		g		Lead	0.04	3.6	1	6020	16-Aug-03	83.4	LDC		.				8
74G41	74G41-03	74E0202DA0-1	74E0202DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55865	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.3	.		g		Antimony	0.02	0.3	1	6020	16-Aug-03	64.4	LDC		.				8
74G41	74G41-03	74E0202DA0-1	74E0202DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55865	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	42.7	.		g		Lead	0.02	1.7	1	6020	16-Aug-03	64.4	LDC		.				8
74G41	74G41-03	74E0202IA0-0	74E0202IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP55997	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	5	6020	19-Aug-03	24.3	LDC		.				1
74G41	74G41-03	74E0202IA0-0	74E0202IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP55997	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	1.2	.		g		Lead	0.01	0.8	5	6020	19-Aug-03	24.3	LDC		.				1
74G41	74G41-03	74E0202PA0-0	74E0202PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55856	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.7	LDC		.				8
74G41	74G41-03	74E0202PA0-0	74E0202PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55856	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	4.2	U		g		Lead	0.05	4.2	1	6020	16-Aug-03	85.7	LDC		.				8
74G46	74G46-03	74E0203DA0-1	74E0203DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55866	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.4	.		g		Antimony	0.02	0.2	1	6020	16-Aug-03	47.8	LDC		.				8
74G46	74G46-03	74E0203DA0-1	74E0203DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55866	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	76.1	.		g		Lead	0.01	1.1	1	6020	16-Aug-03	47.8	LDC		.				8
74G46	74G46-03	74E0203IA0-0	74E0203IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP55998	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	5	6020	19-Aug-03	30.7	LDC		.				1
74G46	74G46-03	74E0203IA0-0	74E0203IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP55998	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	3.2	.		g		Lead	0.01	0.9	5	6020	19-Aug-03	30.7	LDC		.				1
74G46	74G46-03	74E0203PA0-0	74E0203PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55857	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.6	U		g		Antimony	0.05	0.6	1	6020	16-Aug-03	83.2	LDC		.				8
74G46	74G46-03	74E0203PA0-0	74E0203PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55857	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	9.5	.		g		Lead	0.04	3.6	1	6020	16-Aug-03	83.2	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67418	SOIL	AP55867	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67418BLK	METALS	TRG	7440-47-3	39.8	.		g		Chromium	0.17	5	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67418	SOIL	AP55867	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67418BLK	METALS	TRG	7440-62-2	87.5	.		g		Vanadium	0.03	25	20	6020	16-Aug-03	60	LDC		J				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	6-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-92-1	10700	.		g		Lead	1.75	150	100	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7429-90-5	20400	.		g		Aluminum	0.1	100	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-38-2	162	.		g		Arsenic	0.04	5	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-39-3	100	U		g		Barium	0.01	100	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-41-7	3	U		g		Beryllium	0.01	3	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-43-9	3	U		g		Cadmium	0.01	3	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-70-2	6030	.		g		Calcium	6.52	2500	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-48-4	25	U		g		Cobalt	0.01	25	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-50-8	45.5	.		g		Copper	0.04	13	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-89-6	34300	.		g		Iron	9.85	100	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-95-4	12700	.		g		m	1.47	2500	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-96-5	383	.		g		e	0.01	8	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-02-0	28.3	.		g		Nickel	0.04	20	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-09-7	7830	.		g		Potassium	2.27	2500	20	6020	16-Aug-03	60	LDC		J				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7782-49-2	3	U		g		Selenium	0.04	3	20	6020	16-Aug-03	60	LDC		UJ				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-22-4	5	U		g		Silver	0.02	5	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-23-5	19600	.		g		Sodium	6.47	2500	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-28-0	5	U		g		Thallium	0.01	5	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55867	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-66-6	146	.		g		Zinc	0.28	10	20	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204DA0-1	74E0204DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55867	Phase I	APPL	2-Sep-03	8-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	182	.		g		Antimony	0.02	0.3	1	6020	16-Aug-03	60	LDC		.				8
74G37	74G37-03	74E0204IA0-0	74E0204IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP55999	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.6	.		g		Antimony	0.01	0.1	5	6020	19-Aug-03	32	LDC		U			0.6	1
74G37	74G37-03	74E0204IA0-0	74E0204IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP55999	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	54.7	.		g		Lead	0.01	0.9	5	6020	19-Aug-03	32	LDC		.				1
74G37	74G37-03	74E0204PA0-0	74E0204PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55858	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.06	0.7	1	6020	16-Aug-03	86.5	LDC		.				8
74G37	74G37-03	74E0204PA0-0	74E0204PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67366	MISC	AP55858	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67366BLK	METALS	TRG	7439-92-1	8.1	.		g		Lead	0.05	4.4	1	6020	16-Aug-03	86.5	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67418	SOIL	AP55868	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67418BLK	METALS	TRG	7440-47-3	38.8	.		g		Chromium	0.33	10	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67418	SOIL	AP55868	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67418BLK	METALS	TRG	7440-62-2	113	.		g		Vanadium	0.05	49	20	6020	16-Aug-03	79.4	LDC		J				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	6-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-92-1	20400	.		g		Lead	3.4	291	100	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7429-90-5	19600	.		g		Aluminum	0.19	194	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-38-2	200	.		g		Arsenic	0.08	10	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-39-3	194	U		g		Barium	0.02	194	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-41-7	5	U		g		Beryllium	0.02	5	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-43-9	5	U		g		Cadmium	0.02	5	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-70-2	7090	.		g		Calcium	12.7	4850	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-48-4	49	U		g		Cobalt	0.02	49	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-50-8	43.2	.		g		Copper	0.08	24	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-89-6	32200	.		g		Iron	19.1	194	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-95-4	16200	.		g		m	2.85	4850	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-96-5	274	.		g		e	0.02	15	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-02-0	39	U		g		Nickel	0.08	39	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-09-7	9420	.		g		Potassium	4.4	4850	20	6020	16-Aug-03	79.4	LDC		J				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7782-49-2	5	U		g		Selenium	0.07	5	20	6020	16-Aug-03	79.4	LDC		UJ				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-22-4	10	U		g		Silver	0.04	10	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-23-5	52400	.		g		Sodium	12.6	4850	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-28-0	10	U		g		Thallium	0.02	10	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55868	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-66-6	111	.		g		Zinc	0.54	19	20	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205DA0-1	74E0205DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55868	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	176	.		g		Antimony	0.04	0.5	1	6020	16-Aug-03	79.4	LDC		.				8
74G38	74G38-03	74E0205IA0-0	74E0205IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56000	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	1	.		g		Antimony	0.01	0.2	5	6020	19-Aug-03	40.5	LDC		.				1
74G38	74G38-03	74E0205IA0-0	74E0205IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56000	Phase I	APPL	4-Sep-03	12-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	879	.		g		Lead	0.08	7	20	6020	19-Aug-03	40.5	LDC		.				1
74G38	74G38-03	74E0205PA0-0	74E0205PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55859	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.5	LDC		.				8
74G38	74G38-03	74E0205PA0-0	74E0205PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55859	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	22.8	.		g		Lead	0.05	4.1	1	6020	16-Aug-03	85.5	LDC		.				8
74G36	74G36-03	74E0206DA0-1	74E0206DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55869	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	1.2	.		g		Antimony	0.05	0.6	1	6020	16-Aug-03	83.4	LDC		.				8
74G36	74G36-03	74E0206DA0-1	74E0206DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55869	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	167	.		g		Lead	0.04	3.6	1	6020	16-Aug-03	83.4	LDC		.				8
74G36	74G36-03	74E0206IA0-0	74E0206IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56001	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	5	6020	19-Aug-03	29.3	LDC		.				1
74G36	74G36-03	74E0206IA0-0	74E0206IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56001	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	1.1	.		g		Lead	0.01	0.8	5	6020	19-Aug-03	29.3	LDC		.				1
74G36	74G36-03	74E0206PA0-0	74E0206PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55860	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.7	LDC		.				8
74G36	74G36-03	74E0206PA0-0	74E0206PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55860	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	4.2	U		g		Lead	0.05	4.2	1	6020	16-Aug-03	85.7	LDC		.				8
74G26	74G26-03	74E0207DA0-1	74E0207DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55870	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	60.1	.		g		Antimony	0.03	0.4	1	6020	16-Aug-03	71.9	LDC		.				8
74G26	74G26-03	74E0207DA0-1	74E0207DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55870	Phase I	APPL	2-Sep-03	6-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	8080	.		g		Lead	2.49	214	100	6020	16-Aug-03	71.9	LDC		.				8
74G26	74G26-03	74E0207IA0-0	74E0207IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56002	Phase I	APPL	4-Sep-03	12-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	1590	.		g		Lead	0.07	6	20	6020	19-Aug-03	35.1	LDC		.				1
74G26	74G26-03	74E0207IA0-0	74E0207IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56002	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	1.5	.		g		Antimony	0.01	0.2	5	6020	19-Aug-03	35.1	LDC		.				1
74G26	74G26-03	74E0207PA0-0	74E0207PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55861	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.05	0.7	1	6020	16-Aug-03	85	LDC		.				8
74G26	74G26-03	74E0207PA0-0	74E0207PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55861	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	34.7	.		g		Lead	0.05	4	1	6020	16-Aug-03	85	LDC		.				8

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67418	SOIL	AP55871	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67418BLK	METALS	TRG	7440-47-3	45	.		g		Chromium	0.31	9	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67418	SOIL	AP55871	Phase I	APPL	3-Sep-03	12-Sep-03	0-Jan-00	67418BLK	METALS	TRG	7440-62-2	89.4	.		g		Vanadium	0.05	46	20	6020	16-Aug-03	78.2	LDC		J				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	6-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-92-1	15800	.		g		Lead	3.21	275	100	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7429-90-5	19300	.		g		Aluminum	0.18	183	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-38-2	117	.		g		Arsenic	0.07	9	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-39-3	183	U		g		Barium	0.02	183	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-41-7	5	U		g		Beryllium	0.02	5	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-43-9	5	U		g		Cadmium	0.01	5	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-70-2	5830	.		g		Calcium	12	4590	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-48-4	46	U		g		Cobalt	0.02	46	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-50-8	128	.		g		Copper	0.07	23	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-89-6	25900	.		g		Iron	18.1	183	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-95-4	15800	.		g		m	2.69	4590	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7439-96-5	340	.		g		e	0.02	14	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-02-0	37	U		g		Nickel	0.07	37	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-09-7	9040	.		g		Potassium	4.16	4590	20	6020	16-Aug-03	78.2	LDC		J				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7782-49-2	5	U		g		Selenium	0.07	5	20	6020	16-Aug-03	78.2	LDC		UJ				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-22-4	9	U		g		Silver	0.04	9	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-23-5	50900	.		g		Sodium	11.9	4590	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-28-0	9	U		g		Thallium	0.02	9	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67419	SOIL	AP55871	Phase I	APPL	2-Sep-03	7-Sep-03	0-Jan-00	67419BLK	METALS	TRG	7440-66-6	228	.		g		Zinc	0.51	18	20	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208DA0-1	74E0208DA0-1	Sample	.	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55871	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	142	.		g		Antimony	0.04	0.5	1	6020	16-Aug-03	78.2	LDC		.				8
74G04	74G04-03	74E0208IA0-0	74E0208IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56003	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.5	.		g		Antimony	0.01	0.2	5	6020	19-Aug-03	35	LDC		U			0.5	1
74G04	74G04-03	74E0208IA0-0	74E0208IA0-0	Sample	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56003	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	517	.		g		Lead	0.01	0.9	5	6020	19-Aug-03	35	LDC		.				1
74G04	74G04-03	74E0208PA0-0	74E0208PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55862	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.05	0.7	1	6020	16-Aug-03	84.8	LDC		.				8
74G04	74G04-03	74E0208PA0-0	74E0208PA0-0	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55862	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	27	.		g		Lead	0.05	3.9	1	6020	16-Aug-03	84.8	LDC		.				8
74G28	74G28-03	74E0209DA0-1	74E0209DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67501	SOIL	AP55875	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.7	.		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.4	LDC		.				8
74G28	74G28-03	74E0209DA0-1	74E0209DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67501	SOIL	AP55875	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	76.7	.		g		Lead	0.05	4.1	1	6020	16-Aug-03	85.4	LDC		.				8
74G28	74G28-03	74E0209PA0-0	74E0209PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55884	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	0.8	U		g		Antimony	0.06	0.8	1	6020	16-Aug-03	87.3	LDC		.				8
74G28	74G28-03	74E0209PA0-0	74E0209PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55884	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	4.7	U		g		Lead	0.06	4.7	1	6020	16-Aug-03	87.3	LDC		.				8
74G44	74G44-03	74E0210DA0-1	74E0210DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67501	SOIL	AP55876	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.4	.		g		Antimony	0.03	0.4	1	6020	16-Aug-03	76.3	LDC		.				8
74G44	74G44-03	74E0210DA0-1	74E0210DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67501	SOIL	AP55876	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	54.9	.		g		Lead	0.03	2.5	1	6020	16-Aug-03	76.3	LDC		.				8
74G44	74G44-03	74E0210IA0-0	74E0210IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56008	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.2	U		g		Antimony	0.01	0.2	5	6020	19-Aug-03	37	LDC		.				1
74G44	74G44-03	74E0210IA0-0	74E0210IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56008	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	1	U		g		Lead	0.01	1	5	6020	19-Aug-03	37	LDC		.				1
74G44	74G44-03	74E0210PA0-0	74E0210PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55885	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.06	0.7	1	6020	16-Aug-03	86.3	LDC		.				8
74G44	74G44-03	74E0210PA0-0	74E0210PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55885	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	4.4	U		g		Lead	0.05	4.4	1	6020	16-Aug-03	86.3	LDC		.				8
74G35	74G35-03	74E0211DA0-1	74E0211DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67501	SOIL	AP55877	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	3.3	.		g		Antimony	0.03	0.3	1	6020	16-Aug-03	69.9	LDC		.				8
74G35	74G35-03	74E0211DA0-1	74E0211DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67501	SOIL	AP55877	Phase I	APPL	2-Sep-03	6-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	837	.		g		Lead	0.12	10	5	6020	16-Aug-03	69.9	LDC		.				8
74G35	74G35-03	74E0211IA0-0	74E0211IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56009	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	5	6020	19-Aug-03	26.5	LDC		.				1
74G35	74G35-03	74E0211IA0-0	74E0211IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56009	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	30.9	.		g		Lead	0.01	0.8	5	6020	19-Aug-03	26.5	LDC		.				1
74G15	74G15-03	74E0212DA0-1	74E0212DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55878	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	1.6	.		g		Antimony	0.03	0.4	1	6020	16-Aug-03	74.2	LDC		.				8
74G15	74G15-03	74E0212DA0-1	74E0212DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55878	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	127	.		g		Lead	0.03	2.3	1	6020	16-Aug-03	74.2	LDC		.				8
74G15	74G15-03	74E0212IA0-0	74E0212IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56010	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	5	6020	19-Aug-03	33.2	LDC		.				1
74G15	74G15-03	74E0212IA0-0	74E0212IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56010	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	0.9	U		g		Lead	0.01	0.9	5	6020	19-Aug-03	33.2	LDC		.				1
74G16	74G16-03	74E0213DA0-1	74E0213DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55879	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	7.8	.		g		Antimony	0.05	0.7	1	6020	16-Aug-03	84.7	LDC		.				8
74G16	74G16-03	74E0213DA0-1	74E0213DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55879	Phase I	APPL	2-Sep-03	6-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	928	.		g		Lead	0.23	20	5	6020	16-Aug-03	84.7	LDC		.				8
74G16	74G16-03	74E0213IA0-0	74E0213IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56011	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	5	6020	19-Aug-03	33.2	LDC		.				1
74G16	74G16-03	74E0213IA0-0	74E0213IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56011	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	0.9	U		g		Lead	0.01	0.9	5	6020	19-Aug-03	33.2	LDC		.				1
74G39	74G39-03	74E0214DA0-1	74E0214DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55880	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	1.4	.		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.6	LDC		.				8
74G39	74G39-03	74E0214DA0-1	74E0214DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55880	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	70.1	.		g		Lead	0.05	4.2	1	6020	16-Aug-03	85.6	LDC		.				8
74G39	74G39-03	74E0214IA0-0	74E0214IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56012	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.2	U		g		Antimony	0.01	0.2	5	6020	19-Aug-03	33.7	LDC		.				1
74G39	74G39-03	74E0214IA0-0	74E0214IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56012	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	0.9	U		g		Lead	0.01	0.9	5	6020	19-Aug-03	33.7	LDC		.				1
74G39	74G39-03	74E0214PA0-0	74E0214PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55890	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	0.8	U		g		Antimony	0.06	0.8	1	6020	16-Aug-03	87.2	LDC		.				8
74G39	74G39-03	74E0214PA0-0	74E0214PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55890	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	4.7	U		g		Lead	0.06	4.7	1	6020	16-Aug-03	87.2	LDC		.				8
74G52	74G52-03	74E0215DA0-1	74E0215DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55881	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	1.4	.		g		Antimony	0.03	0.3	1	6020	16-Aug-03	70.8	LDC		.				8
74G52	74G52-03	74E0215DA0-1	74E0215DA0-1	Sample	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55881	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	102	.		g		Lead	0.02	2.1	1	6020	16-Aug-03	70.8	LDC		.				8
74G52	74G52-03	74E0215IA0-0	74E0215IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56013	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.2	U		g		Antimony	0.01	0.2	5	6020	19-Aug-03	38.5	LDC		.				1
74G52	74G52-03	74E0215IA0-0	74E0215IA0-0	Sample	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67650	MISC	AP56013	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	1	U		g		Lead	0.01	1	5	6020	19-Aug-03	38.5	LDC		.				1
74G52	74G52-03	74E0215PA0-0	74E0215PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67503	MISC	AP55891	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67503BLK	METALS	TRG	7440-36-0	0.6	U		g		Antimony	0.05	0.6	1	6020	16-Aug-03	82.7	LDC		.				8
74G52	74G52-03	74E0215PA0-0	74E0215PA0-0	Sample	.	Plant	lwee	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67503	MISC	AP55891	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67503BLK	METALS	TRG	7439-92-1	3.5	U		g		Lead	0.04	3.5	1	6020	16-Aug-03	82.7	LDC		.				8
74G36	74G36-03	74E0216DA1-1	74E0216DA1-1	Duplicate	1	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55872	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	41.4	.		g		Antimony	0.02	0.2	1	6020	16-Aug-03	51.2	LDC		.				8
74G36	74G36-03	74E0216DA1-1	74E0216DA1-1	Duplicate	1	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55872	Phase I	APPL	2-Sep-03	6-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	4570	.		g		Lead	1.43	123	100	6020	16-Aug-03	51.2	LDC		.				8
74G36	74G36-03	74E0216IA1-0	74E0216IA1-0	Duplicate	74E0216IA0-0	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56004	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	5	6020	19-Aug-03	27	LDC		.				1
74G36	74G36-03	74E0216IA1-0	74E0216IA1-0	Duplicate	74E0216IA0-0	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56004	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	15.3	.		g		Lead	0.01	0.8	5	6020	19-Aug-03	27	LDC		.				1
74G36	74G36-03	74E0216PA1-0	74E0216PA1-0	Duplicate	0	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55863	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.6	.		g		Antimony	0.05	0.6	1	6020	16-Aug-03	84.5	LDC		.				8
74G36	74G36-03	74E0216PA1-0	74E0216PA1-0	Duplicate	0	Plant	lwee	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67501	MISC	AP55863	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	53.5	.		g		Lead	0.05	3.9	1	6020	16-Aug-03	84.5	LDC		.				8
74G05	74G05-03	74E0217DA1-1	74E0217DA1-1	Duplicate	1	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55873	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	199	.		g		Antimony	0.04	0.5	1	6020	16-Aug-03	80.9	LDC		.				8
74G05	74G05-03	74E0217DA1-1	74E0217DA1-1	Duplicate	1	.	.	14-Aug-03	Phase I	al	TRUE	1	14-Aug-03	0-Jan-00	67501	SOIL	AP55873	Phase I	APPL	2-Sep-03	6-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	17400	.		g		Lead	3.67	314	100	6020	16-Aug-03	80.9	LDC		.				8
74G05	74G05-03	74E0217IA1-0	74E0217IA1-0	Duplicate	74E0217IA0-0	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56005	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.6	.		g		Antimony	0.01	0.2	5	6020	19-Aug-03	33.5	LDC		U			0.6	1
74G05	74G05-03	74E0217IA1-0	74E0217IA1-0	Duplicate	74E0217IA0-0	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56005	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	647	.		g		Lead	0.01	0.9	5	6020	19-Aug-03	33.5	LDC		.				1
74G05	74G05-03	74E0217PA	74E0217PA	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	74E0217PA	14-Aug-03	0-Jan-00	67501	MISC	AP55864	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.05	0.7	1	6020	16-Aug-03	85.2	LDC		.				8
74G05	74G05-03	74E0217PA	74E0217PA	Sample	.	Plant	lwee	14-Aug-03	Phase I	al	TRUE	74E0217PA	14-Aug-03	0-Jan-00	67501	MISC	AP55864	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67501BLK	METALS	TRG	7439-92-1	14.9	.		g		Lead	0.05	4.1	1	6020	16-Aug-03	85.2	LDC		.				8
D	.	74E0218DA3-1	74E0218DA3-1	MS/MSD	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55882	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	1.4	.		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.8	LDC		.				8
D	.	74E0218DA3-1	74E0218DA3-1	MS/MSD	.	.	.	15-Aug-03	Phase I	al	TRUE	1	15-Aug-03	0-Jan-00	67502	SOIL	AP55882	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	53.5	.		g		Lead	0.05	4.2	1	6020	16-Aug-03	85.8	LDC		.				8
74G35	74G35-03	74E0218IA1-0	74E0218IA1-0	Duplicate	74E0218IA0-0	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67651	MISC	AP56014	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67651BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	1	6020	19-Aug-03	28.7	LDC		.				1
74G35	74G35-03	74E0218IA1-0	74E0218IA1-0	Duplicate	74E0218IA0-0	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67651	MISC	AP56014	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67651BLK	METALS	TRG	7439-92-1	4.9	.		g		Lead	0.01	0.8	1	6020	19-Aug-03	28.7	LDC		.				1
D	.	74E0234IA3-0	74E0234IA3-0	MS/MSD	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56006	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7440-36-0	0.5	.		g		Antimony	0.01	0.2	5	6020	19-Aug-03	35.9	LDC		U			0.5	1
D	.	74E0234IA3-0	74E0234IA3-0	MS/MSD	.	rate	ed	14-Aug-03	Phase I	al	TRUE	0	14-Aug-03	0-Jan-00	67650	MISC	AP56006	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67650BLK	METALS	TRG	7439-92-1	463	.		g		Lead	0.01	0.9	5	6020	19-Aug-03	35.9	LDC		.				1
D	.	74E0235IA3-0	74E0235IA3-0	MS/MSD	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67651	MISC	AP56015	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67651BLK	METALS	TRG	7440-36-0	0.1	U		g		Antimony	0.01	0.1	1	6020	19-Aug-03	29.2	LDC		.				1
D	.	74E0235IA3-0	74E0235IA3-0	MS/MSD	.	rate	ed	15-Aug-03	Phase I	al	TRUE	0	15-Aug-03	0-Jan-00	67651	MISC	AP56015	Phase I	APPL	4-Sep-03	6-Sep-03	0-Jan-00	67651BLK	METALS	TRG	7439-92-1	3.1	.		g		Lead	0.01	0.8	1	6020	19-Aug-03	29.2	LDC		.				1
Coords	.	74E03BB0-0-1	74E03BB0-0-1	Sample	.	Liver	Bird	22-Jan-04	Phase II	al	TRUE	1	22-Jan-04	0-Jan-00	73074	MISC	AP64724	Phase II	APPL	3-Feb-04	11-Feb-04	0-Jan-00	73074BLK	METALS	TRG	7439-92-1	1.8	U		g		Lead	0.02	1.8	1	6020	26-Jan-04	66	LDC		.				4
Coords	.	74E03BB0-0-2	74E03BB0-0-2	Sample	.	Liver	Bird	22-Jan-04	Phase II	al	TRUE	2	22-Jan-04	0-Jan-00	73074	MISC	AP64725	Phase II	APPL	3-Feb-04	11-Feb-04	0-Jan-00	73074BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.03	2.1	1	6020	26-Jan-04	71.9	LDC		.				4
Coords	.	74E03BB0-0-3	74E03BB0-0-3	Sample	.	Liver	Bird	22-Jan-04	Phase II	al	TRUE	3	22-Jan-04	0-Jan-00	73074	MISC	AP64726	Phase II	APPL	3-Feb-04	11-Feb-04	0-Jan-00	73074BLK	METALS	TRG	7439-92-1	2.2	U		g		Lead	0.03	2.2	1	6020	26-Jan-04	73	LDC		.				4
Coords	.	74E03BB0-0-4	74E03BB0-0-4	Sample	.	Liver	Bird	22-Jan-04	Phase II	al	TRUE	4	22-Jan-04	0-Jan-00	73074	MISC	AP64727	Phase II	APPL	3-Feb-04	11-Feb-04	0-Jan-00	73074BLK	METALS	TRG	7439-92-1	2.2	U		g		Lead	0.03	2.2	1	6020	26-Jan-04	72.2	LDC		.				4
Coords	.	74E03BB0-0-5	74E03BB0-0-5	Sample	.	Liver	Bird	22-Jan-04	Phase II	al	TRUE	5	22-Jan-04	0-Jan-00	73074	MISC	AP64728	Phase II	APPL	3-Feb-04	11-Feb-04	0-Jan-00	73074BLK	METALS	TRG	7439-92-1	2	U		g		Lead	0.02	2	1	6020	26-Jan-04	70.1	LDC		.				4
Coords	.	74E03MA0-001	74E03MA0-001	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	001	16-Dec-03	0-Jan-00	71738	MISC	AP63177	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.2	U		g		Lead	0.03	2.2	1	6020	17-Dec-03	72.1	LDC		.				5
Coords	.	74E03MA0-002	74E03MA0-002	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	002	16-Dec-03	0-Jan-00	71738	MISC	AP63178	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.4	U		g		Lead	0.03	2.4	1	6020	17-Dec-03	75	LDC		.				5
Coords	.	74E03MA0-003	74E03MA0-003	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	003	16-Dec-03	0-Jan-00	71738	MISC	AP63179	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.03	2.1	1	6020	17-Dec-03	72	LDC		.				5
Coords	.	74E03MA0-004	74E03MA0-004	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	004	16-Dec-03	0-Jan-00	71738	MISC	AP63180	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.02	2.1	1	6020	17-Dec-03	71.2	LDC		.				5
Coords	.	74E03MA0-005	74E03MA0-005	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	005	16-Dec-03	0-Jan-00	71738	MISC	AP63181	Phase II	APPL	########	9-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.2	U		g		Lead	0.03	2.2	1	6020	17-Dec-03	72.1	LDC		.				5
Coords	.	74E03MA0-006	74E03MA0-006	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	006	16-Dec-03	0-Jan-00	71738	MISC	AP63182	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.4	U		g		Lead	0.03	2.4	1	6020	17-Dec-03	75.5	LDC		.				5
Coords	.	74E03MA0-007	74E03MA0-007	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	007	16-Dec-03	0-Jan-00	71738	MISC	AP63183	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.03	2.1	1	6020	17-Dec-03	72	LDC		.				5
Coords	.	74E03MA0-008	74E03MA0-008	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	008	16-Dec-03	0-Jan-00	71738	MISC	AP63184	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2	U		g		Lead	0.02	2	1	6020	17-Dec-03	70.7	LDC		.				5
Coords	.	74E03MA0-009	74E03MA0-009	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	009	16-Dec-03	0-Jan-00	71738	MISC	AP63185	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	1.9	.		g		Lead	0.02	1.9	1	6020	17-Dec-03	68.9	LDC		.				5
Coords	.	74E03MA0-010	74E03MA0-010	Sample	.	Liver	mal	16-Dec-03	Phase II	al	TRUE	010	16-Dec-03	0-Jan-00	71738	MISC	AP63186	Phase II	APPL	########	6-Jan-04	0-Jan-00	71738BLK	METALS	TRG	7439-92-1	2.1	U		g		Lead	0.03	2.1	1	6020	17-Dec-03	71.8	LDC		.				5
74G01	74G01-00	74G01CA0-1	74G01CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G01CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	35.5	U		g		Y	.	.		(Total)		.			.				cy
74G01	74G01-00	74G01CA0-1	74G01CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G01CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	850	.		g		LEAD	.	.		(Total)		.			.				cy
74G02	74G02-00	74G02CA0-1	74G02CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G02CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	30.2	U		g		Y	.	.		(Total)		.			.				cy
74G02	74G02-00	74G02CA0-1	74G02CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G02CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	2390	*		g		LEAD	.	.		(Total)		.			.				cy
74G03	74G03-00	74G03CA0-1	74G03CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G03CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	50	UN		g		Y	.	.		(Total)		.			.				cy
74G03	74G03-00	74G03CA0-1	74G03CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G03CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	2050	*		g		LEAD	.	.		(Total)		.			.				cy
74G03	74G03-00	74G03CA1-1	74G03CA1-1	Duplicate	74G03CA0-1	.	.	1-Mar-00	2000	al	TRUE	74G03CA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	5590	N		g		Y	.	.		(Total)		.			.				cy
74G03	74G03-00	74G03CA1-1	74G03CA1-1	Duplicate	74G03CA0-1	.	.	1-Mar-00	2000	al	TRUE	74G03CA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	155000	*		g		LEAD	.	.		(Total)		.			.				cy
74G04	74G04-00	74G04CA0-1	74G04CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G04CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	32.1	UN		g		Y	.	.		(Total)		.			.				cy
74G04	74G04-00	74G04CA0-1	74G04CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G04CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	7240	*		g		LEAD	.	.		(Total)		.			.				cy
74G04	74G04-00	74G04CA1-1	74G04CA1-1	Duplicate	74G04CA0-1	.	.	1-Mar-00	2000	al	TRUE	74G04CA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	49.7	N		g		Y	.	.		(Total)		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74G04	74G04-00	74G04CA1-1	74G04CA1-1	Duplicate	74G04CA0-1	.	.	1-Mar-00	2000	al	TRUE	74G04CA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	7280	*		g		LEAD	.	.		(Total)		.			.				cy
74G05	74G05-00	74G05CA0-1	74G05CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G05CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	2980	N		g		Y	.	.		(Total)		.			.				cy
74G05	74G05-00	74G05CA0-1DL	74G05CA0-1DL	Sample	.	.	.	7-Mar-00	2000	al	TRUE	1DL	7-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	154000	E		g		LEAD	.	.		(Total)		.			.				cy
74G06	74G06-00	74G06CA0-1	74G06CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G06CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	29.2	UN		g		Y	.	.		(Total)		.			.				cy
74G06	74G06-00	74G06CA0-1	74G06CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G06CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1500	E		g		LEAD	.	.		(Total)		.			.				cy
74G07	74G07-00	74G07CA0-1	74G07CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G07CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	24.4	UN		g		Y	.	.		(Total)		.			.				cy
74G07	74G07-00	74G07CA0-1	74G07CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G07CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	121	E		g		LEAD	.	.		(Total)		.			.				cy
74G08	74G08-00	74G08CA0-1	74G08CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G08CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	28.3	U		g		Y	.	.		(Total)		.			.				cy
74G08	74G08-00	74G08CA0-1	74G08CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G08CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	140	.		g		LEAD	.	.		(Total)		.			.				cy
74G09	74G09-00	74G09CA0-1	74G09CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G09CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	32.1	UN		g		Y	.	.		(Total)		.			.				cy
74G09	74G09-00	74G09CA0-1	74G09CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G09CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	52.1	E		g		LEAD	.	.		(Total)		.			.				cy
74G10	74G10-00	74G10CA0-1	74G10CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G10CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	26.7	UN		g		Y	.	.		(Total)		.			.				cy
74G10	74G10-00	74G10CA0-1	74G10CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G10CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	130	*		g		LEAD	.	.		(Total)		.			.				cy
74G11	74G11-00	74G11CA0-1	74G11CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G11CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	21.6	U		g		Y	.	.		(Total)		.			.				cy
74G11	74G11-00	74G11CA0-1	74G11CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G11CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	165	*		g		LEAD	.	.		(Total)		.			.				cy
74G12	74G12-00	74G12CA0-1	74G12CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G12CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	54.3	B		g		Y	.	.		(Total)		.			.				cy
74G12	74G12-00	74G12CA0-1	74G12CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G12CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	5780	*		g		LEAD	.	.		(Total)		.			.				cy
74G13	74G13-00	74G13CA0-1	74G13CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G13CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	81.2	N		g		Y	.	.		(Total)		.			.				cy
74G13	74G13-00	74G13CA0-1	74G13CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G13CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	7280	*		g		LEAD	.	.		(Total)		.			.				cy
74G14	74G14-00	74G14CA0-1	74G14CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G14CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	23.8	UN		g		Y	.	.		(Total)		.			.				cy
74G14	74G14-00	74G14CA0-1	74G14CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G14CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	131	*		g		LEAD	.	.		(Total)		.			.				cy
74G15	74G15-00	74G15CA0-1	74G15CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G15CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	20	U		g		Y	.	.		(Total)		.			.				cy
74G15	74G15-00	74G15CA0-1	74G15CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G15CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	106	*		g		LEAD	.	.		(Total)		.			.				cy
74G16	74G16-00	74G16CA0-1	74G16CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G16CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	83.3	UN		g		Y	.	.		(Total)		.			.				cy
74G16	74G16-00	74G16CA0-1	74G16CA0-1	Sample	.	.	.	7-Mar-00	2000	al	TRUE	74G16CA0-1	7-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	51.6	E		g		LEAD	.	.		(Total)		.			.				cy
74G17	74G17-00	74G17CA0-1	74G17CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G17CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	27.4	U		g		Y	.	.		(Total)		.			.				cy
74G17	74G17-00	74G17CA0-1	74G17CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G17CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	41.3	.		g		LEAD	.	.		(Total)		.			.				cy
74G18	74G18-00	74G18CA0-1	74G18CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G18CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	19.8	UN		g		Y	.	.		(Total)		.			.				cy
74G18	74G18-00	74G18CA0-1	74G18CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G18CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	80.9	*		g		LEAD	.	.		(Total)		.			.				cy
74G19	74G19-00	74G19CA0-1	74G19CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G19CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	38	UN		g		Y	.	.		(Total)		.			.				cy
74G19	74G19-00	74G19CA0-1	74G19CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G19CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1160	*		g		LEAD	.	.		(Total)		.			.				cy
74G20	74G20-00	74G20CA0-1	74G20CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G20CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	22.7	U		g		Y	.	.		(Total)		.			.				cy
74G20	74G20-00	74G20CA0-1	74G20CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G20CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	69.7	*		g		LEAD	.	.		(Total)		.			.				cy
74G20	74G20-00	74G20CA1-1	74G20CA1-1	Duplicate	74G20CA0-1	.	.	1-Mar-00	2000	al	TRUE	74G20CA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	23.2	U		g		Y	.	.		(Total)		.			.				cy
74G20	74G20-00	74G20CA1-1	74G20CA1-1	Duplicate	74G20CA0-1	.	.	1-Mar-00	2000	al	TRUE	74G20CA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	71.4	*		g		LEAD	.	.		(Total)		.			.				cy
74G21	74G21-00	74G21CA0-1	74G21CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G21CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	46.7	U		g		Y	.	.		(Total)		.			.				cy
74G21	74G21-00	74G21CA0-1	74G21CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G21CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	364	*		g		LEAD	.	.		(Total)		.			.				cy
74G22	74G22-00	74G22CA0-1	74G22CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G22CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	50.8	U		g		Y	.	.		(Total)		.			.				cy
74G22	74G22-00	74G22CA0-1	74G22CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G22CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	176	*		g		LEAD	.	.		(Total)		.			.				cy
74G23	74G23-00	74G23CA0-1	74G23CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G23CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	24.6	U		g		Y	.	.		(Total)		.			.				cy
74G23	74G23-00	74G23CA0-1	74G23CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G23CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	57.1	.		g		LEAD	.	.		(Total)		.			.				cy
74G24	74G24-00	74G24CA0-1	74G24CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G24CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	48.3	U		g		Y	.	.		(Total)		.			.				cy
74G24	74G24-00	74G24CA0-1	74G24CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G24CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	65.1	.		g		LEAD	.	.		(Total)		.			.				cy
74G25	74G25-00	74G25CA0-1	74G25CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G25CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	22.2	U		g		Y	.	.		(Total)		.			.				cy
74G25	74G25-00	74G25CA0-1	74G25CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G25CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	155	.		g		LEAD	.	.		(Total)		.			.				cy
74G26	74G26-00	74G26CA0-1	74G26CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G26CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	83.3	UN		g		Y	.	.		(Total)		.			.				cy
74G26	74G26-00	74G26CA0-1	74G26CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G26CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	212	*		g		LEAD	.	.		(Total)		.			.				cy
74G27	74G27-00	74G27CA0-1	74G27CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G27CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	23.5	U		g		Y	.	.		(Total)		.			.				cy
74G27	74G27-00	74G27CA0-1	74G27CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G27CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	64.9	*		g		LEAD	.	.		(Total)		.			.				cy
74G28	74G28-00	74G28CA0-1	74G28CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G28CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	52.1	U		g		Y	.	.		(Total)		.			.				cy
74G28	74G28-00	74G28CA0-1	74G28CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G28CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	126	*		g		LEAD	.	.		(Total)		.			.				cy
74G29	74G29-00	74G29CA0-1	74G29CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G29CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	67.6	U		g		Y	.	.		(Total)		.			.				cy
74G29	74G29-00	74G29CA0-1	74G29CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G29CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	34.4	.		g		LEAD	.	.		(Total)		.			.				cy
74G30	74G30-00	74G30CA0-1	74G30CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G30CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	47.2	U		g		Y	.	.		(Total)		.			.				cy
74G30	74G30-00	74G30CA0-1	74G30CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G30CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	109	.		g		LEAD	.	.		(Total)		.			.				cy
74G31	74G31-00	74G31CA0-1	74G31CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G31CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	51.8	U		g		Y	.	.		(Total)		.			.				cy
74G31	74G31-00	74G31CA0-1	74G31CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G31CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	67	.		g		LEAD	.	.		(Total)		.			.				cy
74G32	74G32-00	74G32CA0-1	74G32CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G32CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	30.9	UN		g		Y	.	.		(Total)		.			.				cy
74G32	74G32-00	74G32CA0-1	74G32CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G32CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	45	*		g		LEAD	.	.		(Total)		.			.				cy
74G33	74G33-00	74G33CA0-1	74G33CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G33CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	55.9	U		g		Y	.	.		(Total)		.			.				cy
74G33	74G33-00	74G33CA0-1	74G33CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G33CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	46.2	.		g		LEAD	.	.		(Total)		.			.				cy
74G34	74G34-00	74G34CA0-1	74G34CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G34CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	29.9	U		g		Y	.	.		(Total)		.			.				cy
74G34	74G34-00	74G34CA0-1	74G34CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G34CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	104	*		g		LEAD	.	.		(Total)		.			.				cy
74G35	74G35-00	74G35CA0-1	74G35CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G35CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	55.2	U		g		Y	.	.		(Total)		.			.				cy
74G35	74G35-00	74G35CA0-1	74G35CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G35CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	1020	*		g		LEAD	.	.		(Total)		.			.				cy
74G36	74G36-00	74G36CA0-1	74G36CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G36CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	282	.		g		Y	.	.		(Total)		.			.				cy
74G36	74G36-00	74G36CA0-1	74G36CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G36CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	21400	*		g		LEAD	.	.		(Total)		.			.				cy
74G36	74G36-00	74G36CA1-1	74G36CA1-1	Duplicate	74G36CA0-1	.	.	1-Mar-00	2000	al	TRUE	74G36CA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	3440	.		g		Y	.	.		(Total)		.			.				cy
74G36	74G36-00	74G36CA1-1	74G36CA1-1	Duplicate	74G36CA0-1	.	.	1-Mar-00	2000	al	TRUE	74G36CA1-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	106000	*		g		LEAD	.	.		(Total)		.			.				cy
74G37	74G37-00	74G37CA0-1	74G37CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G37CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	22.5	U		g		Y	.	.		(Total)		.			.				cy
74G37	74G37-00	74G37CA0-1	74G37CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G37CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	84.6	*		g		LEAD	.	.		(Total)		.			.				cy
74G38	74G38-00	74G38CA0-1	74G38CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G38CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	37.4	B		g		Y	.	.		(Total)		.			.				cy
74G38	74G38-00	74G38CA0-1	74G38CA0-1	Sample	.	.	.	1-Mar-00	2000	al	TRUE	74G38CA0-1	1-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	3230	*		g		LEAD	.	.		(Total)		.			.				cy
74G39	74G39-00	74G39CA0-1	74G39CA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74G39CA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	65.4	UJ		g		Y	.	.		(Total)		.			.				cy
74G39	74G39-00	74G39CA0-1	74G39CA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74G39CA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	46.1	.		g		LEAD	.	.		(Total)		.			.				cy
74G40	74G40-00	74G40CA0-1	74G40CA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74G40CA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	32.5	UJ		g		Y	.	.		(Total)		.			.				cy
74G40	74G40-00	74G40CA0-1	74G40CA0-1	Sample	.	.	.	8-Mar-00	2000	al	TRUE	74G40CA0-1	8-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	56.4	.		g		LEAD	.	.		(Total)		.			.				cy
74G41	74G41-00	74G41CA0-1	74G41CA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74G41CA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	23.2	.		g		LEAD	.	.		(Total)		.			.				cy
74G42	74G42-00	74G42CA0-1	74G42CA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74G42CA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	62.9	U		g		Y	.	.		(Total)		.			.				cy
74G42	74G42-00	74G42CA0-1	74G42CA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74G42CA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	103	.		g		LEAD	.	.		(Total)		.			.				cy
74G43	74G43-00	74G43CA0-1	74G43CA0-1	Sample	.	.	.	10-Mar-00	2000	al	TRUE	74G43CA0-1	10-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	8.7	.		g		LEAD	.	.		(Total)		.			.				cy
74G44	74G44-00	74G44CA0-1	74G44CA0-1	Sample	.	.	.	13-Mar-00	2000	al	TRUE	74G44CA0-1	13-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	31.9	UN		g		Y	.	.		(Total)		.			.				cy
74G44	74G44-00	74G44CA0-1	74G44CA0-1	Sample	.	.	.	13-Mar-00	2000	al	TRUE	74G44CA0-1	13-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	52.3	.		g		LEAD	.	.		(Total)		.			.				cy
74G45	74G45-00	74G45CA0-1	74G45CA0-1	Sample	.	.	.	13-Mar-00	2000	al	TRUE	74G45CA0-1	13-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	55.9	UN		g		Y	.	.		(Total)		.			.				cy
74G45	74G45-00	74G45CA0-1	74G45CA0-1	Sample	.	.	.	13-Mar-00	2000	al	TRUE	74G45CA0-1	13-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	54.8	.		g		LEAD	.	.		(Total)		.			.				cy
74G46	74G46-00	74G46CA0-1	74G46CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G46CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	32.9	U		g		Y	.	.		(Total)		.			.				cy
74G46	74G46-00	74G46CA0-1	74G46CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G46CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	39.6	.		g		LEAD	.	.		(Total)		.			.				cy
74G47	74G47-00	74G47CA0-1	74G47CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G47CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	22.5	U		g		Y	.	.		(Total)		.			.				cy
74G47	74G47-00	74G47CA0-1	74G47CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G47CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	68.2	.		g		LEAD	.	.		(Total)		.			.				cy
74G48	74G48-00	74G48CA0-1	74G48CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G48CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	40	U		g		Y	.	.		(Total)		.			.				cy
74G48	74G48-00	74G48CA0-1	74G48CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G48CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	49.8	.		g		LEAD	.	.		(Total)		.			.				cy
74G49	74G49-00	74G49CA0-1	74G49CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G49CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	24.9	U		g		Y	.	.		(Total)		.			.				cy
74G49	74G49-00	74G49CA0-1	74G49CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G49CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	50.9	.		g		LEAD	.	.		(Total)		.			.				cy
74G50	74G50-00	74G50CA0-1	74G50CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G50CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	30.2	U		g		Y	.	.		(Total)		.			.				cy
74G50	74G50-00	74G50CA0-1	74G50CA0-1	Sample	.	.	.	16-Mar-00	2000	al	TRUE	74G50CA0-1	16-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	43.1	.		g		LEAD	.	.		(Total)		.			.				cy
74G51	74G51-00	74G51CA0-1	74G51CA0-1	Sample	.	.	.	17-Mar-00	2000	al	TRUE	74G51CA0-1	17-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	51.3	U		g		Y	.	.		(Total)		.			.				cy
74G51	74G51-00	74G51CA0-1	74G51CA0-1	Sample	.	.	.	17-Mar-00	2000	al	TRUE	74G51CA0-1	17-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	51.7	.		g		LEAD	.	.		(Total)		.			.				cy
74G52	74G52-00	74G52CA0-1	74G52CA0-1	Sample	.	.	.	17-Mar-00	2000	al	TRUE	74G52CA0-1	17-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	33.2	U		g		Y	.	.		(Total)		.			.				cy
74G52	74G52-00	74G52CA0-1	74G52CA0-1	Sample	.	.	.	17-Mar-00	2000	al	TRUE	74G52CA0-1	17-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	334	.		g		LEAD	.	.		(Total)		.			.				cy
74G53	74G53-00	74G53CA0-1	74G53CA0-1	Sample	.	.	.	23-Mar-00	2000	al	TRUE	74G53CA0-1	23-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	61.6	.		g		LEAD	.	.		(Total)		.			.				cy
74G54	74G54-00	74G54CA0-1	74G54CA0-1	Sample	.	.	.	21-Mar-00	2000	al	TRUE	74G54CA0-1	21-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	25.4	U		g		Y	.	.		(Total)		.			.				cy
74G54	74G54-00	74G54CA0-1	74G54CA0-1	Sample	.	.	.	21-Mar-00	2000	al	TRUE	74G54CA0-1	21-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	39.5	.		g		LEAD	.	.		(Total)		.			.				cy
74G55	74G55-00	74G55CA0-1	74G55CA0-1	Sample	.	.	.	21-Mar-00	2000	al	TRUE	74G55CA0-1	21-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	71.4	U		g		Y	.	.		(Total)		.			.				cy
74G55	74G55-00	74G55CA0-1	74G55CA0-1	Sample	.	.	.	21-Mar-00	2000	al	TRUE	74G55CA0-1	21-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	65.9	.		g		LEAD	.	.		(Total)		.			.				cy
74G56	74G56-00	74G56CA0-1	74G56CA0-1	Sample	.	.	.	21-Mar-00	2000	al	TRUE	74G56CA0-1	21-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	26	U		g		Y	.	.		(Total)		.			.				cy
74G56	74G56-00	74G56CA0-1	74G56CA0-1	Sample	.	.	.	21-Mar-00	2000	al	TRUE	74G56CA0-1	21-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	57.4	.		g		LEAD	.	.		(Total)		.			.				cy

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPanelName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74G57	74G57-00	74G57CA0-1	74G57CA0-1	Sample	.	.	.	21-Mar-00	2000	al	TRUE	74G57CA0-1	21-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	34.6	.		g		LEAD	.	.		(Total)		.			.				cy
74G58	74G58-00	74G58CA0-1	74G58CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G58CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	22.6	.		g		Y	.	.		(Total)		.			.				cy
74G58	74G58-00	74G58CA0-1	74G58CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G58CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	61	.		g		LEAD	.	.		(Total)		.			.				cy
74G58	74G58-00	74G58CA1-1	74G58CA1-1	Duplicate	74G58CA0-1	.	.	31-Mar-00	2000	al	TRUE	74G58CA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	22	.		g		Y	.	.		(Total)		.			.				cy
74G58	74G58-00	74G58CA1-1	74G58CA1-1	Duplicate	74G58CA0-1	.	.	31-Mar-00	2000	al	TRUE	74G58CA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	36.4	.		g		LEAD	.	.		(Total)		.			.				cy
74G59	74G59-00	74G59CA0-1	74G59CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G59CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	62.1	.		g		Y	.	.		(Total)		.			.				cy
74G59	74G59-00	74G59CA0-1	74G59CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G59CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	127	.		g		LEAD	.	.		(Total)		.			.				cy
74G60	74G60-00	74G60CA0-1	74G60CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G60CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	59.2	.		g		Y	.	.		(Total)		.			.				cy
74G60	74G60-00	74G60CA0-1	74G60CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G60CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	67.7	.		g		LEAD	.	.		(Total)		.			.				cy
74G61	74G61-00	74G61CA0-1	74G61CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G61CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	43.5	.		g		Y	.	.		(Total)		.			.				cy
74G61	74G61-00	74G61CA0-1	74G61CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G61CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	67.4	.		g		LEAD	.	.		(Total)		.			.				cy
74G62	74G62-00	74G62CA0-1	74G62CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G62CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	39.2	.		g		Y	.	.		(Total)		.			.				cy
74G62	74G62-00	74G62CA0-1	74G62CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G62CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	39	.		g		LEAD	.	.		(Total)		.			.				cy
74G63	74G63-00	74G63CA0-1	74G63CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G63CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	38.6	.		g		Y	.	.		(Total)		.			.				cy
74G63	74G63-00	74G63CA0-1	74G63CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G63CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	67.7	.		g		LEAD	.	.		(Total)		.			.				cy
74G64	74G64-00	74G64CA0-1	74G64CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G64CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	35.4	.		g		LEAD	.	.		(Total)		.			.				cy
74G65	74G65-00	74G65CA0-1	74G65CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G65CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	48.5	.		g		Y	.	.		(Total)		.			.				cy
74G65	74G65-00	74G65CA0-1	74G65CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G65CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	39.9	.		g		LEAD	.	.		(Total)		.			.				cy
74G66	74G66-00	74G66CA0-1	74G66CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G66CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	48.8	.		g		Y	.	.		(Total)		.			.				cy
74G66	74G66-00	74G66CA0-1	74G66CA0-1	Sample	.	.	.	31-Mar-00	2000	al	TRUE	74G66CA0-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	60.6	.		g		LEAD	.	.		(Total)		.			.				cy
74G66	74G66-00	74G66CA1-1	74G66CA1-1	Duplicate	74G66CA0-1	.	.	31-Mar-00	2000	al	TRUE	74G66CA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	7440-36-0	57.1	.		g		Y	.	.		(Total)		.			.				cy
74G66	74G66-00	74G66CA1-1	74G66CA1-1	Duplicate	74G66CA0-1	.	.	31-Mar-00	2000	al	TRUE	74G66CA1-1	31-Mar-00	.	.	Soil	.	2000							TRG	7439-92-1	86.8	.		g		LEAD	.	.		(Total)		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	250000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	500000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	100000	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	100000	E		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	500000	E		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	200000	E		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	890000	E		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	870000	E		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	200000	E		µg/kg		E	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	190000	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	300000	E		µg/kg		THENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	51000	U		µg/kg		E	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	0	E		µg/kg		2,3-	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	250000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	400000	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1	74SKEET-1	Sample	.	.	.	29-Feb-00	2000	al	TRUE	74SKEET-1	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	900000	E		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	83-32-9	1300000	U		µg/kg		THENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	208-96-8	2500000	U		µg/kg		THYLENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	120-12-7	130000	.		µg/kg		ENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	56-55-3	1500000	.		µg/kg		ANTHRAC	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	50-32-8	2300000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	205-99-2	1800000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	191-24-2	1300000	.		µg/kg		HI)PERYL	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	207-08-9	1200000	.		µg/kg		FLUORAN	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	218-01-9	1900000	.		µg/kg		E	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	53-70-3	400000	.		µg/kg		A,H)ANTH	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	206-44-0	1800000	.		µg/kg		THENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	86-73-7	260000	U		µg/kg		E	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	193-39-5	1500000	.		µg/kg		2,3-	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	91-20-3	1300000	U		µg/kg		LENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	85-01-8	540000	.		µg/kg		HRENE	.	.		SVOCs		.			.				cy
coords	.	74SKEET-1DL	74SKEET-1DL	Sample	.	.	.	29-Feb-00	2000	al	TRUE	1DL	29-Feb-00	.	.	Soil	.	2000							TRG	129-00-0	2100000	.		µg/kg		PYRENE	.	.		SVOCs		.			.				cy
74B01	74B01-03	74E01SB0-01	74E01SB0-01	Sample	.	.	.	.	.	.	TRUE	74E01SB0-01	.	.	.	Soil	L44127-01	Phase II							SP1	NA	38	.		g		Lead	.	.		B ICP		.			.				Data
74B01	74B01-03	74E01SB0-01	74E01SB0-01	Sample	.	.	.	.	.	.	TRUE	74E01SB0-01	.	.	.	Soil	L44514-01	Phase II							SP2	NA	40	.		g		Lead	.	.		B ICP		.			.				Data
74B01	74B01-03	74E01SB0-01	74E01SB0-01	Sample	.	.	.	.	.	.	TRUE	74E01SB0-01	.	.	.	Soil	L44127-01	Phase II							SBR	NA	0.32	.		mg/L		Lead	.	.		B ICP		.			.				Data
74B01	74B01-03	74E01SB0-01	74E01SB0-01	Sample	.	.	.	.	.	.	TRUE	74E01SB0-01	.	.	.	Soil	L44514-16	Phase II							SP1	NA	0.4	B		g		Antimony	.	.		ICP-MS		.			.				Data
74B01	74B01-03	74E01SB0-01	74E01SB0-01	Sample	.	.	.	.	.	.	TRUE	74E01SB0-01	.	.	.	Soil	L44514-01	Phase II							SP2	NA	0.3	B		g		Antimony	.	.		ICP-MS		.			.				Data
74B01	74B01-03	74E01SB0-01	74E01SB0-01	Sample	.	.	.	.	.	.	TRUE	74E01SB0-01	.	.	.	Soil	L44514-02	Phase II							SP3	NA	0.3	B		g		Antimony	.	.		ICP-MS		.			.				Data
74B01	74B01-03	74E01SB0-01	74E01SB0-01	Sample	.	.	.	.	.	.	TRUE	74E01SB0-01	.	.	.	Soil	L44127-01	Phase II							SBR	NA	0.004	B		mg/L		Antimony	.	.		ICP-MS		.			.				Data
74B01	74B01-03	74E01SB0-01	74E01SB0-01	Sample	.	.	.	.	.	.	TRUE	74E01SB0-01	.	.	.	Soil	L44514-02	Phase II							SP3	NA	38	.		g		Lead	.	.		B ICP		.			.				Data
74B07	74B07-03	74E01SB0-07	74E01SB0-07	Sample	.	.	.	.	.	.	TRUE	74E01SB0-07	.	.	.	Soil	L44126-02	Phase II							SP1	NA	592	.		g		Lead	.	.		B ICP		.			.				Data
74B07	74B07-03	74E01SB0-07	74E01SB0-07	Sample	.	.	.	.	.	.	TRUE	74E01SB0-07	.	.	.	Soil	L44514-03	Phase II							SP2	NA	658	.		g		Lead	.	.		B ICP		.			.				Data
74B07	74B07-03	74E01SB0-07	74E01SB0-07	Sample	.	.	.	.	.	.	TRUE	74E01SB0-07	.	.	.	Soil	L44126-02	Phase II							SBR	NA	5.87	.		mg/L		Lead	.	.		B ICP		.			.				Data
74B07	74B07-03	74E01SB0-07	74E01SB0-07	Sample	.	.	.	.	.	.	TRUE	74E01SB0-07	.	.	.	Soil	L44514-17	Phase II							SP1	NA	3.3	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B07	74B07-03	74E01SB0-07	74E01SB0-07	Sample	.	.	.	.	.	.	TRUE	74E01SB0-07	.	.	.	Soil	L44514-03	Phase II							SP2	NA	4	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B07	74B07-03	74E01SB0-07	74E01SB0-07	Sample	.	.	.	.	.	.	TRUE	74E01SB0-07	.	.	.	Soil	L44514-04	Phase II							SP3	NA	2.8	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B07	74B07-03	74E01SB0-07	74E01SB0-07	Sample	.	.	.	.	.	.	TRUE	74E01SB0-07	.	.	.	Soil	L44126-02	Phase II							SBR	NA	0.053	.		mg/L		Antimony	.	.		ICP-MS		.			.				Data
74B07	74B07-03	74E01SB0-07	74E01SB0-07	Sample	.	.	.	.	.	.	TRUE	74E01SB0-07	.	.	.	Soil	L44514-04	Phase II							SP3	NA	615	.		g		Lead	.	.		B ICP		.			.				Data
74B09	74B09-03	74E01SB0-09	74E01SB0-09	Sample	.	.	.	.	.	.	TRUE	74E01SB0-09	.	.	.	Soil	L44126-03	Phase II							SP1	NA	1320	.		g		Lead	.	.		B ICP		.			.				Data
74B09	74B09-03	74E01SB0-09	74E01SB0-09	Sample	.	.	.	.	.	.	TRUE	74E01SB0-09	.	.	.	Soil	L44514-05	Phase II							SP2	NA	1320	.		g		Lead	.	.		B ICP		.			.				Data
74B09	74B09-03	74E01SB0-09	74E01SB0-09	Sample	.	.	.	.	.	.	TRUE	74E01SB0-09	.	.	.	Soil	L44514-06	Phase II							SP3	NA	1340	.		g		Lead	.	.		B ICP		.			.				Data
74B09	74B09-03	74E01SB0-09	74E01SB0-09	Sample	.	.	.	.	.	.	TRUE	74E01SB0-09	.	.	.	Soil	L44126-03	Phase II							SBR	NA	10.9	.		mg/L		Lead	.	.		B ICP		.			.				Data
74B09	74B09-03	74E01SB0-09	74E01SB0-09	Sample	.	.	.	.	.	.	TRUE	74E01SB0-09	.	.	.	Soil	L44514-18	Phase II							SP1	NA	5.8	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B09	74B09-03	74E01SB0-09	74E01SB0-09	Sample	.	.	.	.	.	.	TRUE	74E01SB0-09	.	.	.	Soil	L44514-05	Phase II							SP2	NA	6	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B09	74B09-03	74E01SB0-09	74E01SB0-09	Sample	.	.	.	.	.	.	TRUE	74E01SB0-09	.	.	.	Soil	L44514-06	Phase II							SP3	NA	6	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B09	74B09-03	74E01SB0-09	74E01SB0-09	Sample	.	.	.	.	.	.	TRUE	74E01SB0-09	.	.	.	Soil	L44126-03	Phase II							SBR	NA	0.102	.		mg/L		Antimony	.	.		ICP-MS		.			.				Data
74G35	74G35-03	74E0211PA0-0	74E0211PA0-0	Sample	.	Plant	lwee	15-Aug-03	.	.	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55887	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.4	LDC		.				8
74G35	74G35-03	74E0211PA0-0	74E0211PA0-0	Sample	.	Plant	lwee	15-Aug-03	.	.	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55887	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	4.1	.		g		Lead	0.05	4.1	1	6020	16-Aug-03	85.4	LDC		.				8
74G15	74G15-03	74E0212PA0-0	74E0212PA0-0	Sample	.	Plant	lwee	15-Aug-03	.	.	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55888	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	1.4	.		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.9	LDC		.				8
74G15	74G15-03	74E0212PA0-0	74E0212PA0-0	Sample	.	Plant	lwee	15-Aug-03	.	.	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55888	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	41.8	.		g		Lead	0.05	4.3	1	6020	16-Aug-03	85.9	LDC		.				8
74G16	74G16-03	74E0213PA0-0	74E0213PA0-0	Sample	.	Plant	lwee	15-Aug-03	.	.	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55889	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7440-36-0	0.7	U		g		Antimony	0.06	0.7	1	6020	16-Aug-03	85.8	LDC		.				8
74G16	74G16-03	74E0213PA0-0	74E0213PA0-0	Sample	.	Plant	lwee	15-Aug-03	.	.	TRUE	0	15-Aug-03	0-Jan-00	67502	MISC	AP55889	Phase I	APPL	2-Sep-03	4-Sep-03	0-Jan-00	67502BLK	METALS	TRG	7439-92-1	4.2	U		g		Lead	0.05	4.2	1	6020	16-Aug-03	85.8	LDC		.				8
74B05	74G05-03	74E02DB0-05	74E02DB0-05	Sample	.	.	.	.	.	.	TRUE	74E02DB0-05	.	.	.	ent	L44126-06	Phase II							SP1	NA	35100	.		g		Lead	.	.		B ICP		.			.				Data
74B05	74G05-03	74E02DB0-05	74E02DB0-05	Sample	.	.	.	.	.	.	TRUE	74E02DB0-05	.	.	.	ent	L44514-14	Phase II							SP2	NA	40600	.		g		Lead	.	.		B ICP		.			.				Data
74B05	74G05-03	74E02DB0-05	74E02DB0-05	Sample	.	.	.	.	.	.	TRUE	74E02DB0-05	.	.	.	ent	L44514-15	Phase II							SP3	NA	40700	.		g		Lead	.	.		B ICP		.			.				Data
74B05	74G05-03	74E02DB0-05	74E02DB0-05	Sample	.	.	.	.	.	.	TRUE	74E02DB0-05	.	.	.	ent	L44126-06	Phase II							SBR	NA	292	.		mg/L		Lead	.	.		B ICP		.			.				Data
74B05	74G05-03	74E02DB0-05	74E02DB0-05	Sample	.	.	.	.	.	.	TRUE	74E02DB0-05	.	.	.	ent	L44126-06	Phase II							SP1	NA	223	.		g		Antimony	.	.		B ICP		.			.				Data
74B05	74G05-03	74E02DB0-05	74E02DB0-05	Sample	.	.	.	.	.	.	TRUE	74E02DB0-05	.	.	.	ent	L44514-14	Phase II							SP2	NA	235	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B05	74G05-03	74E02DB0-05	74E02DB0-05	Sample	.	.	.	.	.	.	TRUE	74E02DB0-05	.	.	.	ent	L44514-15	Phase II							SP3	NA	234	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B05	74G05-03	74E02DB0-05	74E02DB0-05	Sample	.	.	.	.	.	.	TRUE	74E02DB0-05	.	.	.	ent	L44126-06	Phase II							SBR	NA	1.36	.		mg/L		Antimony	.	.		B ICP		.			J,J				Data
74B26	74G26-03	74E02DB0-26	74E02DB0-26	Sample	.	.	.	.	.	.	TRUE	74E02DB0-26	.	.	.	ent	L44126-05	Phase II							SP1	NA	240	.		g		Lead	.	.		B ICP		.			.				Data
74B26	74G26-03	74E02DB0-26	74E02DB0-26	Sample	.	.	.	.	.	.	TRUE	74E02DB0-26	.	.	.	ent	L44515-11	Phase II							SP2	NA	248	.		g		Lead	.	.		B ICP		.			.				Data
74B26	74G26-03	74E02DB0-26	74E02DB0-26	Sample	.	.	.	.	.	.	TRUE	74E02DB0-26	.	.	.	ent	L44514-12	Phase II							SP3	NA	246	.		g		Lead	.	.		B ICP		.			.				Data
74B26	74G26-03	74E02DB0-26	74E02DB0-26	Sample	.	.	.	.	.	.	TRUE	74E02DB0-26	.	.	.	ent	L44126-05	Phase II							SBR	NA	1.68	.		mg/L		Lead	.	.		B ICP		.			.				Data
74B26	74G26-03	74E02DB0-26	74E02DB0-26	Sample	.	.	.	.	.	.	TRUE	74E02DB0-26	.	.	.	ent	L44514-10	Phase II							SP1	NA	1.7	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B26	74G26-03	74E02DB0-26	74E02DB0-26	Sample	.	.	.	.	.	.	TRUE	74E02DB0-26	.	.	.	ent	L44515-11	Phase II							SP2	NA	1.8	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B26	74G26-03	74E02DB0-26	74E02DB0-26	Sample	.	.	.	.	.	.	TRUE	74E02DB0-26	.	.	.	ent	L44514-12	Phase II							SP3	NA	1.7	.		g		Antimony	.	.		ICP-MS		.			.				Data
74B26	74G26-03	74E02DB0-26	74E02DB0-26	Sample	.	.	.	.	.	.	TRUE	74E02DB0-26	.	.	.	ent	L44126-05	Phase II							SBR	NA	0.011	.		mg/L		Antimony	.	.		ICP-MS		.			.				Data
74B44	74G44-03	74E02DB0-44	74E02DB0-44	Sample	.	.	.	.	.	.	TRUE	74E02DB0-44	.	.	.	ent	L44126-04	Phase II							SP1	NA	58	.		g		Lead	.	.		B ICP		.			.				Data
74B44	74G44-03	74E02DB0-44	74E02DB0-44	Sample	.	.	.	.	.	.	TRUE	74E02DB0-44	.	.	.	ent	L44514-08	Phase II							SP2	NA	61	.		g		Lead	.	.		B ICP		.			.				Data
74B44	74G44-03	74E02DB0-44	74E02DB0-44	Sample	.	.	.	.	.	.	TRUE	74E02DB0-44	.	.	.	ent	L44514-09	Phase II							SP3	NA	58	.		g		Lead	.	.		B ICP		.			.				Data
74B44	74G44-03	74E02DB0-44	74E02DB0-44	Sample	.	.	.	.	.	.	TRUE	74E02DB0-44	.	.	.	ent	L44126-04	Phase II							SBR	NA	0.44	.		mg/L		Lead	.	.		B ICP		.			.				Data
74B44	74G44-03	74E02DB0-44	74E02DB0-44	Sample	.	.	.	.	.	.	TRUE	74E02DB0-44	.	.	.	ent	L44514-07	Phase II							SP1	NA	0.3	B		g		Antimony	.	.		ICP-MS		.			.				Data
74B44	74G44-03	74E02DB0-44	74E02DB0-44	Sample	.	.	.	.	.	.	TRUE	74E02DB0-44	.	.	.	ent	L44514-08	Phase II							SP2	NA	0.4	B		g		Antimony	.	.		ICP-MS		.			.				Data

Object	FullObject	COCSampleName	PreferredSampleName	SampleType	ParentSample	Matrix2	Type	tblSamples_SampleDate	tblSamples_SamplingEvent	Source	Select	SampleName	tblAnalyticalData_SampleDate	SampleTime	BatchNumber	Matrix	LabSampleName	tblAnalyticalData_SamplingEvent	LabID	PrepDate	AnalysisDate	AnalysisTime	BlankName	TestPlanneName	ResultType	CASNumber	ResultValue	LabQualifier	2-SigmanError	Units	RetentionTime	Parameter	MDL	PQL	DilutionFactor	Method	ReceivedDate	MoistureContent	Validator	ValidationLevel	ValidationQualifier	ValidationComment	ValidationQualifierRationale	BlankCorrectedValue	SDG
74B44	74G44-03	74E02DB0-44	74E02DB0-44	Sample	.	.	.	.	.	.	.	TRUE	74E02DB0-44	.	.	.	ent	L44514-09	Phase II							SP3	NA	0.3	B		g		Antimony	.	.		ICP-MS		.			.				Data
74B44	74G44-03	74E02DB0-44	74E02DB0-44	Sample	.	.	.	.	.	.	.	TRUE	74E02DB0-44	.	.	.	ent	L44126-04	Phase II							SBR	NA	0.003	B		mg/L		Antimony	.	.		ICP-MS		.			.				Data

NAVWPNSTA Seal Beach, Site 74
Tier II Ecological Risk Assessment 2003 data

Sample ID	Wet Soil (g)	Total No. of Lead Shot	Total Lead Shot (g)	No. of Lead Shot per Wet Wt of Sample	% Lead Shot per Wet Wt of Sample	Gravel (%)	Sand (%)	Fines (%)	Group Symbol
74E0101SA0-1	491.11	1	0.0755	2.0	0.015	1	49	50	s(ML)*
74E0102SA0-1	511.44	0	0	0.0	0	Not Requested	Not Requested	Not Requested	s(ML)/SM
74E0103SA0-1	573.14	27	1.1686	47.1	0.204	3	40	57	s(ML)*
74E0104SA0-1	506.08	46	1.8017	90.9	0.356	Not Requested	Not Requested	Not Requested	SM
74E0105SA0-1	557.72	107	4.8303	191.9	0.866	0	3	97	ML*
74E0106SA0-1	478.86	115	5.8391	240.2	1.219	Not Requested	Not Requested	Not Requested	s(CL)g
74E0107SA0-1	431.84	45	2.0021	104.2	0.464	0	4	96	ML*
74E0108SA0-1	674.86	0	0	0.0	0	Not Requested	Not Requested	Not Requested	CL
74E0109SA0-1	478.66	7	0.3843	14.6	0.08	0	17	83	(ML)s*
74E0110SA0-1	559.38	36	1.5898	64.4	0.284	Not Requested	Not Requested	Not Requested	s(ML)
74E0111SA0-1	610.55	1	0.0512	1.6	0.008	0	18	82	(ML)s*
74E0112SA0-1	673.11	0	0	0.0	0	Not Requested	Not Requested	Not Requested	CL
74E0113SA0-1	457.35	15	0.5918	32.8	0.129	Not Requested	Not Requested	Not Requested	SM/s(ML)
74E0114SA0-1	626.5	1	0.0375	1.6	0.006	Not Requested	Not Requested	Not Requested	SC
74E0115SA0-1	504.5	2	0.13	4.0	0.026	Not Requested	Not Requested	Not Requested	SM
74E0202DA0-1	540.14	0	0	0.0	0	0	2	98	CL*
74E0203DA0-1	629.82	0	0	0.0	0	Not Requested	Not Requested	Not Requested	CL
74E0204DA0-1	608.18	38	0.942	62.5	0.155	1	17	82	(CL)s*
74E0205DA0-1	490.5	78	2.495	159.0	0.509	Not Requested	Not Requested	Not Requested	'Organics'
74E0206DA0-1	482.38	0	0	0.0	0	0	14	86	CL*
74E0207DA0-1	491.5	82	3.6919	166.8	0.751	Not Requested	Not Requested	Not Requested	CL
74E0208DA0-1	472.44	73	2.3067	154.5	0.488	0	4	96	OL*
74E0201DA0-1	514.49	0	0	0.0	0	Not Requested	Not Requested	Not Requested	'Organics'
74E0209DA0-1	473.91	0	0	0.0	0	Not Requested	Not Requested	Not Requested	ML
74E0210DA0-1	511.14	0	0	0.0	0	0	0	100	CL*
74E0211DA0-1	535.12	0	0	0.0	0	Not Requested	Not Requested	Not Requested	CL
74E0212DA0-1	500.09	0	0	0.0	0	0	5	95	OL*

Sample ID	Wet Soil (g)	Total No. of Lead Shot	Total Lead Shot (g)	No. of Lead Shot per Wet Wt of Sample	% Lead Shot per Wet Wt of Sample	Gravel (%)	Sand (%)	Fines (%)	Group Symbol
74E0213DA0-1	447.07	0	0	0.0	0	Not Requested	Not Requested	Not Requested	'Organics'
74E0214DA0-1	471.22	1	0.0433	2.1	0.009	Not Requested	Not Requested	Not Requested	ML
74E0215DA0-1	512.44	0	0	0.0	0	Not Requested	Not Requested	Not Requested	OL
74B01SB0-01	496.59	3	0.153	6.0	0.031	0	56	44	SM
74B01SB0-07	554.4	10	0.4526	18.0	0.082	0	43	57	s(ML)
74B01SB0-09	489.75	49	1.7659	100.1	0.361	0	37	63	s(ML)
74B01SB0-10	477.66	148	6.8805	309.8	1.44	0	9	91	CL
74B01SB0-20	509.57	115	6.0136	225.7	1.18	1	46	53	s(CL/ML)
74B01SB0-27	752.6	0	0	0.0	0	0	6	94	CL
74B01SB0-32	447.17	3	0.0945	6.7	0.021	0	54	46	SM
74B01SB0-43	769.92	3	0.1736	3.9	0.023	0	37	63	s(ML)
74B01SB3-04	1091.84	1	0.0628	0.9	0.006	0	28	72	(CL-ML)s
74B01SB1-09	466.19	Not Requested	N/A	N/A	N/A	0	40	60	s(ML)
74B01SB1-43	231.72	Not Requested	N/A	N/A	N/A	0	35	65	s(ML)
74B03SB0-01	596.82	Not Requested	N/A	N/A	N/A	1	63	36	SM
74B03SB0-02	633.29	Not Requested	N/A	N/A	N/A	3	60	37	SM
74B03SB0-03	564.91	Not Requested	N/A	N/A	N/A	1	35	64	s(CL)
74B02DB0-41	540.02	0	0	0.0	0	0	9	91	ML
74B02DB0-44	502.52	0	0	0.0	0	0	13	87	ML
74B02DB0-26	457.67	0	0	0.0	0	0	20	80	(ML)s
74B02DB0-15	520.38	0	0	0.0	0	0	13	87	ML
74B02DB0-52	471.41	0	0	0.0	0	0	23	77	(ML)s
74B02DB0-36	453.84	52	1.3947	114.6	0.307	0	17	83	(ML)s
74B02DB0-05	453.7	66	2.2592	145.5	0.498	0	17	83	(ML)s
74B02DB0-35	517.85	1	0.0535	1.9	0.01	0	7	93	ML
74B02DB3-46	1522.44	0	0	0.0	0	0	8	92	ML
74B02DB1-36	439.6	Not Requested	N/A	N/A	N/A	0	12	88	ML
74B02DB1-15	516.46	Not Requested	N/A	N/A	N/A	0	15	85	(MH)s
74B03DB0-01	428.5	Not Requested	N/A	N/A	N/A	0	27	73	(ML)s
74B03DB0-02	578.2	Not Requested	N/A	N/A	N/A	0	10	90	CL

Sample ID	Wet Soil (g)	Total No. of Lead Shot	Total Lead Shot (g)	No. of Lead Shot per Wet Wt of Sample	% Lead Shot per Wet Wt of Sample	Gravel (%)	Sand (%)	Fines (%)	Group Symbol
74B03DB0-03	725.19	Not Requested	N/A	N/A	N/A	1	27	72	(CL)s

matrix	type	Object	full Object	SampleNo	Date	Event	lead	Units	Pb_qual	antimony	Sb_qual	Pb_as_shot	Pb_as_shot2	Mn_shot_siz	shot_kg	shotqual
sediment	2000	74G01	74G01-00	G01CA01	3/1/2000	2000	850	mg/Kg	DET	35.5	ND	133.59	133.59	0.03	4.47	DE
sediment	2000	74G02	74G02-00	G02CA01	3/1/2000	2000	2390	mg/Kg	DET	30.2	ND	1027.49	1027.49	0.039	26.42	DE
sediment	2000	74G03	74G03-00	G03CA01	3/1/2000	2000	2050	mg/Kg	DET	50	ND	3643.53	3643.53	0.034	105.88	DE
sediment	2000	74G04	74G04-00	G04CA01	3/1/2000	2000	7240	mg/Kg	DET	32.1	ND	2481.14	2481.14	0.035	70.54	DE
sediment	2000	74G05	74G05-00	G05CA01	3/7/2000	2000		mg/Kg		2980	DET	6578.2	6578.2	0.04	165.09	DE
sediment	2000	74G05	74G05-00	G05CA01D	3/7/2000	2000	154000	mg/Kg	DET							DE
sediment	2000	74G06	74G06-00	G06CA01	3/7/2000	2000	1500	mg/Kg	DET	29.2	ND	503.69	503.69	0.029	17.43	DE
sediment	2000	74G07	74G07-00	G07CA01	3/7/2000	2000	121	mg/Kg	DET	24.4	ND	105.93	105.93	0.047	2.27	DE
sediment	2000	74G08	74G08-00	G08CA01	3/1/2000	2000	140	mg/Kg	DET	28.3	ND	24.77	24.77	0.024	1.05	DE
sediment	2000	74G09	74G09-00	G09CA01	3/7/2000	2000	52.1	mg/Kg	DET	32.1	ND	0	1		0	ND
sediment	2000	74G10	74G10-00	G10CA01	3/1/2000	2000	130	mg/Kg	DET	26.7	ND	39.66	39.66	0.069	0.57	DE
sediment	2000	74G11	74G11-00	G11CA01	3/1/2000	2000	165	mg/Kg	DET	21.6	ND	0	1		0	ND
sediment	2000	74G12	74G12-00	G12CA01	3/1/2000	2000	5780	mg/Kg	DET	54.3	DET	3487.8	3487.8	0.038	92.52	DE
sediment	2000	74G13	74G13-00	G13CA01	3/1/2000	2000	7280	mg/Kg	DET	81.2	DET	7481.1	7481.1	0.044	170.22	DE
sediment	2000	74G14	74G14-00	G14CA01	3/1/2000	2000	131	mg/Kg	DET	23.8	ND	97.09	97.09	0.092	1.06	DE
sediment	2000	74G15	74G15-00	G15CA01	3/1/2000	2000	106	mg/Kg	DET	20	ND	52.93	52.93	0.053	1	DE
sediment	2000	74G16	74G16-00	G16CA01	3/7/2000	2000	51.6	mg/Kg	DET	83.3	ND	0	1		0	ND
sediment	2000	74G17	74G17-00	G17CA01	3/1/2000	2000	41.3	mg/Kg	DET	27.4	ND	0	1		0	ND
sediment	2000	74G18	74G18-00	G18CA01	3/1/2000	2000	80.9	mg/Kg	DET	19.8	ND	0	1		0	ND
sediment	2000	74G19	74G19-00	G19CA01	3/1/2000	2000	1160	mg/Kg	DET	38	ND	240.16	240.16	0.024	10.15	DE
sediment	2000	74G20	74G20-00	G20CA01	3/1/2000	2000	69.7	mg/Kg	DET	22.7	ND	15.01	15.01	0.027	0.56	DE
sediment	2000	74G21	74G21-00	G21CA01	3/1/2000	2000	364	mg/Kg	DET	46.7	ND	176.28	176.28	0.03	5.9	DE
sediment	2000	74G22	74G22-00	G22CA01	3/1/2000	2000	176	mg/Kg	DET	50.8	ND	0	1		0	ND
sediment	2000	74G23	74G23-00	G23CA01	3/1/2000	2000	57.1	mg/Kg	DET	24.6	ND	0	1		0	ND
sediment	2000	74G24	74G24-00	G24CA01	3/1/2000	2000	65.1	mg/Kg	DET	48.3	ND	0	1		0	ND
sediment	2000	74G25	74G25-00	G25CA01	3/1/2000	2000	155	mg/Kg	DET	22.2	ND	0	1		0	ND
sediment	2000	74G26	74G26-00	G26CA01	3/1/2000	2000	212	mg/Kg	DET	83.3	ND	0	1		0	ND
sediment	2000	74G27	74G27-00	G27CA01	3/1/2000	2000	64.9	mg/Kg	DET	23.5	ND	0	1		0	ND
sediment	2000	74G28	74G28-00	G28CA01	3/1/2000	2000	126	mg/Kg	DET	52.1	ND	0	1		0	ND
sediment	2000	74G29	74G29-00	G29CA01	3/1/2000	2000	34.4	mg/Kg	DET	67.6	ND	0	1		0	ND
sediment	2000	74G30	74G30-00	G30CA01	3/1/2000	2000	109	mg/Kg	DET	47.2	ND	0	1		0	ND
sediment	2000	74G31	74G31-00	G31CA01	3/1/2000	2000	67	mg/Kg	DET	51.8	ND	0	1		0	ND
sediment	2000	74G32	74G32-00	G32CA01	3/1/2000	2000	45	mg/Kg	DET	30.9	ND	0	1		0	ND
sediment	2000	74G33	74G33-00	G33CA01	3/1/2000	2000	46.2	mg/Kg	DET	55.9	ND	0	1		0	ND
sediment	2000	74G34	74G34-00	G34CA01	3/1/2000	2000	104	mg/Kg	DET	29.9	ND	26.41	26.41	0.045	0.59	DE
sediment	2000	74G35	74G35-00	G35CA01	3/1/2000	2000	1020	mg/Kg	DET	55.2	ND	388.81	388.81	0.052	7.41	DE
sediment	2000	74G36	74G36-00	G36CA01	3/1/2000	2000	21400	mg/Kg	DET	282	DET	4628.53	4628.53	0.037	125.13	DE
sediment	2000	74G37	74G37-00	G37CA01	3/1/2000	2000	84.6	mg/Kg	DET	22.5	ND	0	1		0	ND
sediment	2000	74G38	74G38-00	G38CA01	3/1/2000	2000	3230	mg/Kg	DET	37.4	DET	1350.57	1350.57	0.032	42.64	DE
sediment	2000	74G39	74G39-00	G39CA01	3/8/2000	2000	46.1	mg/Kg	DET	65.4	ND	0	1		0	ND
sediment	2000	74G40	74G40-00	G40CA01	3/8/2000	2000	56.4	mg/Kg	DET	32.5	ND	0	1		0	ND
sediment	2000	74G41	74G41-00	G41CA01	3/10/2000	2000	23.2	mg/Kg	DET			29.7	29.7	0.038	0.78	DE
sediment	2000	74G42	74G42-00	G42CA01	3/10/2000	2000	103	mg/Kg	DET	62.9	ND	0	1		0	ND

matrix	type	Object	full Object	SampleNo	Date	Event	lead	Units	Pb_qual	antimony	Sb_qual	Pb_as_shot	Pb_as_shot2	Mn_shot_siz	shot_kg	shotqual
sediment	2000	74G43	74G43-00	G43CA01	3/10/2000	2000	8.7	mg/Kg	DET			0	1		0	ND
sediment	2000	74G44	74G44-00	G44CA01	3/13/2000	2000	52.3	mg/Kg	DET	31.9	ND	0	1		0	ND
sediment	2000	74G45	74G45-00	G45CA01	3/13/2000	2000	54.8	mg/Kg	DET	55.9	ND	19.05	19.05	0.03	0.63	DE
sediment	2000	74G46	74G46-00	G46CA01	3/16/2000	2000	39.6	mg/Kg	DET	32.9	ND	0	1		0	ND
sediment	2000	74G47	74G47-00	G47CA01	3/16/2000	2000	68.2	mg/Kg	DET	22.5	ND	60.56	60.56	0.093	0.65	DE
sediment	2000	74G48	74G48-00	G48CA01	3/16/2000	2000	49.8	mg/Kg	DET	40	ND	0	1		0	ND
sediment	2000	74G49	74G49-00	G49CA01	3/16/2000	2000	50.9	mg/Kg	DET	24.9	ND	0	1		0	ND
sediment	2000	74G50	74G50-00	G50CA01	3/16/2000	2000	43.1	mg/Kg	DET	30.2	ND	0	1		0	ND
sediment	2000	74G51	74G51-00	G51CA01	3/17/2000	2000	51.7	mg/Kg	DET	51.3	ND	0	1		0	ND
sediment	2000	74G52	74G52-00	G52CA01	3/17/2000	2000	334	mg/Kg	DET	33.2	ND	0	1		0	ND
sediment	2000	74G53	74G53-00	G53CA01	3/23/2000	2000	61.6	mg/Kg	DET			0	1		0	ND
sediment	2000	74G54	74G54-00	G54CA01	3/21/2000	2000	39.5	mg/Kg	DET	25.4	ND	0	1		0	ND
sediment	2000	74G55	74G55-00	G55CA01	3/21/2000	2000	65.9	mg/Kg	DET	71.4	ND	0	1		0	ND
sediment	2000	74G56	74G56-00	G56CA01	3/21/2000	2000	57.4	mg/Kg	DET	26	ND	0	1		0	ND
sediment	2000	74G57	74G57-00	G57CA01	3/21/2000	2000	34.6	mg/Kg	DET			0	1		0	ND
sediment	2000	74G58	74G58-00	G58CA01	3/31/2000	2000	61	mg/Kg	DET	22.6	DET	0	1		0	ND
sediment	2000	74G59	74G59-00	G59CA01	3/31/2000	2000	127	mg/Kg	DET	62.1	DET	0	1		0	ND
sediment	2000	74G60	74G60-00	G60CA01	3/31/2000	2000	67.7	mg/Kg	DET	59.2	DET	0	1		0	ND
sediment	2000	74G61	74G61-00	G61CA01	3/31/2000	2000	67.4	mg/Kg	DET	43.5	DET	0	1		0	ND
sediment	2000	74G62	74G62-00	G62CA01	3/31/2000	2000	39	mg/Kg	DET	39.2	DET	0	1		0	ND
sediment	2000	74G63	74G63-00	G63CA01	3/31/2000	2000	67.7	mg/Kg	DET	38.6	DET	0	1		0	ND
sediment	2000	74G64	74G64-00	G64CA01	3/31/2000	2000	35.4	mg/Kg	DET			0	1		0	ND
sediment	2000	74G65	74G65-00	G65CA01	3/31/2000	2000	39.9	mg/Kg	DET	48.5	DET	0	1		0	ND
sediment	2000	74G66	74G66-00	G66CA01	3/31/2000	2000	60.6	mg/Kg	DET	48.8	DET	0	1		0	ND
sediment	2000 dup	74G03	74G03-00	G03CA11								5712.92	5712.92	0.038	150.83	DE
sediment	2000 dup	74G04	74G04-00	G04CA11								6522.78	6522.78	0.049	132.41	DE
sediment	2000 dup	74G20	74G20-00	G20CA11								47.78	47.78	0.049	0.99	DE
sediment	2000 dup	74G36	74G36-00	G36CA11								2527.15	2527.15	0.04	62.77	DE
sediment	2000 dup	74G58	74G58-00	G58CA11								0	1		0	ND
sediment	2000 MS/MSD	74G02	74G02-00	G02CA31								784.2	784.2	0.037	21.15	DE
sediment	2000 MS/MSD	74G09	74G09-00	G09CA31								0	1		0	ND
sediment	Bioassay	74G05	74G05-03	B02DB005	12/14/2003	PhaseII	9020	mg/Kg	DET	109	DET	4979.5	4979.5	0.034	145.47	DE
sediment	Bioassay	74G15	74G15-03	B02DB015	12/14/2003	PhaseII	179	mg/Kg	DET	1.1	DET	0	1		0	ND
sediment	Bioassay	74G26	74G26-03	B02DB026	12/15/2003	PhaseII	285	mg/Kg	DET	1.8	DET	0	1		0	ND
sediment	Bioassay	74G35	74G35-03	B02DB035	12/15/2003	PhaseII	536	mg/Kg	DET	3.8	DET	103.31	103.31	0.054	1.93	DE
sediment	Bioassay	74G36	74G36-03	B02DB036	12/15/2003	PhaseII	33100	mg/Kg	DET	282	DET	3073.11	3073.11	0.027	114.58	DE
sediment	Bioassay	74G41	74G41-03	B02DB041	12/15/2003	PhaseII	76.5	mg/Kg	DET	0.8	DET	0	1		0	ND
sediment	Bioassay	74G44	74G44-03	B02DB044	12/14/2003	PhaseII	94.9	mg/Kg	DET	0.7	DET	0	1		0	ND
sediment	Bioassay	74G52	74G52-03	B02DB052	12/15/2003	PhaseII	199	mg/Kg	DET	4.2	DET	0	1		0	ND
sediment	Bioassay-MS/MSD	74G46	74G46-03	B02DB346								0	1		0	ND
sediment	PhaseI	74G04	74G04-03	E0208DA0	8/14/2003	PhaseI	15800	mg/Kg	DET	142	DET	4882.52	4882.52	0.032	154.52	DE
sediment	PhaseI	74G05	74G05-03	E0201DA0	8/15/2003	PhaseI	50.3	mg/Kg	DET	0.9	DET	0	1		0	ND
sediment	PhaseI	74G15	74G15-03	E0212DA0	8/15/2003	PhaseI	127	mg/Kg	DET	1.6	DET	0	1		0	ND
sediment	PhaseI	74G16	74G16-03	E0213DA0	8/15/2003	PhaseI	928	mg/Kg	DET	7.8	DET	0	1		0	ND

matrix	type	Object	full Object	SampleNo	Date	Event	lead	Units	Pb_qual	antimony	Sb_qual	Pb_as_shot	Pb_as_shot2	Mn_shot_siz	shot_kg	shotqual
sediment	PhaseI	74G26	74G26-03	E0207DA0	8/14/2003	PhaseI	8080	mg/Kg	DET	60.1	DET	7511.5	7511.5	0.045	166.84	DE
sediment	PhaseI	74G28	74G28-03	E0209DA0	8/15/2003	PhaseI	76.7	mg/Kg	DET	0.7	DET	0	1		0	ND
sediment	PhaseI	74G35	74G35-03	E0211DA0	8/15/2003	PhaseI	837	mg/Kg	DET	3.3	DET	0	1		0	ND
sediment	PhaseI	74G36	74G36-03	E0206DA0	8/14/2003	PhaseI	167	mg/Kg	DET	1.2	DET	0	1		0	ND
sediment	PhaseI	74G37	74G37-03	E0204DA0	8/14/2003	PhaseI	10700	mg/Kg	DET	182	DET	1548.88	1548.88	0.025	62.48	DE
sediment	PhaseI	74G38	74G38-03	E0205DA0	8/14/2003	PhaseI	20400	mg/Kg	DET	176	DET	5086.65	5086.65	0.032	159.02	DE
sediment	PhaseI	74G39	74G39-03	E0214DA0	8/15/2003	PhaseI	70.1	mg/Kg	DET	1.4	DET	91.89	91.89	0.043	2.12	DE
sediment	PhaseI	74G41	74G41-03	E0202DA0	8/14/2003	PhaseI	42.7	mg/Kg	DET	0.3	DET	0	1		0	ND
sediment	PhaseI	74G44	74G44-03	E0210DA0	8/15/2003	PhaseI	54.9	mg/Kg	DET	0.4	DET	0	1		0	ND
sediment	PhaseI	74G46	74G46-03	E0203DA0	8/14/2003	PhaseI	76.1	mg/Kg	DET	0.4	DET	0	1		0	ND
sediment	PhaseI	74G52	74G52-03	E0215DA0	8/15/2003	PhaseI	102	mg/Kg	DET	1.4	DET	0	1		0	ND
sediment	refbio	SD1	SD1-03	B03DB001	12/13/2003	PhaseII	35.7	mg/Kg	DET	0.1	DET					DE
sediment	refbio	SD2	SD2-03	B03DB002	12/15/2003	PhaseII	47.4	mg/Kg	DET	0.2	DET					DE
sediment	refbio	SD3	SD3-03	B03DB003	12/15/2003	PhaseII	773	mg/Kg	DET	0.3	DET					DE
soil	2000	74B01	74B01-00	B01SA01	2/29/2000	2000	32.6	mg/Kg	DET	12.3	ND	202.3	202.3	0.049	4.12	DE
soil	2000	74B02	74B02-00	B02SA01	2/29/2000	2000	75.5	mg/Kg	DET	12.2	ND	276.06	276.06	0.059	4.65	DE
soil	2000	74B03	74B03-00	B03SA01	2/29/2000	2000	86.6	mg/Kg	DET	12.4	ND	1333.35	1333.35	0.048	27.81	DE
soil	2000	74B04	74B04-00	B04SA01	2/29/2000	2000	57.2	mg/Kg	DET	11.8	ND	304.5	304.5	0.048	6.36	DE
soil	2000	74B05	74B05-00	B05SA01	3/1/2000	2000	51.3	mg/Kg	DET	13.2	ND	560.89	560.89	0.041	13.62	DE
soil	2000	74B06	74B06-00	B06SA01	3/1/2000	2000	316	mg/Kg	DET	13.3	ND	4553.58	4553.58	0.049	93.36	DE
soil	2000	74B07	74B07-00	B07SA01	3/1/2000	2000	70.6	mg/Kg	DET	12.5	ND	1025.12	1025.12	0.055	18.75	DE
soil	2000	74B08	74B08-00	B08SA01	2/29/2000	2000	1270	mg/Kg	DET	12.1	ND	1555.05	1555.05	0.029	53.95	DE
soil	2000	74B09	74B09-00	B09SA01	3/1/2000	2000	1110	mg/Kg	DET	12.7	ND	4529.15	4529.15	0.039	116.49	DE
soil	2000	74B10	74B10-00	B10SA01	3/1/2000	2000	2170	mg/Kg	DET	20.4	DET	6660.57	6660.57	0.038	176.55	DE
soil	2000	74B11	74B11-00	B11SA01	3/1/2000	2000	1700	mg/Kg	DET	19	DET	1450.68	1450.68	0.049	29.73	DE
soil	2000	74B12	74B12-00	B12SA01	3/1/2000	2000	53400	mg/Kg	DET	1780	DET	2893.2	2893.2	0.052	55.62	DE
soil	2000	74B13	74B13-00	B13SA01	3/1/2000	2000	256	mg/Kg	DET	12.2	ND	2111.58	2111.58	0.053	40.15	DE
soil	2000	74B14	74B14-00	B14SA01	3/1/2000	2000	357	mg/Kg	DET	11.9	ND	3777.5	3777.5	0.055	68.24	DE
soil	2000	74B15	74B15-00	B15SA01	3/1/2000	2000	1060	mg/Kg	DET	12.8	ND	11297.72	11297.72	0.054	210.2	DE
soil	2000	74B16	74B16-00	B16SA01	3/1/2000	2000	797	mg/Kg	DET	11.9	ND	9308.19	9308.19	0.055	168.59	DE
soil	2000	74B17	74B17-00	B17SA01	3/1/2000	2000	448	mg/Kg	DET	12.1	ND	4851.14	4851.14	0.06	81.29	DE
soil	2000	74B18	74B18-00	B18SA01	3/1/2000	2000	59.6	mg/Kg	DET	11.5	ND	491.45	491.45	0.065	7.53	DE
soil	2000	74B19	74B19-00	B19SA01	3/1/2000	2000	2680	mg/Kg	DET	13.9	ND	8143.6	8143.6	0.039	206.88	DE
soil	2000	74B20	74B20-00	B20SA01	3/1/2000	2000	69700	mg/Kg	DET	3930	DET	7478.01	7478.01	0.053	141.07	DE
soil	2000	74B21	74B21-00	B21SA01	2/29/2000	2000	30.1	mg/Kg	DET	12.2	ND	62.34	62.34	0.038	1.64	DE
soil	2000	74B22	74B22-00	B22SA01	3/8/2000	2000	1500	mg/Kg	DET	14	ND	10768.53	10768.53	0.051	212.6	DE
soil	2000	74B23	74B23-00	B23SA01	3/8/2000	2000	55.2	mg/Kg	DET	15.4	ND	2048.14	2048.14	0.057	36.11	DE
soil	2000	74B24	74B24-00	B24SA01	3/8/2000	2000	191	mg/Kg	DET	13.2	ND	2553.72	2553.72	0.048	53.4	DE
soil	2000	74B25	74B25-00	B25SA01	3/8/2000	2000	5	mg/Kg	DET			0	1		0	ND
soil	2000	74B26	74B26-00	B26SA01	3/8/2000	2000	54.2	mg/Kg	DET	13.1	ND	419.09	419.09	0.059	7.06	DE
soil	2000	74B27	74B27-00	B27SA01	3/10/2000	2000	168	mg/Kg	DET	14.7	ND	86.58	86.58	0.036	2.42	DE
soil	2000	74B28	74B28-00	B28SA01	3/16/2000	2000	232	mg/Kg	DET	12.9	ND	151.75	151.75	0.032	4.78	DE
soil	2000	74B29	74B29-00	B29SA01	3/16/2000	2000	1470	mg/Kg	DET	18.4	DET	646.42	646.42	0.024	27.21	DE
soil	2000	74B30	74B30-00	B30SA01	3/16/2000	2000	198	mg/Kg	DET	12.2	ND	12687.48	12687.48	0.054	236.61	DE

matrix	type	Object	full Object	SampleNo	Date	Event	lead	Units	Pb_qual	antimony	Sb_qual	Pb_as_shot	Pb_as_shot2	Mn_shot_siz	shot_kg	shotqual
soil	2000	74B31	74B31-00	B31SA01	3/16/2000	2000	1200	mg/Kg	DET	19.4	DET	13193.31	13193.31	0.048	275.86	DE
soil	2000	74B32	74B32-00	B32SA01	3/16/2000	2000	88.5	mg/Kg	DET			45.08	45.08	0.058	0.78	DE
soil	2000	74B33	74B33-00	B33SA01	3/16/2000	2000	17.4	mg/Kg	DET			34.32	34.32	0.054	0.64	DE
soil	2000	74B34	74B34-00	B34SA01	3/23/2000	2000	156	mg/Kg	DET	10.8	ND	0	1		0	ND
soil	2000	74B35	74B35-00	B35SA01	3/23/2000	2000	73.8	mg/Kg	DET	11.6	ND	772.51	772.51	0.049	15.84	DE
soil	2000	74B36	74B36-00	B36SA01	3/23/2000	2000	25.6	mg/Kg	DET			562.72	562.72	0.048	11.72	DE
soil	2000	74B37	74B37-00	B37SA01	3/23/2000	2000		mg/Kg		13.7	ND	855.45	855.45	0.038	22.81	DE
soil	2000	74B37	74B37-00	B37SA01D	3/23/2000	2000	80300	mg/Kg	DET							DE
soil	2000	74B38	74B38-00	B38SA01	3/23/2000	2000	205	mg/Kg	DET	13.9	ND	84.77	84.77	0.106	0.8	DE
soil	2000	74B39	74B39-00	B39SA01	3/23/2000	2000	31.3	mg/Kg	DET			0	1		0	ND
soil	2000	74B40	74B40-00	B40SA01	3/23/2000	2000	13.5	mg/Kg	DET			34.28	34.28	0.049	0.7	DE
soil	2000	74B41	74B41-00	B41SA01	3/23/2000	2000	29	mg/Kg	DET			30	30	0.067	0.45	DE
soil	2000	74B42	74B42-00	B42SA01	3/23/2000	2000	22.9	mg/Kg	DET			38.42	38.42	0.054	0.71	DE
soil	2000	74B43	74B43-00	B43SA01	3/23/2000	2000	42.6	mg/Kg	DET	1780	DET	934.22	934.22	0.051	18.22	DE
soil	2000	74B44	74B44-00	B44SA01	3/31/2000	2000	168	mg/Kg	DET	10.3	DET	52.5	52.5	0.046	1.15	DE
soil	2000	74B45	74B45-00	B45SA01	3/31/2000	2000	12.7	mg/Kg	DET	10.4	DET	0	1		0	ND
soil	2000	74B46	74B46-00	B46SA01	3/31/2000	2000	21.5	mg/Kg	DET	10.7	DET	0	1		0	ND
soil	2000	74B47	74B47-00	B47SA01	3/31/2000	2000	135	mg/Kg	DET	12	DET	237.8	237.8	0.059	4.03	DE
soil	2000	74B48	74B48-00	B48SA01	3/31/2000	2000	9.7	mg/Kg	DET	13	DET	0	1		0	ND
soil	2000	74B49	74B49-00	B49SA01	3/31/2000	2000	55.1	mg/Kg	DET	10.4	DET	131.41	131.41	0.049	2.68	DE
soil	2000	74B50	74B50-00	B50SA01	4/4/2000	2000	22	mg/Kg	DET			0	1		0	ND
soil	2000	74B51	74B51-00	B51SA01	4/4/2000	2000	11.6	mg/Kg	DET			0	1		0	ND
soil	2000	74B52	74B52-00	B52SA01	4/4/2000	2000	19.1	mg/Kg	DET			0	1		0	ND
soil	2000 dup	74B02	74B02-00	B02SA11								100.74	100.74	0.065	1.56	DE
soil	2000 dup	74B13	74B13-00	B13SA11								2232.42	2232.42	0.051	43.81	DE
soil	2000 dup	74B19	74B19-00	B19SA11								5606.88	5606.88	0.04	138.89	DE
soil	2000 dup	74B46	74B46-00	B46SA11								0	1		0	ND
soil	2000 dup	74B48	74B48-00	B48SA11								12.96	12.96	0.023	0.56	DE
soil	2000 MS/MSD	74B11	74B11-00	B11SA31								7749.75	7749.75	0.05	155.84	DE
soil	Bioassay	74B01	74B01-03	B01SB001	12/13/2003	PhaseII	40.4	mg/Kg	DET	0.3	ND	308.1	308.1	0.051	6.04	DE
soil	Bioassay	74B07	74B07-03	B01SB007	12/13/2003	PhaseII	535	mg/Kg	DET	3.4	DET	816.38	816.38	0.045	18.04	DE
soil	Bioassay	74B09	74B09-03	B01SB009	12/13/2003	PhaseII	1470	mg/Kg	DET	10.4	DET	3605.72	3605.72	0.036	100.05	DE
soil	Bioassay	74B10	74B10-03	B01SB010	12/13/2003	PhaseII	3430	mg/Kg	DET	28.6	DET	14404.6	14404.6	0.046	309.84	DE
soil	Bioassay	74B20	74B20-03	B01SB020	12/13/2003	PhaseII	1220	mg/Kg	DET	7	DET	11801.32	11801.32	0.052	225.68	DE
soil	Bioassay	74B27	74B27-03	B01SB027	12/14/2003	PhaseII	123	mg/Kg	DET	0.9	DET	0	1		0	ND
soil	Bioassay	74B32	74B32-03	B01SB032	12/13/2003	PhaseII	604	mg/Kg	DET	5	DET	211.33	211.33	0.032	6.71	DE
soil	Bioassay	74B43	74B43-03	B01SB043	12/14/2003	PhaseII	26.4	mg/Kg	DET	0.2	ND	225.48	225.48	0.058	3.9	DE
soil	Bioassay-MS/MSD	74B04	74B04-03	B01SB304								57.52	57.52	0.063	0.92	DE
soil	PhaseI	74B01	74B01-03	E0101SA0	8/13/2003	PhaseI	32.9	mg/Kg	DET	0.3	DET	153.73	153.73	0.076	2.04	DE
soil	PhaseI	74B04	74B04-03	E0102SA0	8/13/2003	PhaseI	12.6	mg/Kg	DET	0.2	DET	0	1		0	ND
soil	PhaseI	74B07	74B07-03	E0103SA0	8/13/2003	PhaseI	568	mg/Kg	DET	3.3	DET	2038.94	2038.94	0.043	47.11	DE
soil	PhaseI	74B09	74B09-03	E0104SA0	8/13/2003	PhaseI	55200	mg/Kg	DET	2380	DET	3560.11	3560.11	0.039	90.89	DE
soil	PhaseI	74B10	74B10-03	E0105SA0	8/13/2003	PhaseI	31600	mg/Kg	DET	1430	DET	8660.8	8660.8	0.045	191.85	DE
soil	PhaseI	74B20	74B20-03	E0106SA0	8/13/2003	PhaseI	831	mg/Kg	DET	4.6	DET	12193.75	12193.75	0.051	240.15	DE

combined Pb,Sb,shot-2000+2003

matrix	type	Object	full Object	SampleNo	Date	Event	lead	Units	Pb_qual	antimony	Sb_qual	Pb_as_shot	Pb_as_shot2	Mn_shot_siz	shot_kg	shotqual
soil	PhaseI	74B24	74B24-03	E0107SA0	8/13/2003	PhaseI	963	mg/Kg	DET	6.3	DET	4636.21	4636.21	0.044	104.21	DE
soil	PhaseI	74B27	74B27-03	E0108SA0	8/13/2003	PhaseI	45	mg/Kg	DET	0.7	DET	0	1		0	ND
soil	PhaseI	74B27	74B27-03	E0108SA0	8/13/2003	PhaseI	72.4	mg/Kg	DET	0.7	DET	0	1		0	ND
soil	PhaseI	74B29	74B29-03	E0109SA0	8/13/2003	PhaseI	377	mg/Kg	DET	2.4	DET	802.87	802.87	0.055	14.62	DE
soil	PhaseI	74B30	74B30-03	E0110SA0	8/13/2003	PhaseI	1240	mg/Kg	DET	9.5	DET	2842.08	2842.08	0.044	64.36	DE
soil	PhaseI	74B32	74B32-03	E0113SA0	8/13/2003	PhaseI	84.9	mg/Kg	DET	0.6	DET	1293.98	1293.98	0.039	32.8	DE
soil	PhaseI	74B37	74B37-03	E0111SA0	8/13/2003	PhaseI	25.5	mg/Kg	DET	0.5	DET	83.86	83.86	0.051	1.64	DE
soil	PhaseI	74B41	74B41-03	E0112SA0	8/13/2003	PhaseI	41.3	mg/Kg	DET	0.6	DET	0	1		0	ND
soil	PhaseI	74B43	74B43-03	E0115SA0	8/13/2003	PhaseI	16.2	mg/Kg	DET	0.2	DET	257.68	257.68	0.065	3.96	DE
soil	PhaseI	74B49	74B49-03	E0114SA0	8/13/2003	PhaseI	221	mg/Kg	DET	1.5	DET	59.86	59.86	0.038	1.6	DE
soil	refbio	SR1	SR1-03	B03SB001	12/13/2003	PhaseII	50.5	mg/Kg	DET	0.1	ND					DE
soil	refbio	SR2	SR2-03	B03SB002	12/13/2003	PhaseII	178	mg/Kg	DET	0.2	ND					DE
soil	refbio	SR3	SR3-03	B03SB003	12/13/2003	PhaseII	48	mg/Kg	DET	0.2	ND					DE

plant uptake data - raw

	Loc	sampleID	matrix	species	result	qual	Units	Parameter	MDL	PQL	watercontent	ValidationQualifier
	74B01-03	74E0101PA0-0	Plant	Bassia	0.4	U	mg/Kg	Antimony	0.034	0.4	76.8	.
	74B01-03	74E0101PA0-0	Plant	Bassia	2.6	U	mg/Kg	Lead	0.03	2.6	76.8	.
	74B01-03	74E0101SA0-1	soil	.	0.3	.	mg/Kg	Antimony	0.008	0.1	2.8	.
	74B01-03	74E0101SA0-1	soil	.	32.9	.	mg/Kg	Lead	0.007	0.6	2.8	.
	74B04-03	74E0102PA0-0	Plant	Atroplexspp	0.3	U	mg/Kg	Antimony	0.022	0.3	63.7	.
	74B04-03	74E0102PA0-0	Plant	Atroplexspp	1.9	.	mg/Kg	Lead	0.019	1.7	63.7	.
	74B04-03	74E0102SA0-1	soil	.	0.2	.	mg/Kg	Antimony	0.008	0.1	3.6	.
	74B04-03	74E0102SA0-1	soil	.	12.6	.	mg/Kg	Lead	0.007	0.6	3.6	.
	74B07-03	74E0103PA0-0	Plant	Bassia	0.4	U	mg/Kg	Antimony	0.029	0.4	72.3	.
	74B07-03	74E0103SA0-1	soil	.	3.3	.	mg/Kg	Antimony	0.009	0.1	10.4	.
	74B07-03	74E0103PA0-0	soil	Bassia	2.5	.	mg/Kg	Lead	0.025	2.2	72.3	.
	74B07-03	74E0103SA0-1	soil	.	568	.	mg/Kg	Lead	0.781	67	10.4	.
	74B09-03	74E0104PA0-0	Plant	Pickelweed	0.4	U	mg/Kg	Antimony	0.036	0.4	77.7	.
	74B09-03	74E0104PA0-0	Plant	Pickelweed	4	.	mg/Kg	Lead	0.031	2.7	77.7	.
	74B09-03	74E0104SA0-1	soil	.	2380	.	mg/Kg	Antimony	91.429	1140	12.5	.
	74B09-03	74E0104SA0-1	soil	.	55200	.	mg/Kg	Lead	80	6860	12.5	.
	74B10-03	74E0105PA0-0	Plant	Pickelweed	0.5	.	mg/Kg	Antimony	0.044	0.5	81.7	.
	74B10-03	74E0105PA0-0	Plant	Pickelweed	21.3	.	mg/Kg	Lead	0.038	3.3	81.7	.
	74B10-03	74E0105SA0-1	soil	.	1430	.	mg/Kg	Antimony	2.013	25	20.5	.
	74B10-03	74E0105SA0-1	soil	.	31600	.	mg/Kg	Lead	35.22	3020	20.5	.
	74B20-03	74E0106PA0-0	Plant	Saltgrass	0.5	.	mg/Kg	Antimony	0.013	0.2	38.9	.
	74B20-03	74E0106PA0-0	Plant	Saltgrass	18	.	mg/Kg	Lead	0.011	1	38.9	.
	74B20-03	74E0106SA0-1	soil	.	4.6	.	mg/Kg	Antimony	0.008	0.1	3.5	.
	74B20-03	74E0106SA0-1	soil	.	831	.	mg/Kg	Lead	0.725	62	3.5	.
	74B24-03	74E0107PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.053	0.7	84.8	.
	74B24-03	74E0107PA0-0	Plant	Pickelweed	3.9	U	mg/Kg	Lead	0.046	3.9	84.8	.
	74B24-03	74E0107SA0-1	soil	.	6.3	.	mg/Kg	Antimony	0.009	0.1	12.7	.
	74B24-03	74E0107SA0-1	soil	.	963	.	mg/Kg	Lead	0.802	69	12.7	.
	74B27-03	74E0108PA0-0	Plant	Pickelweed	0.6	U	mg/Kg	Antimony	0.046	0.6	82.7	.
	74B27-03	74E0108PA0-0	Plant	Pickelweed	3.5	U	mg/Kg	Lead	0.04	3.5	82.7	.
	74B27-03	74E0108SA0-1	soil	.	0.7	.	mg/Kg	Antimony	0.011	0.1	26.9	.
	74B27-03	74E0108SA0-1	soil	.	45	.	mg/Kg	Lead	0.01	0.8	26.9	.
	74B29-03	74E0109PA0-0	Plant	Frankeniaspp	0.7	.	mg/Kg	Antimony	0.014	0.2	42.2	.
	74B29-03	74E0109PA0-0	Plant	Frankeniaspp	13	.	mg/Kg	Lead	0.012	1	42.2	.
	74B29-03	74E0109SA0-1	soil	.	2.4	.	mg/Kg	Antimony	0.009	0.1	8.5	.
	74B29-03	74E0109SA0-1	soil	.	377	.	mg/Kg	Lead	0.765	66	8.5	.
	74B30-03	74E0110PA0-0	Plant	Pickelweed	0.5	.	mg/Kg	Antimony	0.042	0.5	80.9	.
	74B30-03	74E0110PA0-0	Plant	Pickelweed	3.1	.	mg/Kg	Lead	0.037	3.1	80.9	.
	74B30-03	74E0110SA0-1	soil	.	9.5	.	mg/Kg	Antimony	0.011	0.1	25	.

plant uptake data - raw

	Loc	sampleID	matrix	species	result	qual	Units	Parameter	MDL	PQL	watercontent	ValidationQualifier
	74B30-03	74E0110SA0-1	soil	.	1240	.	mg/Kg	Lead	0.933	80	25	.
	74B32-03	74E0113PA0-0	Plant	Bassia	0.3	.	mg/Kg	Antimony	0.027	0.3	70.8	.
	74B32-03	74E0113PA0-0	Plant	Bassia	2.1	U	mg/Kg	Lead	0.024	2.1	70.8	.
	74B32-03	74E0113SA0-1	soil	.	0.6	.	mg/Kg	Antimony	0.009	0.1	7.1	.
	74B32-03	74E0113SA0-1	soil	.	84.9	.	mg/Kg	Lead	0.008	0.6	7.1	.
	74B37-03	74E0111PA0-0	Plant	Frankeniaspp	0.2	.	mg/Kg	Antimony	0.019	0.2	57.6	.
	74B37-03	74E0111PA0-0	Plant	Frankeniaspp	1.4	U	mg/Kg	Lead	0.017	1.4	57.6	.
	74B37-03	74E0111SA0-1	soil	.	0.5	.	mg/Kg	Antimony	0.008	0.1	3.4	.
	74B37-03	74E0111SA0-1	soil	.	25.5	.	mg/Kg	Lead	0.007	0.6	3.4	.
	74B41-03	74E0112PA0-0	Plant	Pickelweed	1.1	.	mg/Kg	Antimony	0.046	0.6	82.6	.
	74B41-03	74E0112PA0-0	Plant	Pickelweed	3.4	U	mg/Kg	Lead	0.04	3.4	82.6	.
	74B41-03	74E0112SA0-1	soil	.	0.6	.	mg/Kg	Antimony	0.012	0.1	32.7	.
	74B41-03	74E0112SA0-1	soil	.	41.3	.	mg/Kg	Lead	0.01	0.9	32.7	.
	74B43-03	74E0115PA0-0	Plant	Bassia	0.3	U	mg/Kg	Antimony	0.023	0.3	65.7	.
	74B43-03	74E0115PA0-0	Plant	Bassia	1.7	U	mg/Kg	Lead	0.02	1.7	65.7	.
	74B43-03	74E0115SA0-1	soil	.	0.2	.	mg/Kg	Antimony	0.008	0.1	0	.
	74B43-03	74E0115SA0-1	soil	.	16.2	.	mg/Kg	Lead	0.007	0.6	0	.
	74B49-03	74E0114PA0-0	Plant	Pickelweed	0.5	U	mg/Kg	Antimony	0.04	0.5	80	.
	74B49-03	74E0114PA0-0	Plant	Pickelweed	9.5	.	mg/Kg	Lead	0.035	3	80	.
	74B49-03	74E0114SA0-1	soil	.	1.5	.	mg/Kg	Antimony	0.008	0.1	4.1	.
	74B49-03	74E0114SA0-1	soil	.	221	.	mg/Kg	Lead	0.73	63	4.1	.
	74G04-03	74E0208PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.053	0.7	84.8	.
	74G04-03	74E0208PA0-0	Plant	Pickelweed	27	.	mg/Kg	Lead	0.046	3.9	84.8	.
	74G04-03	74E0208DA0-1	sediment	.	142	.	mg/Kg	Antimony	0.037	0.5	78.2	.
	74G04-03	74E0208DA0-1	sediment	.	15800	.	mg/Kg	Lead	3.211	275	78.2	.
	74G05-03	74E0201PA0-0	Plant	Pickelweed	0.6	U	mg/Kg	Antimony	0.048	0.6	83.4	.
	74G05-03a	74E0217PA	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.054	0.7	85.2	.
	74G05-03	74E0201PA0-0	Plant	Pickelweed	3.6	U	mg/Kg	Lead	0.042	3.6	83.4	.
	74G05-03a	74E0217PA	Plant	Pickelweed	14.9	.	mg/Kg	Lead	0.047	4.1	85.2	.
	74G05-03	74E0201DA0-1	sediment	.	0.9	.	mg/Kg	Antimony	0.025	0.3	68.4	.
	74G05-03a	74E0217DA1-1	sediment	.	199	.	mg/Kg	Antimony	0.042	0.5	80.9	.
	74G05-03	74E0201DA0-1	sediment	.	50.3	.	mg/Kg	Lead	0.022	1.9	68.4	.
	74G05-03a	74E0217DA1-1	sediment	.	17400	.	mg/Kg	Lead	3.665	314	80.9	.
	74G15-03	74E0212PA0-0	Plant	Pickelweed	1.4	.	mg/Kg	Antimony	0.057	0.7	85.9	.
	74G15-03	74E0212PA0-0	Plant	Pickelweed	41.8	.	mg/Kg	Lead	0.05	4.3	85.9	.
	74G15-03	74E0212DA0-1	sediment	.	1.6	.	mg/Kg	Antimony	0.031	0.4	74.2	.
	74G15-03	74E0212DA0-1	sediment	.	127	.	mg/Kg	Lead	0.027	2.3	74.2	.
	74G16-03	74E0213PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.056	0.7	85.8	.
	74G16-03	74E0213PA0-0	Plant	Pickelweed	4.2	U	mg/Kg	Lead	0.049	4.2	85.8	.

	Loc	sampleID	matrix	species	result	qual	Units	Parameter	MDL	PQL	watercontent	ValidationQualifier
	74G16-03	74E0213DA0-1	sediment	.	7.8	.	mg/Kg	Antimony	0.052	0.7	84.7	.
	74G16-03	74E0213DA0-1	sediment	.	928	.	mg/Kg	Lead	0.229	20	84.7	.
	74G26-03	74E0207PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.053	0.7	85	.
	74G26-03	74E0207PA0-0	Plant	Pickelweed	34.7	.	mg/Kg	Lead	0.047	4	85	.
	74G26-03	74E0207DA0-1	sediment	.	60.1	.	mg/Kg	Antimony	0.028	0.4	71.9	.
	74G26-03	74E0207DA0-1	sediment	.	8080	.	mg/Kg	Lead	2.491	214	71.9	.
	74G28-03	74E0209PA0-0	Plant	Pickelweed	0.8	U	mg/Kg	Antimony	0.063	0.8	87.3	.
	74G28-03	74E0209PA0-0	Plant	Pickelweed	4.7	U	mg/Kg	Lead	0.055	4.7	87.3	.
	74G28-03	74E0209DA0-1	sediment	.	0.7	.	mg/Kg	Antimony	0.055	0.7	85.4	.
	74G28-03	74E0209DA0-1	sediment	.	76.7	.	mg/Kg	Lead	0.048	4.1	85.4	.
	74G35-03	74E0211PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.055	0.7	85.4	.
	74G35-03	74E0211PA0-0	Plant	Pickelweed	4.1	.	mg/Kg	Lead	0.048	4.1	85.4	.
	74G35-03	74E0211DA0-1	sediment	.	3.3	.	mg/Kg	Antimony	0.027	0.3	69.9	.
	74G35-03	74E0211DA0-1	sediment	.	837	.	mg/Kg	Lead	0.116	10	69.9	.
	74G36-03	74E0206PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.056	0.7	85.7	.
	74G36-03a	74E0216PA1-0	Plant	Pickelweed	0.6	.	mg/Kg	Antimony	0.052	0.6	84.5	.
	74G36-03	74E0206PA0-0	Plant	Pickelweed	4.2	U	mg/Kg	Lead	0.049	4.2	85.7	.
	74G36-03a	74E0216PA1-0	Plant	Pickelweed	53.5	.	mg/Kg	Lead	0.045	3.9	84.5	.
	74G36-03	74E0206DA0-1	sediment	.	1.2	.	mg/Kg	Antimony	0.048	0.6	83.4	.
	74G36-03a	74E0216DA1-1	sediment	.	41.4	.	mg/Kg	Antimony	0.016	0.2	51.2	.
	74G36-03	74E0206DA0-1	sediment	.	167	.	mg/Kg	Lead	0.042	3.6	83.4	.
	74G36-03a	74E0216DA1-1	sediment	.	4570	.	mg/Kg	Lead	1.434	123	51.2	.
	74G37-03	74E0204PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.059	0.7	86.5	.
	74G37-03	74E0204PA0-0	Plant	Pickelweed	8.1	.	mg/Kg	Lead	0.052	4.4	86.5	.
	74G37-03	74E0204DA0-1	sediment	.	182	.	mg/Kg	Antimony	0.02	0.3	60	.
	74G37-03	74E0204DA0-1	sediment	.	10700	.	mg/Kg	Lead	1.75	150	60	.
	74G38-03	74E0205PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.055	0.7	85.5	.
	74G38-03	74E0205PA0-0	Plant	Pickelweed	22.8	.	mg/Kg	Lead	0.048	4.1	85.5	.
	74G38-03	74E0205DA0-1	sediment	.	176	.	mg/Kg	Antimony	0.039	0.5	79.4	.
	74G38-03	74E0205DA0-1	sediment	.	20400	.	mg/Kg	Lead	3.398	291	79.4	.
	74G39-03	74E0214PA0-0	Plant	Pickelweed	0.8	U	mg/Kg	Antimony	0.063	0.8	87.2	.
	74G39-03	74E0214PA0-0	Plant	Pickelweed	4.7	U	mg/Kg	Lead	0.055	4.7	87.2	.
	74G39-03	74E0214DA0-1	sediment	.	1.4	.	mg/Kg	Antimony	0.056	0.7	85.6	.
	74G39-03	74E0214DA0-1	sediment	.	70.1	.	mg/Kg	Lead	0.049	4.2	85.6	.
	74G41-03	74E0202PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.056	0.7	85.7	.
	74G41-03	74E0202PA0-0	Plant	Pickelweed	4.2	U	mg/Kg	Lead	0.049	4.2	85.7	.
	74G41-03	74E0202DA0-1	sediment	.	0.3	.	mg/Kg	Antimony	0.022	0.3	64.4	.
	74G41-03	74E0202DA0-1	sediment	.	42.7	.	mg/Kg	Lead	0.02	1.7	64.4	.
	74G44-03	74E0210PA0-0	Plant	Pickelweed	0.7	U	mg/Kg	Antimony	0.058	0.7	86.3	.

plant uptake data - raw

	Loc	sampleID	matrix	species	result	qual	Units	Parameter	MDL	PQL	watercontent	ValidationQualifier
	74G44-03	74E0210PA0-0	Plant	Pickelweed	4.4	U	mg/Kg	Lead	0.051	4.4	86.3	.
	74G44-03	74E0210DA0-1	sediment	.	0.4	.	mg/Kg	Antimony	0.034	0.4	76.3	.
	74G44-03	74E0210DA0-1	sediment	.	54.9	.	mg/Kg	Lead	0.03	2.5	76.3	.
	74G46-03	74E0203PA0-0	Plant	Pickelweed	0.6	U	mg/Kg	Antimony	0.048	0.6	83.2	.
	74G46-03	74E0203PA0-0	Plant	Pickelweed	9.5	.	mg/Kg	Lead	0.042	3.6	83.2	.
	74G46-03	74E0203DA0-1	sediment	.	0.4	.	mg/Kg	Antimony	0.015	0.2	47.8	.
	74G46-03	74E0203DA0-1	sediment	.	76.1	.	mg/Kg	Lead	0.013	1.1	47.8	.
	74G52-03	74E0215PA0-0	Plant	Pickelweed	0.6	U	mg/Kg	Antimony	0.046	0.6	82.7	.
	74G52-03	74E0215PA0-0	Plant	Pickelweed	3.5	U	mg/Kg	Lead	0.04	3.5	82.7	.
	74G52-03	74E0215DA0-1	sediment	.	1.4	.	mg/Kg	Antimony	0.027	0.3	70.8	.
	74G52-03	74E0215DA0-1	sediment	.	102	.	mg/Kg	Lead	0.024	2.1	70.8	.

invert uptake data - raw

	Loc	sampleID	matrix	species	result	qual	Units	Parameter	MDL	PQL	watercontent	ValidationQualifier
Object	FullObject	PreferredSampleName	SampleType	Type	ResultValue	LabQualifier	Units	Parameter	MDL	PQL	MoistureContent	ValidationQualifier
74B01	74B01-03	74E0101	PrimarySample	Composite	0.1	U	mg/Kg	Antimony	0.019	0.2	57.9	U
	74B01-03	74E0101SA0-1	soil	.	0.3	.	mg/Kg	Antimony	0.008	0.1	2.8	.
74B01	74B01-03a	74E0101A	PrimarySample	Composite	0.1	U	mg/Kg	Antimony	0.022	0.3	63.5	U
	74B01-03a	74E0101SA0-1	soil	.	0.3	.	mg/Kg	Antimony	0.008	0.1	2.8	.
74B07	74B07-03	74E0103	PrimarySample	Composite	1.3	.	mg/Kg	Antimony	0.021	0.3	61.7	.
	74B07-03	74E0103SA0-1	soil	.	3.3	.	mg/Kg	Antimony	0.009	0.1	10.4	.
74B09	74B09-03	74E0104-74E0107	PrimarySample	Composite	0.2	U	mg/Kg	Antimony	0.018	0.2	55.6	.
	74B09-03	74E0104SA0-1	soil	.	2380	.	mg/Kg	Antimony	91.43	1140	12.5	.
74B09	74B09-03a	74E0104A	PrimarySample	Composite	1.2	.	mg/Kg	Antimony	0.032	0.4	75.3	.
	74B09-03a	74E0104SA0-1	soil	.	2380	.	mg/Kg	Antimony	91.43	1140	12.5	.
74B20	74B20-03	74E0106	PrimarySample	Composite	1.2	.	mg/Kg	Antimony	0.019	0.2	58.4	.
	74B20-03	74E0106SA0-1	soil	.	4.6	.	mg/Kg	Antimony	0.008	0.1	3.5	.
74B32	74B32-03	74E0113	PrimarySample	Composite	0.1	U	mg/Kg	Antimony	0.016	0.2	50.2	U
	74B32-03	74E0113SA0-1	soil	.	0.6	.	mg/Kg	Antimony	0.009	0.1	7.1	.
74B32	74B32-03a	74E0113B	PrimarySample	Composite	0.1	U	mg/Kg	Antimony	0.016	0.2	50.2	U
	74B32-03a	74E0113SA0-1	soil	.	0.6	.	mg/Kg	Antimony	0.009	0.1	7.1	.
74B32	74B32-03b	74E0113IO	PrimarySample	Composite	0.2	U	mg/Kg	Antimony	0.017	0.2	52.4	.
	74B32-03b	74E0113SA0-1	soil	.	0.6	.	mg/Kg	Antimony	0.009	0.1	7.1	.
74B43	74B43-03	74E0115	PrimarySample	Composite	0.2	U	mg/Kg	Antimony	0.016	0.2	51.2	.
	74B43-03	74E0115SA0-1	soil	.	0.2	.	mg/Kg	Antimony	0.008	0.1	0	.
74B43	74B43-03a	74E0115A	PrimarySample	Composite	0.3	U	mg/Kg	Antimony	0.022	0.3	63.2	.
	74B43-03a	74E0115SA0-1	soil	.	0.2	.	mg/Kg	Antimony	0.008	0.1	0	.
74G04	74G04-03	74E0208IA0-0	PrimarySample	Hornedsnail	0.5	U	mg/Kg	Antimony	0.012	0.2	35	U
	74G04-03	74E0208DA0-1	sediment	.	142	.	mg/Kg	Antimony	0.037	0.5	78.2	.
74G05	74G05-03	74E0201IA0-0	PrimarySample	Hornedsnail	0.1	U	mg/Kg	Antimony	0.011	0.1	24.4	.
	74G05-03	74E0201DA0-1	sediment	.	0.9	.	mg/Kg	Antimony	0.025	0.3	68.4	.
74G15	74G15-03	74E0212IA0-0	PrimarySample	Hornedsnail	0.1	U	mg/Kg	Antimony	0.012	0.1	33.2	.
	74G15-03	74E0212DA0-1	sediment	.	1.6	.	mg/Kg	Antimony	0.031	0.4	74.2	.
74G16	74G16-03	74E0213IA0-0	PrimarySample	Hornedsnail	0.1	U	mg/Kg	Antimony	0.012	0.1	33.2	.
	74G16-03	74E0213DA0-1	sediment	.	7.8	.	mg/Kg	Antimony	0.052	0.7	84.7	.
74G26	74G26-03	74E0207IA0-0	PrimarySample	Hornedsnail	1.5	.	mg/Kg	Antimony	0.012	0.2	35.1	.
	74G26-03	74E0207DA0-1	sediment	.	60.1	.	mg/Kg	Antimony	0.028	0.4	71.9	.
74G35	74G35-03	74E0211IA0-0	PrimarySample	Hornedsnail	0.1	U	mg/Kg	Antimony	0.011	0.1	26.5	.
	74G35-03	74E0211DA0-1	sediment	.	3.3	.	mg/Kg	Antimony	0.027	0.3	69.9	.
74G36	74G36-03	74E0206IA0-0	PrimarySample	Hornedsnail	0.1	U	mg/Kg	Antimony	0.011	0.1	29.3	.
	74G36-03	74E0206DA0-1	sediment	.	1.2	.	mg/Kg	Antimony	0.048	0.6	83.4	.
74G37	74G37-03	74E0204IA0-0	PrimarySample	Hornedsnail	0.6	U	mg/Kg	Antimony	0.012	0.1	32	U
	74G37-03	74E0204DA0-1	sediment	.	182	.	mg/Kg	Antimony	0.02	0.3	60	.

invert uptake data - raw

	Loc	sampleID	matrix	species	result	qual	Units	Parameter	MDL	PQL	watercontent	ValidationQualifier
Object	FullObject	PreferredSampleName	SampleType	Type	ResultValue	LabQualifier	Units	Parameter	MDL	PQL	MoistureContent	ValidationQualifier
74G38	74G38-03	74E0205IA0-0	PrimarySample	Hornedsnail	1	.	mg/Kg	Antimony	0.013	0.2	40.5	.
	74G38-03	74E0205DA0-1	sediment	.	176	.	mg/Kg	Antimony	0.039	0.5	79.4	.
74G39	74G39-03	74E0214IA0-0	PrimarySample	Hornedsnail	0.2	U	mg/Kg	Antimony	0.012	0.2	33.7	.
	74G39-03	74E0214DA0-1	sediment	.	1.4	.	mg/Kg	Antimony	0.056	0.7	85.6	.
74G41	74G41-03	74E0202IA0-0	PrimarySample	Hornedsnail	0.1	U	mg/Kg	Antimony	0.011	0.1	24.3	.
	74G41-03	74E0202DA0-1	sediment	.	0.3	.	mg/Kg	Antimony	0.022	0.3	64.4	.
74G44	74G44-03	74E0210IA0-0	PrimarySample	Hornedsnail	0.2	U	mg/Kg	Antimony	0.013	0.2	37	.
	74G44-03	74E0210DA0-1	sediment	.	0.4	.	mg/Kg	Antimony	0.034	0.4	76.3	.
74G46	74G46-03	74E0203IA0-0	PrimarySample	Hornedsnail	0.1	U	mg/Kg	Antimony	0.012	0.1	30.7	.
	74G46-03	74E0203DA0-1	sediment	.	0.4	.	mg/Kg	Antimony	0.015	0.2	47.8	.
74G52	74G52-03	74E0215IA0-0	PrimarySample	Hornedsnail	0.2	U	mg/Kg	Antimony	0.013	0.2	38.5	.
	74G52-03	74E0215DA0-1	sediment	.	1.4	.	mg/Kg	Antimony	0.027	0.3	70.8	.
74B01	74B01-03	74E0101	PrimarySample	Composite	2.9	.	mg/Kg	Lead	0.017	1.4	57.9	.
	74B01-03	74E0101SA0-1	soil	.	32.9	.	mg/Kg	Lead	0.007	0.6	2.8	.
74B01	74B01-03a	74E0101A	PrimarySample	Composite	2.7	.	mg/Kg	Lead	0.019	1.6	63.5	.
	74B01-03a	74E0101SA0-1	soil	.	32.9	.	mg/Kg	Lead	0.007	0.6	2.8	.
74B07	74B07-03	74E0103	PrimarySample	Composite	40.5	.	mg/Kg	Lead	0.091	7.8	61.7	.
	74B07-03	74E0103SA0-1	soil	.	568	.	mg/Kg	Lead	0.781	67	10.4	.
74B09	74B09-03	74E0104-74E0107	PrimarySample	Composite	1.4	U	mg/Kg	Lead	0.016	1.4	55.6	.
	74B09-03	74E0104SA0-1	soil	.	55200	.	mg/Kg	Lead	80	6860	12.5	.
74B09	74B09-03a	74E0104A	PrimarySample	Composite	72.9	.	mg/Kg	Lead	0.142	12	75.3	.
	74B09-03a	74E0104SA0-1	soil	.	55200	.	mg/Kg	Lead	80	6860	12.5	.
74B20	74B20-03	74E0106	PrimarySample	Composite	64.9	.	mg/Kg	Lead	0.084	7.2	58.4	.
	74B20-03	74E0106SA0-1	soil	.	831	.	mg/Kg	Lead	0.725	62	3.5	.
74B32	74B32-03	74E0113	PrimarySample	Composite	10.6	.	mg/Kg	Lead	0.014	1.2	50.2	.
	74B32-03	74E0113SA0-1	soil	.	84.9	.	mg/Kg	Lead	0.008	0.6	7.1	.
74B32	74B32-03a	74E0113B	PrimarySample	Composite	13.3	.	mg/Kg	Lead	0.014	1.2	50.2	.
	74B32-03a	74E0113SA0-1	soil	.	84.9	.	mg/Kg	Lead	0.008	0.6	7.1	.
74B32	74B32-03b	74E0113IO	PrimarySample	Composite	8.6	.	mg/Kg	Lead	0.015	1.3	52.4	.
	74B32-03b	74E0113SA0-1	soil	.	84.9	.	mg/Kg	Lead	0.008	0.6	7.1	.
74B43	74B43-03	74E0115	PrimarySample	Composite	3.5	.	mg/Kg	Lead	0.014	1.2	51.2	.
	74B43-03	74E0115SA0-1	soil	.	16.2	.	mg/Kg	Lead	0.007	0.6	0	.
74B43	74B43-03a	74E0115A	PrimarySample	Composite	3.5	.	mg/Kg	Lead	0.019	1.6	63.2	.
	74B43-03a	74E0115SA0-1	soil	.	16.2	.	mg/Kg	Lead	0.007	0.6	0	.
74G04	74G04-03	74E0208IA0-0	PrimarySample	Hornedsnail	517	.	mg/Kg	Lead	0.011	0.9	35	.
	74G04-03	74E0208DA0-1	sediment	.	15800	.	mg/Kg	Lead	3.211	275	78.2	.
74G05	74G05-03	74E0201IA0-0	PrimarySample	Hornedsnail	0.8	U	mg/Kg	Lead	0.009	0.8	24.4	.
	74G05-03	74E0201DA0-1	sediment	.	50.3	.	mg/Kg	Lead	0.022	1.9	68.4	.

invert uptake data - raw

	Loc	sampleID	matrix	species	result	qual	Units	Parameter	MDL	PQL	watercontent	ValidationQualifier
Object	FullObject	PreferredSampleName	SampleType	Type	ResultValue	LabQualifier	Units	Parameter	MDL	PQL	MoistureContent	ValidationQualifier
74G15	74G15-03	74E0212IA0-0	PrimarySample	Hornedsnail	0.9	U	mg/Kg	Lead	0.01	0.9	33.2	.
	74G15-03	74E0212DA0-1	sediment	.	127	.	mg/Kg	Lead	0.027	2.3	74.2	.
74G16	74G16-03	74E0213IA0-0	PrimarySample	Hornedsnail	0.9	U	mg/Kg	Lead	0.01	0.9	33.2	.
	74G16-03	74E0213DA0-1	sediment	.	928	.	mg/Kg	Lead	0.229	20	84.7	.
74G26	74G26-03	74E0207IA0-0	PrimarySample	Hornedsnail	1590	.	mg/Kg	Lead	0.072	6	35.1	.
	74G26-03	74E0207DA0-1	sediment	.	8080	.	mg/Kg	Lead	2.491	214	71.9	.
74G35	74G35-03	74E0211IA0-0	PrimarySample	Hornedsnail	30.9	.	mg/Kg	Lead	0.01	0.8	26.5	.
	74G35-03	74E0211DA0-1	sediment	.	837	.	mg/Kg	Lead	0.116	10	69.9	.
74G36	74G36-03	74E0206IA0-0	PrimarySample	Hornedsnail	1.1	.	mg/Kg	Lead	0.01	0.8	29.3	.
	74G36-03	74E0206DA0-1	sediment	.	167	.	mg/Kg	Lead	0.042	3.6	83.4	.
74G37	74G37-03	74E0204IA0-0	PrimarySample	Hornedsnail	54.7	.	mg/Kg	Lead	0.01	0.9	32	.
	74G37-03	74E0204DA0-1	sediment	.	10700	.	mg/Kg	Lead	1.75	150	60	.
74G38	74G38-03	74E0205IA0-0	PrimarySample	Hornedsnail	879	.	mg/Kg	Lead	0.079	7	40.5	.
	74G38-03	74E0205DA0-1	sediment	.	20400	.	mg/Kg	Lead	3.398	291	79.4	.
74G39	74G39-03	74E0214IA0-0	PrimarySample	Hornedsnail	0.9	U	mg/Kg	Lead	0.011	0.9	33.7	.
	74G39-03	74E0214DA0-1	sediment	.	70.1	.	mg/Kg	Lead	0.049	4.2	85.6	.
74G41	74G41-03	74E0202IA0-0	PrimarySample	Hornedsnail	1.2	.	mg/Kg	Lead	0.009	0.8	24.3	.
	74G41-03	74E0202DA0-1	sediment	.	42.7	.	mg/Kg	Lead	0.02	1.7	64.4	.
74G44	74G44-03	74E0210IA0-0	PrimarySample	Hornedsnail	1	U	mg/Kg	Lead	0.011	1	37	.
	74G44-03	74E0210DA0-1	sediment	.	54.9	.	mg/Kg	Lead	0.03	2.5	76.3	.
74G46	74G46-03	74E0203IA0-0	PrimarySample	Hornedsnail	3.2	.	mg/Kg	Lead	0.01	0.9	30.7	.
	74G46-03	74E0203DA0-1	sediment	.	76.1	.	mg/Kg	Lead	0.013	1.1	47.8	.
74G52	74G52-03	74E0215IA0-0	PrimarySample	Hornedsnail	1	U	mg/Kg	Lead	0.011	1	38.5	.
	74G52-03	74E0215DA0-1	sediment	.	102	.	mg/Kg	Lead	0.024	2.1	70.8	.

Sample Number	analyte	Abiotic Matrix	Abiotic Concentration (mg/kg)	Plant Foliage concentration (mg/kg dry)	Plant Species	Invertebrate Concentration (mg/kg dry)	species	Plant BAF	Invertebrate BAF
74B01-03	Antimony	soil	0.3						
74B0103a	Antimony	soil	0.3						
74B04-03	Antimony	soil	0.2						
74B07-03	Antimony	soil	3.3			1.3	Terrestrial Composite		0.3939
74B09-03	Antimony	soil	2380						
74B0903a	Antimony	soil	2380			1.2	Terrestrial Composite		0.0005
74B10-03	Antimony	soil	1430	0.5	Pickelweed			0.0003	
74B20-03	Antimony	soil	4.6	0.5	Saltgrass	1.2	Terrestrial Composite	0.1087	0.2609
74B24-03	Antimony	soil	6.3						
74B27-03	Antimony	soil	0.7						
74B29-03	Antimony	soil	2.4	0.7	Frankenia			0.2917	
74B30-03	Antimony	soil	9.5	0.5	Pickelweed			0.0526	
74B32-03	Antimony	soil	0.6	0.3	Bassia			0.5000	
74B3203a	Antimony	soil	0.6						
74B3203b	Antimony	soil	0.6						
74B37-03	Antimony	soil	0.5	0.2	Frankenia			0.4000	
74B41-03	Antimony	soil	0.6	1.1	Pickelweed			1.8333	
74B43-03	Antimony	soil	0.2						
74B4303a	Antimony	soil	0.2						
74B49-03	Antimony	soil	1.5						
74G04-03	Antimony	sediment	142						
74G05-03	Antimony	sediment	0.9						
74G05-03	Antimony	sediment	199						
74G15-03	Antimony	sediment	1.6	1.4	Pickelweed			0.8750	
74G16-03	Antimony	sediment	7.8						
74G26-03	Antimony	sediment	60.1			1.5	Horned snail		0.0250
74G28-03	Antimony	sediment	0.7						
74G35-03	Antimony	sediment	3.3						
74G36-03	Antimony	sediment	1.2	0.6	Pickelweed			0.5000	
74G36-03	Antimony	sediment	41.4						
74G37-03	Antimony	sediment	182						
74G38-03	Antimony	sediment	176			1	Horned snail		0.0057
74G39-03	Antimony	sediment	1.4						
74G41-03	Antimony	sediment	0.3						
74G44-03	Antimony	sediment	0.4						
74G46-03	Antimony	sediment	0.4						
74G52-03	Antimony	sediment	1.4						
74B01-03	Lead	soil	32.9			2.9	Terrestrial Composite		0.0881
74B0103a	Lead	soil	32.9			2.7	Terrestrial Composite		0.0821
74B04-03	Lead	soil	12.6	1.9	Atroplex			0.1508	
74B07-03	Lead	soil	568	2.5	Bassia	40.5	Terrestrial Composite	0.0044	0.0713

uptake data - paired

Sample Number	analyte	Abiotic Matrix	Abiotic Concentration (mg/kg)	Plant Foliage concentration (mg/kg dry)	Plant Species	Invertebrate Concentration (mg/kg dry)	species	Plant BAF	Invertebrate BAF
74B09-03	Lead	soil	55200	4	Pickelweed			0.0001	
74B0903a	Lead	soil	55200			72.9	Terrestrial Composite		0.0013
74B10-03	Lead	soil	31600	21.3	Pickelweed			0.0007	
74B20-03	Lead	soil	831	18	Saltgrass	64.9	Terrestrial Composite	0.0217	0.0781
74B24-03	Lead	soil	963						
74B27-03	Lead	soil	45						
74B29-03	Lead	soil	377	13	Frankenia			0.0345	
74B30-03	Lead	soil	1240	3.1	Pickelweed			0.0025	
74B32-03	Lead	soil	84.9			10.6	Terrestrial Composite		0.1249
74B3203a	Lead	soil	84.9			13.3	Terrestrial Composite		0.1567
74B3203b	Lead	soil	84.9			8.6	Terrestrial Composite		0.1013
74B37-03	Lead	soil	25.5						
74B41-03	Lead	soil	41.3						
74B43-03	Lead	soil	16.2			3.5	Terrestrial Composite		0.2160
74B4303a	Lead	soil	16.2			3.5	Terrestrial Composite		0.2160
74B49-03	Lead	soil	221	9.5	Pickelweed			0.0430	
74G04-03	Lead	sediment	15800	27	Pickelweed	517	Horned snail	0.0017	0.0327
74G05-03	Lead	sediment	50.3	14.9	Pickelweed			0.2962	
74G05-03	Lead	sediment	17400						
74G15-03	Lead	sediment	127	41.8	Pickelweed			0.3291	
74G16-03	Lead	sediment	928						
74G26-03	Lead	sediment	8080	34.7	Pickelweed	1590	Horned snail	0.0043	0.1968
74G28-03	Lead	sediment	76.7						
74G35-03	Lead	sediment	837	4.1	Pickelweed	30.9	Horned snail	0.0049	0.0369
74G36-03	Lead	sediment	167	53.5	Pickelweed	1.1	Horned snail	0.3204	0.0066
74G36-03	Lead	sediment	4570						
74G37-03	Lead	sediment	10700	8.1	Pickelweed	54.7	Horned snail	0.0008	0.0051
74G38-03	Lead	sediment	20400	22.8	Pickelweed	879	Horned snail	0.0011	0.0431
74G39-03	Lead	sediment	70.1						
74G41-03	Lead	sediment	42.7			1.2	Horned snail		0.0281
74G44-03	Lead	sediment	54.9						
74G46-03	Lead	sediment	76.1	9.5	Pickelweed	3.2	Horned snail	0.1248	0.0420
74G52-03	Lead	sediment	102						

Appendix A.4
Avian Radiographs and Reports from University of California, Davis

APPENDIX A.4

Avian Radiographs and Reports

Figure A.4-1. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-001.

Figure A.4-2. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-002.

Figure A.4-3. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-003.

Figure A.4-4. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-004.

Figure A.4-5. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-005.

Figure A.4-6. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-006.

Figure A.4-7. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-007.

Figure A.4-8. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-008.

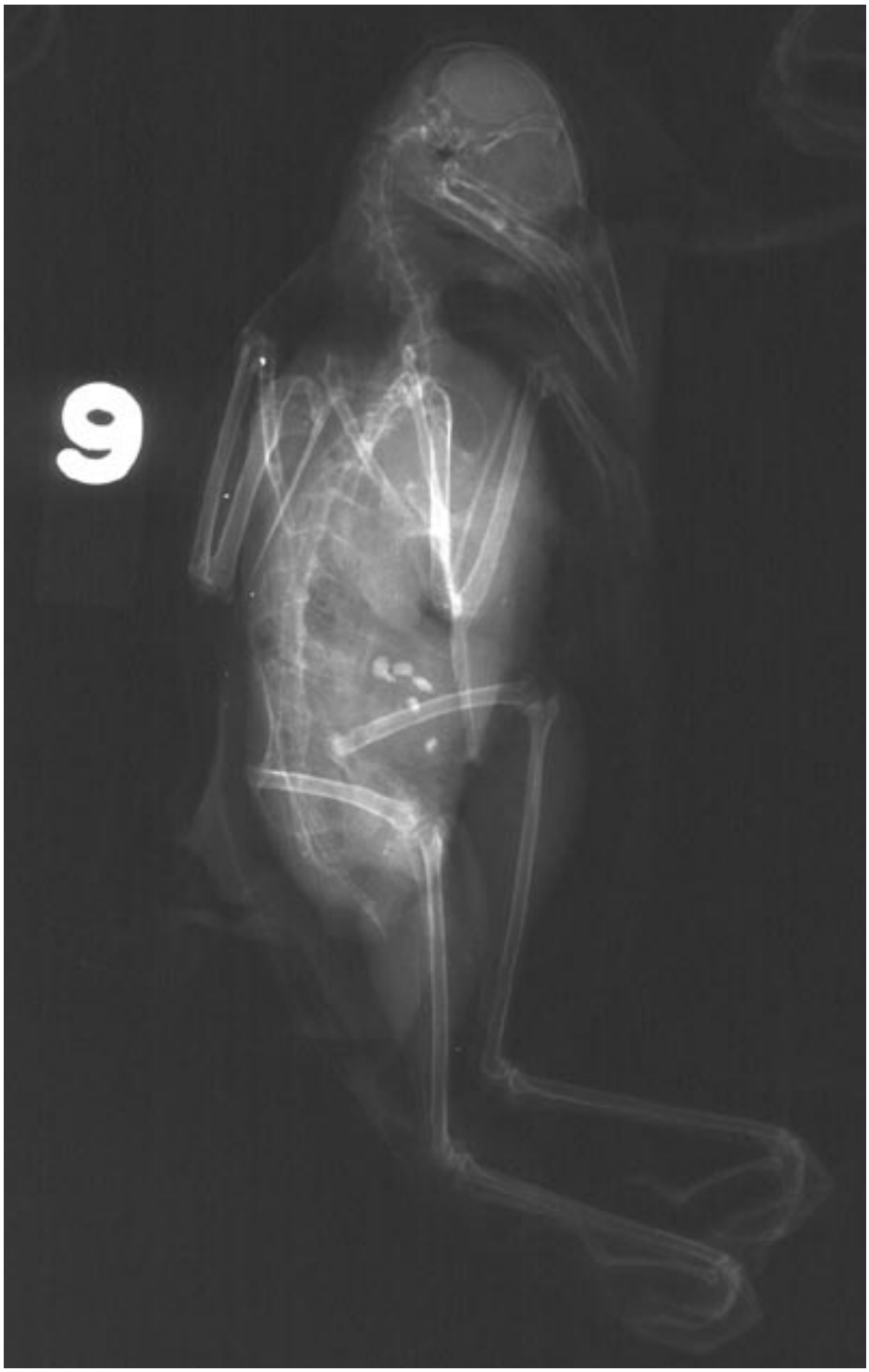


Figure A.4-9. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-009.

Figure A.4-10. Radiograph of western meadowlark collected at Site 74, sample number 74E01BA0-0010.

Figure A.4-11. Radiograph of western meadowlark collected at Kesterson National Wildlife Refuge (reference area), sample number 74E03BB0-0-1.

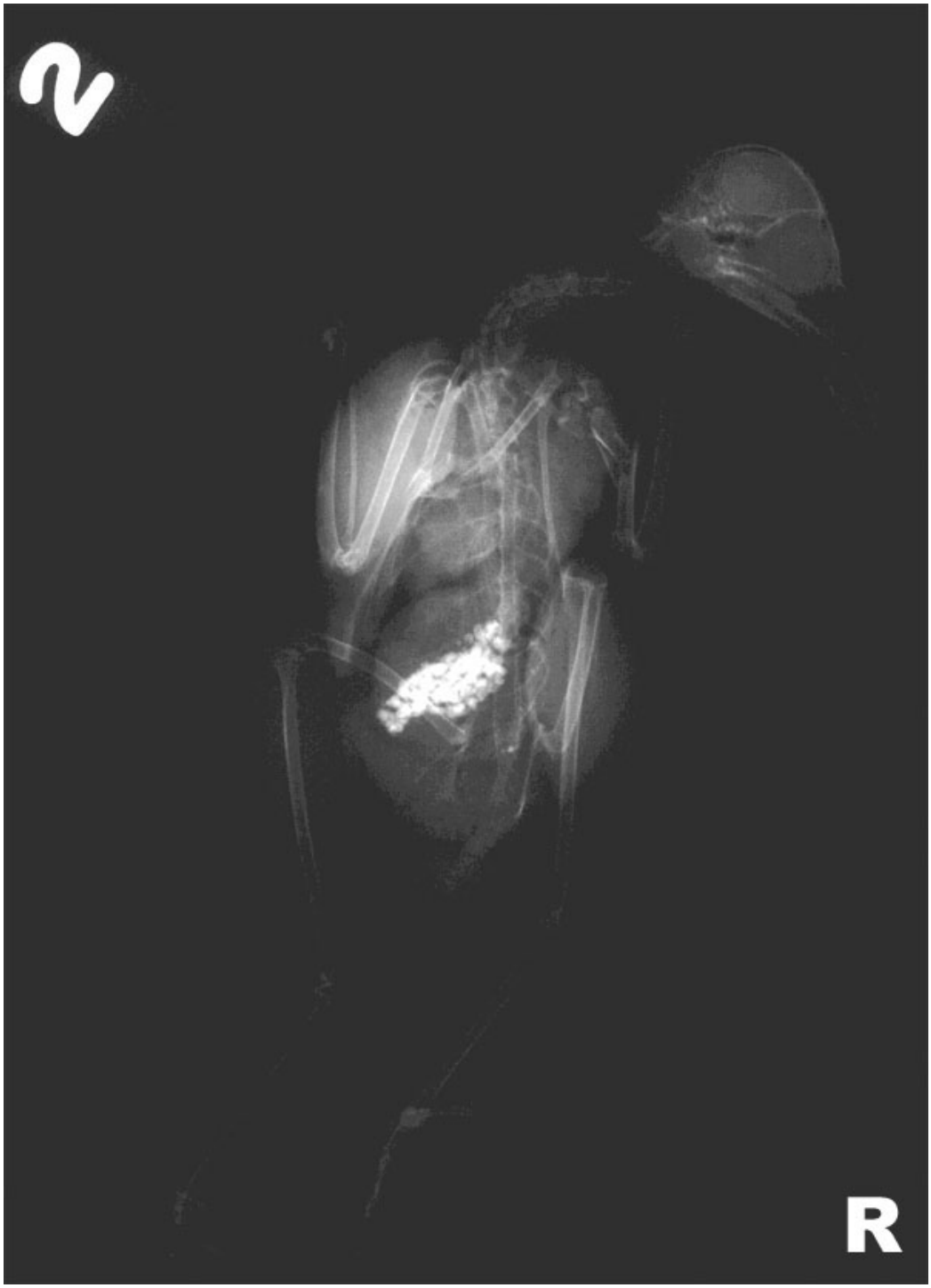


Figure A.4-12. Radiograph of western meadowlark collected at Kesterson National Wildlife Refuge (reference area), sample number 74E03BB0-0-2.

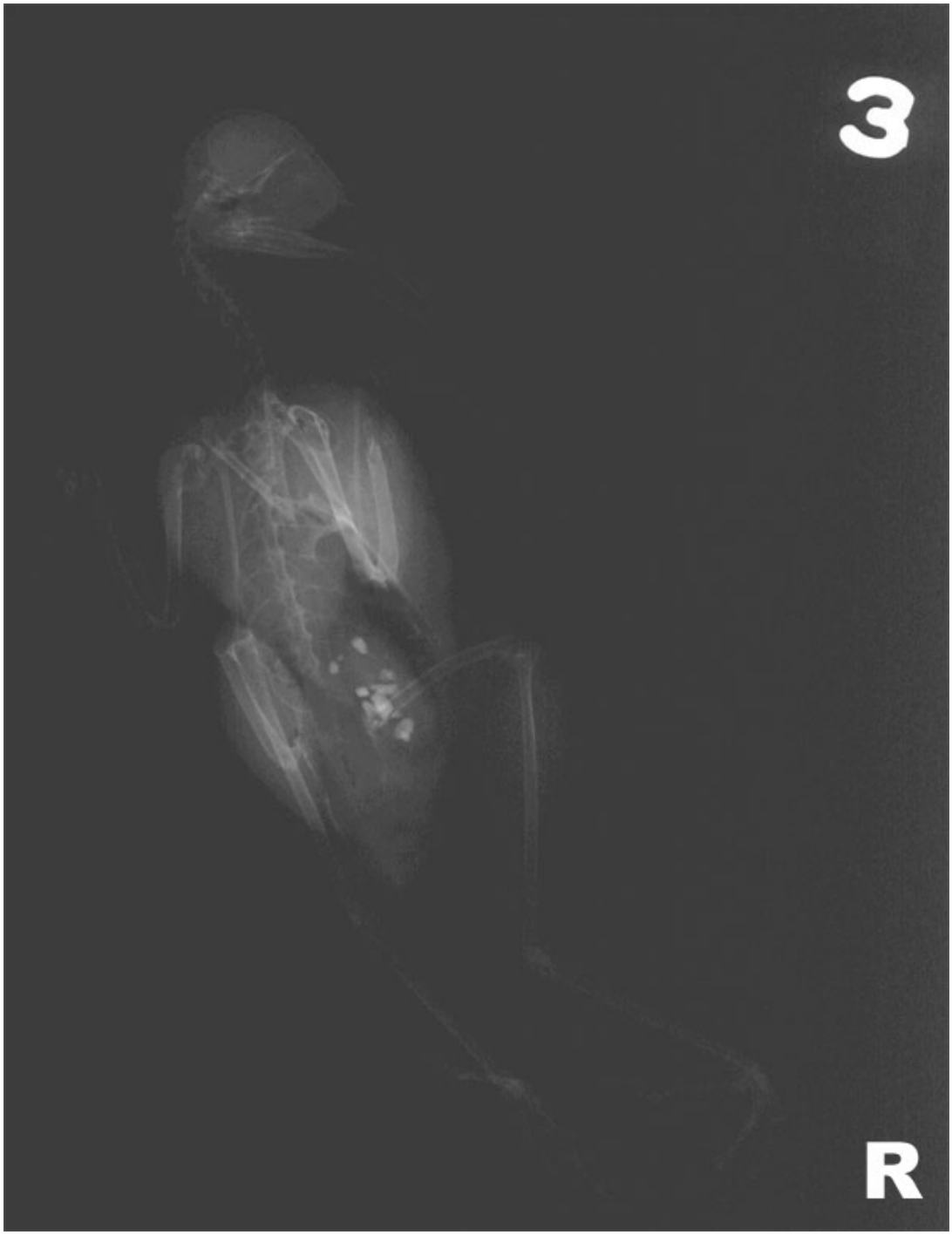


Figure A.4-13. Radiograph of western meadowlark collected at Kesterson National Wildlife Refuge (reference area), sample number 74E03BB0-0-3.

Figure A.4-14. Radiograph of western meadowlark collected at Kesterson National Wildlife Refuge (reference area), sample number 74E03BB0-0-4.

Figure A.4-15. Radiograph of western meadowlark collected at Kesterson National Wildlife Refuge (reference area), sample number 74E03BB0-0-5.

Internal Visit Summary - NOT FOR DISTRIBUTION

Admission: 18Dec03	Exotic/Avian Outpatient	**Visit#:** 2301AY
Discharge:	Alive	**Status:** Open

Client #: A16809
Client: Chr2m Hill
Address: Suite 600 2485 Natomas Park Dr
City, St: Sacramento, CA 95833

Clinician: Koski, Marilyn
Patient #: 93-09-32 JUVENILE **Sex:** U
Patient: Flock
Species: MEADOWLARK

Presenting Complaints

Metal Check

Pertinent History

mak Consulting firm CH2M-HILL requested radiographs of 10 meadowlark carcasses to assess presence of metal densities. The livers had been removed from the carcasses prior to admit to VMTH.

Physical Examination

mak The birds were submitted in plastic bags, and numbered 1-10

Medical/Surgical Procedures

mak 1) The birds were numbered on the radiographic plates in accordance with the numbers written on each bird's bag.
mak 2) Two radiographic plates were used - 5 birds per plate.

MEDICAL/SURGICAL PROCEDURES

18Dec03 1510 - Exotics Exam-Level 1
18Dec03 1530 - Exam, Add'l Birds

DIAGNOSTIC PROCEDURES

Service	Request#	Date	Procedure
SA Radiology	109183	18Dec03	6299 - MISC SA RADIOGRAPHY

Clinical Diagnoses

mak 1) radiographic presence of metal densities (in 7 birds and possibly 8)

Discharge Summary

mak 1) Ten Meadowlark carcasses (livers removed) were submitted to VMTH for radiographs to assess presence of metal densities.
mak 2) Birds 1,2,4,6,8,9,10 have evidence of metal densities on radiograph. Bird 5 has a possible small metallic particle in its ventriculus.
mak 3) Birds 3,7 do not appear to have metal densities present.
mak 4) Radiographs were given to consulting firm CH2M-HILL per approval of Radiology department VMTH

12/18/03

Clinician Signature **Date**

Visit Summary

Admission: 26Jan04	Exotic/Avian Outpatient	**Visit#:** 4431AY
Discharge:	Alive	**Status:** Open

Client #: A16809
Client: C H 2m Hill
Address: Suite 600 2485 Natomas Park Dr
City, St: Sacramento, CA 95833

Clinician: Koski, Marilyn
Patient #: 93-10-14 **Sex:** U
Patient: Flock II
Species: MEADOWLARK

Weight: 1KG

Presenting Complaints

Metal Check

Pertinent History

Consulting firm CH2M-HILL requested radiographs of 5 Meadowlark carcasses to assess presence of metal densities. The livers had been removed from the carcasses prior to admit to the VMTH.

Physical Examination

The birds were submitted in plastic bags numbered KR1, KR2, KR3, KR4, KR5

Medical/Surgical Procedures

1) The birds were numbered on the radiographic plates in accordance with the KR numbers written on the bags. For example, KR1 is labelled as 1 on the radiographic plate.
2) One radiographic plate was used for all 5 birds.

MEDICAL/SURGICAL PROCEDURES

26Jan04 1510 - Exotics Exam-Level 1
26Jan04 1530 - Exam, Add'l Birds

DIAGNOSTIC PROCEDURES

Service	Request#	Date	Procedure
SA Radiology	109806	26Jan04	6299 - MISC SA RADIOGRAPHY

Clinical Diagnoses

1) Radio-dense particles are noted in the coelomic cavities of three birds, numbers 2, 3 and 4. The material is less dense than the lead number markers.

Discharge Summary

1) Five Meadowlark carcasses (livers removed) were submitted to the VMTH for radiographs to assess presence of metal densities.
2) Birds numbered 2, 3 and 4 have radio-dense particles in their coelomic cavities (probably within the proventriculus and ventriculus), but this material is less dense than the lead number markers. The material is more likely a mineralized material, BUT thin metallic pieces (shavings, paint) cannot be ruled out. Analysis of the material is suggested to confirm its composition.
3) Radiographs were given to consulting firm CH2M-HILL per approval of Radiology department VMTH.

Marilyn Koski 1/26/04
Clinician Signature Date

Appendix A.5
Bioaccessibility Reports from ACZ

APPENDIX A.5

Bioaccessibility Reports

Appendix A.5
Bioaccessibility Reports from ACZ

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

Bradley Sample, Ph.D.
CH2M Hill
2485 Natomas Park Drive Suite 600
Sacramento, CA 95833

January 21, 2004

Project ID: 73910
ACZ Project ID: L44126

Bradley Sample, Ph.D.:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 18, 2003. This project has been assigned to ACZ's project number, L44126. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 10.0. The enclosed results relate only to the samples received under L44126. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after February 21, 2004. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

21/Jan/04

Tony Antalek, Project Manager, has reviewed and accepted this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 8048: (800) 334-5493

Case Narrative

CH2M Hill

January 21, 2004

Project ID: 73910
ACZ Project ID: L44126

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 6 soil samples from CH2M Hill on December 18, 2003. The samples were received i good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L44126. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. Samples run on the ICP and found to have concentrations below the PQL will also be run on the ICPMS.

2. The Antimony analyses for all samples and the Lead analysis for sample number 06 were qualified with the ACZ 'M2' flag as matirix spike recoveries were low. However, method control sample recoveries were acceptable.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

CH2M Hill
Project ID: 73910
Sample ID: 74E01SB0-01

ACZ Sample ID: ***L44126-01***
Date Sampled: *12/13/03 08:30*
Date Received: *12/18/03*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (SBRC)	M6020 ICP-MS	0.004	B	*	mg/L	0.001	0.005	01/12/04 15:51	gjl
Antimony (SBRC)	M6010B ICP		U	*	mg/L	0.02	0.1	01/07/04 1:27	scp
Antimony, total (3050)	M6010B ICP	2	B	*	mg/Kg	2	10	01/09/04 12:09	wfg
Lead (SBRC)	M6010B ICP	0.32			mg/L	0.04	0.2	01/07/04 1:27	scp
Lead, total (3050)	M6010B ICP	38			mg/Kg	4	20	01/07/04 5:31	scp

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	CLPSOW390, PART F, D-98	94.6			%	0.1	0.5	12/23/03 12:50	lms/as

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972							12/23/03 13:00	lms
Digestion - Hot Plate	M3050B ICP							01/06/04 8:47	lms
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/26/03 12:00	lms
Solubility/Bioavailability Extraction	SBRC SOP#1							01/02/04 10:11	lms/as

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

CH2M Hill

Project ID: 73910

Sample ID: 74E01SB0-07

ACZ Sample ID: ***L44126-02***

Date Sampled: *12/14/03 17:10*

Date Received: *12/18/03*

Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (SBRC)	M6020 ICP-MS	0.053		*	mg/L	0.001	0.005	01/12/04 16:02	gjl
Antimony (SBRC)	M6010B ICP	0.03	B	*	mg/L	0.02	0.1	01/07/04 1:31	scp
Antimony, total (3050)	M6010B ICP	3	B	*	mg/Kg	2	10	01/09/04 12:28	wfg
Lead (SBRC)	M6010B ICP	5.87			mg/L	0.04	0.2	01/07/04 1:31	scp
Lead, total (3050)	M6010B ICP	592			mg/Kg	4	20	01/07/04 5:56	scp

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	CLPSOW390, PART F, D-98	87.6			%	0.1	0.5	12/23/03 12:51	lms/as

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972							12/23/03 13:04	lms
Digestion - Hot Plate	M3050B ICP							01/06/04 10:34	lms
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/26/03 12:18	lms
Solubility/Bioavailability Extraction	SBRC SOP#1							01/02/04 10:13	lms/as

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

CH2M Hill

Project ID: 73910

Sample ID: 74E01SB0-09

ACZ Sample ID: ***L44126-03***

Date Sampled: *12/13/03 15:30*

Date Received: *12/18/03*

Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (SBRC)	M6020 ICP-MS	0.102		*	mg/L	0.001	0.005	01/12/04 16:08	gjl
Antimony (SBRC)	M6010B ICP	0.07	B	*	mg/L	0.02	0.1	01/07/04 1:35	scp
Antimony, total (3050)	M6010B ICP	6	B	*	mg/Kg	2	10	01/09/04 12:31	wfg
Lead (SBRC)	M6010B ICP	10.90			mg/L	0.04	0.2	01/07/04 1:35	scp
Lead, total (3050)	M6010B ICP	1320			mg/Kg	4	20	01/07/04 6:00	scp

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	CLPSOW390, PART F, D-98	88.8			%	0.1	0.5	12/23/03 12:53	lms/as

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972							12/23/03 13:08	lms
Digestion - Hot Plate	M3050B ICP							01/06/04 11:10	lms
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/26/03 12:36	lms
Solubility/Bioavailability Extraction	SBRC SOP#1							01/02/04 10:16	lms/as

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.

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Inorganic Analytical Results

CH2M Hill

Project ID: 73910

Sample ID: 74E02DB0-44

ACZ Sample ID: ***L44126-04***

Date Sampled: *12/14/03 09:45*

Date Received: *12/18/03*

Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (SBRC)	M6020 ICP-MS	0.003	B	*	mg/L	0.001	0.005	01/12/04 16:13	gjl
Antimony (SBRC)	M6010B ICP		U	*	mg/L	0.02	0.1	01/07/04 1:39	scp
Antimony, total (3050)	M6010B ICP		U	*	mg/Kg	2	10	01/09/04 12:34	wfg
Lead (SBRC)	M6010B ICP	0.44			mg/L	0.04	0.2	01/07/04 1:39	scp
Lead, total (3050)	M6010B ICP	58			mg/Kg	4	20	01/07/04 6:04	scp

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	CLPSOW390, PART F, D-98	26.1			%	0.1	0.5	12/23/03 12:55	lms/as

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972							12/23/03 13:12	lms
Digestion - Hot Plate	M3050B ICP							01/06/04 11:46	lms
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/26/03 12:54	lms
Solubility/Bioavailability Extraction	SBRC SOP#1							01/02/04 10:18	lms/as

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.

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Inorganic Analytical Results

CH2M Hill

Project ID: 73910

Sample ID: 74E02DB0-26

ACZ Sample ID: ***L44126-05***

Date Sampled: *12/15/03 09:15*

Date Received: *12/18/03*

Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (SBRC)	M6020 ICP-MS	0.011		*	mg/L	0.002	0.01	01/12/04 16:30	gjl
Antimony (SBRC)	M6010B ICP		U	*	mg/L	0.02	0.1	01/07/04 1:43	scp
Antimony, total (3050)	M6010B ICP		U	*	mg/Kg	2	10	01/09/04 12:37	wfg
Lead (SBRC)	M6010B ICP	1.68			mg/L	0.04	0.2	01/07/04 1:43	scp
Lead, total (3050)	M6010B ICP	240			mg/Kg	4	20	01/07/04 6:09	scp

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	CLPSOW390, PART F, D-98	16.9			%	0.1	0.5	12/23/03 12:56	lms/as

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972							12/23/03 13:16	lms
Digestion - Hot Plate	M3050B ICP							01/06/04 12:21	lms
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/26/03 13:12	lms
Solubility/Bioavailability Extraction	SBRC SOP#1							01/02/04 10:20	lms/as

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
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Inorganic Analytical Results

CH2M Hill
Project ID: 73910
Sample ID: 74E02DB0-05

ACZ Sample ID: ***L44126-06***
Date Sampled: *12/14/03 11:05*
Date Received: *12/18/03*
Sample Matrix: *Sediment*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony (SBRC)	M6010B ICP	1.36		*	mg/L	0.04	0.2	01/09/04 18:13	wfg
Antimony, total (3050)	M6010B ICP	223		*	mg/Kg	2	10	01/07/04 6:13	scp
Lead (SBRC)	M6010B ICP	292		*	mg/L	0.08	0.4	01/09/04 18:13	wfg
Lead, total (3050)	M6010B ICP	35100		*	mg/Kg	8	40	01/07/04 14:55	wfg

Soil Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	CLPSOW390, PART F, D-98	19.6			%	0.1	0.5	12/23/03 12:58	lms/as

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972							12/23/03 13:20	lms
Digestion - Hot Plate	M3050B ICP							01/06/04 12:57	lms
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2							12/26/03 13:30	lms
Solubility/Bioavailability Extraction	SBRC SOP#1							01/02/04 10:27	lms/as

** Please refer to Extended Qualifier Report for detail.*

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.

CH2M Hill ACZ Project ID: ***L44126***

Project ID: 73910

Antimony (SBRC) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG166881													
WG166881ICV	ICV	01/07/04 0:16	II031223-2	4.0027		3.998	mg/L	99.9	90	110			
WG166881ICB	ICB	01/07/04 0:20				U	mg/L		-0.02	0.02			
WG166881PQV	PQV	01/07/04 0:24	II040106-7	.1		.094	mg/L	94	70	130			
WG166881ICSABI	ICSAB	01/07/04 0:28	II031230-1	.5		.496	mg/L	99.2	80	120			
L44125-02SDL	SDL	01/07/04 1:00			U	U	mg/L					10	
WG166881CCV1	CCV	01/07/04 1:03	II040105-3	5.0054		5.096	mg/L	101.8	90	110			
WG166881CCB1	CCB	01/07/04 1:07				U	mg/L		-0.02	0.02			
WG166757PBS	PBS	01/07/04 1:15				U	mg/L		-0.02	0.02			
WG166757LCSS1	LCSS	01/07/04 1:19	PCN19256	52.5		32	mg/Kg		80	120			N1
WG166757LFB1	LFB	01/07/04 1:23	SI031231-2	10		8.154	mg/L	81.5	85	115			L4
L44126-05SDL	SDL	01/07/04 1:47			U	U	mg/L					10	
WG166881CCV2	CCV	01/07/04 1:51	II040105-3	5.0054		5.062	mg/L	101.1	90	110			
WG166881CCB2	CCB	01/07/04 1:55				U	mg/L		-0.02	0.02			
L44126-05MS1	MS	01/07/04 1:59	SI031231-2	10	U	2.656	mg/L	26.6	75	125			M2
L44126-06DUP	DUP	01/07/04 2:07			1.21	1.2	mg/L				0.8	20	
WG166881CCV3	CCV	01/07/04 2:11	II040105-3	5.0054		5.137	mg/L	102.6	90	110			
WG166881CCB3	CCB	01/07/04 2:15				U	mg/L		-0.02	0.02			
WG166986													
WG166986ICV	ICV	01/09/04 17:24	II031220-3	4.0027		3.962	mg/L	99	90	110			
WG166986ICB	ICB	01/09/04 17:29				U	mg/L		-0.02	0.02			
WG166986PQV	PQV	01/09/04 17:33	II040106-7	.1		.079	mg/L	79	70	130			
WG166986ICSABI	ICSAB	01/09/04 17:38	II031219-5	.5		.517	mg/L	103.4	80	120			
WG166757PBS	PBS	01/09/04 17:47				U	mg/L		-0.2	0.2			
WG166757LCSS1	LCSS	01/09/04 17:51	PCN19256	52.5		U	mg/Kg		80	120			N1
WG166757LFB1	LFB	01/09/04 17:56	SI031231-2	10		7.89	mg/L	78.9	85	115			N1
L44126-05SDL	SDL	01/09/04 18:05			U	U	mg/L					10	
L44126-05MS1	MS	01/09/04 18:09	SI031231-2	10	U	.588	mg/L	5.9	75	125			M2
WG166986CCV1	CCV	01/09/04 18:18	II031220-1	5.0054		4.978	mg/L	99.5	90	110			
WG166986CCB1	CCB	01/09/04 18:22				U	mg/L		-0.02	0.02			ZK
L44126-06DUP	DUP	01/09/04 18:27			1.36	1.3	mg/L				4.5	20	
WG166986CCV2	CCV	01/09/04 18:31	II031220-1	5.0054		4.932	mg/L	98.5	90	110			
WG166986CCB2	CCB	01/09/04 18:36				U	mg/L		-0.02	0.02			

Antimony (SBRC) M6020 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG167086													
WG167086ICV	ICV	01/12/04 14:05	MS031227-1	.02		.02048	mg/L	102.4	90	110			
WG167086ICB	ICB	01/12/04 14:11				U	mg/L		-0.0006	0.0006			
WG167086ICSAB	ICSAB	01/12/04 14:22	MS040109-4	.01		.01108	mg/L	110.8	80	120			
L44125-01SDL	SDL	01/12/04 14:55			.001	U	mg/Kg					10	
WG167086CCV1	CCV	01/12/04 15:12	MS031227-1	.02		.02028	mg/L	101.4	90	110			
WG167086CCB1	CCB	01/12/04 15:18				U	mg/L		-0.0006	0.0006			
WG166757PBS	PBS	01/12/04 15:35				U	mg/Kg		-0.006	0.006			
WG166757LCSS1	LCSS	01/12/04 15:40	PCN19256	52.5		37.8	mg/Kg		0	117			
WG166757LFB2	LFB	01/12/04 15:46	SI031231-3	1		.813	mg/L	81.3	80	120			
L44126-01SDL	SDL	01/12/04 15:57			.004	U	mg/Kg					10	
WG167086CCV2	CCV	01/12/04 16:19	MS031227-1	.02		.02062	mg/L	103.1	90	110			
WG167086CCB2	CCB	01/12/04 16:24				U	mg/L		-0.0006	0.0006			

CH2M Hill ACZ Project ID: ***L44126***

Project ID: 73910

L44126-05MS2	MS	01/12/04 16:36	SBRC12313-	1	.011	.298	mg/Kg	28.7	75	125			M2
L44126-06DUP	DUP	01/12/04 16:47			1.43	1.408	mg/Kg				1.6	20	
WG167086CCV3	CCV	01/12/04 16:52	MS031227-1	.02		.02111	mg/L	105.6	90	110			
WG167086CCB3	CCB	01/12/04 16:58				.00026	mg/L		-0.0006	0.0006			

Antimony, total (3050) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG166889													
WG166889ICV	ICV	01/07/04 4:58	II031220-3	4.0027		4.011	mg/L	100.2	90	110			
WG166889ICB	ICB	01/07/04 5:02				U	mg/L		-0.02	0.02			
WG166889PQV	PQV	01/07/04 5:06	II040106-7	.1		.09	mg/L	90	70	130			
WG166889ICSABI	ICSAB	01/07/04 5:11	II031219-5	.5		.513	mg/L	102.6	80	120			
WG166848PBS	PBS	01/07/04 5:19				U	mg/Kg		-2	2			
WG166848LCSS	LCSS	01/07/04 5:23	PCN19256	52.5		33.6	mg/Kg		0	117			
WG166848LCSSD	LCSSD	01/07/04 5:27	PCN19256	52.5		35.3	mg/Kg		0	117	4.9	20	
L44126-01SDL	SDL	01/07/04 5:35			6	U	mg/Kg					10	
L44126-01MS	MS	01/07/04 5:39	II031230-3	202.2727	6	132.1	mg/Kg	62.3	75	125			M2
L44126-01MSD	MSD	01/07/04 5:44	II031230-3	202.2727	6	130	mg/Kg	61.3	75	125	1.6	20	M2
WG166889CCV1	CCV	01/07/04 5:48	II031220-1	5.0054		5.263	mg/L	105.1	90	110			
WG166889CCB1	CCB	01/07/04 5:52				.032	mg/L		-0.02	0.02			BB
WG166889CCV2	CCV	01/07/04 6:38	II031220-1	5.0054		5.236	mg/L	104.6	90	110			
WG166889CCB2	CCB	01/07/04 6:42				U	mg/L		-0.02	0.02			
WG166889CCV3	CCV	01/07/04 7:11	II031220-1	5.0054		5.202	mg/L	103.9	90	110			
WG166889CCB3	CCB	01/07/04 7:15				U	mg/L		-0.02	0.02			
WG167006													
WG167006CCV1	CCV	01/09/04 11:43	II031220-1	5.0054		5.009	mg/L	100.1	90	110			
WG167006CCB1	CCB	01/09/04 11:47				U	mg/L		-0.02	0.02			
WG167006PQV	PQV	01/09/04 11:50	II040106-7	.1		.092	mg/L	92	70	130			
WG167006ICSABI	ICSAB	01/09/04 11:53	II031219-5	.5		.506	mg/L	101.2	80	120			
WG166848PBS	PBS	01/09/04 11:59				U	mg/Kg		-2	2			
WG166848LCSS	LCSS	01/09/04 12:02	PCN19256	52.5		29.3	mg/Kg		0	117			
WG166848LCSSD	LCSSD	01/09/04 12:06	PCN19256	52.5		30.8	mg/Kg		0	117	5	20	
L44126-01SDL	SDL	01/09/04 12:12			2	U	mg/Kg					10	
L44126-01MS	MS	01/09/04 12:15	II031230-3	202.2727	2	112.8	mg/Kg	54.8	75	125			M2
L44126-01MSD	MSD	01/09/04 12:18	II031230-3	202.2727	2	115.4	mg/Kg	56.1	75	125	2.28	20	M2
WG167006CCV2	CCV	01/09/04 12:22	II031220-1	5.0054		4.953	mg/L	99	90	110			
WG167006CCB2	CCB	01/09/04 12:25				U	mg/L		-0.02	0.02			
WG167006CCV3	CCV	01/09/04 12:41	II031220-1	5.0054		4.875	mg/L	97.4	90	110			
WG167006CCB3	CCB	01/09/04 12:44				U	mg/L		-0.02	0.02			

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

CH2M Hill ACZ Project ID: ***L44126***

Project ID: 73910

Lead (SBRC) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG166881													
WG166881ICV	ICV	01/07/04 0:16	II031223-2	4.0056		3.945	mg/L	98.5	90	110			
WG166881ICB	ICB	01/07/04 0:20				U	mg/L		-0.04	0.04			
WG166881PQV	PQV	01/07/04 0:24	II040106-7	.2		.186	mg/L	93	70	130			
WG166881ICSABI	ICSAB	01/07/04 0:28	II031230-1	.525		.481	mg/L	91.6	80	120			
L44125-02SDL	SDL	01/07/04 1:00			.07	U	mg/L					10	
WG166881CCV1	CCV	01/07/04 1:03	II040105-3	5.0112		5.113	mg/L	102	90	110			
WG166881CCB1	CCB	01/07/04 1:07				U	mg/L		-0.04	0.04			
WG166757PBS	PBS	01/07/04 1:15				U	mg/L		-0.04	0.04			
WG166757LCSS1	LCSS	01/07/04 1:19	PCN19256	158		135.8	mg/Kg		80	120			
WG166757LFB1	LFB	01/07/04 1:23	SI031231-2	10		9.072	mg/L	90.7	85	115			
L44126-05SDL	SDL	01/07/04 1:47			1.68	1.82	mg/L				8.3	10	
WG166881CCV2	CCV	01/07/04 1:51	II040105-3	5.0112		5.11	mg/L	102	90	110			
WG166881CCB2	CCB	01/07/04 1:55				U	mg/L		-0.04	0.04			
L44126-05MS1	MS	01/07/04 1:59	SI031231-2	10	1.68	9.943	mg/L	82.6	75	125			
WG166881CCV3	CCV	01/07/04 2:11	II040105-3	5.0112		5.144	mg/L	102.7	90	110			
WG166881CCB3	CCB	01/07/04 2:15				U	mg/L		-0.04	0.04			
WG166986													
WG166986ICV	ICV	01/09/04 17:24	II031220-3	4.0056		4.104	mg/L	102.5	90	110			
WG166986ICB	ICB	01/09/04 17:29				U	mg/L		-0.04	0.04			
WG166986PQV	PQV	01/09/04 17:33	II040106-7	.2		.182	mg/L	91	70	130			
WG166986ICSABI	ICSAB	01/09/04 17:38	II031219-5	.525		.494	mg/L	94.1	80	120			
WG166757PBS	PBS	01/09/04 17:47				U	mg/L		-0.4	0.4			
WG166757LCSS1	LCSS	01/09/04 17:51	PCN19256	158		183	mg/Kg		80	120			
WG166757LFB1	LFB	01/09/04 17:56	SI031231-2	10		10.42	mg/L	104.2	85	115			
L44126-05SDL	SDL	01/09/04 18:05			.38	.535	mg/L				40.8	10	ZG
L44126-05MS1	MS	01/09/04 18:09	SI031231-2	10	.38	2.266	mg/L	18.9	75	125			M2
WG166986CCV1	CCV	01/09/04 18:18	II031220-1	5.0112		5.248	mg/L	104.7	90	110			
WG166986CCB1	CCB	01/09/04 18:22				U	mg/L		-0.04	0.04			
L44126-06DUP	DUP	01/09/04 18:27			292	280	mg/L				4.2	20	
WG166986CCV2	CCV	01/09/04 18:31	II031220-1	5.0112		5.199	mg/L	103.7	90	110			
WG166986CCB2	CCB	01/09/04 18:36				U	mg/L		-0.04	0.04			

CH2M Hill ACZ Project ID: ***L44126***

Project ID: 73910

Lead, total (3050) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG166889													
WG166889ICV	ICV	01/07/04 4:58	II031220-3	4.0056		4.062	mg/L	101.4	90	110			
WG166889ICB	ICB	01/07/04 5:02				U	mg/L		-0.04	0.04			
WG166889PQV	PQV	01/07/04 5:06	II040106-7	.2		.226	mg/L	113	70	130			
WG166889ICSABI	ICSAB	01/07/04 5:11	II031219-5	.525		.44	mg/L	83.8	80	120			
WG166848PBS	PBS	01/07/04 5:19				U	mg/Kg		-4	4			
WG166848LCSS	LCSS	01/07/04 5:23	PCN19256	158		161.5	mg/Kg		127	189			
WG166848LCSSD	LCSSD	01/07/04 5:27	PCN19256	158		167.1	mg/Kg		127	189	3.4	20	
L44126-01SDL	SDL	01/07/04 5:35			38	40	mg/Kg				5.3	10	
L44126-01MS	MS	01/07/04 5:39	II031230-3	101.2828	38	136.5	mg/Kg	97.3	75	125			
L44126-01MSD	MSD	01/07/04 5:44	II031230-3	101.2828	38	149.2	mg/Kg	109.8	75	125	8.89	20	
WG166889CCV1	CCV	01/07/04 5:48	II031220-1	5.0112		5.35	mg/L	106.8	90	110			
WG166889CCB1	CCB	01/07/04 5:52				U	mg/L		-0.04	0.04			
WG166889CCV2	CCV	01/07/04 6:38	II031220-1	5.0112		5.333	mg/L	106.4	90	110			
WG166889CCB2	CCB	01/07/04 6:42				U	mg/L		-0.04	0.04			
WG166915													
WG166915CCV1	CCV	01/07/04 14:10	II031220-1	5.0112		5.025	mg/L	100.3	90	110			
WG166915CCB1	CCB	01/07/04 14:13				U	mg/L		-0.04	0.04			
WG166915PQV	PQV	01/07/04 14:16	II040106-7	.2		.204	mg/L	102	70	130			
WG166915ICSABI	ICSAB	01/07/04 14:19	II031219-5	.525		.518	mg/L	98.7	80	120			
WG166848PBS	PBS	01/07/04 14:26				U	mg/Kg		-4	4			
WG166848LCSS	LCSS	01/07/04 14:29	PCN19256	158		151.4	mg/Kg		127	189			
WG166848LCSSD	LCSSD	01/07/04 14:33	PCN19256	158		159.4	mg/Kg		127	189	5.1	20	
L44126-01SDL	SDL	01/07/04 14:39			44	50.5	mg/Kg				14.8	10	ZG
L44126-01MS	MS	01/07/04 14:42	II031230-3	101.2828	44	134.5	mg/Kg	89.4	75	125			
L44126-01MSD	MSD	01/07/04 14:46	II031230-3	101.2828	44	145.6	mg/Kg	100.3	75	125	7.93	20	
WG166915CCV2	CCV	01/07/04 14:49	II031220-1	5.0112		5.003	mg/L	99.8	90	110			
WG166915CCB2	CCB	01/07/04 14:52				U	mg/L		-0.04	0.04			
WG166915CCV3	CCV	01/07/04 15:09	II031220-1	5.0112		5.031	mg/L	100.4	90	110			
WG166915CCB3	CCB	01/07/04 15:12				U	mg/L		-0.04	0.04			

Solids, Percent CLPSOW390, PART F, D-98

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG166517													
WG166517PBS	PBS	12/23/03 12:45				U	%		99.9	100.1			
L44126-06DUP	DUP	12/23/03 13:00			19.6	20.8	%				5.9	20	

ACZ Laboratories, Inc.
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Inorganic Extended Qualifier Report

ACZ Project ID: ***L44126***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L44126-01	WG166881	Antimony (SBRC)	M6010B ICP	L4	The associated blank spike recovery was below method acceptance limits. See case narrative.
			M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M6010B ICP	N1	See case narrative.
	WG167086		M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG167006	Antimony, total (3050)	M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
L44126-02	WG166881	Antimony (SBRC)	M6010B ICP	L4	The associated blank spike recovery was below method acceptance limits. See case narrative.
			M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M6010B ICP	N1	See case narrative.
	WG167086		M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG167006	Antimony, total (3050)	M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
L44126-03	WG166881	Antimony (SBRC)	M6010B ICP	L4	The associated blank spike recovery was below method acceptance limits. See case narrative.
			M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M6010B ICP	N1	See case narrative.
	WG167086		M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG167006	Antimony, total (3050)	M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
L44126-04	WG166881	Antimony (SBRC)	M6010B ICP	L4	The associated blank spike recovery was below method acceptance limits. See case narrative.
			M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M6010B ICP	N1	See case narrative.
	WG167086		M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG167006	Antimony, total (3050)	M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
L44126-05	WG166881	Antimony (SBRC)	M6010B ICP	L4	The associated blank spike recovery was below method acceptance limits. See case narrative.
			M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M6010B ICP	N1	See case narrative.
	WG167086		M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG167006	Antimony, total (3050)	M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.

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Inorganic Extended Qualifier Report

ACZ Project ID: ***L44126***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L44126-06	WG166986	Antimony (SBRC)	M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M6010B ICP	N1	See case narrative.
			M6010B ICP	ZK	Target analyte detected in the blank as a negative result at or above the negative method limit (i.e. high negative bias). Sample concentration is at a minimum ten times greater than positive method reporting limit.
	WG166889	Antimony, total (3050)	M6010B ICP	BB	Target analyte detected in calibration blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the calibration blank.
			M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG166986	Lead (SBRC)	M6010B ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M6010B ICP	ZG	The ICP Serial Dilution was not evaluated because the sample concentration was less than 50 times the MDL.
	WG166915	Lead, total (3050)	M6010B ICP	ZG	The ICP Serial Dilution was not evaluated because the sample concentration was less than 50 times the MDL.

ACZ Laboratories, Inc.

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Sample Receipt

CH2M Hill
73910

ACZ Project ID: L44126
Date Received: 12/18/2003
Received By: bethf

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			√
2) Are the custody seals on the cooler intact?			√
3) Are the custody seals on the sample containers intact?			√
4) Is there a Chain of Custody or other directive shipping papers present?	√		
5) Is the Chain of Custody complete?	√		
6) Is the Chain of Custody in agreement with the samples received?	√		
7) Is there enough sample for all requested analyses?	√		
8) Are all samples within holding times for requested analyses?	√		
9) Were all sample containers received intact?	√		
10) Are the temperature blanks present?	√		
11) Are the trip blanks (VOA and/or Cyanide) present?			√
12) Are samples requiring no headspace, headspace free?			√
13) Do the samples that require a Foreign Soils Permit have one?			√

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
CLIENT		1.9	16

Notes

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

CH2M Hill
73910

ACZ Project ID: L44126
Date Received: 12/22/2003
Received By: bethf

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	Y < 2	YG< 2	B < 2	BG< 2	O < 2	T >12	P >12	N/A	RAD
L44126-01	74E01SB0-01										√	
L44126-02	74E01SB0-07										√	
L44126-03	74E01SB0-09										√	
L44126-04	74E02DB0-44										√	
L44126-05	74E02DB0-26										√	
L44126-06	74E02DB0-05										√	

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
B	Filtered/Sulfuric	BLUE	pH must be < 2
BG	Filtered/Sulfuric	BLUE GLASS	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

CH2M HILL, Inc. L44126

SHIP TO: ACZ Laboratories Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487
T (800) 334-5493 F (970) 879-2216

CHAIN OF CUSTODY RECORD

Project/Contact Information	
Project #	171335.24.FW
Project Name	Site 74 Old Skeet Range NAVWPNSTA Seal Beach
Report Copy to	Bradley Sample/SAC 2485 Natomas Pk Dr, Ste 600 Sacramento, CA
Company Name/Contact	CH2M HILL/SAC, Brad Sample Phone 916-286-0485

THIS AREA FOR LAB USE ONLY		
Lab #	Pg 1	of 1
Lab PM	Custody Review	
Log In	LIMS Verification	
pH	Cust Seals Y N Ice Y N	
QC Level 1 2 3		
Cooler Temperature		

Sampling Date	Sampling Start Time	Type Comp	Type Grab	Matrix Water	Matrix Soil	Matrix Sed	Client Sample ID	LAB QC	Total Number of Containers	Bioaccessibility Analyses	Preservative Ice (4° C)	Alternate Description	Lab ID
12/12/03	0850	X			X		74E01SB0-01				X		
12/12/03	1710	X			X		74E01SB0-07				X		
12/10/03	1530	X			X		74E01SB0-09				X		
12/12/03	0945	X				X	74E02DB0-44				X		
12/15/03	0915	X				X	74E02DB0-26				X		
12/15/03	1105	X				X	74E02DB0-05				X		

Sampled By: Earl Byron

Relinquished By: Earl Byron 12/16/03 1300

Received By:

Relinquished By:

Received By:

Relinquished By:

Received By: E. Prevech 12/22/03 10:00 →

Date/Time

Special Instructions: run analyses as per statement of work

File: CoC_acz.xls

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

Bradley Sample, Ph.D.
CH2M Hill
2485 Natomas Park Drive Suite 600
Sacramento, CA 95833

February 23, 2004

Project ID: 171335.24.FW
ACZ Project ID: L44514

Bradley Sample, Ph.D.:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 05, 2004. This project has been assigned to ACZ's project number, L44514. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 10.0. The enclosed results relate only to the samples received under L44514. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after March 23, 2004. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

23/Feb/04

Sue Barkey, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 8048. (800) 334-5493

Case Narrative

CH2M Hill

February 23, 2004

Project ID: 171335.24.FW
ACZ Project ID: L44514

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 18 soil samples from CH2M Hill on February 5, 2004. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L44514. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

This report includes additional analysis for samples originally reported in L44126.

Refer to the Extended Qualifier Report and the QC Summary for additional QC information.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01SBO-01/SPLIT 2

ACZ Sample ID: ***L44514-01***
Date Sampled: *12/13/03 08:30*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	0.3	B	*	mg/Kg	0.1	0.5	02/20/04 0:15	jb
Lead, total (3050)	M6010B ICP	40		*	mg/Kg	4	20	02/16/04 15:57	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP							02/11/04 9:12	lm
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 9:12	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-01.

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01SBO-01/SPLIT 3

ACZ Sample ID: ***L44514-02***
Date Sampled: *12/13/03 08:30*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	0.3	B	*	mg/Kg	0.1	0.5	02/20/04 0:30	jb
Lead, total (3050)	M6010B ICP	38		*	mg/Kg	4	20	02/16/04 16:01	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 10:24	lrn
Digestion - Hot Plate	M3050B ICP							02/11/04 10:24	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-01.

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

CH2M Hill

Project ID: 171335.24.FW

Sample ID: 74E01SBO-07/SPLIT 2

ACZ Sample ID: ***L44514-03***

Date Sampled: *12/14/03 17:10*

Date Received: *02/05/04*

Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	4.0		*	mg/Kg	0.1	0.5	02/20/04 0:46	jb
Lead, total (3050)	M6010B ICP	658		*	mg/Kg	4	20	02/16/04 16:04	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 10:48	lm
Digestion - Hot Plate	M3050B ICP							02/11/04 10:48	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-02.

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01SBO-07/SPLIT 3

ACZ Sample ID: ***L44514-04***
Date Sampled: *12/14/03 17:10*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	2.8		*	mg/Kg	0.1	0.5	02/20/04 0:51	jb
Lead, total (3050)	M6010B ICP	615		*	mg/Kg	4	20	02/16/04 16:23	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 12:01	lm
Digestion - Hot Plate	M3050B ICP							02/11/04 12:01	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-02.

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01SBO-09/SPLIT 2

ACZ Sample ID: ***L44514-05***
Date Sampled: *12/13/03 15:30*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	6.0		*	mg/Kg	0.1	0.5	02/20/04 0:57	jb
Lead, total (3050)	M6010B ICP	1320		*	mg/Kg	4	20	02/16/04 16:26	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 12:25	lrn
Digestion - Hot Plate	M3050B ICP							02/11/04 12:25	lrn

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-03.

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01SBO-09/SPLIT 3

ACZ Sample ID: ***L44514-06***
Date Sampled: *12/13/03 15:30*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	6.0		*	mg/Kg	0.1	0.5	02/20/04 1:02	jb
Lead, total (3050)	M6010B ICP	1340		*	mg/Kg	4	20	02/16/04 16:30	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 12:49	lm
Digestion - Hot Plate	M3050B ICP							02/11/04 12:49	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-03.

** Please refer to Extended Qualifier Report for detail.*

ACZ Laboratories, Inc.
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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01DBO-44/SPLIT 1

ACZ Sample ID: ***L44514-07***
Date Sampled: *12/13/03 09:45*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	0.3	B	*	mg/Kg	0.1	0.5	02/20/04 1:07	jb

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 13:13	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-04.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01DBO-44/SPLIT 2

ACZ Sample ID: ***L44514-08***
Date Sampled: *12/13/03 09:45*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	0.4	B	*	mg/Kg	0.1	0.5	02/20/04 1:12	jb
Lead, total (3050)	M6010B ICP	61		*	mg/Kg	4	20	02/16/04 16:33	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 13:37	lm
Digestion - Hot Plate	M3050B ICP							02/11/04 13:37	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-04.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01DBO-44/SPLIT 3

ACZ Sample ID: ***L44514-09***
Date Sampled: *12/13/03 09:45*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	0.3	B	*	mg/Kg	0.1	0.5	02/20/04 1:17	jb
Lead, total (3050)	M6010B ICP	58		*	mg/Kg	4	20	02/16/04 16:36	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 14:02	lm
Digestion - Hot Plate	M3050B ICP							02/11/04 14:02	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-04.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01DBO-26/SPLIT 1

ACZ Sample ID: ***L44514-10***
Date Sampled: *12/15/03 09:15*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	1.7		*	mg/Kg	0.1	0.5	02/20/04 1:22	jb

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 14:26	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-05.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E02DBO-26/SPLIT 2

ACZ Sample ID: ***L44514-11***
Date Sampled: *12/15/03 09:15*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	1.8		*	mg/Kg	0.1	0.5	02/20/04 1:28	jb
Lead, total (3050)	M6010B ICP	248		*	mg/Kg	4	20	02/16/04 16:39	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 14:50	lrn
Digestion - Hot Plate	M3050B ICP							02/11/04 14:50	lrn

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-05.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E02DBO-26/SPLIT 3

ACZ Sample ID: ***L44514-12***
Date Sampled: *12/15/03 09:15*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	1.7		*	mg/Kg	0.1	0.5	02/20/04 1:33	jb
Lead, total (3050)	M6010B ICP	246		*	mg/Kg	4	20	02/16/04 16:42	wfg

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 15:14	lm
Digestion - Hot Plate	M3050B ICP							02/11/04 15:14	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-05.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill

Project ID: 171335.24.FW

Sample ID: 74E02DBO-05/SPLIT 2

ACZ Sample ID: ***L44514-14***

Date Sampled: *12/14/03 11:05*

Date Received: *02/05/04*

Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	235		*	mg/Kg	5	30	02/20/04 17:36	jb
Lead, total (3050)	M6010B ICP	40600		*	mg/Kg	20	100	02/17/04 3:14	scp

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 15:38	lrn
Digestion - Hot Plate	M3050B ICP							02/11/04 15:38	lrn

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-06.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E02DBO-05/SPLIT 3

ACZ Sample ID: ***L44514-15***
Date Sampled: *12/14/03 11:05*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	234		*	mg/Kg	5	30	02/20/04 17:52	jb
Lead, total (3050)	M6010B ICP	40700		*	mg/Kg	20	100	02/17/04 3:18	scp

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 16:02	lrn
Digestion - Hot Plate	M3050B ICP							02/11/04 16:02	lrn

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-06.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01SBO-01/ Split 1

ACZ Sample ID: ***L44514-16***
Date Sampled: *12/13/03 08:30*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	0.4	B	*	mg/Kg	0.1	0.5	02/20/04 1:59	jb

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 16:26	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-01.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill
Project ID: 171335.24.FW
Sample ID: 74E01SBO-07/ SPlit 1

ACZ Sample ID: ***L44514-17***
Date Sampled: *12/14/03 17:10*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	3.3		*	mg/Kg	0.1	0.5	02/20/04 2:04	jb

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 16:50	lm

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-02.

** Please refer to Extended Qualifier Report for detail.*

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Inorganic Analytical Results

CH2M Hill

Project ID: 171335.24.FW
Sample ID: 74E01SBO-09/ Split 1

ACZ Sample ID: ***L44514-18***
Date Sampled: *12/13/03 15:30*
Date Received: *02/05/04*
Sample Matrix: *Soil*

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total (3050)	M6020 ICP-MS	5.8		*	mg/Kg	0.1	0.5	02/20/04 2:09	jb

Soil Preparation

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Digestion - Hot Plate	M3050B ICP-MS							02/11/04 17:15	lrn

Note: This report is for additional analyses of the sample previously reported as ACZ project L44126-03.

** Please refer to Extended Qualifier Report for detail.*

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality control sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.

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Inorganic QC Summary

CH2M Hill ACZ Project ID: ***L44514***

Project ID: 171335.24.FW

Antimony, total (3050) M6020 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG168421													
WG168421ICV	ICV	02/19/04 23:32	MS040128-1	.02		.02047	mg/L	102.4	90	110			
WG168421ICB	ICB	02/19/04 23:38				U	mg/L		-0.0006	0.0006			
WG168421ICSAB	ICSAB	02/19/04 23:48	MS040210-2	.01		.01107	mg/L	110.7	80	120			
WG168099PBS	PBS	02/19/04 23:59				U	mg/Kg		-0.3	0.3			
WG168099LCSS	LCSS	02/20/04 0:04	PCN19256	52.5		36.1	mg/Kg		0	117			
WG168099LCSSD	LCSSD	02/20/04 0:10	PCN19256	52.5		38.6	mg/Kg		0	117	6.7	20	
L44514-01MS	MS	02/20/04 0:20	MS040219-5	.63125	.3	.44	mg/Kg	22.2	75	125			M2
L44514-01MSD	MSD	02/20/04 0:25	MS040219-5	.63125	.3	.46	mg/Kg	25.3	75	125	4.44	20	M2
WG168421CCV1	CCV	02/20/04 0:36	MS040128-1	.02		.01999	mg/L	100	90	110			
WG168421CCB1	CCB	02/20/04 0:41				U	mg/L		-0.0006	0.0006			
WG168421CCV2	CCV	02/20/04 1:38	MS040128-1	.02		.0206	mg/L	103	90	110			
WG168421CCB2	CCB	02/20/04 1:43				U	mg/L		-0.0006	0.0006			
L44514-18SDL	SDL	02/20/04 2:14			5.8	5.85	mg/Kg				0.9	10	
WG168421CCV3	CCV	02/20/04 2:20	MS040128-1	.02		.02028	mg/L	101.4	90	110			
WG168421CCB3	CCB	02/20/04 2:25				U	mg/L		-0.0006	0.0006			
WG168442													
WG168442ICV	ICV	02/20/04 16:38	MS040128-1	.02		.02052	mg/L	102.6	90	110			
WG168442ICB	ICB	02/20/04 16:43				U	mg/L		-0.0006	0.0006			
WG168442ICSAB	ICSAB	02/20/04 16:54	MS040210-2	.01		.00979	mg/L	97.9	80	120			
WG168099PBS	PBS	02/20/04 17:05				.12	mg/Kg		-0.3	0.3			
WG168099LCSS	LCSS	02/20/04 17:10	PCN19256	52.5		33.2	mg/Kg		0	117			
WG168099LCSSD	LCSSD	02/20/04 17:15	PCN19256	52.5		36.4	mg/Kg		0	117	9.2	20	
L44514-01MS	MS	02/20/04 17:26	MS040219-5	.63125	.3	.43	mg/Kg	20.6	75	125			M2
L44514-01MSD	MSD	02/20/04 17:31	MS040219-5	.63125	.3	.44	mg/Kg	22.2	75	125	2.3	20	M2
WG168442CCV1	CCV	02/20/04 17:41	MS040128-1	.02		.02058	mg/L	102.9	90	110			
WG168442CCB1	CCB	02/20/04 17:47				U	mg/L		-0.0006	0.0006			
L44514-15SDL	SDL	02/20/04 17:57			234	239	mg/Kg				2.1	10	
WG168442CCV2	CCV	02/20/04 18:03	MS040128-1	.02		.02051	mg/L	102.6	90	110			
WG168442CCB2	CCB	02/20/04 18:08				U	mg/L		-0.0006	0.0006			

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Inorganic QC Summary

CH2M Hill ACZ Project ID: ***L44514***

Project ID: 171335.24.FW

Lead, total (3050) M6010B ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG168189													
WG168189ICV	ICV	02/16/04 14:59	II040206-9	4		3.962	mg/L	99.1	90	110			
WG168189ICB	ICB	02/16/04 15:03				U	mg/L		-0.04	0.04			
WG168189PQV	PQV	02/16/04 15:06	II040207-3	.2		.243	mg/L	121.5	70	130			
WG168189ICSABI	ICSAB	02/16/04 15:09	II040120-1	.525		.471	mg/L	89.7	80	120			
WG168189CCV1	CCV	02/16/04 15:38	II040121-1	5.0112		5.333	mg/L	106.4	90	110			
WG168189CCB1	CCB	02/16/04 15:41				U	mg/L		-0.04	0.04			
WG168099PBS	PBS	02/16/04 15:48				U	mg/Kg		-4	4			
WG168099LCSS	LCSS	02/16/04 15:51	PCN19256	158		159.4	mg/Kg		127	189			
WG168099LCSSD	LCSSD	02/16/04 15:54	PCN19256	158		166.4	mg/Kg		127	189	4.3	20	
L44514-03SDL	SDL	02/16/04 16:07			658	712.5	mg/Kg				8.3	10	
L44514-03MS	MS	02/16/04 16:10	II040129-2	101.2828	658	826.1	mg/Kg	166	75	125			MA
L44514-03MSD	MSD	02/16/04 16:14	II040129-2	101.2828	658	765.8	mg/Kg	106.4	75	125	7.58	20	
WG168189CCV2	CCV	02/16/04 16:17	II040121-1	5.0112		5.429	mg/L	108.3	90	110			
WG168189CCB2	CCB	02/16/04 16:20				U	mg/L		-0.04	0.04			
WG168189CCV3	CCV	02/16/04 16:52	II040121-1	5.0112		5.451	mg/L	108.8	90	110			
WG168189CCB3	CCB	02/16/04 16:55				U	mg/L		-0.04	0.04			
WG168266													
WG168266ICV	ICV	02/17/04 2:20	II040206-9	4		3.895	mg/L	97.4	90	110			
WG168266ICB	ICB	02/17/04 2:24				U	mg/L		-0.04	0.04			
WG168266PQV	PQV	02/17/04 2:28	II040207-3	.2		.2	mg/L	100	70	130			
WG168266ICSABI	ICSAB	02/17/04 2:31	II040120-1	.525		.418	mg/L	79.6	80	120			
WG168099PBS	PBS	02/17/04 2:39				U	mg/Kg		-4	4			
WG168099LCSS	LCSS	02/17/04 2:43	PCN19256	158		155	mg/Kg		127	189			
WG168099LCSSD	LCSSD	02/17/04 2:47	PCN19256	158		158.8	mg/Kg		127	189	2.4	20	
L44514-03SDL	SDL	02/17/04 2:55			629	673.5	mg/Kg				7.1	10	
L44514-03MS	MS	02/17/04 2:59	II040129-2	101.2828	629	770	mg/Kg	139.2	75	125			MA
L44514-03MSD	MSD	02/17/04 3:02	II040129-2	101.2828	629	724.2	mg/Kg	94	75	125	6.13	20	
WG168266CCV1	CCV	02/17/04 3:06	II040121-1	5.0112		5.179	mg/L	103.3	90	110			
WG168266CCB1	CCB	02/17/04 3:10				U	mg/L		-0.04	0.04			
WG168266CCV2	CCV	02/17/04 3:22	II040121-1	5.0112		5.123	mg/L	102.2	90	110			
WG168266CCB2	CCB	02/17/04 3:26				U	mg/L		-0.04	0.04			

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Inorganic Extended Qualifier Report

CH2M Hill

ACZ Project ID: ***L44514***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L44514-01	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-02	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-03	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-04	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-05	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-06	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-07	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
L44514-08	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-09	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-10	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
L44514-11	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.

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Inorganic Extended Qualifier Report

CH2M Hill

ACZ Project ID: ***L44514***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L44514-12	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168189	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-14	WG168442	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168266	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-15	WG168442	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG168266	Lead, total (3050)	M6010B ICP	MA	One spike recovery was outside of the method limits; the duplicate spike and the method control recoveries were within the method limits.
L44514-16	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
L44514-17	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
L44514-18	WG168421	Antimony, total (3050)	M6020 ICP-MS	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.

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CHAIN OF CUSTODY RECORD

Project/Contact Information	
Project #	171335.24.FW
Project Name	Site 74 Old Skeet Range NAVWPNSTA Seal Beach
Report Copy to	Bradley Sample/SAC 2485 Natomas Pk Dr, Ste 600 Sacramento, CA
Company Name/Contact	CH2M HILL/SAC Brad Sample Phone 916-286-0485

Sampling Date	Start Time	Type Comp	Type Grab	Matrix Water	Matrix Soil	Matrix Sed	Client Sample ID	LAB QC	Total Number of Containers	Bioaccessibility Analyses	Ice (4° C)
12/15/03	0830	X			X		74E01SBQ-01			X	
12/15/03	1710	X			X		74E01SBQ-07			X	
12/15/03	1530	X			X		74E01SBQ-09			X	
12/15/03	0945	X				X	74E02DBQ-44			X	
12/15/03	0915	X				X	74E02DBQ-26			X	
12/15/03	1105	X				X	74E02DBQ-05			X	

Requested Analysis

Preservative

THIS AREA FOR LAB USE ONLY	
Lab #	Pg 1 of 1
Lab PM	Custody Review
Log In	LIMS Verification
pH	Cust Seals Y N Ice Y N
QC Level 1 2 3	
Cooler Temperature	

Alternate Description	Lab ID

COPY

Sampled By: Earl Byron

Received By:

Received By:

Received By: E. French 12/22/03 10:00

Relinquished By: Earl Byron 12/16/03 1300

Relinquished By:

Relinquished By:

Date/Time →

Special Instructions run analyses as per statement of work

File: CoC_acz.xls

L44514

CH2MHILL
Additional Analyses for L44126-01 through 06 (new login #)

Lab ID	Client ID	Date/Time	Parameters	ACZ Products	Price	Price/ Sample
L44126-01	74E01SBO-01/ Split 2	12/13/2003 8:30	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E01SBO-01/ Split 3	12/13/2003 8:30	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
L44126-02	74E01SBO-07/ Split 2	12/14/2003 17:10	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E01SBO-07/ Split 3	12/14/2003 17:10	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
L44126-03	74E01SBO-09/ Split 2	12/13/2003 15:30	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E01SBO-09/ Split 3	12/13/2003 15:30	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
L44126-04	74E01DBO-44/ Split 1	12/13/2003 9:45	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E01DBO-44/ Split 2	12/13/2003 9:45	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E01DBO-44/ Split 3	12/13/2003 9:45	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
L44126-05	74E02DBO-26/ Split 1	12/15/2003 9:15	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E02DBO-26/ Split 2	12/15/2003 9:15	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E02DBO-26/ Split 3	12/15/2003 9:15	Digestion, Sb by ICPMS, Pb by ICP	1.SB-MS-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
L44126-06	74E02DBO-05/ Split 1	12/14/2003 11:05	Digestion, Sb by ICP, Pb by ICP	1.SB-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E02DBO-05/ Split 2	12/14/2003 11:05	Digestion, Sb by ICP, Pb by ICP	1.SB-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
	74E02DBO-05/ Split 3	12/14/2003 11:05	Digestion, Sb by ICP, Pb by ICP	1.SB-3050, 2. PB-3050, 3. X-3050	1. $9, 2. $9, 3. $13	$31
					Total =	$465

CJD 2/5/04

Appendix B
Supporting Data for the Analysis Section

Appendix B.1
Inputs for Bird and Mammal Exposure Calculations and Example

APPENDIX B.1

Inputs for Bird and Mammal Exposure Calculations and Example

Bird and Mammal Dietary Exposure Model (discussed Section 3.1.2.1)

$$E_j = \left[Soil_j \times P_s \times FIR \times P_{BA}\right] + \left[\sum_{i=1}^{N} B_{ij} \times P_i \times FIR\right]$$

Where,

E_j	=	total exposure (mg/kg/day)
$Soil_j$	=	concentration of chemical in soil (mg/kg)
P_s	=	soil ingestion rate as a proportion of diet
FIR	=	total food ingestion rate for the representative species (kg diet/kg body weight/day)
P_{BA}	=	bioaccessibility of chemical in soil (proportion)
B_{ij}	=	concentration of chemical (j) in biota type (i) (mg/kg)
P_i	=	proportion of biota type (i) in diet

1. Life History Parameters (see Table 3-1 for details)

Receptor	**BW**	**FIR**	**P_s**	**P_i**
Light-footed clapper rail	0.3	0.089	0.1	0.15 – plants 0.85 – aquatic invertebrates
Mallard	1.134	0.1	0.033	0.106 – plants 0.894 – aquatic invertebrates
Belding's savannah sparrow	0.0187	0.256	0.02	0.5 – plants 0.5 – aquatic or terrestrial invertebrates
Western meadowlark	0.102	0.029	0.208	0.367 – plants 0.633 – terrestrial invertebrates
Ornate shrew	0.005	0.18	0.03	1 – terrestrial invertebrates
California vole	0.043	0.206	0.024	1 – plants

2. Bioaccessibility (see Section 3.1.2.1 and Table 3-2 for details)

Medium	**Antimony**	**Lead**
Soil P_{BA}	1	0.87
Sediment P_{BA}	0.61	0.73

3. Bioaccumulation (see Section 3.1.2.1 and Figures 3-1 and 3-2 for details)

Relationship	Source	Regression
Lead soil-invertebrate	Site-specific regression	ln(invert) = 0.097 + 0.458(ln soil)
Lead sediment-invertebrate	Expanded site-specific regression	ln(invert) = -4.24 + 1.16(ln sed)
Lead soil/sediment-plant	Efroymson et al., (2001)	ln(plant) = -1.33 + 0.56(ln soil/sed)

There was no significant regression between sediment or soil concentration and antimony concentration in plants or invertebrates. The maximum measured plant and invertebrate concentration was used to represent antimony concentration of the food item in diet of the receptor.

Plant = 1.5 mg/kg dry wt

Invertebrate = 1.4 mg/kg dry wt

4. Exposure Point Concentrations (EPCs) (see Section 3.1.2.1 for details)

Entire distribution of values for a point-by-point evaluation of dietary exposure.

Sediment samples – light-footed clapper rails and mallards

Soil samples – western meadowlarks and California voles

Sediment and Soil samples – Belding's savannah sparrow and ornate shrew

5. Shot Ingestion

Proportional to soil ingestion for each bird receptor (P_s). Concentration of lead as shot in soils and sediment. No food component because shot assumed to be unavailable to plants and invertebrates.

Example Calculation:

Clapper Rail lead exposure at Location 74G05 Sample Number G05CA01D (Table 4-8), where lead concentration = 154,000 mg/kg dry wt

1. Concentrations in prey items (15% plants, 85% aquatic invertebrates):

a. ln(plant) = -1.33 + 0.56(ln(154,000))

B_{ij}(plant) = 212.53 mg/kg dry wt

b. ln(invertebrate) = -4.24 + 1.16(ln(154,000))

B_{ij}(invertebrate) = 15,000.83 mg/kg dry wt

2. Exposure calculation

$$E_j = \left[Soil_j \times P_s \times FIR \times P_{BA}\right] + \left[\sum_{i=1}^{N} B_{ij} \times P_i \times FIR\right]$$

Where,

E_j	=	total exposure (mg/kg/day)
$Soil_j$	=	154,000 (mg/kg)
P_s	=	0.1
FIR	=	0.089 (kg diet/kg body weight/day)
P_{BA}	=	0.73
B_{ij}	=	212.52 plants and 15,000.83 invertebrates (mg/kg)
P_i	=	0.15 plants and 0.85 invertebrates

Ej = exposure from sediment + exposure from plants + exposure from invertebrates

= (154,000 x 0.1 x 0.089 x 0.73) + (212.52 x 0.15 x 0.089) + (15,000.83 x 0.85 x 0.089)

= 1000.54 + 2.84 + 1134.81

= 2,138.19 mg/kg/d

Appendix B.2
Data for the Literature-based Mallard and Small Mammal Bioaccumulation Models

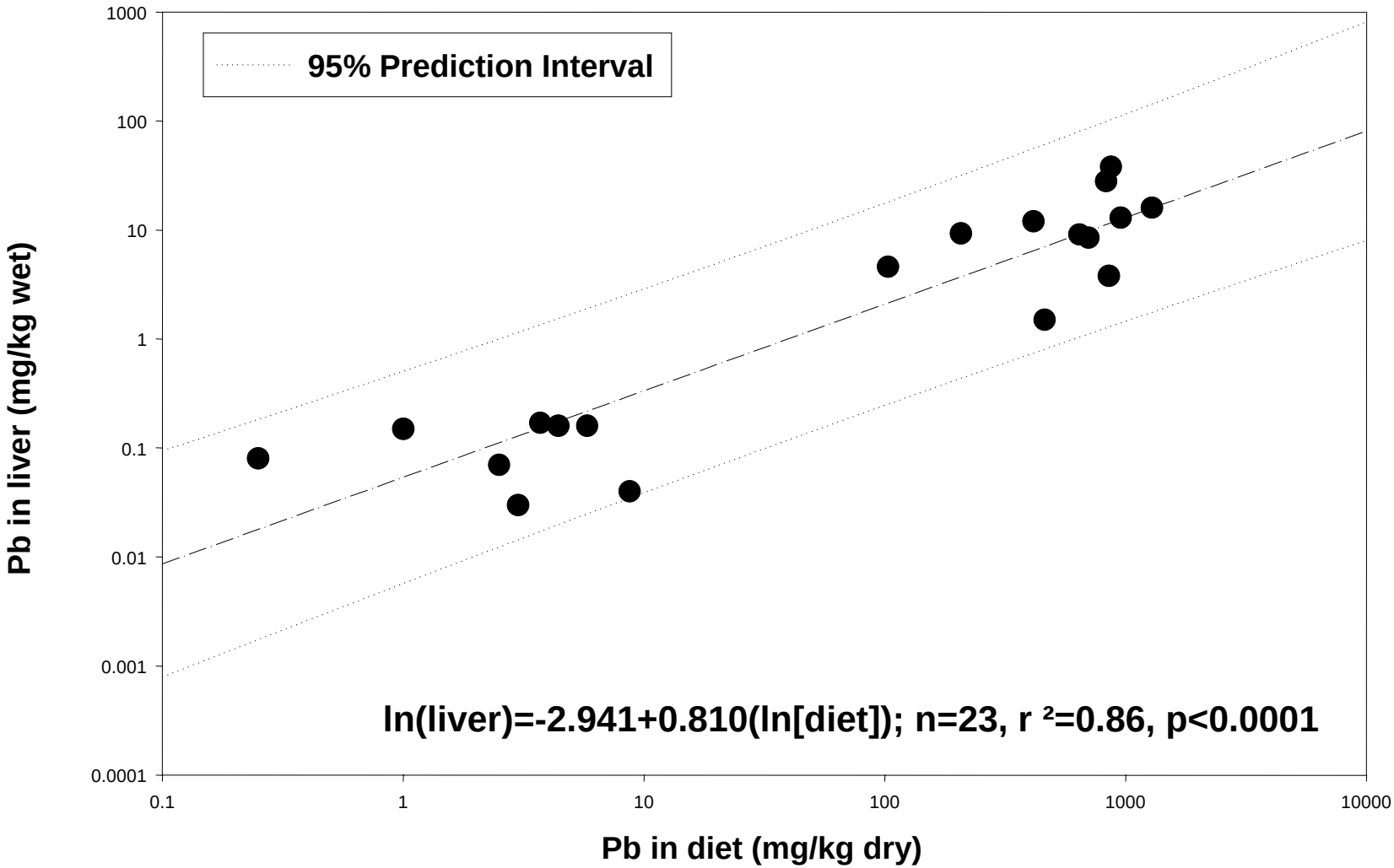

Figure B.2-1 Analysis of relationship between dietary lead and lead in liver of swans, geese, and mallards fed diets with differing levels of sediments from the Coeur d'Alene River basin.

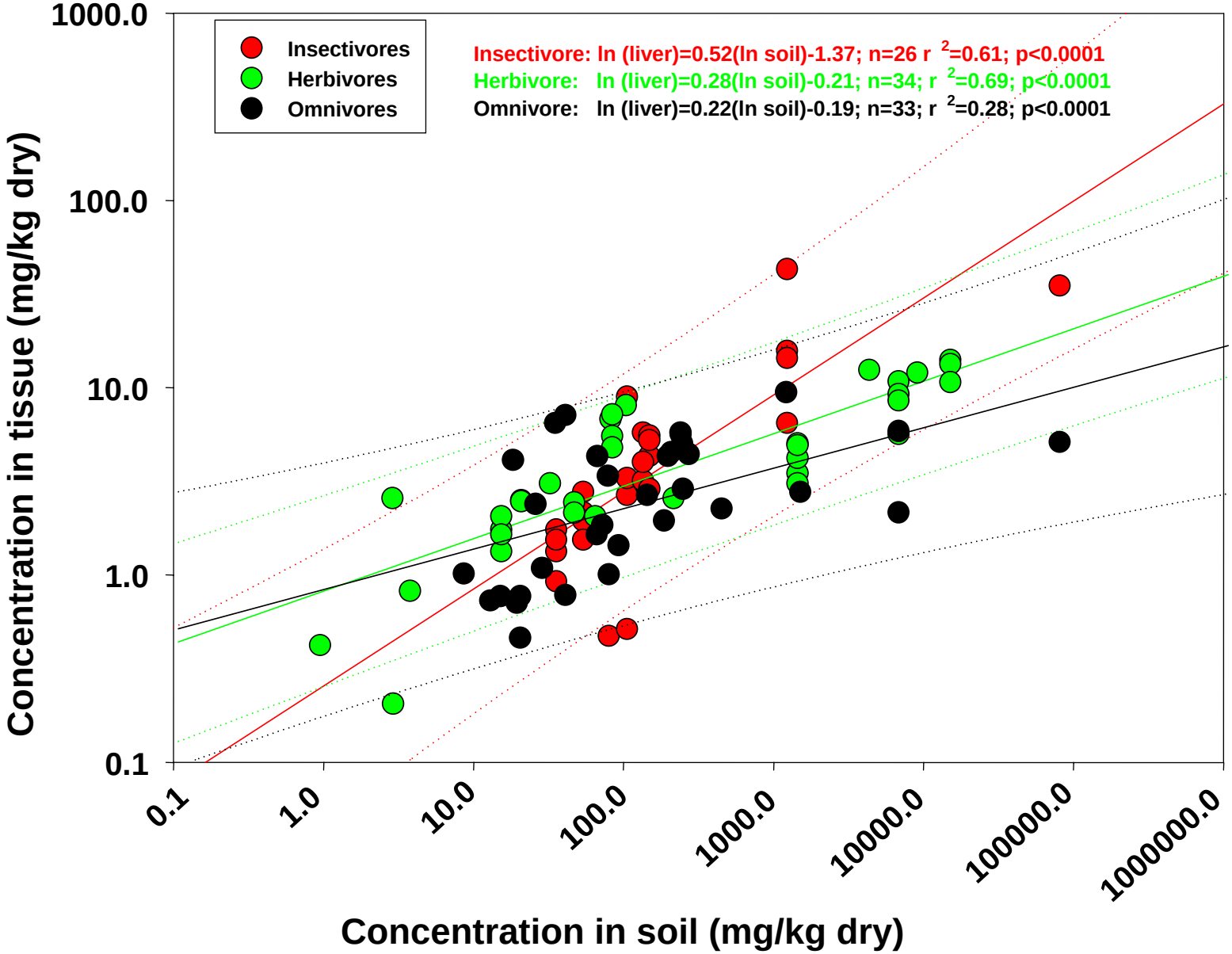

Figure B.2-2 Literature-derived soil-to-liver lead bioaccumulation relationships for small mammals.

Table B.2-1
Waterfowl Data Used to Develop the Mallard Model to Estimate Liver and Blood Lead Concentrations
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Study	Species	Experiment	Diet	Treatment	Lead in Diet mg/kg (dry)	5 wk Lead in Blood mg/kg (wet)	Lead in Liver mg/kg (wet)
Heinz et al. 1999	mallard	1	Commercial feed	control (no sed)	0.25	0.03	0.08
Heinz et al. 1999	mallard	1	Commercial feed	control (24% clean sed)	2.5	0.02	0.07
Heinz et al. 1999	mallard	1	Commercial feed	3% contam sed	103	1.1	4.6
Heinz et al. 1999	mallard	1	Commercial feed	6% contam sed	207	1.6	9.3
Heinz et al. 1999	mallard	1	Commercial feed	12% contam sed	414	3	12
Heinz et al. 1999	mallard	1	Commercial feed	24% contam sed	828	6.9	28
Heinz et al. 1999	mallard	2	Commercial feed	control (48% clean sed)	8.7	0.09	0.04
Heinz et al. 1999	mallard	2	Commercial feed	24% contam sed	642	3	9.1
Heinz et al. 1999	mallard	2	Commercial feed	48% contam sed	1284	6.8	16
Heinz et al. 1999	mallard	3	Commercial feed	control (24% clean sed)	3	0.2	0.03
Heinz et al. 1999	mallard	3	corn	control (24% clean sed)	3.7	0.13	0.17
Heinz et al. 1999	mallard	3	Commercial feed	24% contam sed	954	4.1	13
Heinz et al. 1999	mallard	3	corn	24% contam sed	869	4	38
Hoffman et al. 1999	goslings		Commercial feed	control (no sed)	1.7	0.01	
Hoffman et al. 1999	goslings		Commercial feed	control (48% clean sed)	3	0.03	
Hoffman et al. 1999	goslings		Commercial feed	12% contam sed	414	0.68	
Hoffman et al. 1999	goslings		Commercial feed	24% contam sed	828	1.61	
Hoffman et al. 1999	goslings		Commercial feed	48% contam sed	1656	2.52	
Hoffman et al. 1999	ducklings		Commercial feed	control (no sed)	1.7	0.01	
Hoffman et al. 1999	ducklings		Commercial feed	control (24% clean sed)	1.5	0.03	
Hoffman et al. 1999	ducklings		Commercial feed	12% contam sed	414	1.41	
Hoffman et al. 1999	ducklings		Commercial feed	24% contam sed	828	2.56	
Hoffman et al. 1999	ducklings		Commercial feed	Pb acetate		5.77	
Hoffman et al. 1999	ducklings		2/3 corn diet	control (24% clean sed)	1.5	0.06	
Hoffman et al. 1999	ducklings		2/3 corn diet	12% contam sed	414	2.45	
Hoffman et al. 1999	ducklings		2/3 corn diet	24% contam sed	828	4.62	
Day et al. 1998	Mute swans		Commercial feed	control (no sed)	1	0.19	0.15
Day et al. 1998	Mute swans		Commercial feed	control (24% clean sed)	5.8	0.2	0.16
Day et al. 1998	Mute swans		Commercial feed	12% contam sed	460	1.28	1.5
Day et al. 1998	Mute swans		Commercial feed	24% contam sed	850	2.3	3.8
Day et al. 1998	Mute swans		rice diet	control (no sed)	1		

Table B.2-1
Waterfowl Data Used to Develop the Mallard Model to Estimate Liver and Blood Lead Concentrations
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Study	Species	Experiment	Diet	Treatment	Lead in Diet mg/kg (dry)	5 wk Lead in Blood mg/kg (wet)	Lead in Liver mg/kg (wet)
Day et al. 1998	Mute swans		rice diet	control (24% clean sed)	4.4	0.2	0.16
Day et al. 1998	Mute swans		rice diet	24% contam sed	700	3.2	8.5
Heinz et al. 1999	mallard	3	corn	control (24% clean sed)	3.7	0.13	0.17
Heinz et al. 1999	mallard	3	corn	24% contam sed	869	4	38
Hoffman et al. 1999	ducklings		2/3 corn diet	control (24% clean sed)	1.5	0.06	
Hoffman et al. 1999	ducklings		2/3 corn diet	12% contam sed	414	2.45	
Hoffman et al. 1999	ducklings		2/3 corn diet	24% contam sed	828	4.62	
Day et al. 1998	Mute swans		rice diet	control (no sed)	1		
Day et al. 1998	Mute swans		rice diet	control (24% clean sed)	4.4	0.2	0.16
Day et al. 1998	Mute swans		rice diet	24% contam sed	700	3.2	8.5

Notes:
contam = contaminated
sed = sediment

Table B.2-2
Literature-derived Data for Calculation of Soil-to-Small Mammal Contaminant Uptake Factors
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Analyte	Study Location	Sample Location	Species	Trophic Group	Tissue Type	Mean Tissue Conc mg/kg dry wt	Tissue Conc n	Soil Conc mg/kg dry wt	Soil Conc n	Reference
Pb	GreatBritain	kw	S.minutus-imm	Carnivore	liver	2.7	18	50	1	Read and Martin 1993
Pb	GreatBritain	hw	S.araneus-imm	Carnivore	liver	15.3	7	1142	1	Read and Martin 1993
Pb	GreatBritain	pw	S.minutus-ad	Carnivore	liver	4.2	25	138	1	Read and Martin 1993
Pb	GreatBritain	tp	S.minutus-imm	Carnivore	liver	2.8	18	125	1	Read and Martin 1993
Pb	NewJersey	control	B.brevicauda	Carnivore	liver	0.46	2	74	1	Stansley and Roscoe 1996
Pb	GreatBritain	kg	S.minutus-ad	Carnivore	liver	2.6	18	98	1	Read and Martin 1993
Pb	GreatBritain	kg	S.minutus-imm	Carnivore	liver	3.2	43	98	1	Read and Martin 1993
Pb	GreatBritain	hw	S.araneus-ad	Carnivore	liver	41.8	4	1142	1	Read and Martin 1993
Pb	GreatBritain	tp	S.minutus-ad	Carnivore	liver	3.1	18	125	1	Read and Martin 1993
Pb	GreatBritain	tp	S.araneus-ad	Carnivore	liver	5.6	10	125	1	Read and Martin 1993
Pb	GreatBritain	hw	S.minutus-imm	Carnivore	liver	6.3	6	1142	1	Read and Martin 1993
Pb	GreatBritain	hw	S.minutus-ad	Carnivore	liver	14	4	1142	1	Read and Martin 1993
Pb	GreatBritain	pw	S.araneus-imm	Carnivore	liver	2.8	24	138	1	Read and Martin 1993
Pb	NewJersey	range	B.brevicauda	Carnivore	liver	34.1	1	75000	1	Stansley and Roscoe 1996
Pb	GreatBritain	pw	S.minutus-imm	Carnivore	liver	5.4	27	138	1	Read and Martin 1993
Pb	GreatBritain	m6	S.araneus	Carnivore	liver	17.2	20	0	0	Chmiel and Harrison 1981
Pb	GreatBritain	kg	S.araneus-imm	Carnivore	liver	8.7	33	98	1	Read and Martin 1993
Pb	GreatBritain	wm	S.minutus-ad	Carnivore	liver	0.9	6	33	1	Read and Martin 1993
Pb	GreatBritain	wm	S.araneus-imm	Carnivore	liver	1.7	8	33	1	Read and Martin 1993
Pb	GreatBritain	wm	S.minutus-imm	Carnivore	liver	1.3	13	33	1	Read and Martin 1993
Pb	GreatBritain	wm	S.araneus-ad	Carnivore	liver	1.5	3	33	1	Read and Martin 1993
Pb	GreatBritain	pw	S.araneus-ad	Carnivore	liver	5.1	5	138	1	Read and Martin 1993
Pb	GreatBritain	kw	S.araneus-ad	Carnivore	liver	2.1	6	50	1	Read and Martin 1993
Pb	GreatBritain	kw	S.minutus-ad	Carnivore	liver	1.9	15	50	1	Read and Martin 1993
Pb	GreatBritain	kg	S.araneus-ad	Carnivore	liver	0.5	3	98	1	Read and Martin 1993
Pb	GreatBritain	tp	S.araneus-imm	Carnivore	liver	3.9	29	125	1	Read and Martin 1993
Pb	GreatBritain	kw	S.araneus-imm	Carnivore	liver	1.5	39	50	1	Read and Martin 1993
Pb	Ontario	Copper Cliff	M.pennsylvanicus	Herbivore	liver	2	3	60	1	Cloutier et al. 1985
Pb	GreatBritain	Minera-control	A.sylvaticus	Herbivore	liver	7.85	8	96.3	10	Johnson et al. 1978
Pb	GreatBritain	Swansea-control	A.sylvaticus	Herbivore	liver	6.63	5	76.1	8	Johnson et al. 1978
Pb	GreatBritain	Minera-mine	A.sylvaticus	Herbivore	liver	11.7	7	8430	9	Johnson et al. 1978
Pb	Ohio	Sludge-male	M.pennsylvanicus	Herbivore	liver	2.375	17	43.48	57	Tilghman-Hall et al. 1990
Pb	GreatBritain	sewage farm	M.agrestis	Herbivore	liver	3	5	0	0	Beardsley et al. 1978
Pb	GreatBritain	Swansea-smelter	A.sylvaticus	Herbivore	liver	12.1	5	4030	11	Johnson et al. 1978

Table B.2-2
Literature-derived Data for Calculation of Soil-to-Small Mammal Contaminant Uptake Factors
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Analyte	Study Location	Sample Location	Species	Trophic Group	Tissue Type	Mean Tissue Conc mg/kg dry wt	Tissue Conc n	Soil Conc mg/kg dry wt	Soil Conc n	Reference
Pb	GreatBritain	Y-fan-control	C.glareolus	Herbivore	liver	7	5	78	8	Johnson et al. 1978
Pb	Ohio	Sludge-female	M.pennsylvanicus	Herbivore	liver	2.09375	15	43.48	57	Tilghman-Hall et al. 1990
Pb	GreatBritain	Y-fan-control	A.sylvaticus	Herbivore	liver	5.37	6	78	8	Johnson et al. 1978
Pb	Pennsylvania	Treatment	M.pennsylvanicus	Herbivore	liver	0.41	10	0.88	4	Alberici et al. 1989
Pb	NewYork	control	M.pennsylvanicus	Herbivore	liver	1.7	1	14.2	1	Haschek et al. 1979
Pb	NewYork	Ithaca	M.pennsylvanicus	Herbivore	liver	3.4	1	1342	1	Haschek et al. 1979
Pb	Ohio	control-female	M.pennsylvanicus	Herbivore	liver	2.4375	8	19.32	40	Tilghman-Hall et al. 1990
Pb	NewYork	Ithaca	M.pennsylvanicus	Herbivore	liver	4.1	1	1342	1	Haschek et al. 1979
Pb	Ontario	Elliot Lake	M.pennsylvanicus	Herbivore	liver	2.5	3	200	1	Cloutier et al. 1985
Pb	NewYork	New Paltz	M.pennsylvanicus	Herbivore	liver	10.5	1	6326	1	Haschek et al. 1979
Pb	Ohio	control-male	M.pennsylvanicus	Herbivore	liver	2.40625	6	19.32	40	Tilghman-Hall et al. 1990
Pb	NewYork	New Paltz	M.pinetorum	Herbivore	liver	5.5	1	6326	1	Haschek et al. 1979
Pb	NewYork	Ithaca	M.pennsylvanicus	Herbivore	liver	3	1	1342	1	Haschek et al. 1979
Pb	GreatBritain	Y-fan-control	M.agrestis	Herbivore	liver	4.67	7	78	8	Johnson et al. 1978
Pb	NewYork	control	M.pennsylvanicus	Herbivore	liver	2	1	14.2	1	Haschek et al. 1979
Pb	NewYork	control	M.pennsylvanicus	Herbivore	liver	1.3	1	14.2	1	Haschek et al. 1979
Pb	Pennsylvania	Treatment	S.floridanus	Herbivore	liver	0.8	11	3.5	4	Dressler et al. 1986
Pb	GreatBritain	Y-fan-mine	M.agrestis	Herbivore	liver	13.7	8	14010	7	Johnson et al. 1978
Pb	Pennsylvania	Control	M.pennsylvanicus	Herbivore	liver	2.5	10	2.67	4	Alberici et al. 1989
Pb	NewYork	New Paltz	M.pennsylvanicus	Herbivore	liver	9	1	6326	1	Haschek et al. 1979
Pb	GreatBritain	Y-fan-mine	A.sylvaticus	Herbivore	liver	13	5	14010	7	Johnson et al. 1978
Pb	GreatBritain	Y-fan-mine	C.glareolus	Herbivore	liver	10.4	7	14010	7	Johnson et al. 1978
Pb	NewYork	New Paltz	M.pinetorum	Herbivore	liver	8.3	1	6326	1	Haschek et al. 1979
Pb	GreatBritain	m6	A.sylvaticus	Herbivore	liver	8.5	7	0	0	Chmiel and Harrison 1981
Pb	GreatBritain	m6	C.glareolus	Herbivore	liver	16.5	8	0	0	Chmiel and Harrison 1981
Pb	GreatBritain	control	A.sylvaticus	Herbivore	liver	3.5	12	0	0	Chmiel and Harrison 1981
Pb	Pennsylvania	Control	S.floridanus	Herbivore	liver	0.2	10	2.7	4	Dressler et al. 1986
Pb	NewYork	control	M.pennsylvanicus	Herbivore	liver	1.6	1	14.2	1	Haschek et al. 1979
Pb	GreatBritain	compton	M.agrestis	Herbivore	liver	4	9	0	0	Beardsley et al. 1978
Pb	NewYork	Ithaca	M.pennsylvanicus	Herbivore	liver	4.9	1	1342	1	Haschek et al. 1979
Pb	Ontario	Control	M.pennsylvanicus	Herbivore	liver	3	3	30	1	Cloutier et al. 1985
Pb	NewYork	Ithaca	M.pennsylvanicus	Herbivore	liver	4.8	1	1342	1	Haschek et al. 1979
Pb	Utah	1	S.varigatus	Omnivore	liver	9.2	3	1126.8	4	Sharma and Shupe 1977
Pb	Kansas	300 m	P.maniculatus	Omnivore	liver	2.33	16	24	1	Kisseberth et al. 1984

Table B.2-2
Literature-derived Data for Calculation of Soil-to-Small Mammal Contaminant Uptake Factors
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Analyte	Study Location	Sample Location	Species	Trophic Group	Tissue Type	Mean Tissue Conc mg/kg dry wt	Tissue Conc n	Soil Conc mg/kg dry wt	Soil Conc n	Reference
Pb	Kansas	900 m	P.maniculatus	Omnivore	liver	0.69	5	18	1	Kisseberth et al. 1984
Pb	NewJersey	control	P.leucopus	Omnivore	liver	0.98	16	74	1	Stansley and Roscoe 1996
Pb	Utah	11	S.varigatus	Omnivore	liver	4.3	4	252.6	4	Sharma and Shupe 1977
Pb	NewJersey	range	P.leucopus	Omnivore	liver	4.98	22	75000	1	Stansley and Roscoe 1996
Pb	Kansas	200 m	P.maniculatus	Omnivore	liver	6.94	15	38	1	Kisseberth et al. 1984
Pb	Utah	3	S.varigatus	Omnivore	liver	5.6	8	222.5	4	Sharma and Shupe 1977
Pb	Kansas	1000 m	P.maniculatus	Omnivore	liver	0.99	5	8	1	Kisseberth et al. 1984
Pb	Utah	18	S.varigatus	Omnivore	liver	4	13	17	4	Sharma and Shupe 1977
Pb	Kansas	400 m	P.maniculatus	Omnivore	liver	0.75	6	14	1	Kisseberth et al. 1984
Pb	Kansas	100 m	P.maniculatus	Omnivore	liver	4.19	10	62	1	Kisseberth et al. 1984
Pb	Kansas	500 m	P.maniculatus	Omnivore	liver	0.76	8	38	1	Kisseberth et al. 1984
Pb	NewYork	New Paltz	P.leucopus	Omnivore	liver	2.1	1	6326	1	Haschek et al. 1979
Pb	Utah	15	S.varigatus	Omnivore	liver	2.6	10	133.2	4	Sharma and Shupe 1977
Pb	Utah	7	S.varigatus	Omnivore	liver	2.8	10	230.7	4	Sharma and Shupe 1977
Pb	Utah	13	S.varigatus	Omnivore	liver	2.7	8	1399.4	4	Sharma and Shupe 1977
Pb	Utah	10	S.varigatus	Omnivore	liver	4.4	2	192.6	4	Sharma and Shupe 1977
Pb	Utah	9	S.varigatus	Omnivore	liver	1.6	2	61.4	4	Sharma and Shupe 1977
Pb	Kansas	700 m	P.maniculatus	Omnivore	liver	0.71	15	12	1	Kisseberth et al. 1984
Pb	Utah	17	S.varigatus	Omnivore	liver	6.3	2	32.5	4	Sharma and Shupe 1977
Pb	Utah	12	S.varigatus	Omnivore	liver	4.2	8	183.3	4	Sharma and Shupe 1977
Pb	NewYork	New Paltz	P.leucopus	Omnivore	liver	5.7	1	6326	1	Haschek et al. 1979
Pb	Colorado	control	P.maniculatus	Omnivore	liver	1.06	9	26.6	1	Mierau and Favara 1975
Pb	Utah	8	S.varigatus	Omnivore	liver	1.4	4	85.9	4	Sharma and Shupe 1977
Pb	Utah	6	S.varigatus	Omnivore	liver	1.8	9	67	4	Sharma and Shupe 1977
Pb	Utah	16	S.varigatus	Omnivore	liver	1.9	4	172.8	4	Sharma and Shupe 1977
Pb	Kansas	800 m	P.maniculatus	Omnivore	liver	0.45	5	19	1	Kisseberth et al. 1984
Pb	Utah	4	S.varigatus	Omnivore	liver	4.9	12	228.5	4	Sharma and Shupe 1977
Pb	Colorado	roadside	P.maniculatus	Omnivore	liver	3.29	9	73	1	Mierau and Favara 1975
Pb	Utah	5	S.varigatus	Omnivore	liver	5.5	7	223.1	4	Sharma and Shupe 1977
Pb	Kansas	600 m	P.maniculatus	Omnivore	liver	0.75	7	19	1	Kisseberth et al. 1984
Pb	Utah	14	S.varigatus	Omnivore	liver	2.2	7	417.6	4	Sharma and Shupe 1977

Appendix B.3
Toxicity Data from EcoSSL Database Used to Calculate Plant and Invertebrate TRVs

Table B.3-1
Toxicity data from EcoSSL database used to calculate plant and invertebrate TRVs
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Chemical	Receptor	Study ID	First Author, Year	Species	Common Name	Total Eval. Score	Bio-availability Score	Soil pH	OM	ERE	EC20	NOAEC	LOAEC	MATC	EC10	EC50	COMMENTS
Lead	Invertebrate		Sandifer and Hopkin, 1997	*Folsomia candida*	Collembola	15	1	6.0	10.0	REP		400	2000	894		1570	Toxicity values are based on exposure at 15 C, toxicity values for 20 C where greater.
Lead	Invertebrate	a	Sandifer and Hopkin, 1996	*Folsomia candida*	Collembola	16	1	6.0	10.0	REP		2000	5000	3162			
Lead	Invertebrate	c	Sandifer and Hopkin, 1996	*Folsomia candida*	Collembola	16	1	4.5	10.0	REP		2000	5000	3162			
Lead	Invertebrate	b	Sandifer and Hopkin, 1996	*Folsomia candida*	Collembola	15	1	5.0	10.0	REP		400	2000	894			
										Geometric Means		**894**	**3162**	**1682**			
Lead	Plant	a	Davis and Barnes, 1973	*Pinus taeda*	Loblolly pine	12	2	4	2.5	GRO		100	207	144			Two soils, only Georgeville silt was available from database. Endpoint = height
Lead	Plant	b	Davis and Barnes, 1973	*Acer rubrum*	Red Maple	12	2	4	2.5	GRO		100	207	144			Two soils, only Georgeville silt was available from database. Endpoint = height
Lead	Plant	b	Marques Dos Santos et al., 1993	*Trifolium alexandrium*	Berseem clover	14	2	6.3	0.94	GRO		200	500	316.228			No mention of incubation of added Pb acetate prior to planting. Statistical analysis and use of letters to show significant differences were confusing. Second guessed significance. Only applied Pb concentrations, no soil Pb analysis. Only considered unit concentration of Pb uptake of Pb, which takes into account size and biomass of the plant. Considereing total plant uptake of Pb indicates LOEC for bioaccumulation at 500 mg/kg for sandy soil and 200 mg/kg applied Pb for clay soil.
Lead	Plant		Singh and Jeng, 1993	*Lolium rigidum*	Ryegrass	14	2	6.0	0.1	GRO		50	-	22			Unbounded NOAEC
										Geometric Means		**100**	**278**	**110**			
Antimony	Invertebrate		Simini et al., 2002	*Eisenia fetida*	Earthworm	15	2	4.82 - 5.29	1.2	REP	30	60	86	72			Sb2(SO4)3. Nominal Sb conc. (dw). MATC for juvenile production; EC50 (70 mg/kg) also reported. Adult survival NOAEC = 617 and LOAEC = 697 mg/kg. pH is range of pH measured in each treatment concentration (p. 16, Table 5) after spiking and aging/weathering, prior to tox testing. Natural soil, Sassafras sandy loam.
Antimony	Invertebrate		Kuperman et al., 2002	*Enchytraeus crypticus*	Potworm	16	2	4.08 - 5.29	1.2	REP	194	100	140	118			Sb2(SO4)3. Nominal Sb conc. (dw). MATC for juvenile production; EC50 (316 mg/kg) also reported. Adult survival NOAEC = 384 and LOAEC = 538 mg/kg. pH is range of pH measured in each treatment concentration after spiking and aging/weathering, prior to tox testing. Natural soil, Sassafras sandy loam.
Antimony	Invertebrate		Phillips et al., 2002	*Folsomia candida*	Springtail	17	2	4.57 - 5.29	1.2	REP	81	100	126	112			Sb2(SO4)3. Nominal Sb conc. (dw). MATC for juvenile production; EC50 (169 mg/kg) also reported. Adult survival NOAEC = 100 and LOAEC = 126 mg/kg. pH is range of pH measured in each treatment concentration after spiking and aging/weathering, prior to tox testing. Natural soil, Sassafras sandy loam.
										Geometric Means		**84**	**115**	**98**			

Notes:
EC10 = Concentration that effects 10 percent of the study group
EC20 = Concentration that effects 20 percent of the study group
EC50 = Median effects concentration
ERE = Ecologically relevant endpoint
GRO = Growth
LOAEC = Lowest observed adverse effect concentration
MATC = Maximum acceptable toxicant concentration. Geometric mean of NOAEC and LOAEC
REP = Reproduction
NOAEC = No observed adverse effect concentration
OM = Organic matter content
TRV = Toxicity reference value

Appendix C
Sediment Bioassay Report from Pacific EcoRisk and Associated Dose-Response Figures

PACIFIC ECORISK ENVIRONMENTAL CONSULTING & TESTING

Brad Sample
CH2M Hill, Inc.
2485 Natomas Park Dr., Suite 600
Sacramento, CA 95833

August 10, 2004

Dear Brad:

I am sending you an electronic copy of our Final Report "An Evaluation of the Chronic Toxicity of Marine/Estuarine Sediments from the Seal Beach National Wildlife Refuge", in pdf format. As per my most recent communication from your colleague Christine Arenal (earlier today), there are no requested revisions to our Draft Report that had been submitted to you on May 10.

If you or any of your colleagues have any questions regarding the performance of the tests, the analysis of the data, and/or the report itself, please don't hesitate to give me a call at (925)313-8080.

I look forward to hearing from you.

Respectfully,

R. Scott Ogle, Ph.D.
Principal & Special Projects Director

FINAL REPORT

An Evaluation of the Chronic Toxicity of Marine/Estuarine Sediments from the Seal Beach National Wildlife Refuge

(Samples Collected Jan 12, 2004)

Prepared For:

CH2M Hill, Inc.
2485 Natomas Park Dr., Suite 600
Sacramento, CA 95833

Prepared By:

Pacific EcoRisk
835 Arnold Dr., Suite 104
Martinez, CA 94553

Final Report submitted August 2004
Draft Report submitted May 2004

PACIFIC ECORISK
ENVIRONMENTAL CONSULTING & TESTING

FINAL REPORT

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An Evaluation of the Chronic Toxicity of Marine/Estuarine Sediments from the Seal Beach National Wildlife Refuge

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An Evaluation of the Toxicity and Bioaccumulation of Seal Beach NWR Sediments

1.0 INTRODUCTION

Under contract to CH2M Hill, Pacific EcoRisk (PER) performed chronic toxicity testing of estuarine/marine sediments collected from Site 74 within the Seal Beach National Wildlife Refuge (NWR). The toxicity testing consisted of performing 28-day bulk sediment toxicity tests with the amphipod *Leptocheirus plumulosus*. This report describes the performance and results of these evaluations.

2.0 SEDIMENT EVALUATION PROCEDURES

The methods used in conducting these evaluations followed established USEPA guidelines: "Method for Assessing the Chronic Toxicity off Marine and Estuarine Sediment-Associated Contaminants with the Amphipod *Leptocheirus plumulosus*, First Edition" (EA 600/R-01/020). It was initially planned that the tests would be set-up on January 29, 2004. However, due to last-minute consulting regarding grain size and salinity issues, the test replicates for the toxicity tests of the Seal Beach NWR sediments were prepared on Feb 6, 2004, and the tests were initiated on February 7, 2004.

2.1 Collection and Delivery of the Sediment Samples

In December, 2004, CH2M Hill staff collected sediment samples from 9 stations within the Site 74 tidal marsh areas and 3 samples from a "reference" tidal marsh site. These sediment were shipped to the 'ecological planning & toxicology, inc.' (e.p.&t.), testing laboratory in Corvallis, OR, for sample processing (e.g., homogenization, etc). On January 12, 2004, e.p.&t. staff collected approximately 8 L of homogenized sediment into appropriately-cleaned high-density polyethylene containers for shipment via overnight delivery, on ice and under chain-of-custody, to the PER testing lab in Martinez, CA. Upon receipt, each sample was logged in and placed within a sample refrigerator at 4°C. A list of the samples collected for toxicity testing as part of this Seal Beach NWR sediment investigation is provided in Table 1. The chain-of-custody records for the shipment of these samples by e.p.&t. and the receipt of these samples at the PER lab are attached as Appendix A.

Table 1. Seal Beach NWR sediments used for toxicity testing.	
Field Sediment Sample ID	Laboratory Sediment Sample ID*
74 B02 DB0-05	T-01
74 B02 DB0-15	T-02
74 B02 DB0-26	T-03
74 B02 DB0-35	T-04
74 B02 DB0-36	T-05
74 B02 DB0-41	T-06
74 B02 DB0-44	T-07
74 B02 DB0-52	T-08
74 B02 DB0-46	T-11
74 B03 DB0-01	T-12
74 B03 DB0-02	T-13
74 B03 DB0-03	T-14

* - Sample IDs on the chain-of-custody forms were assigned by e.p.&t., and were used by PER.

2.1.1 Sediment Porewater Characterization

In preparation for the intended set-up of the test replicates (~24 hrs prior to the intended test initiation), extraction and characterization of the sediment porewater was performed on January 28, 2004. Each of the sediment samples was removed from the sample refrigerator and re-homogenized within stainless steel bowls. An aliquot of each homogenized sediment was transferred into a 750-mL centrifuge bottle, and was centrifuged at 2500 g for 30 minutes. The resulting supernatant porewater was carefully poured off, and routine water quality characteristics (pH, salinity, total ammonia, and total sulfide) were determined (Table 2). Note – there was negligible yield of porewater extracted for the "T-12" sample, so no porewater characterization could be performed for this sediment.

Table 2. Seal Beach NWR sediment porewater water quality characteristics.

Sample ID	pH	Salinity (ppt)	Total Ammonia (mg/L–N)	Total Sulfide (mg/L)
T-01	6.79	36.6	6.59	0.11
T-02	7.04	35.3	6.23	0.06
T-03	7.01	36.0	12.2	0.09
T-04	7.23	35.3	7.58	0.02
T-05	7.02	37.4	4.85	0.12
T-06	7.58	36.6	4.80	0.22
T-07	7.06	35.7	5.84	0.03
T-08	7.50	47.8	8.55	0.20
T-11	7.36	36.6	5.61	0.04
T-12	nm	nm	nm	nm
T-13	7.32	55.3	0.75	0.23
T-14	7.73	46.9	3.30	0.07

nm – due to the negligible amount of porewater extracted from this sample, no porewater characterization was performed..

While preparing the sediments for the porewater characterizations, it was observed that several of the sediments appeared to contain a very high clay content; however, the EPA test guidelines state "adverse effects can occur in sediment with very high levels of clay or sand. Laboratory studies have shown significant reduction in survival when clay content exceeded 84%." In addition, analysis of the sediment porewater indicated that several of the sediments had porewater salinities >35 ppt, and the EPA guidelines caution that "*L. plumulosus* is not recommended for testing … with sediments having pore water salinity >35 ppt". These conditions were immediately communicated to CH2M Hill staff for consideration. The remainder of each homogenized sediment was returned to the original HDPE buckets, which were re-sealed and then returned to the sample refrigerator at 4˚C until being used for preparing the test replicates for the toxicity tests. After considerable discussion, and observation that the 3 "reference" sediments encompassed the range of grain sizes and porewater salinities, it was decided to proceed with the testing.

2.2 Determination of Sediment Toxicity to *Leptocheirus plumulosus*

2.2.1 Test Organisms

The *Leptocheirus plumulosus* used in these tests were provided by a commercial supplier (Stillmeadow, Inc., Sugar Land TX). For use as a Negative Control treatment for these tests, "Home" sediment was collected from the location from which the amphipods were collected and/or in which they were cultured. The size of these organisms at test initiation was determined by transferring 20 randomly-selected amphipods into each of 3 pre-dried and pre-tared drying pans. These were then dried at 100˚C for 24 hrs and re-weighed to determine the mean dry weight per organism at test initiation.

2.2.2 Toxicity Treatment/Replicate Preparation

On February 6, the day preceding initiation of the toxicity tests, the sediment samples were re-homogenized, and were then used to prepare the sediment test replicates. Aliquots of each homogenized sediment were randomly allocated into five 1-L glass beakers so as to provide sediment at a depth of approximately 2 cm in each beaker; an additional "dummy" replicate was similarly established for measurement of water quality characteristics during the test exposure. The overlying water for these tests consisted of filtered (0.45 μm) seawater from the U.C. Bodega Bay Marine Laboratory diluted to a salinity of 20 ppt with reverse-osmosis, de-ionized water; approximately 725 mL of the 20 ppt seawater was carefully poured into each replicate beaker so as to minimize disturbance of the sediment within. Each of the replicate beakers was then placed into a temperature-controlled (25 ± 3°C) waterbath under a 16L:8D photoperiod provided by cool-white fluorescent lighting. Each replicate beaker was gently aerated. A Negative Control treatment, consisting of 5 replicate beakers containing "Home" sediment from which the test amphipods were collected and cultured, was established in the same fashion as the site sediments.

2.2.3 Toxicity Testing Procedures

Immediately prior to test initiation, initial water quality characteristics (pH, dissolved oxygen [D.O.], salinity, and temperature) were determined for the overlying water in each test replicate; in addition, a small sample of the overlying water was collected from each replicate, composited for each treatment, and analyzed to determine the initial total ammonia in the overlying water at that treatment. Then, the aeration in each beaker was turned off and 20 randomly-selected *Leptocheirus plumulosus*, approximately 24-48 hrs old, were randomly allocated into each replicate beaker; these organisms were allowed to settle for 60 minutes, after which the gentle aeration was re-started.

Each day of the test, temperature and D.O. were determined for one replicate at each sediment treatment. Three times per week (each Sunday, Wednesday, and Friday) and immediately preceding renewal of test replicate overlying water, the pH and salinity of the overlying water was determined for the "dummy" water quality replicate at each sediment treatment. Then, approximately 50% of the overlying water in each replicate beaker was carefully poured off and replaced with fresh 20 ppt seawater. Immediately after each water renewal, each test replicate was fed 1.0 mL of a slurry of TetraMin® (20 mg of TetraMin® per each 1.0 mL during the first 13 days of the test, and 40 mg per each 1.0 mL during the remainder of the test) in 20 ppt seawater.

After 28 days of exposure, final water quality characteristics (pH, D.O., salinity, and temperature) were determined for the overlying water in each test replicate; as before, a small sample of the overlying water was collected from each replicate, composited for each treatment, and analyzed to determine the final total ammonia in the overlying water at that treatment. The contents of each replicate were then sequentially sieved through a 0.5 mm sieve to retain the surviving adults, followed by a 0.25 mm sieve to retain the surviving offspring.

The number of surviving adult organisms was determined for each test replicate. The amphipods from each replicate were pooled, euthanized in methanol, rinsed in de-ionized water, and transferred to a pre-dried and pre-tared drying pan. These were then dried at 100˚C for 24 hrs and re-weighed to determine the mean dry weight per surviving organism.

The amphipods and residual sediment material retained on the 0.25 mm sieve were rinsed with freshwater, and then washed into a labeled 60-mL glass vial using 70% ethanol; this material was later examined to enumerate the number of surviving offspring. Due to the presence of an unusually large amount of fine fibrous organic material, enumeration of the offspring was difficult; therefore, the organisms were stained by addition of 3 mL of rose bengal solution to each 60-mL vial. The contents of each replicate vial were then examined under a "black light" to facilitate identification and enumeration of the stained organisms.

These tests provided 3 endpoints:

1. percent survival of the amphipods;
2. growth rate (μg dry weight/day), measured as the difference between the mean dry weight of the organisms at test termination minus the mean dry weight of the organisms at test initiation, divided by 28 days;
3. reproduction (# of offspring/surviving adult).

The resulting survival, growth rate, and reproduction data for each sediment treatment were analyzed and compared to the "Home" sediment Control to determine whether or not significant impairments had occurred as a result of exposure to the sediments. All statistical analyses were performed using the CETIS® statistical package (Version 1.023, TidePool Scientific, McKinleyville, CA).

2.2.4 Concurrent Reference Toxicant Testing

In order to document that the test organisms were responding to toxic stress in a typical fashion, a reference toxicant test was performed concurrently with the toxicity test. The test conditions for the reference toxicant tests followed the guidelines established in the US EPA manual "Method for Assessing the Chronic Toxicity off Marine and Estuarine Sediment-Associated Contaminants with the Amphipod *Leptocheirus plumulosus*, First Edition" (EA 600/R-01/020), and consisted of static, acute (96 hour), water-only survival toxicity test.

The reference toxicant test treatments consisted of Control water (20 ppt seawater) spiked with cadmium (as $CdCl_2$) at concentrations of 0.25, 0.5, 1, 2, 4, and 8 mg/L. There were 2 replicates at each treatment level, each replicate consisting of 400 mL of test media in a 600-mL glass beaker. The tests were initiated by randomly allocating 10 amphipods into each of the replicate beakers. The beakers were placed in a temperature-controlled water bath at 25˚C under a 16L:8D photoperiod. Each replicate container was examined daily, and the number of live amphipods in each was recorded at this time. Routine water quality characteristics (D.O., pH, and temperature) of the treatment waters were measured and recorded for one randomly selected replicate per treatment each day.

After approximately 96 hrs, the number of live amphipods in each replicate beaker was determined. The resulting survival data were statistically analyzed to determine key dose-response (i.e., EC_{50}) point estimates, which were then compared to the "typical response" range established by the mean $\pm$ 2 SD from the $\leq$20 most recent previously-performed tests in this lab results, as per EPA test guidelines. All statistical analyses were performed using the CETIS® statistical software.

3.0 RESULTS

3.1 Toxicity of the T-01 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-01 test sediments are summarized below in Table 3. Briefly, there was 93% survival at the "Home" sediment Control treatment, indicating an acceptable survival response by the test organisms; there was 81% survival in the T-01 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 62.4 μg/day in the T-01 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 2.42 offspring in the T-01 sediment, which was not significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix B.

Table 3. Effects of T-01 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-01	75	100	75	70	85	81
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-01	61	64	70	60	57	62.4
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-01	1.0	3.25	2.33	2.71	2.82	2.42

3.2 Toxicity of the T-02 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-02 test sediments are summarized below in Table 4. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms. There was 91% survival in the T-02 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 42.8 μg/day in the T-02 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 2.38 offspring in the T-02 sediment, which was not significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix C.

Table 4. Effects of T-02 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-02	90	100	80	90	95	91
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-02	58	32	56	29	39	42.8
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-02	0.28	3.05	4.69	2.44	1.42	2.38

3.3 Toxicity of the T-03 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-03 test sediments are summarized below in Table 5. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was 90% survival in the T-03 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 65.6 μg/day in the T-03 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 4.35 offspring in the T-03 sediment, which was not significantly less than the Control..

The test data and summary of statistical analyses for this test are attached as Appendix D.

Table 5. Effects of T-03 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-03	95	85	75	95	100	90
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-03	60	45	67	75	81	65.6
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-03	3.42	2.94	2.87	6.21	6.30	4.35

3.4 Toxicity of the T-04 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-04 test sediments are summarized below in Table 6. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms. There was 92% survival in the T-04 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 37.2 μg/day in the T-04 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 2.77 offspring in the T-04 sediment, which was not significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix E.

Table 6. Effects of T-04 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-04	100	95	95	75	95	92
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-04	37	26	57	24	42	37.2
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-04	1.90	1.89	4.58	2.80	2.68	2.77

3.5 Toxicity of the T-05 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-05 test sediments are summarized below in Table 7. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was 36% survival in the T-05 sediment, which was significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 54.4 μg/day in the T-05 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 1.06 offspring in the T-05 sediment, which was significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix F.

Table 7. Effects of T-05 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-05	55	35	35	35	20	**36***
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-05	52	80	46	39	55	54.4
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-05	0.82	0.57	1.43	1.0	1.5	**1.06***

* - Significantly less than the Control treatment response at $p < 0.05$.

3.6 Toxicity of the T-06 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-06 test sediments are summarized below in Table 8. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was 91% survival in the T-06 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 52.6 μg/day in the T-06 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 1.19 offspring in the T-06 sediment, which was significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix G.

Table 8. Effects of T-06 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-06	85	90	85	95	100	91
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-06	58	55	56	50	44	52.6
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-06	0.88	0.44	0.7	1.79	2.15	**1.19***

* - Significantly less than the Control treatment response at $p < 0.05$.

3.7 Toxicity of the T-07 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-07 test sediments are summarized below in Table 9. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was 89% survival in the T-07 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 60.6 μg/day in the T-07 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 3.11 offspring in the T-07 sediment, which was not significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix H.

Table 9. Effects of T-07 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-07	95	90	95	85	80	89
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-07	52	77	63	40	71	60.6
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-07	1.74	6.22	2.79	1.59	3.19	3.11

3.8 Toxicity of the T-08 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-08 test sediments are summarized below in Table 10. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was 91% survival in the T-08 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 80.6 μg/day in the T-08 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 3.38 offspring in the T-08 sediment, which was not significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix I.

Table 10. Effects of T-08 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-08	95	100	80	80	100	91
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-08	64	68	103	87	81	80.6
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-08	1.58	4.70	4.50	3.62	2.50	3.38

3.9 Toxicity of the T-11 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-11 test sediments are summarized below in Table 11. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was 92% survival in the T-11 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 51.0 μg/day in the T-11 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 3.24 offspring in the T-11 sediment, which was not significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix J.

Table 11. Effects of T-11 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-11	100	100	85	85	90	92
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-11	51	56	38	49	61	51.0
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-11	4.10	2.80	1.71	3.41	4.17	3.24

3.10 Toxicity of the T-12 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-12 test sediments are summarized below in Table 12. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was 91% survival in the T-12 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 25.0 μg/day in the T-12 sediment, which was significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 0.68 offspring in the T-12 sediment, which was significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix K.

Table 12. Effects of T-12 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-12	70	100	90	100	95	91
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-12	35	29	23	21	17	**25.0***
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-12	1.71	1.55	0.05	0.10	0.00	**0.68***

* - Significantly less than the Control treatment response at $p < 0.05$.

3.11 Toxicity of the T-13 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-13 test sediments are summarized below in Table 13. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was also 93% survival in the T-13 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 58.6 μg/day in the T-13 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 1.45 offspring in the T-13 sediment, which was not significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix L.

Table 13. Effects of T-13 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-13	95	100	90	90	90	93
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-13	44	55	68	54	72	58.6
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-13	1.58	2.30	1.83	0.56	1.00	1.45

3.12 Toxicity of the T-14 Sediment to *Leptocheirus plumulosus*

The survival, growth, and reproduction data for the *Leptocheirus plumulosus* exposed to the T-14 test sediments are summarized below in Table 14. Briefly, there was 93% survival at the "Home" Control sediment treatment, indicating an acceptable survival response by the test organisms; there was 91% survival in the T-14 sediment, which was not significantly less than the Control. There was a mean growth rate of 46.4 μg/day at the Control treatment, and a mean growth rate of 54.4 μg/day in the T-14 sediment, which was not significantly less than the Control. There was a mean of 2.21 offspring per surviving adult at the Control treatment, and a mean of 1.50 offspring in the T-14 sediment, which was not significantly less than the Control.

The test data and summary of statistical analyses for this test are attached as Appendix M.

Table 14. Effects of T-14 sediments on *Leptocheirus plumulosus*.

% Survival	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	95	90	90	100	90	93
T-14	90	85	80	100	100	91
Growth Rate (μg dry wt/day)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	38	47	45	49	53	46.4
T-14	44	45	64	56	63	54.4
Reproduction (# offspring/adult)	Rep A	Rep B	Rep C	Rep D	Rep E	**Mean**
Control	2.16	1.67	3.33	2.15	1.72	2.21
T-14	0.61	1.18	1.88	2.35	1.50	1.50

3.13 Reference Toxicant Toxicity to the Test Organisms

The results of the reference toxicant test of these test organisms are summarized in Table 15a. Briefly, there was 95% survival at the Control treatment. The EC_{50} point estimate was 2.56 mg/L Cd.

These test results are consistent with the "typical response" of this test species (i.e., within the range established by the mean $\pm$ 2SD from the $\leq$20 most recent previously-performed tests [Table 15b]).

The test data and summary of statistical analyses for this test are attached as Appendix N.

Table 15a. Reference Toxicant Testing: Effects of cadmium on *Leptocheirus plumulosus*.

Cadmium Concentrations (mg/L)	% Survival		
	Rep A	Rep B	Mean
Control	100	90	95
0.25	100	100	100
0.5*	80	70	**75***
1*	80	70	**75***
2*	60	60	**60***
4*	20	20	**20***
8*	0	0	**0***
EC_{50} = 2.56 mg/L cadmium			

* - Significantly less than the Control treatment response at $p < 0.05$.

Table 15b. Summary of Reference Toxicant Database for *Leptocheirus plumulosus*.

Mean EC_{50}	Standard Deviation	Lower Limit (mean - 2SD)	Upper Limit (mean + 2SD)	Current EC_{50} Value
1.52 mg/L	0.74 mg/L	0.04 mg/L	3.00 mg/L	2.56 mg/L

4.0 QA/QC SUMMARY

Test Conditions - All test conditions (pH, D.O., temperature, etc.) were within acceptable limits for the test organisms. All such analyses were performed according the laboratory Standard Operating Procedures.

Negative Control - The survival response for the test organisms at the "Home" Sediment Control treatment was within acceptable limits.

Positive Control - The results of the reference toxicant test that was performed concurrently with the sediment toxicity tests were consistent with the historical database of tests performed previously by this laboratory, indicating that these test organisms were responding to toxic stress in a typical fashion.

Appendix A

Chain-of-Custody Records for the Receipt of the Seal Beach NWR Sediment Samples

ecological planning and toxicology, inc.
5010 SW Hout Street
Corvallis, OR 97333
P: 541-752-3707 Fax: 541-753-9010

(1)

Chain of Custody Record

Description of Sample	☐ Water	☑ Sediment	☐ Soil	☐ Biological Tissue

Contract Code: CH2MHill Seal Beach	Chemistry Laboratory Name:	Pacific EcoRisk Labs
Invertebrate Bioassy	Chemistry Laboratory Address:	835 Arnold Dr., Suite 104 Martinez, CA 94553

CLAT?
N(silty)
N(silt)
N(silt)

ep and t ID #	Field Sample ID:	Replicate #	Quantity	Collector's Initials
• T-01	74 B02 DB0-05 ✓	N/A	≈ 2 gal	
• T-02	74 B02 DB0-15 ✓	N/A	≈ 2 gal	
• T-03	74 B02 DB0-26 ✓	N/A	≈ 2 gal	

Received By	Date	Time	Relinquished by	Date	Time
			Joan McGocum	1/12/04	15:30
Laurence Lafo	1-13-04	1430			

ecological planning and toxicology, inc.
5010 SW Hout Street
Corvallis, OR 97333
P: 541-752-3707 Fax: 541-753-9010

Chain of Custody Record

Description of Sample	☐ Water	☑ Sediment	☐ Soil	☐ Biological Tissue

Contract Code: CH2MHill Seal Beach	Chemistry Laboratory Name:	Pacific EcoRisk Labs
Invertebrate Bioassy	Chemistry Laboratory Address:	835 Arnold Dr., Suite 104 Martinez, CA 94553

ep and t ID #	Field Sample ID:	Replicate #	Quantity	Collector's Initials
~~T-04~~	~~74 B02 DB0-25~~	~~N/A~~	[illegible] 1/12/04	
~~T-05~~	~~74 B02 DB025~~	~~N/A~~	[illegible]	
T-06	74 B02 DB041	N/A	≈ 2gal	
CLAY?				
silt/clay N				
• T-04	74 B02 DB0-35 ✓		≈ 2gal	
T-05	74 B02 DB0-36		≈ 2gal	
~~T-06~~				

Received By	Date	Time	Relinquished by	Date	Time
			Joan M Green	1/12/04	16:00
[illegible]	1-13-04	1430			

ecological planning and toxicology, inc.
5010 SW Hout Street
Corvallis, OR 97333
P: 541-752-3707 Fax: 541-753-9010

Chain of Custody Record

Description of Sample	☐ Water	☑ Sediment	☐ Soil	☐ Biological Tissue

Contract Code: CH2MHill Seal Beach	Chemistry Laboratory Name:	Pacific EcoRisk Labs
Invertebrate Bioassy	Chemistry Laboratory Address:	835 Arnold Dr., Suite 104 Martinez, CA 94553

CLAY? silt silt of Y

ep and t ID #	Field Sample ID:	Replicate #	Quantity	Collector's Initials
T-07	74 B02 DB0-44 ✓	N/A	~2 gal	
T-08 humic Clay	74 B02 DB0-52 ✓	N/A	~1.5 gal	
T-11	74 B02 DB0-46	N/A	~2 gal	

Received By	Date	Time	Relinquished by	Date	Time
			[signature]	1/12/04	16:30
[signature]	1-13-04	1430			

ecological planning and toxicology, inc.
5010 SW Hout Street
Corvallis, OR 97333
P: 541-752-3707 Fax: 541-753-9010

Chain of Custody Record

Description of Sample	☐ Water	☑ Sediment	☐ Soil	☐ Biological Tissue

Contract Code: CH2MHill Seal Beach	Chemistry Laboratory Name:	Pacific EcoRisk Labs
Invertebrate Bioassy	Chemistry Laboratory Address:	835 Arnold Dr., Suite 104 Martinez, CA 94553

ep and t ID #	Field Sample ID:	Replicate #	Quantity	Collector's Initials
CLAPP • T-12	74 B03 DB0-01 ✓	N/A	~2 gal	
• T-13	74 B03 DB0-02 ✓	N/A	~2 gal	
• T-14	74 B03 DB0-03 ✓	N/A	~2 gal	

Received By	Date	Time	Relinquished by	Date	Time
			Joan M Yoza	1/12/04	16:15
Laurie Jorgeson	1-13-04	1430			

Appendix B

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-01 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	18-6102-4155	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9753	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-01	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
09-4678-9274	growth	100	>100	N/A	13.30%	Equal Variance t
10-2128-3035	Offspring	100	>100	N/A	41.08%	Equal Variance t
16-3846-1365	survival	100	>100	N/A	11.98%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0624000	0.0570000	0.0700000	0.0022045	0.0049295	7.90%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	2.422	1	3.25	0.3845439	0.8598663	35.50%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.81	0.7	1	0.0533854	0.1193734	14.74%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.0610	0.0640	0.0700	0.06	0.0570

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		1	3.25	2.33	2.7100	2.82

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.75	1	0.75	0.7	0.85

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	06-4587-7728	06-4587-7728	10 May-04 9:22 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	11.98%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	4.114161	23.1545	0.1995003	Equal Variances
Distribution	Shapiro-Wilk W	0.853426	0.7805495	0.067531	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.06951752	0.06951752	1	3.150206	0.1138357	Non-Significant Effect
Error	0.1765409	0.02206761	8			
Total	0.2460584	0.09158512	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	1.774882	1.859548	0.05691783	0.1747089	Non-Significant Effect

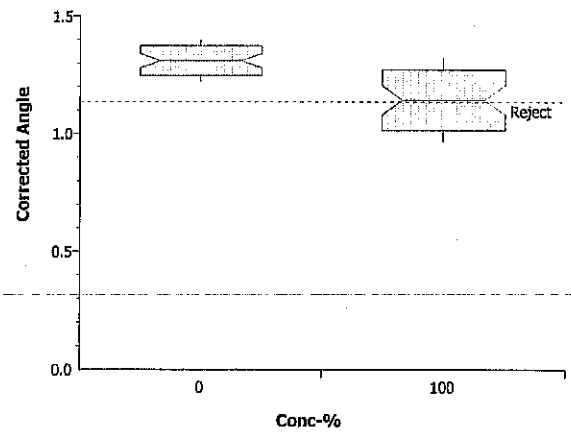
Data Summary

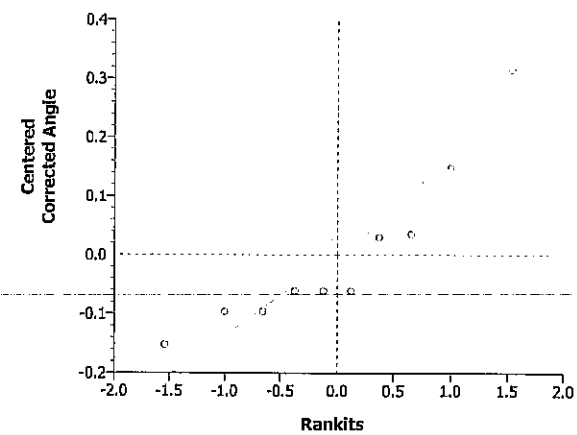
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.8100000	0.7	1	0.1193733	1.1434815	0.9911566	1.458759	0.1884283

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.75	1	0.75	0.7	0.85					

survival





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	06-4587-7728	06-4587-7728	10 May-04 9:22 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	13.30%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.267489	23.1545	0.82387	Equal Variances
Distribution	Shapiro-Wilk W	0.9736667	0.7805495	0.912317	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0006400001	0.0006400001	1	23.23049	0.001321698	Significant Effect
Error	0.0002204	0.00002755	8			
Total	0.0008604001	0.0006675501	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-4.819802	1.859548	0.9993392	0.006173027	Non-Significant Effect

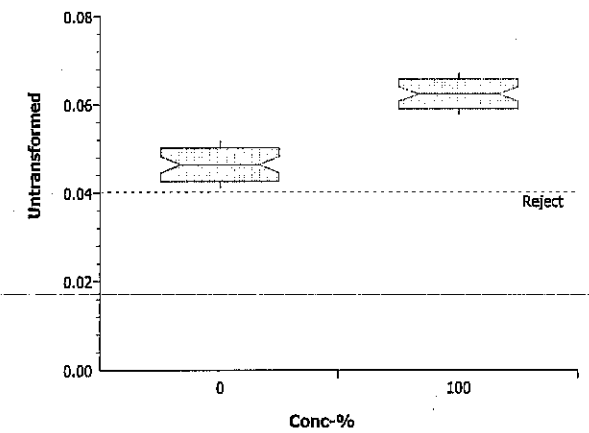
Data Summary

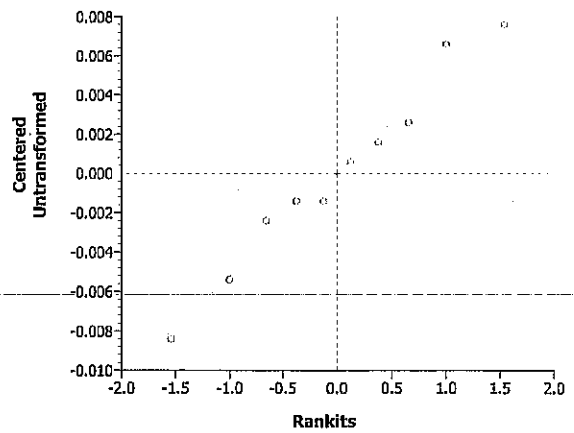
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0624000	0.057	0.07	0.0049295				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.061	0.064	0.07	0.06	0.057					

growth





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	06-4587-7728	06-4587-7728	10 May-04 9:22 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	41.08%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.650269	23.1545	0.639346	Equal Variances
Distribution	Shapiro-Wilk W	0.9698181	0.7805495	0.8739291	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.11664	0.11664	1	0.1964628	0.6693329	Non-Significant Effect
Error	4.7496	0.5937	8			
Total	4.86624	0.71034	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-0.4432412	1.859548	0.6653335	0.9061934	Non-Significant Effect

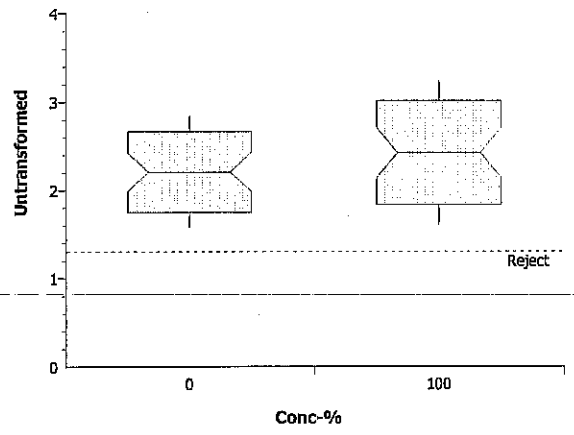
Data Summary

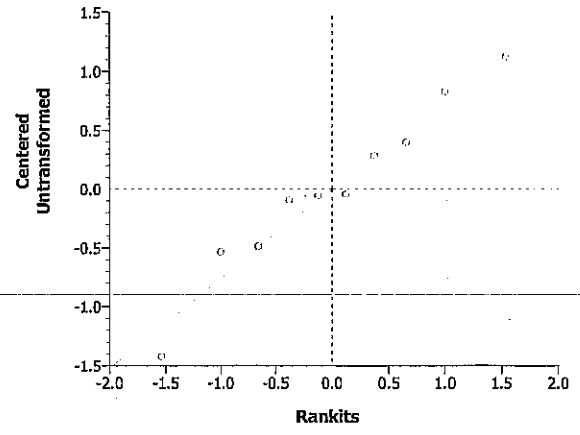
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	2.422	1	3.25	0.8598663				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		1	3.25	2.33	2.71	2.82					

Offspring





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/PG
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	19	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AZ **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RP

Tare Wt Date: 3-5-04 **Sign-Off:** AZ **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg dry wt/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-01 **Test ID #:** 9753

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.4		7.99		20.8		JF
1	2/8/04	24.4		7.4		7.94		20.4	JF/PG
2	2/9/04	24.9		7.9					PG
3	2/10/04	~~24.9~~ 24.8 PG		~~7.9~~ 6.6 PG					YK
4	2/11/04	23.6		6.4		8.09		19.8	NT
5	2/12//04	23.5		7.0					MC
6	2/13/04	23.6		7.5		8.06		20.6	PG
7	2/14/04	23.4		7.1					NT
8	2/15/04	23.6		6.5		8.14		22.7	JF
9	2/16/04	24.0		5.0					YK
10	2/17/04	23.2		6.6					PG
11	2/18/04	24.2		6.6		7.83		20.9	MC
12	2/19/04	22.6		5.1					YK
13	2/20/04	23.2		6.8		7.94		20.8	MC
14	2/21/04	22.7		6.2					NT
15	2/22/04	22.9		6.2		7.79		20.7	JF
16	2/23/04	22.4		6.6					JF
17	2/24/04	23.5		6.0					PG
18	2/25/04	23.2		7.4		8.00		20.9	MC
19	2/26/04	NM		7.3					NT
20	2/27/04	22.8		9.0		7.80		20.7	JF
21	2/28/04	22.9		8.0					NT
22	2/29/04	22.5		7.1		7.89		21.1	LL
23	3/1/04	22.5		6.2					YK
24	3/2/04	23.0		7.9					AO
25	3/3/04	23.0		7.2		7.94		21.2	MC
26	3/4/04	22.8		7.8					KH
27	3/5/04	22.9		5.5		7.80		18.5	KH
28	3/6/04	22.6		8.4		7.79		19.2	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	15	20	15	14	17	DG
Number of Surviving Offspring =	15 (1.0)	65 (3.25)	35 (2.33)	38 (2.71)	48 (2.82)	MM 3/31/04
QA: 10% Re-Count of Offspring =	—	—	—	—	—	

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-01 **Test ID #:** 9753 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AZ **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RB

Tare Wt Date: 3-5-04 **Sign-Off:** AZ **Final Wt Date:** 3-9-04 **Sign-Off:** MC

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-01	A	147.80	173.94	15	1.743	0.061
2		B	145.02	181.57	20	1.828	0.064
3		C	159.36	188.99	15	1.975	0.070
4		D	138.65	MC ~~169.41~~ 162.35	14	1.693	0.060
5		E	142.02	MC ~~160.35~~ 169.41	17	1.611	0.057
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			

Appendix C

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-02 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	17-5244-4318	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9754	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-02	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
09-8752-1557	growth	100	>100	N/A	26.13%	Equal Variance t
07-4933-6109	Offspring	100	>100	N/A	67.73%	Equal Variance t
09-6672-2513	survival	100	>100	N/A	8.69%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0428000	0.029	0.058	0.0060283	0.0134796	31.49%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	2.3760000	0.2800000	4.6900001	0.7456581	1.6673422	70.17%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.91	0.8	1	0.0331662	0.074162	8.15%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.058	0.0320	0.0560	0.029	0.0390

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		0.2800	3.05	4.6900	2.4400	1.42

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.9	1	0.8	0.9	0.95

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	19-1847-1125	06-4587-7728	10 May-04 9:28 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	67.73%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	6.205009	23.1545	0.1048855	Equal Variances
Distribution	Shapiro-Wilk W	0.9717315	0.7805495	0.8936465	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.07224999	0.07224999	1	0.04476372	0.8377296	Non-Significant Effect
Error	12.91224	1.61403	8			
Total	12.98449	1.68628	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-0.2115744	1.859548	0.5811352	1.494146	Non-Significant Effect

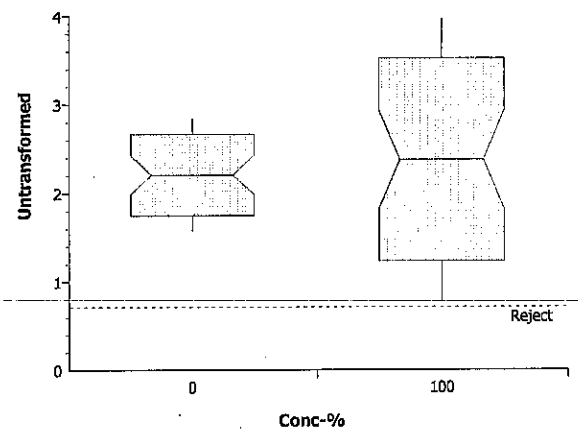
Data Summary

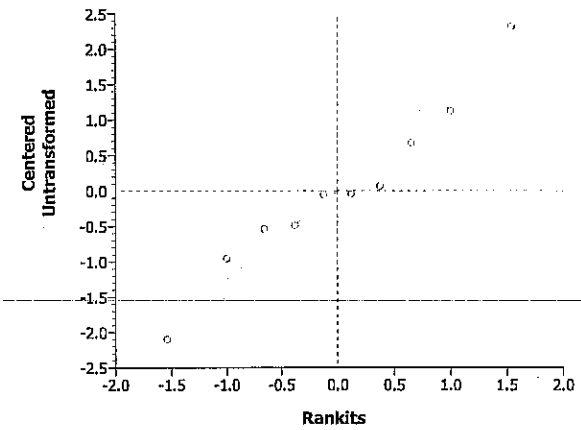
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	2.3760000	0.28	4.69	1.6673423				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		0.28	3.05	4.69	2.44	1.42					

Offspring





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	19-1847-1125	06-4587-7728	10 May-04 9:28 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	8.69%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.969675	23.1545	0.5276185	Equal Variances
Distribution	Shapiro-Wilk W	0.9330021	0.7805495	0.4520902	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.002013477	0.002013477	1	0.1571292	0.7021767	Non-Significant Effect
Error	0.1025132	0.01281415	8			
Total	0.1045267	0.01482763	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.3963953	1.859548	0.3510883	0.133132	Non-Significant Effect

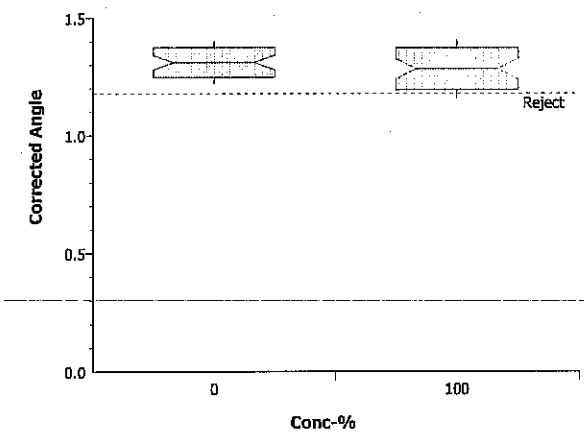
Data Summary

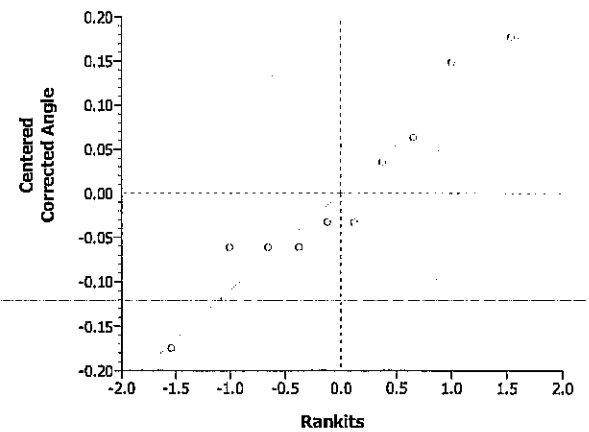
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.91	0.8	1	0.074162	1.2818564	1.107149	1.458759	0.1303773

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.9	1	0.8	0.9	0.95					

survival





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	19-1847-1125	06-4587-7728	10 May-04 9:28 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	26.13%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	5.899351	23.1545	0.113868	Equal Variances
Distribution	Shapiro-Wilk W	0.9633936	0.7805495	0.8010989	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	3.239998E-05	3.239998E-05	1	0.304941	0.5958873	Non-Significant Effect
Error	0.00085	0.00010625	8			
Total	0.0008824	0.00013865	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.5522147	1.859548	0.2979437	0.01212277	Non-Significant Effect

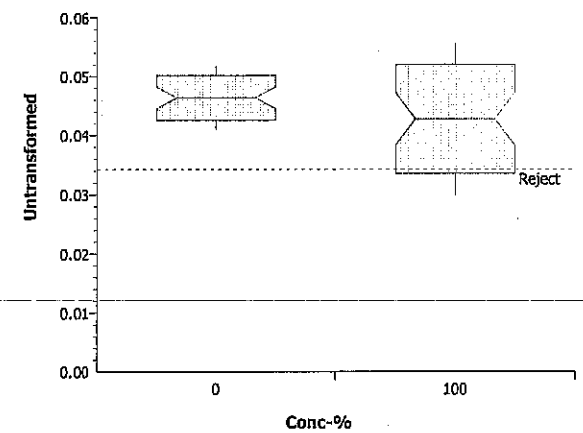
Data Summary

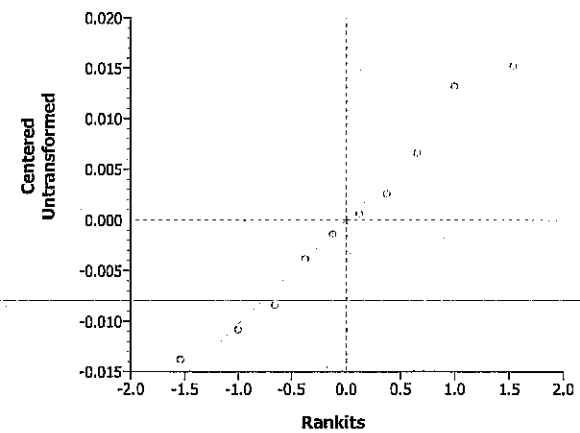
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0428000	0.029	0.058	0.0134796				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.058	0.032	0.056	0.029	0.039					

growth





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RP
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AG **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RL

Tare Wt Date: 3-5-04 **Sign-Off:** AG **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg dry wt/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-02 **Test ID #:** 9754

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.4		7.87		21.0		JF
1	2/8/04	24.4		7.4		8.07		21.4	JF/Ru
2	2/9/04	24.9		8.1					PG
3	2/10/04	24.8		6.5					YK
4	2/11/04	23.3		6.4		8.02		20.0	NT
5	2/12//04	23.2		6.9					MC
6	2/13/04	23.4		7.6		7.98		20.9	PG
7	2/14/04	23.1		7.1					NT
8	2/15/04	23.3		6.6		8.11		21.9	JF
9	2/16/04	23.8		6.0					YK
10	2/17/04	23.1		6.6					PG
11	2/18/04	24.0		6.7		7.82		20.9	MC
12	2/19/04	22.4		6.4					YK
13	2/20/04	23.4		6.6		7.92		20.9	MC
14	2/21/04	22.5		6.4					NT
15	2/22/04	22.8		5.0		7.60		20.6	JF
16	2/23/04	22.4		7.6					JF
17	2/24/04	23.5		5.9					PG
18	2/25/04	23.5		7.4		7.98		20.9	MC
19	2/26/04	NM		8.0					NT
20	2/27/04	22.7		9.0		7.76		20.4	JF
21	2/28/04	22.9		8.0					NT
22	2/29/04	22.5		6.9		7.85		20.5	LL
23	3/1/04	22.5		5.9					YK
24	3/2/04	23.0		7.9					[illegible]
25	3/3/04	23.0		7.2		7.90		20.6	MC
26	3/4/04	22.8		7.3					KH
27	3/5/04	22.9		6.2		7.75		18.2	KH
28	3/6/04	22.6		8.1		7.70		19.1	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	18	20	16	18	19	DG
Number of Surviving Offspring =	5 (0.28)	61 (3.05)	75 (4.69)	44 (2.44)	27 (1.42)	MM 4/1/04
QA: 10% Re-Count of Offspring =	—	—	—	—	—	

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-02 **Test ID #:** 9754 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ag **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** [illegible]

Tare Wt Date: 3-5-04 **Sign-Off:** ag **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-02	A	148.40	mc ~~157.53~~ 178.32	18	1.662	0.058
2		B	139.06	mc ~~178.32~~ 157.53	20	0.924	0.032
3		C	139.06	164.71	16	1.603	0.056
4		D	134.70	149.18	18	0.804	0.029
5		E	146.37	167.42	19	1.108	0.039
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			

Appendix D

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-03 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	19-9889-7470	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9755	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-03	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
11-3601-2274	growth	100	>100	N/A	26.98%	Equal Variance t
07-8081-2312	Offspring	100	>100	N/A	70.77%	Equal Variance t
02-7379-6863	survival	100	>100	N/A	10.45%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0656000	0.0450000	0.0810000	0.0062578	0.0139929	21.33%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	4.3480000	2.8699999	6.3000002	0.7843941	1.7539584	40.34%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.9	0.75	1	0.0447214	0.1	11.11%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.06	0.0450	0.0670	0.0750	0.0810

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		3.4200	2.9400	2.87	6.2100	6.3000

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.95	0.85	0.75	0.95	1

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	15-3386-9979	06-4587-7728	10 May-04 9:30 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	10.45%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	3.068338	23.1545	0.3031046	Equal Variances
Distribution	Shapiro-Wilk W	0.957482	0.7805495	0.7293034	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.003296401	0.003296401	1	0.1877769	0.6762203	Non-Significant Effect
Error	0.140439	0.01755488	8			
Total	0.1437355	0.02085128	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.4333323	1.859548	0.3381101	0.1558247	Non-Significant Effect

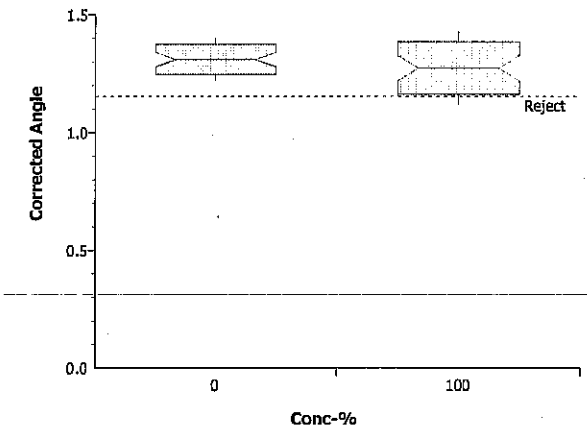
Data Summary

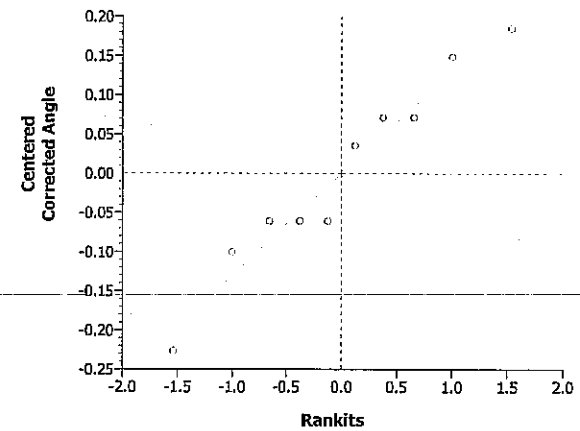
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.9	0.75	1	0.1	1.2739238	1.047198	1.458759	0.162726

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.95	0.85	0.75	0.95	1					

survival





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	15-3386-9979	06-4587-7728	10 May-04 9:30 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	70.77%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	6.866439	23.1545	0.08874328	Equal Variances
Distribution	Shapiro-Wilk W	0.8995457	0.7805495	0.2102185	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	11.47041	11.47041	1	6.509142	0.03410549	Significant Effect
Error	14.0976	1.7622	8			
Total	25.56801	13.23261	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-2.551302	1.859548	0.9829472	1.561223	Non-Significant Effect

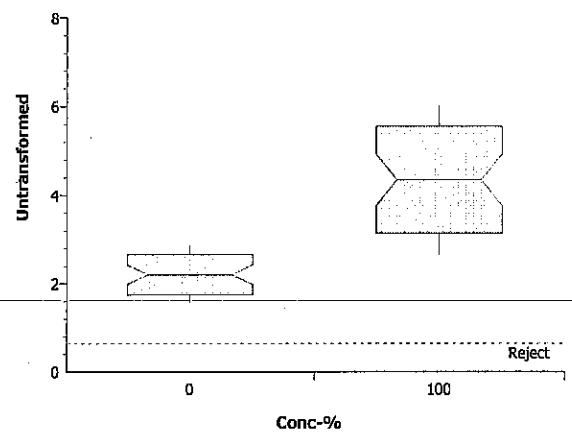
Data Summary

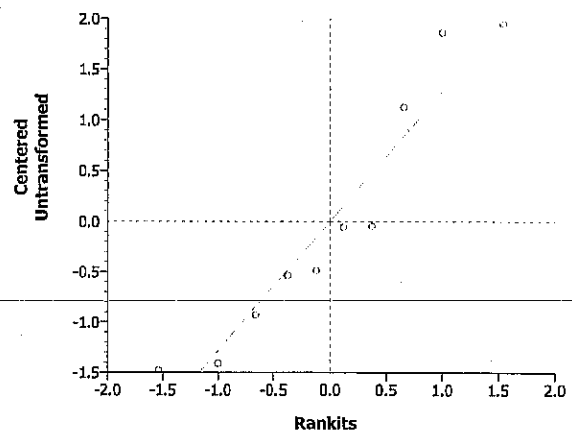
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	4.3480000	2.87	6.3	1.7539586				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		3.42	2.94	2.87	6.21	6.3					

Offspring





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	15-3386-9979	06-4587-7728	10 May-04 9:29 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	26.98%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	6.357143	23.1545	0.1008047	Equal Variances
Distribution	Shapiro-Wilk W	0.9700313	0.7805495	0.8761812	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0009216001	0.0009216001	1	8.134158	0.02141164	Significant Effect
Error	0.0009064	0.0001133	8			
Total	0.001828	0.0010349	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-2.852045	1.859548	0.9892942	0.0125185	Non-Significant Effect

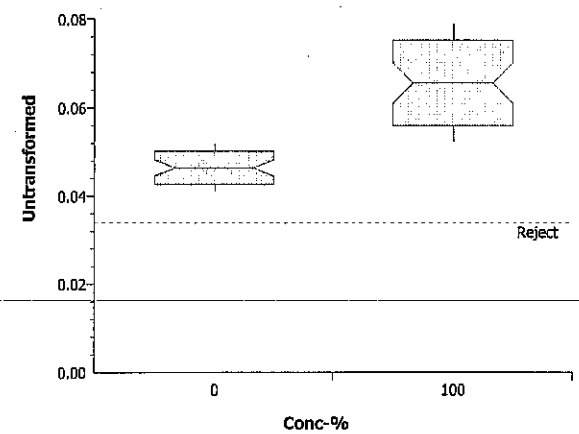
Data Summary

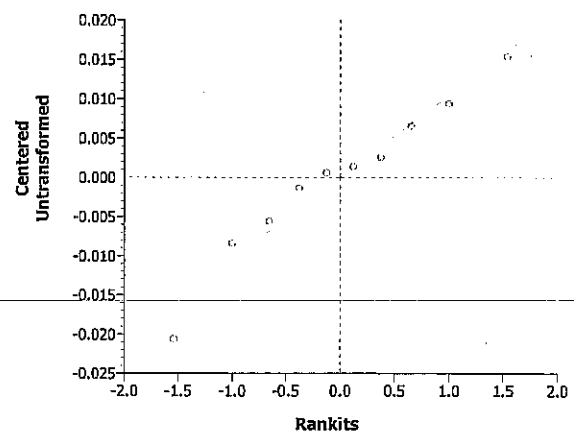
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0656000	0.045	0.081	0.0139929				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.06	0.045	0.067	0.075	0.081					

growth





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** Control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RA
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ay **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** Rb

Tare Wt Date: 3-5-04 **Sign-Off:** ay **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-03 **Test ID #:** 9755

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.4		7.94		21.0		JF
1	2/8/04	24.4		7.6		7.98		21.5	JF/RJ
2	2/9/04	24.9		8.0					PG
3	2/10/04	~~24.9~~ 24.8 PG		~~8.0~~ 6.5 PG					YK
4	2/11/04	23.3		6.4		7.93		20.4	NT
5	2/12//04	23.2		6.9					MC
6	2/13/04	23.2		7.5		7.94		21.0	PG
7	2/14/04	23.1		6.9					NT
8	2/15/04	23.0		6.6		8.11		21.2	JF
9	2/16/04	23.8		6.0					YK
10	2/17/04	23.0		4.8					PG
11	2/18/04	24.0		6.6		7.87		21.6	MC
12	2/19/04	22.2		6.2					YK
13	2/20/04	23.3		6.0		7.97		21.0	MC
14	2/21/04	22.4		5.5					NT
15	2/22/04	22.4		7.0		7.80		20.9	JF
16	2/23/04	22.1		7.7					JF
17	2/24/04	23.3		5.9					PG
18	2/25/04	23.0		7.4		8.10		20.9	MC
19	2/26/04	22.7		8.6					NT
20	2/27/04	22.4		9.1		7.73		20.5	JF
21	2/28/04	22.5		8.0					NT
22	2/29/04	22.1		7.0		7.89		20.9	LL
23	3/1/04	22.1		6.3					YK
24	3/2/04	23.0		7.9					AO
25	3/3/04	23.0		7.1		7.93		21.3	MC
26	3/4/04	22.3		7.8					KH
27	3/5/04	22.5		6.6		7.80		18.8	KH
28	3/6/04	22.2		8.7		7.86		19.4	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	17	15	19	20	DG
Number of Surviving Offspring =	65 (3.42)	50 (2.94)	43 (2.87)	118 (6.21)	126 (6.3)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	126	MM 4/1/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-03 **Test ID #:** 9755 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ag **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** Pf

Tare Wt Date: 3-5-04 **Sign-Off:** ag **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-03	A	138.16	170.48	19	1.701	0.060
2		B	149.78	171.44	17	1.274	0.045
3		C	145.16	173.88	15	1.915	0.067
4		D	139.24	179.60	19	2.124	0.075
5		E	144.09	189.75	20	2.283	0.081
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			

Appendix E

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-04 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	03-8131-7901	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9756	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-04	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
12-3065-9753	growth	100	>100	N/A	25.94%	Equal Variance t
11-2251-4215	Offspring	100	>100	N/A	48.46%	Equal Variance t
03-0359-8200	survival	100	>100	N/A	9.96%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0372000	0.0240000	0.0570000	0.0059783	0.0133679	35.94%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	2.77	1.89	4.5799999	0.4907341	1.0973149	39.61%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.92	0.75	1	0.043589	0.0974679	10.59%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.0370	0.0260	0.0570	0.0240	0.042

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		1.9	1.89	4.58	2.8	2.6800

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		1	0.95	0.95	0.75	0.95

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	15-7252-2405	06-4587-7728	10 May-04 9:31 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	9.96%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	2.749579	23.1545	0.350885	Equal Variances
Distribution	Shapiro-Wilk W	0.884205	0.7805495	0.1451111	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	8.787046E-06	8.787046E-06	1	0.0005431	0.9819782	Non-Significant Effect
Error	0.1294355	0.01617944	8			
Total	0.1294443	0.01618822	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.0233045	1.859548	0.4909891	0.1495957	Non-Significant Effect

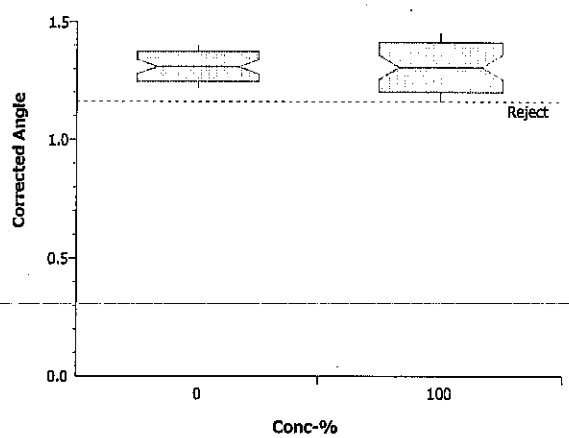
Data Summary

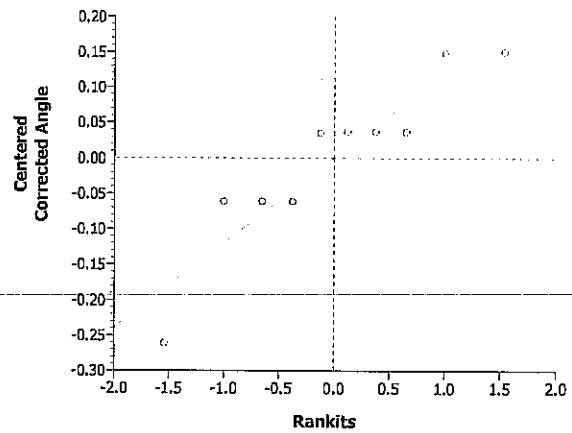
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.92	0.75	1	0.0974679	1.3083610	1.047198	1.458759	0.1540417

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		1	0.95	0.95	0.75	0.95					

survival





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	15-7252-2405	06-4587-7728	10 May-04 9:31 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	48.46%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	2.687543	23.1545	0.3614705	Equal Variances
Distribution	Shapiro-Wilk W	0.8545518	0.7805495	0.06947678	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.7952399	0.7952399	1	0.9626845	0.3552484	Non-Significant Effect
Error	6.60852	0.8260649	8			
Total	7.403759	1.621305	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-0.9811649	1.859548	0.8223758	1.068918	Non-Significant Effect

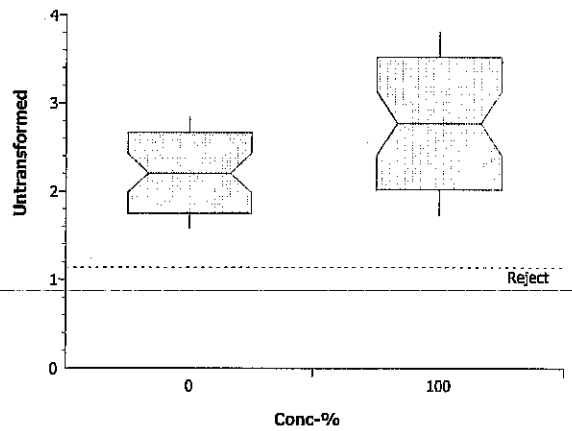
Data Summary

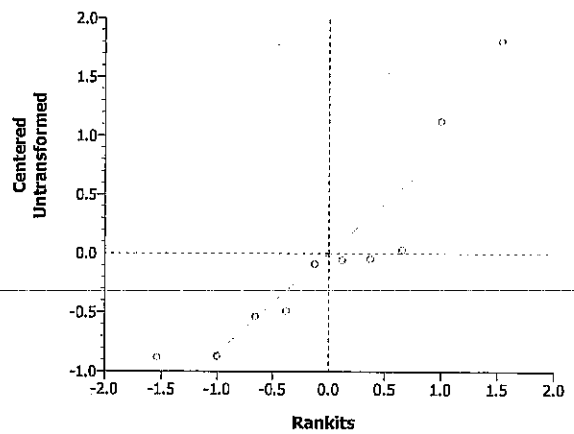
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	2.77	1.89	4.58	1.0973148				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		1.9	1.89	4.58	2.8	2.68					

Offspring





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	15-7252-2405	06-4587-7728	10 May-04 9:31 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	25.94%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	5.801948	23.1545	0.116973	Equal Variances
Distribution	Shapiro-Wilk W	0.9452299	0.7805495	0.5821655	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0002116	0.0002116	1	2.020047	0.1930213	Non-Significant Effect
Error	0.000838	0.00010475	8			
Total	0.0010496	0.00031635	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	1.421284	1.859548	0.09651063	0.01203689	Non-Significant Effect

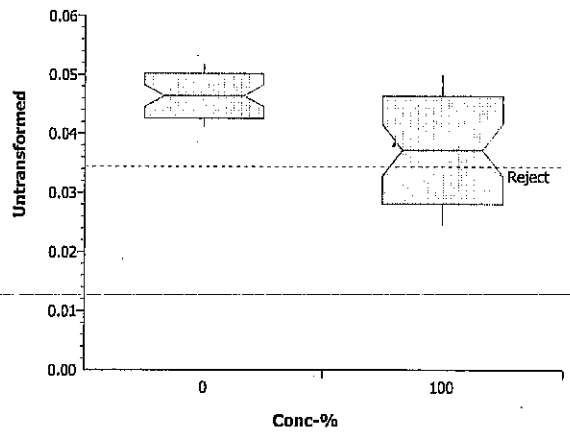
Data Summary

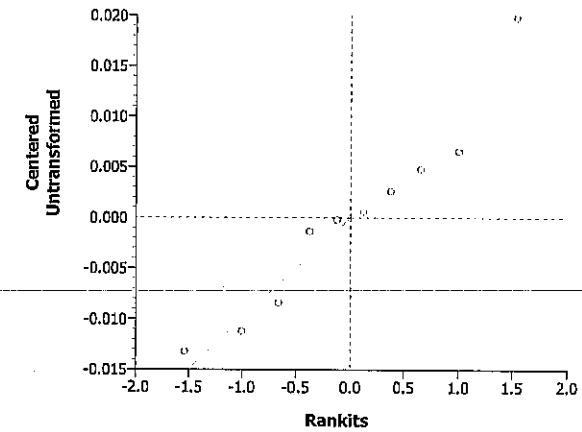
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0372000	0.024	0.057	0.0133679				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.037	0.026	0.057	0.024	0.042					

growth





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** Control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RP
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AJ **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RJ

Tare Wt Date: 3-5-04 **Sign-Off:** AJ **Final Wt Date:** 3-9-04 **Sign-Off:** MC

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg dry wt/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-04 **Test ID #:** 9756

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.3		7.80		20.3		JF
1	2/8/04	24.4		7.2		7.90		20.6	JF/RS
2	2/9/04	24.9		8.0					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.6		6.4		7.97		20.2	NT
5	2/12//04	23.2		6.9					MC
6	2/13/04	23.5		7.5		8.00		21.0	PG
7	2/14/04	23.3		7.1					NT
8	2/15/04	23.5		6.2		8.10		22.7	JF
9	2/16/04	23.8		5.5					YK
10	2/17/04	23.1		6.7					PG
11	2/18/04	24.1		6.6		7.90		21.0	MC
12	2/19/04	22.3		6.6					YK
13	2/20/04	23.2		6.9		8.11		21.1	MC
14	2/21/04	22.7		6.1					NT
15	2/22/04	23.0		5.6		7.48		20.6	JF
16	2/23/04	22.4		7.5					JF
17	2/24/04	23.5		5.9					PG
18	2/25/04	23.2		7.3		8.09		20.6	MC
19	2/26/04	23.1		7.2					NT
20	2/27/04	22.8		8.9		7.72		20.4	JF
21	2/28/04	22.9		7.9					NT
22	2/29/04	22.6		6.9		7.92		20.1	LL
23	3/1/04	22.5		6.0					YK
24	3/2/04	23.0		8.0					[illegible]
25	3/3/04	23.4		7.1		7.88		20.8	MC
26	3/4/04	22.6		7.6					KH
27	3/5/04	22.8		6.2		7.75		18.2	KH
28	3/6/04	22.6		8.3		7.76		19.2	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	20	19	19	15	19	DG
Number of Surviving Offspring =	38 (1.90)	36 (1.89)	87 (4.58)	42 (2.80)	51 (2.68)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	51	MM 3/30/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-04 **Test ID #:** 9756 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ag **T(0) Final Wt Date:** 2/18/04 **Sign-Off:** RJ

Tare Wt Date: 3-5-04 **Sign-Off:** ag **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-04	A	131.97	153.02	20	1.052	0.037
2		B	128.74	143.03	19	0.752	0.026
3		C	141.63	172.66	19	1.633	0.057
4		D	143.66	154.10	15	0.696	0.024
5		E	137.55	160.23	19	1.194	0.042
QA1	—	—	129.61	129.64			
QA2 3	—	—	149.33	149.37			

Appendix F

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-05 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	03-0939-5312	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9757	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-05	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
04-6224-2493	growth	100	>100	N/A	29.62%	Equal Variance t
05-8791-3657	Offspring	<100	100	N/A	29.35%	Equal Variance t
06-8149-0722	survival	<100	100	N/A	8.76%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0544	0.0390000	0.08	0.0069613	0.015566	28.61%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	1.064	0.57	1.5	0.1777245	0.3974041	37.35%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.36	0.2	0.55	0.0556776	0.124499	34.58%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.0520	0.08	0.0460	0.0390	0.055

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		0.82	0.57	1.43	1	1.5

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.55	0.35	0.35	0.35	0.2

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	06-5435-3642	06-4587-7728	10 May-04 9:32 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	29.62%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	7.866882	23.1545	0.07057709	Equal Variances
Distribution	Shapiro-Wilk W	0.8950193	0.7805495	0.1886106	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.00016	0.00016	1	1.171732	0.3105906	Non-Significant Effect
Error	0.0010924	0.00013655	8			
Total	0.0012524	0.00029655	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-1.082466	1.859548	0.8447047	0.01374305	Non-Significant Effect

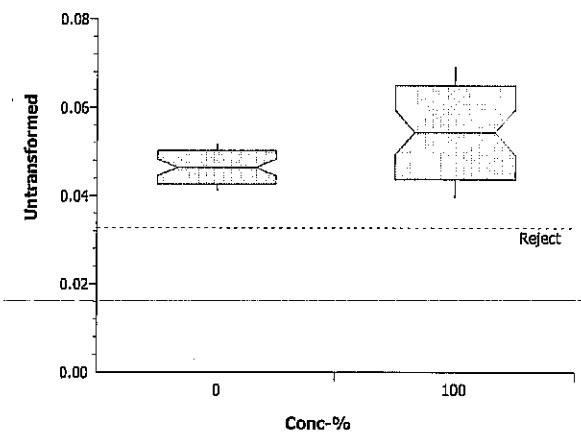
Data Summary

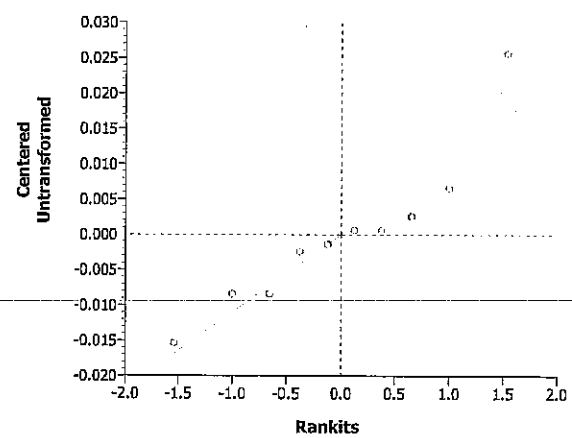
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0544	0.039	0.08	0.015566				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.052	0.08	0.046	0.039	0.055					

growth





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	06-5435-3642	06-4587-7728	10 May-04 9:33 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		<100	100		N/A	29.35%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	2.83689	23.1545	0.3367465	Equal Variances
Distribution	Shapiro-Wilk W	0.8863168	0.7805495	0.1527815	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	3.26041	3.26041	1	10.76114	0.01118083	Significant Effect
Error	2.42384	0.30298	8			
Total	5.68425	3.56339	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	3.280418	1.859548	0.00559042	0.6473578	Significant Effect

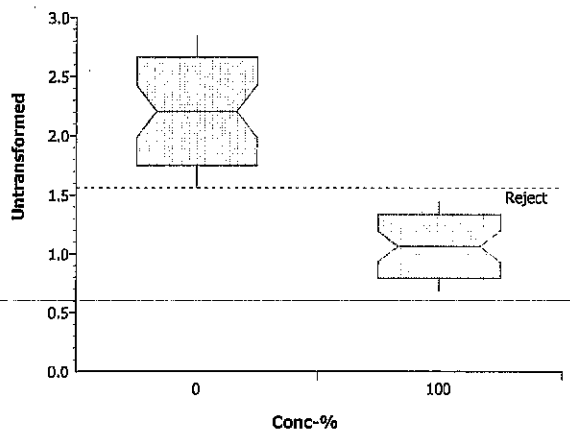
Data Summary

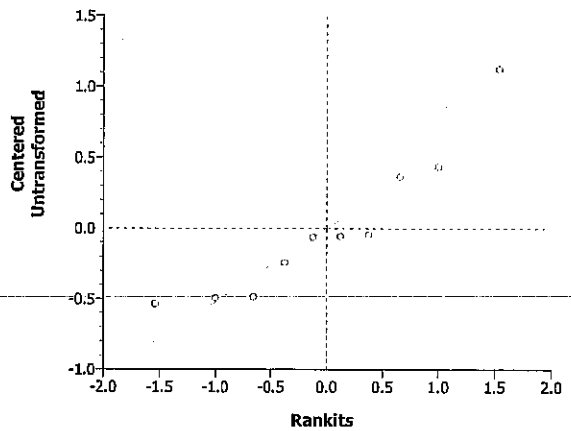
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	1.064	0.57	1.5	0.3974041				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		0.82	0.57	1.43	1	1.5					

Offspring





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	06-5435-3642	06-4587-7728	10 May-04 9:33 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		<100	100		N/A	8.76%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	2.012096	23.1545	0.5149525	Equal Variances
Distribution	Shapiro-Wilk W	0.9224364	0.7805495	0.3581301	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	1.12419	1.12419	1	86.49478	1.454959E-05	Significant Effect
Error	0.1039776	0.0129972	8			
Total	1.228167	1.137187	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	9.300258	1.859548	7.2748E-06	0.1340795	Significant Effect

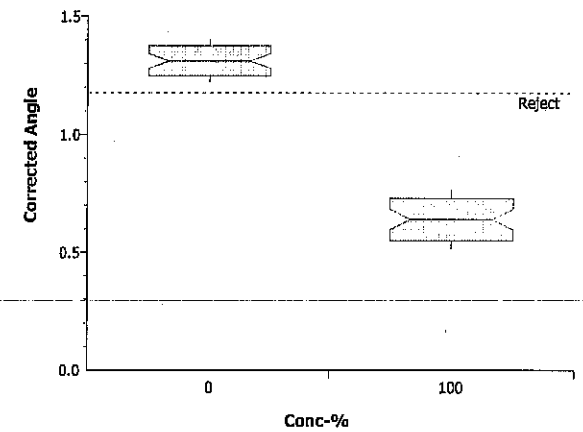
Data Summary

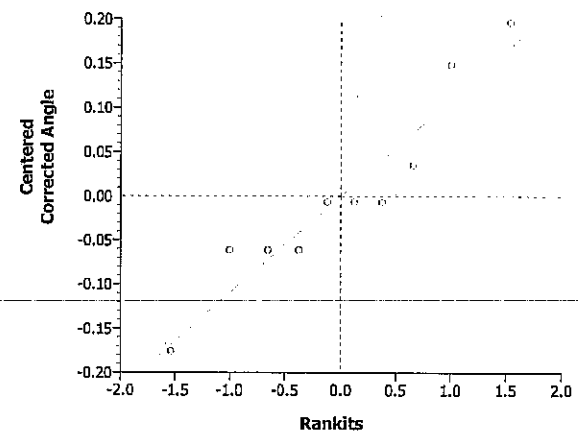
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.36	0.2	0.55	0.124499	0.639657	0.4636476	0.8354819	0.1317741

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.55	0.35	0.35	0.35	0.2					

survival





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** Control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RP
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	19	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AJ **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RG

Tare Wt Date: 3-5-04 **Sign-Off:** AJ **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg Dry Wt/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-05 **Test ID #:** 9757

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4 ←	24.4 ←	7.6 JF	7.74		20.6		JF
1	2/8/04	24.4		7.3		7.85		20.9	JF/RL
2	2/9/04	24.9		8.2					PG
3	2/10/04	24.8		6.2					YK
4	2/11/04	23.4		6.2		8.01		20.5	NT
5	2/12//04	23.5		6.9					mc
6	2/13/04	23.4		7.5		8.05		21.5	PG
7	2/14/04	23.3		7.2					NT
8	2/15/04	23.3		6.6		8.26		22.9	JF
9	2/16/04	23.9		5.5					YK
10	2/17/04	23.1		7.9					PG
11	2/18/04	24.0		6.8		7.90		21.4	mc
12	2/19/04	22.2		6.8					YK
13	2/20/04	23.5		7.0		8.19		21.2	mc
14	2/21/04	22.5		6.2					NT
15	2/22/04	22.8		5.2		7.68		20.8	JF
16	2/23/04	22.3		7.6					JF
17	2/24/04	23.4		6.0					PG
18	2/25/04	23.0		7.5		8.23		20.6	mc
19	2/26/04	22.7		6.9					NT
20	2/27/04	22.8		8.9		7.81		20.5	JF
21	2/28/04	22.9		7.9					NT
22	2/29/04	22.6		7.0		8.05		20.6	"
23	3/1/04	22.4		6.2					YK
24	3/2/04	23.0		8.5					AS
25	3/3/04	23.4		7.1		7.89		20.9	mc
26	3/4/04	22.5		7.4					KH
27	3/5/04	22.7		6.4		7.76		18.5	KH
28	3/6/04	22.5		8.3		7.81		18.9	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	11	7	7	7	4	DG
Number of Surviving Offspring =	9 (0.82)	4 (0.57)	10 (1.43)	7 (1.0)	6 (1.50)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	—	—

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-05 **Test ID #:** 9757 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ag **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RL

Tare Wt Date: 3-5-04 **Sign-Off:** ag **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-05	A	160.90	177.19	11	1.481	0.052
2		B	134.57	150.53	7	2.280	0.080
3		C	127.62	136.83	7	1.316	0.046
4		D	140.16	148.01	7	1.121	0.039
5		E	149.41	155.65	4	1.560	0.055
QA1	—	—	129.61	129.64			
QA2 3	—	—	149.33	149.37			

Appendix G

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-06 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	20-6556-9657	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9758	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-06	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
04-1846-8455	growth	100	>100	N/A	14.18%	Equal Variance t
03-0284-8036	Offspring	<100	100	N/A	37.57%	Equal Variance t
06-2721-8236	survival	100	>100	N/A	8.29%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0526000	0.044	0.058	0.0025219	0.0056391	10.72%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	1.1920000	0.44	2.1500001	0.3301727	0.7382886	61.94%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.91	0.85	1	0.0291548	0.0651920	7.16%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.058	0.055	0.0560	0.0500	0.044

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		0.88	0.44	0.7	1.79	2.1500

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.85	0.9	0.85	0.95	1

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	03-9805-1160	06-4587-7728	10 May-04 9:44 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		<100	100		N/A	37.57%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.216593	23.1545	0.853895	Equal Variances
Distribution	Shapiro-Wilk W	0.8763034	0.7805495	0.1195303	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	2.57049	2.57049	1	5.176699	0.05245995	Non-Significant Effect
Error	3.9724	0.49655	8			
Total	6.54289	3.06704	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	2.275236	1.859548	0.02622998	0.8287411	Significant Effect

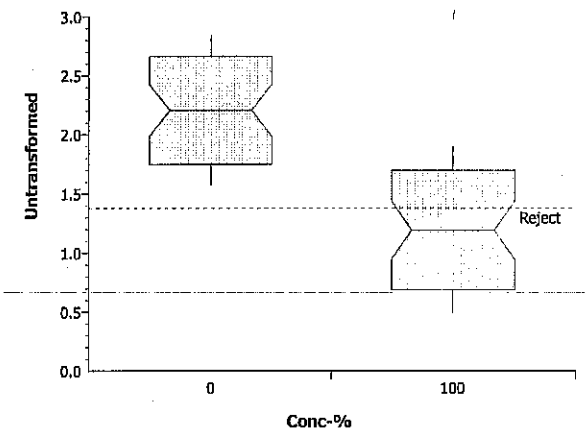
Data Summary

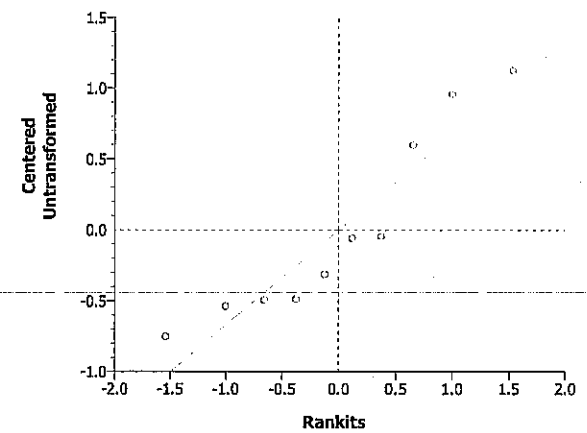
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	1.1920000	0.44	2.15	0.7382886				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		0.88	0.44	0.7	1.79	2.15					

Offspring





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	03-9805-1160	06-4587-7728	10 May-04 9:44 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	14.18%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.032467	23.1545	0.9760404	Equal Variances
Distribution	Shapiro-Wilk W	0.9118958	0.7805495	0.2812835	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	9.610002E-05	9.610002E-05	1	3.070288	0.1178334	Non-Significant Effect
Error	0.0002504	0.0000313	8			
Total	0.0003465	0.0001274	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-1.752224	1.859548	0.9410833	0.006579752	Non-Significant Effect

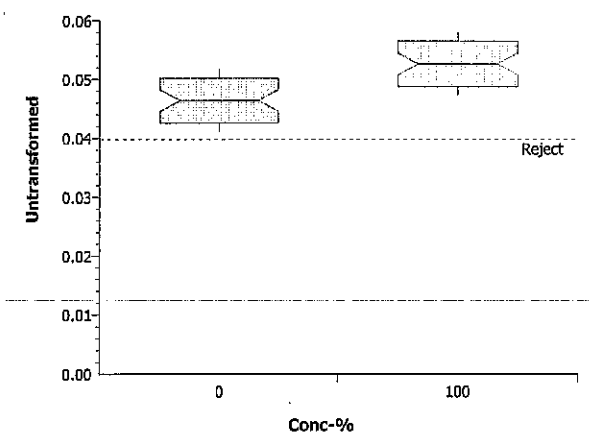
Data Summary

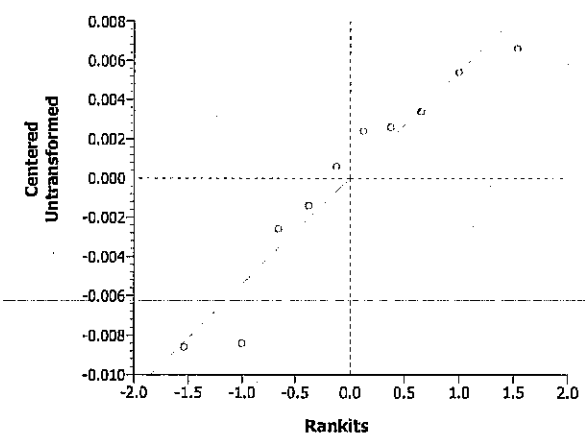
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0526000	0.044	0.058	0.0056391				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.058	0.055	0.056	0.05	0.044					

growth





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	03-9805-1160	06-4587-7728	10 May-04 9:44 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	8.29%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.739024	23.1545	0.6051016	Equal Variances
Distribution	Shapiro-Wilk W	0.877574	0.7805495	0.1233316	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.002307292	0.002307292	1	0.1952206	0.6703064	Non-Significant Effect
Error	0.09455113	0.01181889	8			
Total	0.09685842	0.01412618	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.4418378	1.859548	0.3351532	0.1278574	Non-Significant Effect

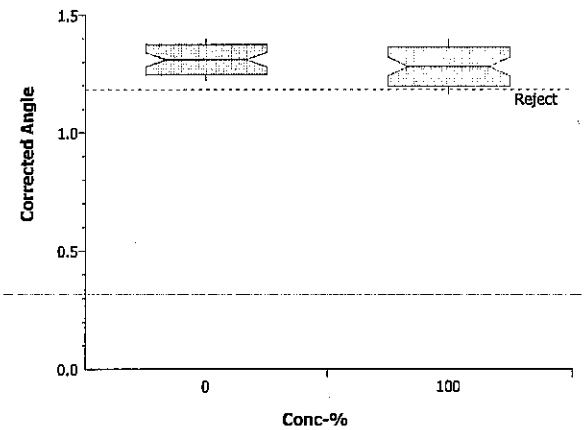
Data Summary

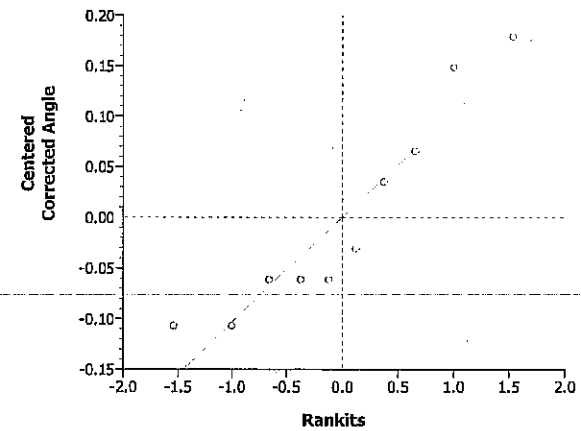
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.9100000	0.85	1	0.0651919	1.2798562	1.173097	1.458759	0.1225061

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.85	0.9	0.85	0.95	1					

survival





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RP
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ay **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** Rb

Tare Wt Date: 3-5-04 **Sign-Off:** ay **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg dry wt/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T- 06 **Test ID #:** 9758

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.2		7.94		20.6		JF
1	2/8/04	24.4		7.2		7.88		21.0	JF/[illegible]
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.6		6.1		8.02		19.9	NT
5	2/12//04	23.5		6.8					mc
6	2/13/04	23.6		6.7		7.88		20.6	PG
7	2/14/04	23.4		7.2					NT
8	2/15/04	23.6		6.5		8.14		20.6	JF
9	2/16/04	24.1		5.8					YK
10	2/17/04	23.3		6.8					PG
11	2/18/04	24.0		6.6		7.85		20.9	mc
12	2/19/04	22.6		6.3					YK
13	2/20/04	23.2		6.9		7.95		20.8	mc
14	2/21/04	22.7		6.4					NT
15	2/22/04	23.0		6.9		7.80		20.6	JF
16	2/23/04	22.5		7.8					JF
17	2/24/04	23.5		6.0					PG
18	2/25/04	23.5		7.4		7.97		21.2	mc
19	2/26/04	NM		8.4					NT
20	2/27/04	22.9		9.1		7.87		20.6	JF
21	2/28/04	22.9		8.2					NT
22	2/29/04	22.5		7.1		7.91		21.3	LL
23	3/1/04	22.5		6.3					YK
24	3/2/04	23.0		7.8					[illegible]
25	3/3/04	23.1		7.2		7.98		21.6	mc
26	3/4/04	22.8		7.8					KH
27	3/5/04	22.8		6.7		7.94		19.1	KH
28	3/6/04	22.7		8.7		7.95		19.7	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	17	18	17	19	20	DG
Number of Surviving Offspring =	15 (0.88)	8 (0.44)	12 (0.70)	34 (1.79)	43 (2.15)	DG
QA: 10% Re-Count of Offspring =	—	—	—	34	—	MM 4/1/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: T-06 **Test ID #:** 9758 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AJ **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** [illegible]

Tare Wt Date: 3-5-04 **Sign-Off:** AJ **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A			30.58	31.12	20	0.027	
T(0) - B			28.03	28.51	20	0.024	
T(0) - C			27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-06	A	149.36	177.36	17	1.647	0.058
2		B	142.60	170.62	18	1.557	0.055
3		C	129.84	157.06	17	1.601	0.056
4		D	133.70	160.58	19	1.415	0.050
5		E	127.72	153.16	20	1.272	0.044
QA1			129.61	129.64			
QA2			143.00	143.02			

Appendix H

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-07 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	03-4471-8955	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9759	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-07	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
08-6442-4617	growth	100	>100	N/A	28.40%	Equal Variance t
07-7914-3472	Offspring	100	>100	N/A	74.83%	Equal Variance t
14-6240-0780	survival	100	>100	N/A	7.46%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0606000	0.04	0.077	0.0066378	0.0148425	24.49%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	3.106	1.5900000	6.2199998	0.8357068	1.8686973	60.16%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.89	0.8	0.95	0.0291548	0.0651920	7.32%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.0520	0.077	0.0630	0.04	0.0710

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		1.7400	6.22	2.79	1.5900	3.1900

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.95	0.9	0.95	0.85	0.8

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	04-1327-9547	06-4587-7728	10 May-04 9:35 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	74.83%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	7.794188	23.1545	0.07170049	Equal Variances
Distribution	Shapiro-Wilk W	0.8562845	0.7805495	0.07257716	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	2.025	2.025	1	1.027903	0.3403299	Non-Significant Effect
Error	15.76024	1.97003	8			
Total	17.78524	3.99503	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-1.013856	1.859548	0.8298351	1.650721	Non-Significant Effect

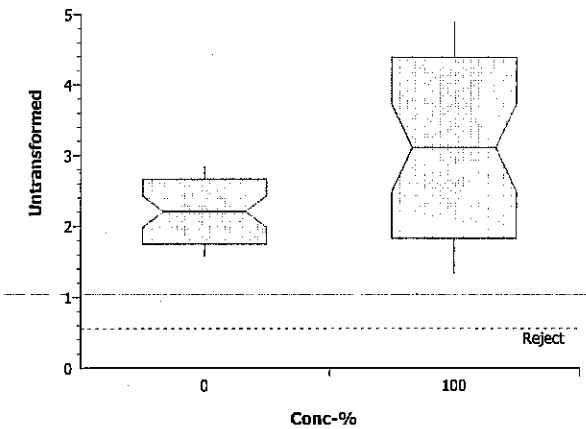
Data Summary

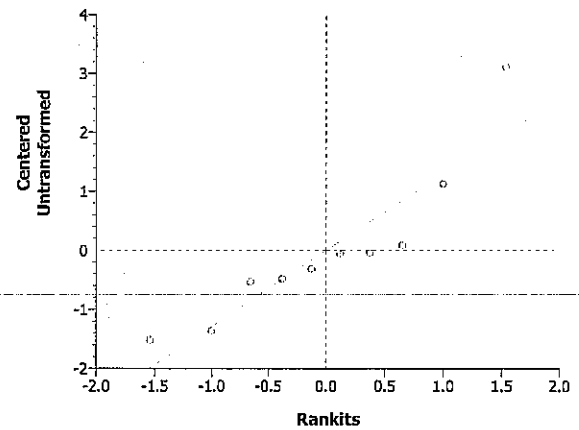
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	3.106	1.59	6.22	1.8686973				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		1.74	6.22	2.79	1.59	3.19					

Offspring





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	04-1327-9547	06-4587-7728	10 May-04 9:35 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	28.40%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	7.152598	23.1545	0.08289131	Equal Variances
Distribution	Shapiro-Wilk W	0.9729142	0.7805495	0.9052225	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0005041001	0.0005041001	1	4.015134	0.08004608	Non-Significant Effect
Error	0.0010044	0.00012555	8			
Total	0.0015085	0.0006296501	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-2.00378	1.859548	0.959977	0.01317789	Non-Significant Effect

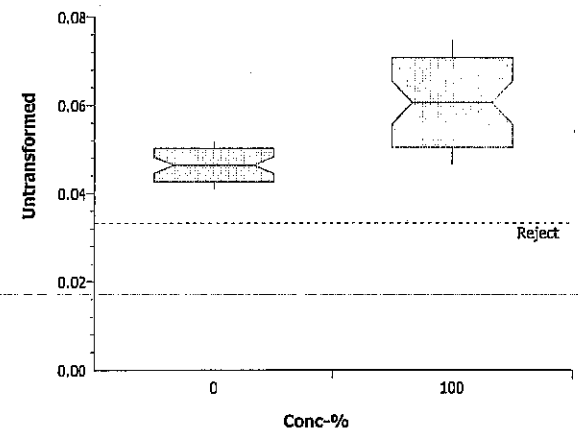
Data Summary

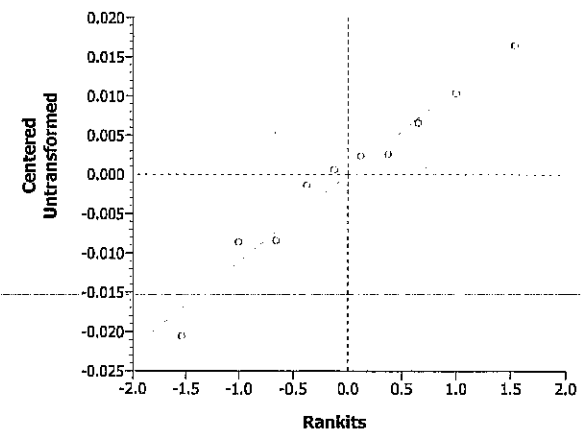
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0606000	0.04	0.077	0.0148425				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.052	0.077	0.063	0.04	0.071					

growth





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	04-1327-9547	06-4587-7728	10 May-04 9:35 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	7.46%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.28324	23.1545	0.8148771	Equal Variances
Distribution	Shapiro-Wilk W	0.9224656	0.7805495	0.3583662	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.01097741	0.01097741	1	1.114211	0.3220004	Non-Significant Effect
Error	0.07881744	0.00985218	8			
Total	0.08979484	0.02082958	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	1.055562	1.859548	0.1610002	0.1167357	Non-Significant Effect

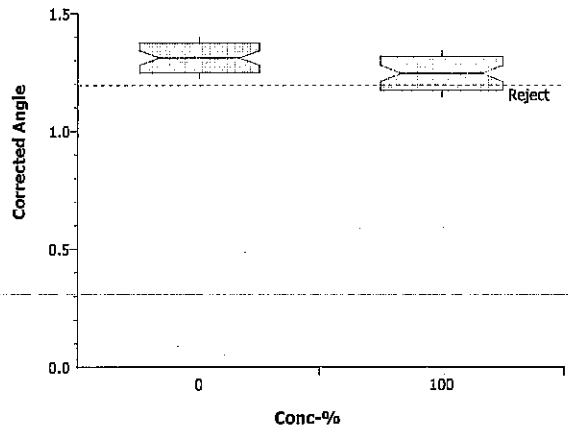
Data Summary

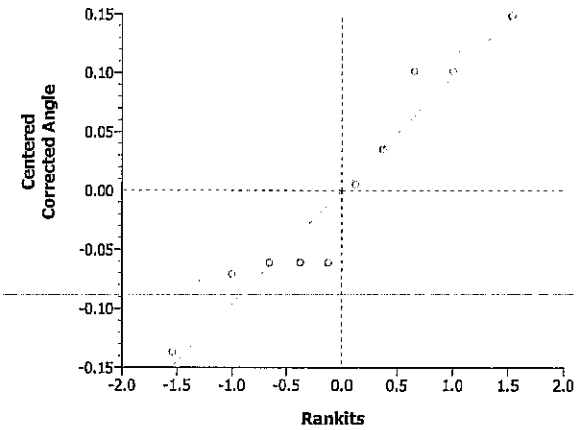
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.89	0.8	0.95	0.065192	1.2439714	1.107149	1.345283	0.1052346

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.95	0.9	0.95	0.85	0.8					

survival





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RA
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ay **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** Rb

Tare Wt Date: 3-5-04 **Sign-Off:** ay **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg dw [illegible]/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-07 **Test ID #:** 9759

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.3		8.05		20.3		JF
1	2/8/04	24.4		7.4		8.05		20.3	JF
2	2/9/04	24.9		8.1					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.7		6.4		8.03		19.7	NT
5	2/12//04	23.5		7.0					mc
6	2/13/04	23.5		7.5		7.97		20.5	PG
7	2/14/04	23.4		7.3					NT
8	2/15/04	24.0		6.0		7.97		21.5	~~YK~~ JF
9	2/16/04	24.0		6.0					YK
10	2/17/04	23.3		6.8					PG
11	2/18/04	24.0		6.5		7.96		20.7	~~28~~ mc
12	2/19/04	22.4		6.7					YK
13	2/20/04	23.0		7.0		8.10		20.6	mc
14	2/21/04	22.7		6.5					NT
15	2/22/04	23.0		6.9		8.04		20.6	JF
16	2/23/04	22.8		7.6					JF
17	2/24/04	23.8		6.0					PG
18	2/25/04	23.4		7.3		8.08		20.8	mc
19	2/26/04	NM		7.8					NT
20	2/27/04	23.0		8.9		7.87		19.9	JF
21	2/28/04	23.0		7.5					NT
22	2/29/04	22.7		6.8		7.87		20.4	LL
23	3/1/04	22.6		6.2					YK
24	3/2/04	23.0		7.7					~~AO~~
25	3/3/04	23.0		7.2		8.16		20.9	mc
26	3/4/04	22.6		7.7					KH
27	3/5/04	22.9		6.4		7.91		18.4	KH
28	3/6/04	22.7		8.2		7.97		19.1	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	19	17	16	DG
Number of Surviving Offspring =	33 (1.74)	112 (6.22)	53 (2.79)	27 (1.59)	51 (3.19)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	—	—

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-07 **Test ID #:** 9759 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ag **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** [illegible]

Tare Wt Date: 3-5-04 **Sign-Off:** ag **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
			Overall Mean T(0) Dry Weight =				
1	T-07	A	140.27	mc ~~148.22~~ 168.22	19	1.471	0.052
2		B	123.49	162.71	18	2.179	0.077
3		C	133.01	166.85	19	1.781	0.063
4		D	143.11	162.71	17	1.153	0.040
5		E	144.70	176.80	16	2.006	0.071
QA1	—	—	129.61	129.64			
QA2 mc 4	—	—	143.00	143.02			

Appendix I

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-08 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	11-6627-9060	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9760	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-08	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
10-0456-4228	growth	100	>100	N/A	29.73%	Equal Variance t
13-9084-6421	Offspring	100	>100	N/A	56.11%	Equal Variance t
08-7011-3264	survival	100	>100	N/A	11.35%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0806000	0.0640000	0.1030000	0.00699	0.0156301	19.39%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	3.3799999	1.5800000	4.6999998	0.5945082	1.3293607	39.33%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.91	0.8	1	0.0458258	0.1024695	11.26%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.0640	0.0680	0.1030	0.087	0.0810

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		1.5800	4.7	4.5	3.62	2.5

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.95	1	0.8	0.8	1

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	02-1962-4138	06-4587-7728	10 May-04 9:36 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	11.35%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	3.671422	23.1545	0.235711	Equal Variances
Distribution	Shapiro-Wilk W	0.89469	0.7805495	0.1871222	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0005488024	0.0005488024	1	0.02722614	0.8730345	Non-Significant Effect
Error	0.1612575	0.02015719	8			
Total	0.1618063	0.02070599	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.1650034	1.859548	0.4365172	0.1669753	Non-Significant Effect

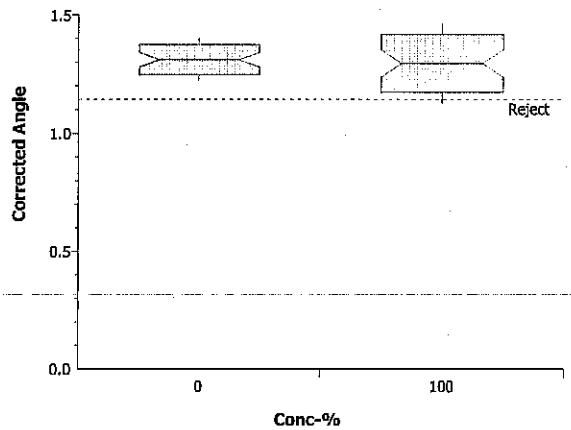
Data Summary

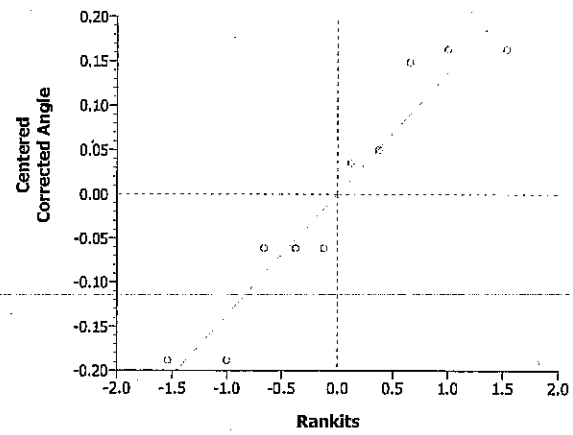
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.9100000	0.8	1	0.1024696	1.2954196	1.107149	1.458759	0.1780008

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.95	1	0.8	0.8	1					

survival





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	02-1962-4138	06-4587-7728	10 May-04 9:36 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	29.73%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	7.931817	23.1545	0.06959573	Equal Variances
Distribution	Shapiro-Wilk W	0.9520428	0.7805495	0.6627697	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0029241	0.0029241	1	21.25846	0.001731107	Significant Effect
Error	0.0011004	0.00013755	8			
Total	0.0040245	0.00306165	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-4.61069	1.859548	0.9991344	0.01379328	Non-Significant Effect

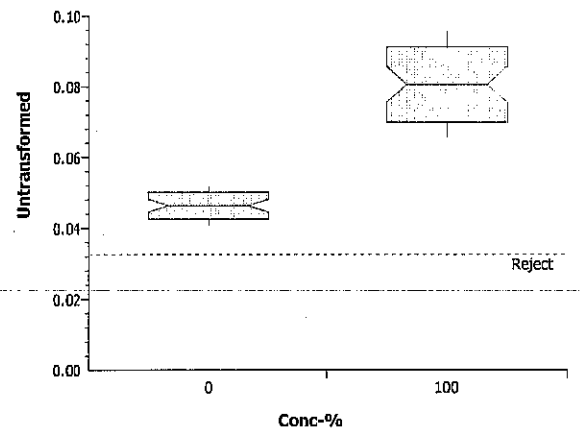
Data Summary

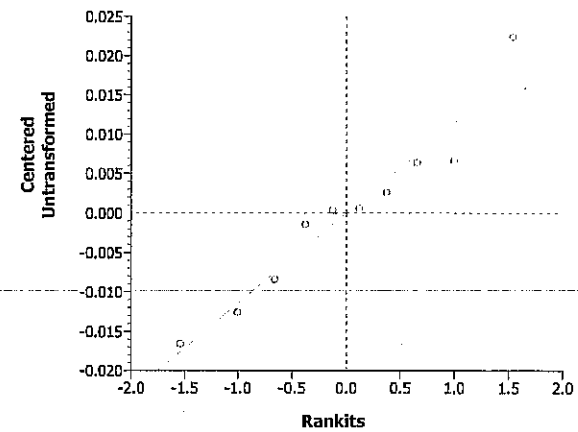
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0806000	0.064	0.103	0.0156301				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.064	0.068	0.103	0.087	0.081					

growth





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	02-1962-4138	06-4587-7728	10 May-04 9:36 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	56.11%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	3.944379	23.1545	0.2123379	Equal Variances
Distribution	Shapiro-Wilk W	0.9451197	0.7805495	0.5809008	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	3.44569	3.44569	1	3.110909	0.1157788	Non-Significant Effect
Error	8.860919	1.107615	8			
Total	12.30661	4.553305	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-1.763777	1.859548	0.9421106	1.237747	Non-Significant Effect

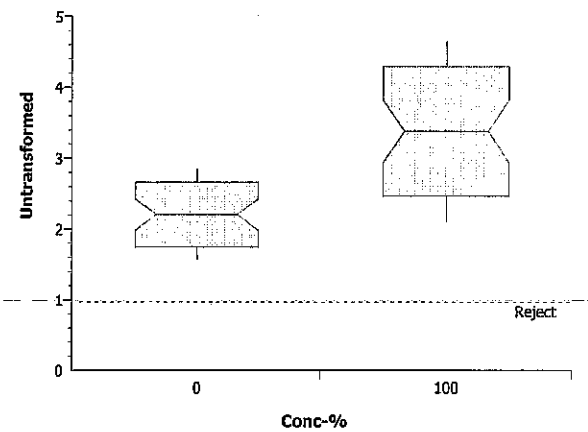
Data Summary

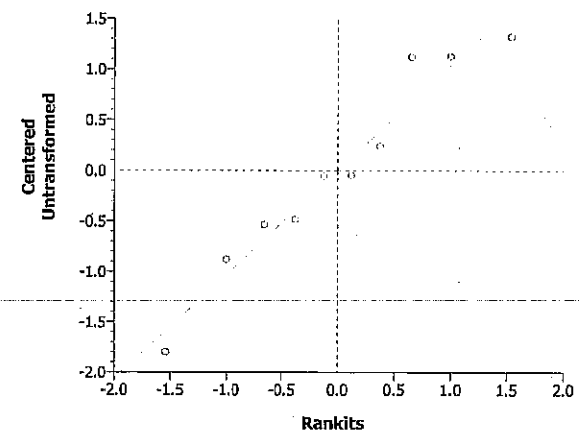
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	3.3799999	1.58	4.7	1.3293606				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		1.58	4.7	4.5	3.62	2.5					

Offspring





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** Control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RP
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	19	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AG **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RG

Tare Wt Date: 3-5-04 **Sign-Off:** AG **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg dry wt/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-08 **Test ID #:** 9760

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.4		7.99		20.3		JF
1	2/8/04	24.4		7.5		7.97		20.4	JF/RLG
2	2/9/04	24.9		8.2					PG
3	2/10/04	24.8		6.5					YK
4	2/11/04	23.6		6.4		8.03		19.6	NT
5	2/12//04	23.2		6.9					MC
6	2/13/04	23.4		7.6		8.06		20.6	PG
7	2/14/04	23.2		7.4					NT
8	2/15/04	23.5		6.6		8.16		21.9	JF
9	2/16/04	23.6		5.4					YK
10	2/17/04	23.1		7.1					PG
11	2/18/04	24.1		6.6		7.91		21.3	MC
12	2/19/04	22.3		6.7					YK
13	2/20/04	23.2		7.0		8.03		21.4	MC
14	2/21/04	22.5		6.5					NT
15	2/22/04	22.8		6.9		7.96		20.8	JF
16	2/23/04	22.7		7.8					JF
17	2/24/04	23.6		6.0					PG
18	2/25/04	23.2		8.02		7.3		20.9	MC
19	2/26/04	NM		7.3					NT
20	2/27/04	22.7		8.9		7.84		20.3	JF
21	2/28/04	23.1		4.2					NT
22	2/29/04	22.6		6.4		7.79		20.7	LL
23	3/1/04	22.5		6.0					YK
24	3/2/04	23.0		7.9					AG
25	3/3/04	23.0		7.0		8.10		21.1	MC
26	3/4/04	22.5		7.2					KH
27	3/5/04	22.6		6.2		7.91		18.8	KH
28	3/6/04	22.6		8.3		7.86		19.4	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	20	16	16	20	DG
Number of Surviving Offspring =	30 (1.58)	94 (4.70)	72 (4.5)	58 (3.62)	50 (2.50)	DG
QA: 10% Re-Count of Offspring =	—	—	—	58	—	MM 4/1/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-08 **Test ID #:** 9760 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AG **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RG

Tare Wt Date: 3-5-04 **Sign-Off:** AG **Final Wt Date:** 3-9-04 **Sign-Off:** MC

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	–	30.58	31.12	20	0.027	
T(0) - B	—	–	28.03	28.51	20	0.024	
T(0) - C	—	–	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-08	A	137.47	172.09	19	1.822	0.064
2		B	145.55	184.11	~~18~~ 20	1.928	0.068
3		C	126.33	172.71	~~19~~ 16	2.899	0.103
4		D	141.59	180.95	16	2.460	0.087
5		E	139.87	185.56	20	2.284	0.081
QA1	—	–	129.61	129.64			
QA2	—	–	134.51	134.54			

Appendix J

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-11 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	20-4990-5038	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9761	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-11	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
13-2485-1055	growth	100	>100	N/A	18.39%	Equal Variance t
16-2106-7905	Offspring	100	>100	N/A	46.02%	Equal Variance t
04-2034-0655	survival	100	>100	N/A	9.51%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.051	0.038	0.0610000	0.0038601	0.0086313	16.92%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	3.2380000	1.7100000	4.1700001	0.4565019	1.0207693	31.52%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.92	0.85	1	0.0339116	0.0758288	8.24%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.051	0.0560	0.038	0.049	0.0610

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		4.1	2.8	1.7100	3.4100	4.1700

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		1	1	0.85	0.85	0.9

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	07-3318-4627	06-4587-7728	10 May-04 9:38 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	9.51%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	2.46759	23.1545	0.4030596	Equal Variances
Distribution	Shapiro-Wilk W	0.8286135	0.7805495	0.03582457	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0001476247	0.0001476247	1	0.00986621	0.9233211	Non-Significant Effect
Error	0.1197012	0.01496265	8			
Total	0.1198488	0.01511028	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.0993288	1.859548	0.4616606	0.1438605	Non-Significant Effect

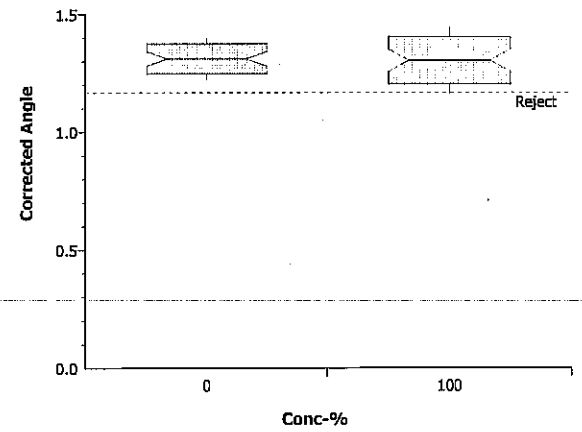
Data Summary

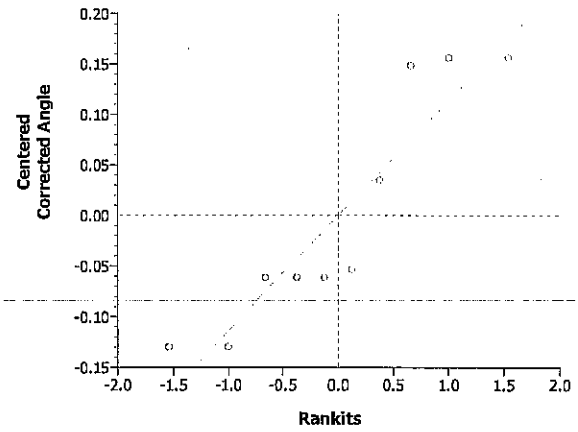
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.9200000	0.85	1	0.0758287	1.3025514	1.173097	1.458759	0.145929

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		1	1	0.85	0.85	0.9					

survival





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	07-3318-4627	06-4587-7728	10 May-04 9:37 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	18.39%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	2.418832	23.1545	0.4132307	Equal Variances
Distribution	Shapiro-Wilk W	0.9638168	0.7805495	0.8061228	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	5.290001E-05	5.290001E-05	1	1.004748	0.3455153	Non-Significant Effect
Error	0.0004212001	5.265001E-05	8			
Total	0.0004741001	0.00010555	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-1.002371	1.859548	0.8272424	0.008533685	Non-Significant Effect

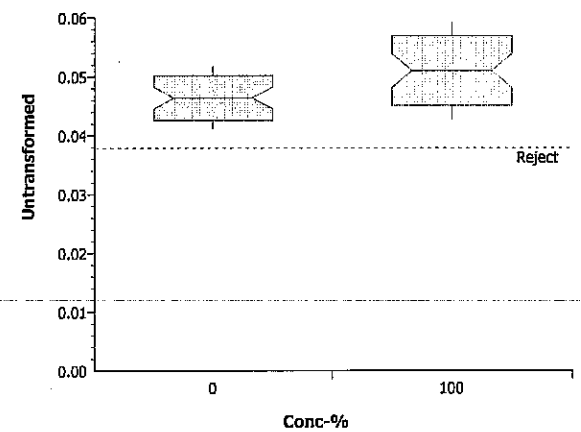
Data Summary

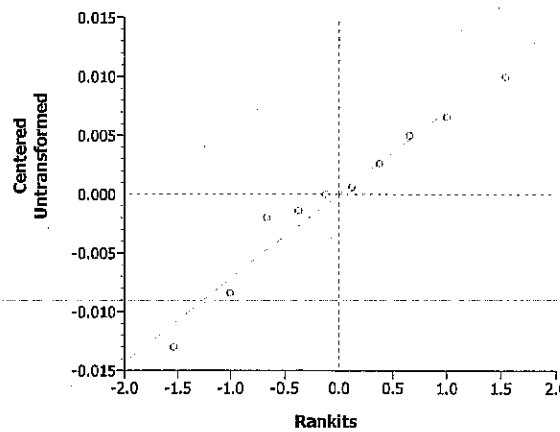
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.051	0.038	0.061	0.0086313				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.051	0.056	0.038	0.049	0.061					

growth





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	07-3318-4627	06-4587-7728	10 May-04 9:37 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	46.02%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	2.32567	23.1545	0.4337431	Equal Variances
Distribution	Shapiro-Wilk W	0.941456	0.7805495	0.5397487	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	2.66256	2.66256	1	3.573906	0.09535577	Non-Significant Effect
Error	5.96	0.7449999	8			
Total	8.62256	3.40756	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-1.890478	1.859548	0.9523221	1.015116	Non-Significant Effect

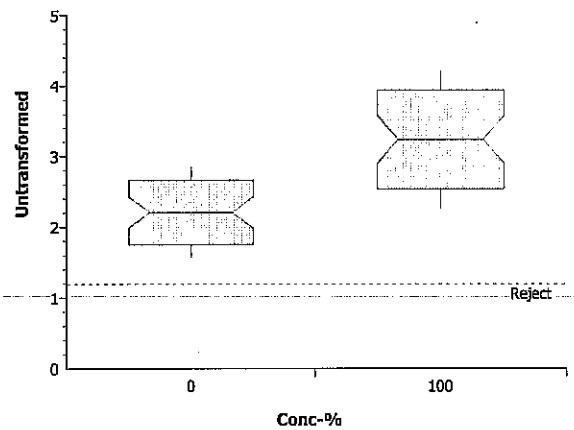
Data Summary

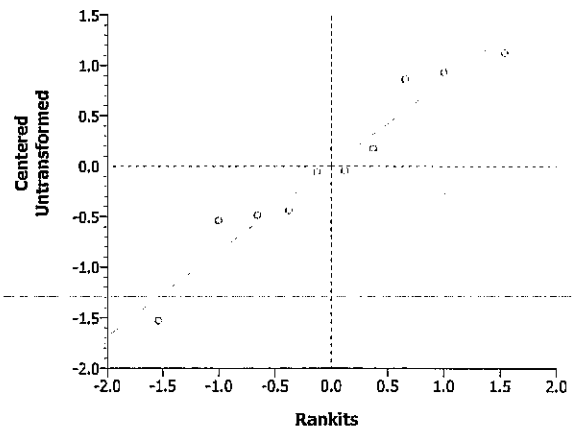
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	3.2380000	1.71	4.17	1.0207693				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		4.1	2.8	1.71	3.41	4.17					

Offspring





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RL
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AJ **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** Rb

Tare Wt Date: 3-5-04 **Sign-Off:** AJ **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg dry wt/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-11 **Test ID #:** 9761

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.3		8.03		20.7		JF
1	2/8/04	24.4		7.5		~~8.03~~ 7.84		20.9	JF/
2	2/9/04	24.9		8.1					PG
3	2/10/04	24.8		6.6					YK
4	2/11/04	23.7		6.3		8.00		19.6	NT
5	2/12//04	23.5		7.0					MC
6	2/13/04	23.6		7.3		7.95		20.4	PG
7	2/14/04	23.4		7.2					NT
8	2/15/04	23.7		6.6		8.09		21.5	JF
9	2/16/04	24.1		5.8					YK
10	2/17/04	23.4		6.9					PG
11	2/18/04	24.0		6.6		7.97		20.7	MC
12	2/19/04	22.6		6.7					YK
13	2/20/04	23.0		7.0		8.10		20.9	MC
14	2/21/04	22.5		6.6					NT
15	2/22/04	22.7		7.0		8.11		21.0	JF
16	2/23/04	22.9		7.6					JF
17	2/24/04	23.8		6.0					PG
18	2/25/04	23.5		7.4		8.09		21.2	MC
19	2/26/04	NM		8.1					NT
20	2/27/04	23.3		7.8		7.78		20.1	JF
21	2/28/04	23.1		7.7					NT
22	2/29/04	23.0		6.0		7.85		20.5	LL
23	3/1/04	22.8		6.2					YK
24	3/2/04	23.0		7.7					AO
25	3/3/04	23.3		7.1		8.14		21.0	MC
26	3/4/04	22.6		7.5					KH
27	3/5/04	22.7		6.4		7.90		18.8	KH
28	3/6/04	23.0		5.5		7.54		19.2	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	20	20	17	17	18	DG
Number of Surviving Offspring =	82 (4.10)	56 (2.80)	29 (1.71)	58 (3.41)	75 (4.17)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	—	—

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-11 **Test ID #:** 9761 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AG **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RB

Tare Wt Date: 3-5-04 **Sign-Off:** AG **Final Wt Date:** 3-9-04 **Sign-Off:** MC

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	–	30.58	31.12	20	0.027	
T(0) - B	—	–	28.03	28.51	20	0.024	
T(0) - C	—	–	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-11	A	149.25	178.55	20	1.465	0.051
2		B	134.73	166.77	20	1.602	0.056
3		C	141.06	159.43	17	1.081	0.038
4		D	139.17	163.10	17	1.408	0.049
5		E	135.75	166.74	18	1.722	0.061
QA1	—	–	129.61	129.64			
QA2	—	–	134.51	134.54			

Appendix K

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-12 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	12-9876-4594	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9762	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-12	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
10-8883-7009	growth	<100	100	N/A	16.11%	Equal Variance t
07-1289-6071	Offspring	<100	100	N/A	41.32%	Equal Variance t
04-0465-6568	survival	100	>100	N/A	12.32%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.025	0.0170000	0.0350000	0.0031623	0.0070711	28.28%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	0.682	0	1.7100000	0.3881675	0.8679689	127.27%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.91	0.7	1	0.0556776	0.124499	13.68%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.0350	0.029	0.0230	0.021	0.0170

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		1.7100	1.55	0.0500	0.1000	0

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.7	1	0.9	1	0.95

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	14-8855-4276	06-4587-7728	10 May-04 9:40 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	12.32%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	4.357994	23.1545	0.1829955	Equal Variances
Distribution	Shapiro-Wilk W	0.8731167	0.7805495	0.110482	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0002320953	0.0002320953	1	0.01003884	0.9226557	Non-Significant Effect
Error	0.184958	0.02311975	8			
Total	0.1851901	0.02335184	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.100194	1.859548	0.4613279	0.1788253	Non-Significant Effect

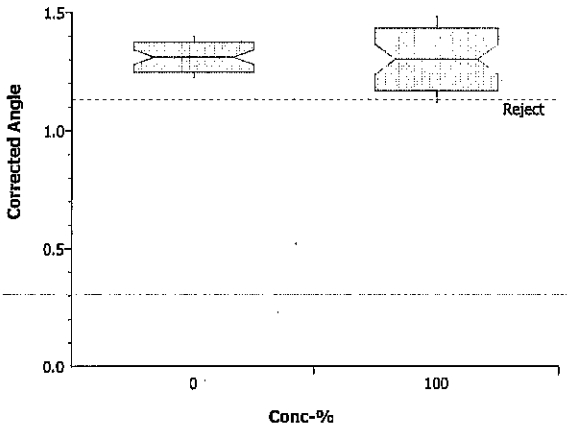
Data Summary

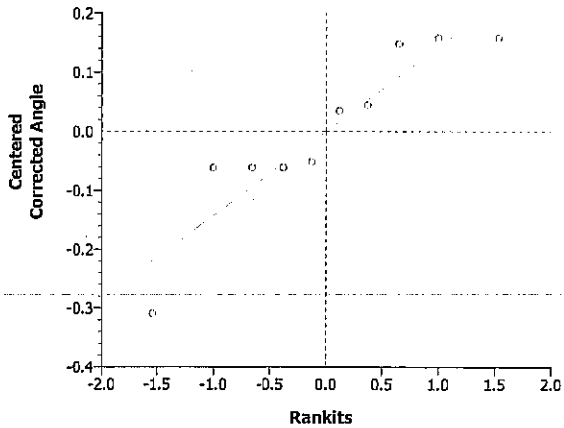
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.91	0.7	1	0.124499	1.3006005	0.9911566	1.458759	0.1939315

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.7	1	0.9	1	0.95					

survival





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	14-8855-4276	06-4587-7728	10 May-04 9:40 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		<100	100		N/A	41.32%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.681517	23.1545	0.6269781	Equal Variances
Distribution	Shapiro-Wilk W	0.8078635	0.7805495	0.02082709	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	5.80644	5.80644	1	9.666123	0.01446651	Significant Effect
Error	4.8056	0.6007	8			
Total	10.61204	6.40714	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	3.109039	1.859548	0.00723326	0.91152	Significant Effect

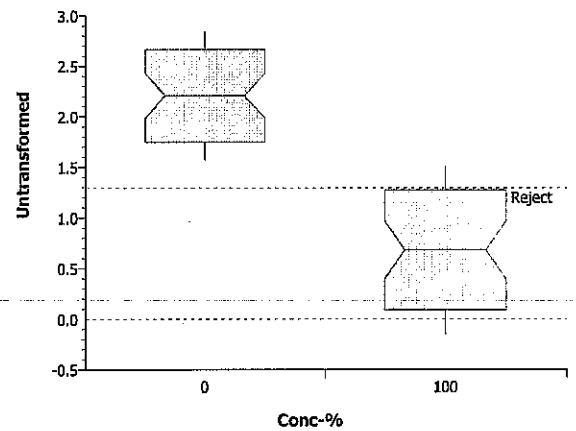
Data Summary

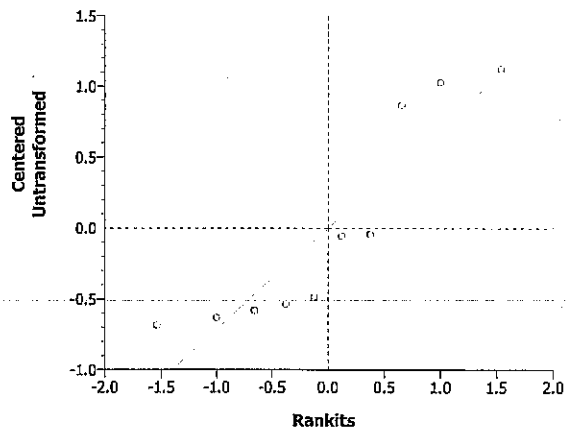
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	0.682	0	1.71	0.8679689				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		1.71	1.55	0.05	0.1	0					

Offspring





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	14-8855-4276	06-4587-7728	10 May-04 9:39 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		<100	100		N/A	16.11%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.623376	23.1545	0.6502731	Equal Variances
Distribution	Shapiro-Wilk W	0.9715582	0.7805495	0.8919096	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0011449	0.0011449	1	28.33911	0.0007080896	Significant Effect
Error	0.0003232	0.0000404	8			
Total	0.0014681	0.0011853	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	5.323449	1.859548	0.00035404	0.00747529	Significant Effect

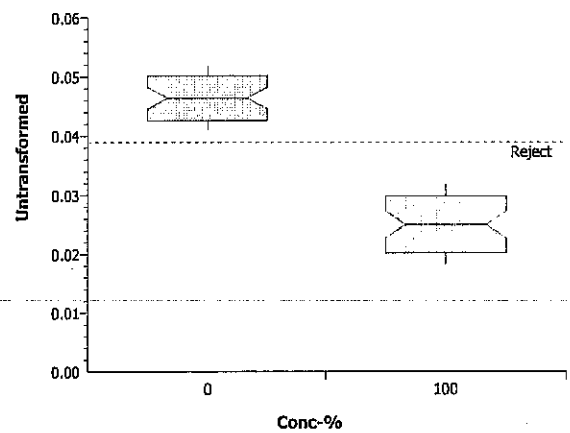
Data Summary

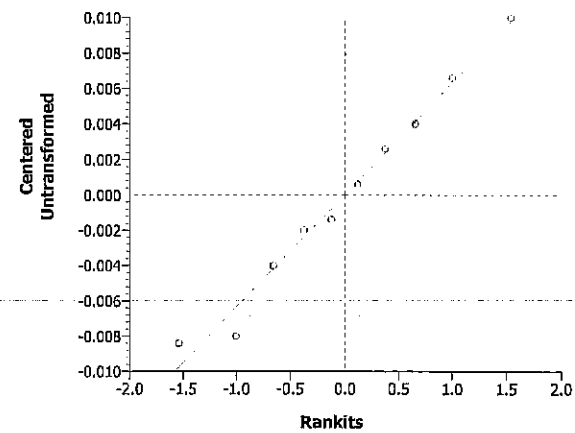
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.025	0.017	0.035	0.0070711				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.035	0.029	0.023	0.021	0.017					

growth





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** Control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RP
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		22.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ay **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** Rb

Tare Wt Date: 3-5-04 **Sign-Off:** ay **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-12 **Test ID #:** 9762

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.5		8.06		21.0		JF
1	2/8/04	24.4		7.4		8.08		21.4	JF/RP
2	2/9/04	24.9		8.0					PG
3	2/10/04	24.8		6.7					YK
4	2/11/04	23.8		6.6		8.09		20.4	NT
5	2/12//04	23.5		7.0					MC
6	2/13/04	23.8		7.4		8.00		21.3	PG
7	2/14/04	23.6		7.3					NT
8	2/15/04	23.8		6.7		8.21		22.5	JF
9	2/16/04	24.3		5.8					YK
10	2/17/04	23.6		7.0					PG
11	2/18/04	24.0		6.6		7.97		22.1	MC
12	2/19/04	22.9		6.6					YK
13	2/20/04	23.2		7.0		8.06		20.9	MC
14	2/21/04	22.9		6.4					NT
15	2/22/04	23.3		6.9		8.12		20.6	JF
16	2/23/04	23.0		7.8					JF
17	2/24/04	23.9		6.0					PG
18	2/25/04	23.6		7.3		8.09		20.8	MC
19	2/26/04	NM		7.1					NT
20	2/27/04	23.3		9.1		8.07		20.1	JF
21	2/28/04	23.6		7.7					NT
22	2/29/04	23.0		7.1		7.97		20.3	LL
23	3/1/04	22.9		6.1					YK
24	3/2/04	23.0		7.7					KS
25	3/3/04	23.3		7.1		8.07		20.7	MC
26	3/4/04	22.9		7.7					KH
27	3/5/04	23.0		6.0		7.94		18.5	KH
28	3/6/04	23.0		8.3		8.04		19.3	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	14	20	18	20	19	DG
Number of Surviving Offspring =	24 (1.71)	31 (1.55)	1 (0.05)	2 (0.10)	Ø (0.00)	DG
QA: 10% Re-Count of Offspring =	—	—	—	2	—	MM 4/1/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-12 **Test ID #:** 9762 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AG **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RA

Tare Wt Date: 3-5-04 **Sign-Off:** AG **Final Wt Date:** 3-9-04 **Sign-Off:** MC

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	–	30.55	31.12	20	0.027	
T(0) - B	—	–	28.03	28.51	20	0.024	
T(0) - C	—	–	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-12	A	130.18	144.39	14	1.015	0.035
2		B	145.91	162.51	20	0.830	0.029
3		C	142.35	154.28	18	0.663	0.023
4		D	142.65	154.91 ~~144.80~~	20	0.614	0.021
5		E	144.66	154.00	19	0.492	0.017
QA1	—	–	129.61	129.64			
QA2 6	—	–	131.87	131.90			

Appendix L

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-13 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	04-3949-3291	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9763	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-13	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
03-9367-9222	growth	100	>100	N/A	22.64%	Equal Variance t
15-8408-6676	Offspring	100	>100	N/A	36.11%	Equal Variance t
16-4334-6316	survival	100	>100	N/A	6.91%	Mann-Whitney U

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0586000	0.044	0.072	0.0050754	0.0113490	19.37%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	1.4540000	0.5600000	2.3	0.3064572	0.6852591	47.13%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.93	0.9	1	0.02	0.0447214	4.81%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.044	0.055	0.0680	0.0540	0.072

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		1.5800	2.3	1.8300	0.5600	1

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.95	1	0.9	0.9	0.9

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	12-9668-5843	06-4587-7728	10 May-04 9:41 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	22.64%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	4.181818	23.1545	0.194705	Equal Variances
Distribution	Shapiro-Wilk W	0.9918794	0.7805495	0.9991234	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0003721	0.0003721	1	4.662908	0.0628504	Non-Significant Effect
Error	0.0006384	0.0000798	8			
Total	0.0010105	0.0004519	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-2.159377	1.859548	0.9685748	0.01050603	Non-Significant Effect

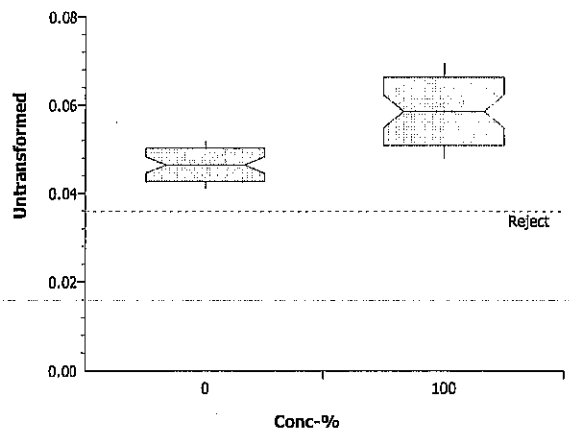
Data Summary

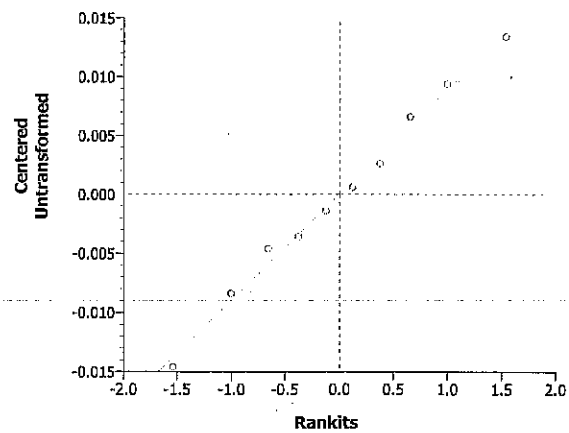
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0586000	0.044	0.072	0.0113490				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.044	0.055	0.068	0.054	0.072					

growth





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	12-9668-5843	06-4587-7728	10 May-04 9:41 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	36.11%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.0481	23.1545	0.964779	Equal Variances
Distribution	Shapiro-Wilk W	0.9515905	0.7805495	0.657295	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	1.41376	1.41376	1	3.081397	0.1172668	Non-Significant Effect
Error	3.67044	0.458805	8			
Total	5.0842	1.872565	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	1.755391	1.859548	0.05863342	0.7966204	Non-Significant Effect

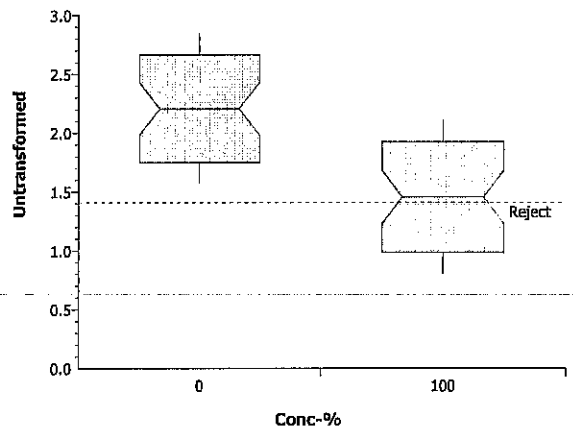
Data Summary

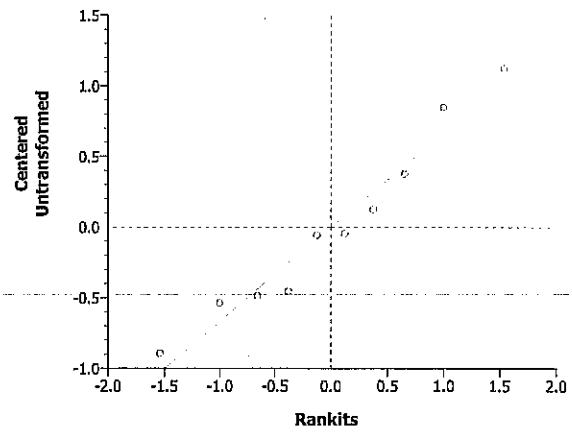
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	1.4540000	0.56	2.3	0.6852591				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		1.58	2.3	1.83	0.56	1					

Offspring





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	12-9668-5843	06-4587-7728	10 May-04 9:41 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Mann-Whitney U	C > T	Angular (Corrected)		100	>100	1.00	N/A	6.91%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1	23.1545	1	Equal Variances
Distribution	Shapiro-Wilk W	0.7122694	0.7805495	0.001396795	Non-normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0	0	1	0	1	Non-Significant Effect
Error	0.06904002	0.008630002	8			
Total	0.06904002	0.008630002	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	Ties	Decision(0.05)
Control Sed		100	12.5		0.5	3	Non-Significant Effect

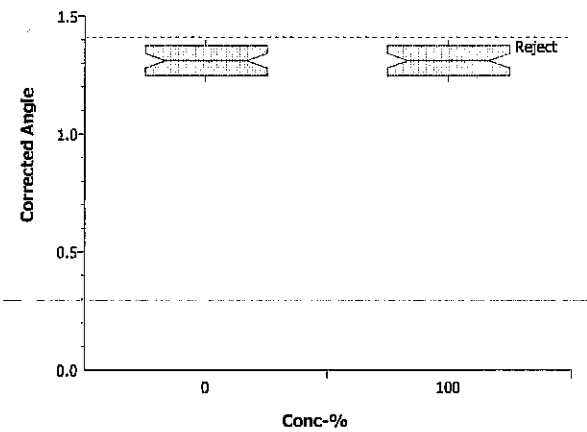
Data Summary

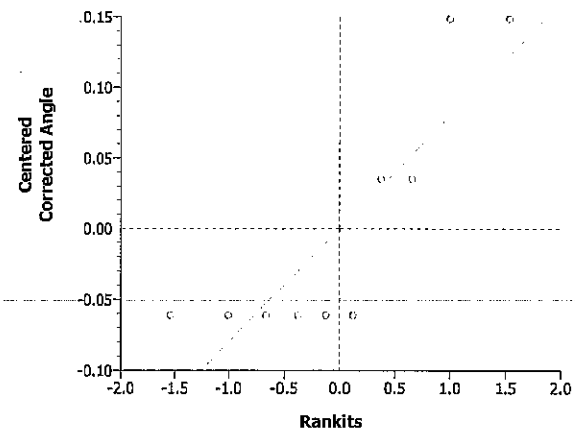
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.95	1	0.9	0.9	0.9					

survival





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** Control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RL
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** AG **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** Rb

Tare Wt Date: 3-5-04 **Sign-Off:** AG **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg dry wt/day

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-13 **Test ID #:** 9763

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.0		7.86		20.6		JF
1	2/8/04	24.4		6.9		7.91		20.9	JF/PG
2	2/9/04	24.9		7.8					PG
3	2/10/04	24.8		6.3					YK
4	2/11/04	23.7		6.2		7.94		20.1	NT
5	2/12//04	23.2		6.7					mc
6	2/13/04	23.7		7.2		7.83		20.8	PG
7	2/14/04	23.5		7.0					NT
8	2/15/04	23.8		6.2		7.94		21.7	JF
9	2/16/04	24.1		5.6					YK
10	2/17/04	23.4		6.2					PG
11	2/18/04	24.0		6.5		7.84		20.6	mc
12	2/19/04	22.8		6.0					YK
13	2/20/04	23.1		6.8		7.94		20.6	mc
14	2/21/04	22.8		6.1					NT
15	2/22/04	23.0		6.7		7.78		20.5	JF
16	2/23/04	22.8		7.5					JF
17	2/24/04	23.7		5.4					PG
18	2/25/04	23.4		7.3		7.93		20.6	mc
19	2/26/04	NM		7.5					NT
20	2/27/04	23.2		8.4		7.72		20.3	JF
21	2/28/04	23.3		8.0					NT
22	2/29/04	23.0		7.0		7.90		20.3	"
23	3/1/04	22.9		6.2					YK
24	3/2/04	23.0		7.9					[illegible]
25	3/3/04	23.2		7.2		8.01		20.6	mc
26	3/4/04	23.0		7.4					KH
27	3/5/04	23.0		6.4		7.98		18.2	KH
28	3/6/04	23.0		8.3		7.85		19.1	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	20	18	18	18	DG
Number of Surviving Offspring =	30 (1.58)	46 (2.3)	33 (1.83)	10 (0.56)	18 (1.0)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	18	MM 4/1/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-13 **Test ID #:** 9763 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ag **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** RJ

Tare Wt Date: 3-5-04 **Sign-Off:** ag **Final Wt Date:** 3-9-04 **Sign-Off:** MR

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-13	A	145.90	169.90	19	1.263	0.044
2		B	130.57	162.12	20	1.578	0.055
3		C	128.30	163.31	18	1.945	0.068
4		D	147.34	174.98	18	1.536	0.054
5		E	162.07	199.08	18	2.056	0.072
QA1	—	—	129.61	129.64			
QA2 #6	—	—	131.87	131.90			

Appendix M

Test Data and Summary of Statistics for the Evaluation of the Chronic Toxicity of the Seal Beach NWR T-14 Sediments to *Leptocheirus plumulosus*

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Test:	14-3393-9873	**Test Type:**	survival-growth-offspring	**Species:**	Leptocheirus plumulosus
Start Date:	07 Feb-04 12:00 PM	**Protocol:**	EPA 600/R-01/020	**Source:**	Still Meadows
End Date:	06 Mar-04 12:00 PM	**Dil Water:**			
Setup Date:	07 Feb-04 12:00 PM	**Brine:**			

Sample:	14-1543-3538	**Material:**	Marine Sediment	**Client:**	CH2MHill
Sampled:	01 Dec-04	**Code:**	9764	**Project:**	
Received:	13 Jan-04 02:30 PM	**Source:**	CH2MHill	**Latitude:**	
Temp °C:		**Station:**	T-14	**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
08-5391-1964	growth	100	>100	N/A	19.80%	Equal Variance t
10-0201-5959	Offspring	100	>100	N/A	35.53%	Equal Variance t
09-3358-7734	survival	100	>100	N/A	10.45%	Equal Variance t

growth Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.0464	0.038	0.053	0.0024819	0.0055498	11.96%
100		5	0.0544000	0.044	0.0640000	0.0042732	0.0095551	17.56%

Offspring Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	2.2060000	1.67	3.3299999	0.2993426	0.6693504	30.34%
100		5	1.504	0.6100000	2.3499999	0.2967591	0.6635736	44.12%

survival Summary

Conc-%	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Control Sed	5	0.93	0.9	1	0.02	0.0447214	4.81%
100		5	0.91	0.8	1	0.0400000	0.0894427	9.83%

growth Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.038	0.047	0.0450	0.049	0.053
100		0.044	0.0450	0.0640	0.0560	0.0630

Offspring Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	2.1600	1.67	3.33	2.1500	1.7200
100		0.6100	1.18	1.88	2.35	1.5

survival Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Control Sed	0.95	0.9	0.9	1	0.9
100		0.9	0.85	0.8	1	1

CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
growth	Comparison	05-0575-3888	06-4587-7728	10 May-04 9:42 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	19.80%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	2.964286	23.1545	0.3175827	Equal Variances
Distribution	Shapiro-Wilk W	0.9152703	0.7805495	0.3041441	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.0001600001	0.0001600001	1	2.620804	0.1441313	Non-Significant Effect
Error	0.0004884001	6.105001E-05	8			
Total	0.0006484002	0.0002210501	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	-1.61889	1.859548	0.9279343	0.009189254	Non-Significant Effect

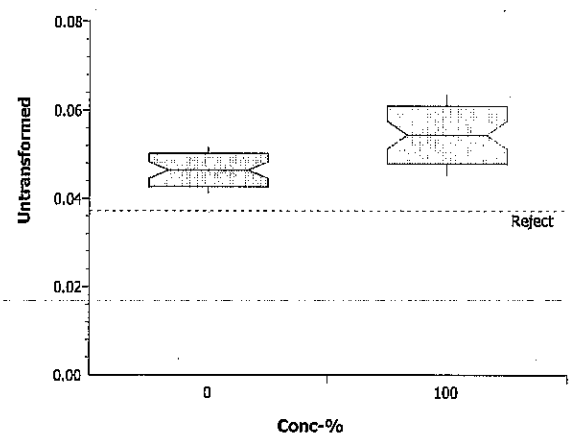
Data Summary

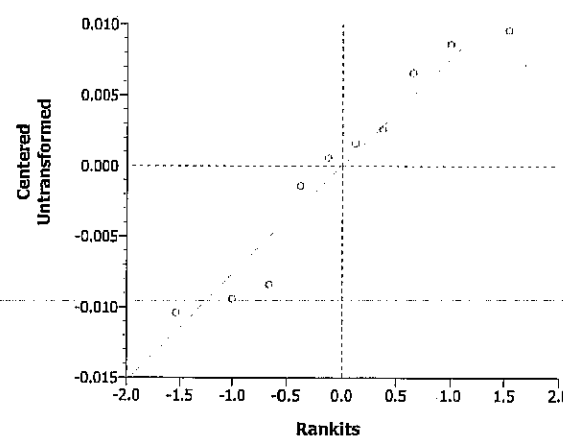
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.0464	0.038	0.053	0.0055498				
100		5	0.0544000	0.044	0.064	0.0095551				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.038	0.047	0.045	0.049	0.053					
100		0.044	0.045	0.064	0.056	0.063					

growth





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
survival	Comparison	05-0575-3888	06-4587-7728	10 May-04 9:42 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Angular (Corrected)		100	>100	1.00	N/A	10.45%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	3.06301	23.1545	0.303822	Equal Variances
Distribution	Shapiro-Wilk W	0.8900169	0.7805495	0.1671523	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	0.001089313	0.001089313	1	0.06213322	0.8094361	Non-Significant Effect
Error	0.1402551	0.01753189	8			
Total	0.1413444	0.0186212	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	0.2492654	1.859548	0.4047181	0.1557226	Non-Significant Effect

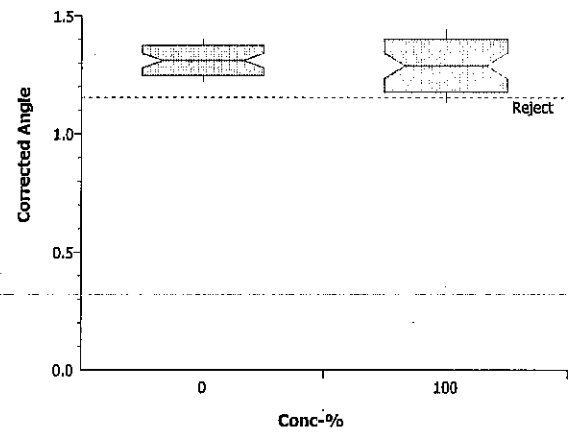
Data Summary

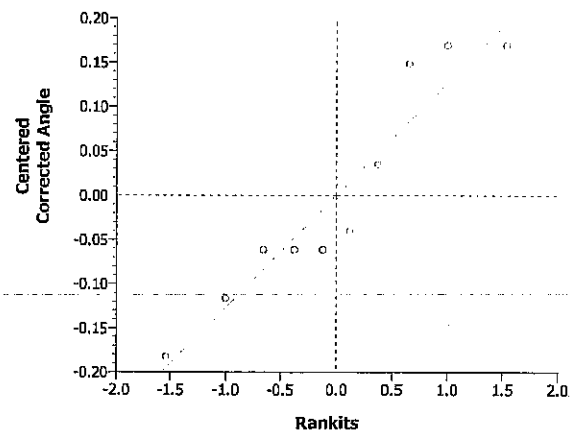
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	0.93	0.9	1	0.0447212	1.3102358	1.249046	1.458759	0.0928976
100		5	0.9100000	0.8	1	0.0894427	1.2893618	1.107149	1.458759	0.1625845

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	0.95	0.9	0.9	1	0.9					
100		0.9	0.85	0.8	1	1					

survival





CETIS Report

Amphipod Survival, Growth, and Reproduction Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Offspring	Comparison	05-0575-3888	06-4587-7728	10 May-04 9:42 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Equal Variance t	C > T	Untransformed		100	>100	1.00	N/A	35.53%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Variance Ratio	1.017487	23.1545	0.9869989	Equal Variances
Distribution	Shapiro-Wilk W	0.9497325	0.7805495	0.6349584	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	1.23201	1.23201	1	2.773674	0.13439	Non-Significant Effect
Error	3.55344	0.44418	8			
Total	4.78545	1.67619	9			

Group Comparisons

Control	vs	Conc-%	Statistic	Critical	P Level	MSD	Decision(0.05)
Control Sed		100	1.665435	1.859548	0.067195	0.7838209	Non-Significant Effect

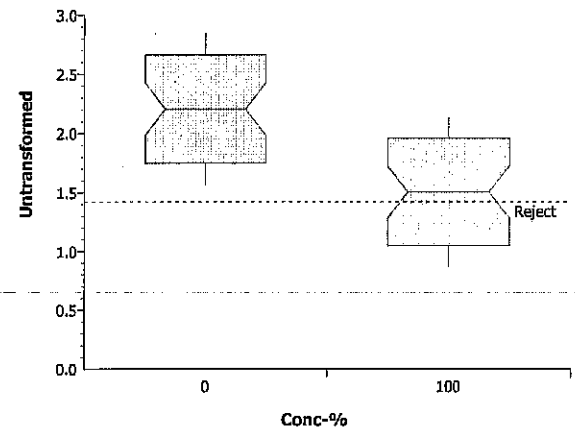
Data Summary

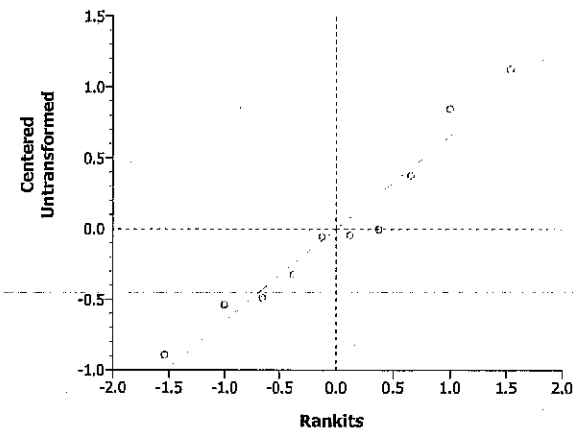
			Original Data				Transformed Data			
Conc-%	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Control Sed	5	2.2060000	1.67	3.33	0.6693504				
100		5	1.504	0.61	2.35	0.6635736				

Data Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Control Sed	2.16	1.67	3.33	2.15	1.72					
100		0.61	1.18	1.88	2.35	1.5					

Offspring





28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** Control **Test ID #:** Control

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	5.9		7.54		19.7		JF
1	2/8/04	24.4		6.7		7.79		19.9	JF/RL
2	2/9/04	24.9		7.6					PG
3	2/10/04	24.8		6.4					YK
4	2/11/04	23.4		6.7		7.93		20.0	NT
5	2/12//04	23.2		5.9					MC
6	2/13/04	23.8		7.4		7.85		20.9	PG
7	2/14/04	23.4		7.6					NT
8	2/15/04	23.7		7.2		8.28		22.5	JF
9	2/16/04	24.2		5.7					YK
10	2/17/04	23.5		7.8					PG
11	2/18/04	24.0		6.8		7.70		21.4	MC
12	2/19/04	22.5		7.0					YK
13	2/20/04	23.5		7.1		8.11		21.9	MC
14	2/21/04	23.1		6.3					NT
15	2/22/04	23.3		6.3		8.08		20.9	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.6		6.1					PG
18	2/25/04	23.5		7.7		8.21		22.0	MC
19	2/26/04	23.2		7.2					NT
20	2/27/04	23.1		8.9		8.01		21.5	JF
21	2/28/04	23.4		8.1					NT
22	2/29/04	23.0		7.1		8.13		21.3	LL
23	3/1/04	22.9		6.3					YK
24	3/2/04	23.0		8.9					AO
25	3/3/04	23.3		7.3		7.72		21.7	MC
26	3/4/04	23.2		7.9					KH
27	3/5/04	22.9		6.7		7.99		19.4	KH
28	3/6/04	22.9		8.8		8.07		19.0	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	19	18	18	20	18	DG
Number of Surviving Offspring =	41 (2.16)	30 (1.67)	60 (3.33)	43 (2.15)	31 (1.72)	DG
QA: 10% Re-Count of Offspring =	—	—	—	—	31	MM 3/31/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Sea Beach NWR

Sample ID: CONTROL **Test ID #:** Control **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ay **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** Rb

Tare Wt Date: 3-5-04 **Sign-Off:** ay **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	Control	A	142.07	162.61	19	1.081	0.038
2		B	142.14	166.17	18	1.335	0.047
3		C	161.17	184.10	18	1.274	0.045
4		D	128.42	156.24	20	1.391	0.049
5		E	128.35	155.67	18	1.518	0.053
QA1	—	—	129.61	129.64			
QA2	—	—	149.33	149.37			mg/day/ind

28-day *Leptocheirus plumulosus* Sediment Toxicity Test Data

Client: CH2M HILL **Sample ID:** T-14 **Test ID #:** 9769

Day of Test	Date	Temp (°C)	D.O. (mg/L)		pH		Salinity (ppt)		Sign-Off
			New	Old	New	Old	New	Old	
0	2/7/04	24.4	6.4		8.02		20.7		JF
1	2/8/04	24.4		7.4		8.12		20.4	JF/RM
2	2/9/04	24.9		8.2					PG
3	2/10/04	24.8		6.6					YK
4	2/11/04	23.6		6.5		8.08		20.6	NT
5	2/12//04	23.2		6.8					MC
6	2/13/04	23.6		7.5		8.06		21.7	PG
7	2/14/04	23.4		7.2					NT
8	2/15/04	23.5		6.6		8.23		23.6	JF
9	2/16/04	24.1		5.9					YK
10	2/17/04	23.3		6.9					PG
11	2/18/04	24.0		6.5		7.88		21.3	MC
12	2/19/04	22.8		6.6					YK
13	2/20/04	23.0		6.8		7.94		21.3	MC
14	2/21/04	22.8		6.4					NT
15	2/22/04	23.2		6.8		8.01		20.7	JF
16	2/23/04	22.9		7.7					JF
17	2/24/04	23.8		5.8					PG
18	2/25/04	23.4		7.2		7.95		20.8	MC
19	2/26/04	NM		6.4					NT
20	2/27/04	23.2		9.0		8.00		19.5	JF
21	2/28/04	23.3		7.9					NT
22	2/29/04	23.0		6.9		7.91		20.3	CL
23	3/1/04	22.9		6.1					YK
24	3/2/04	23.0		7.7					DG
25	3/3/04	23.3		7.1		8.00		20.6	MC
26	3/4/04	23.0		7.5					KH
27	3/5/04	23.2		6.3		7.97		18.2	KH
28	3/6/04	23.1		7.8		7.81		19.1	NT

Day 28: Test Termination	Rep A	Rep B	Rep C	Rep D	Rep E	Sign-Off
Number of Surviving Adults =	18	17	16	20	20	DG
Number of Surviving Offspring =	11 (0.61)	20 (1.18)	30 (1.88)	47 (2.35)	30 (1.50)	DG
QA: 10% Re-Count of Offspring =	—	—	30	—	—	MM 3/30/04

28-day *Leptocheirus plumulosus* Marine/Estuarine Sediment Toxicity Test Growth (Mean Dry Weight) Data Sheet

Client: CH2M HILL **Project** Seal Beach NWR

Sample ID: T-14 **Test ID #:** 9768 **Date (T0):** 2/7/04

T(0) Tare Wt Date: 2-5-04 **Sign-Off:** ag **T(0) Final Wt Date:** 2/10/04 **Sign-Off:** [illegible]

Tare Wt Date: 3-5-04 **Sign-Off:** ag **Final Wt Date:** 3-9-04 **Sign-Off:** mc

Pan #	Test Treatment/ Replicate		Initial Dry Pan Weight	Dry Pan + Organism Wt	# of Surviving Organisms	Mean Dry Weight	GROWTH RATE
T(0) - A	—	—	30.58	31.12	20	0.027	
T(0) - B	—	—	28.03	28.51	20	0.024	
T(0) - C	—	—	27.67	28.19	20	0.026	
				Overall Mean T(0) Dry Weight =		0.026	
1	T-14	A	153.62	176.16	18	1.252	0.044
2		B	144.88	166.69	17	1.283	0.045
3		C	144.69	173.56	16	1.864	0.064
4		D	145.62	177.76	20	1.607	0.056
5		E	147.12	182.80	20	1.784	0.063
QA1	—	—	129.61	129.64			
QA2	—	—	135.30	135.32			

Appendix N

Test Data and Summary of Statistics for the Reference Toxicant Evaluation of the *Leptocheirus plumulosus* Test Organisms

CETIS Report

Acute Amphipod Survival Test — **Pacific EcoRisk**

Test:	08-1104-1210	**Test Type:**	Survival	**Species:**	Leptocheirus plumulosus
Start Date:	12 Feb-04 03:00 PM	**Protocol:**	EPA/600/R-94/025 (1994)	**Source:**	
End Date:	16 Feb-04 03:45 PM	**Dil Water:**	Seawater		
Setup Date:	12 Feb-04 05:45 PM	**Brine:**			

Sample:	03-3569-3621	**Material:**	Cadmium chloride	**Client:**	
Sampled:	12 Feb-04	**Code:**	9178	**Project:**	
Received:	12 Feb-04	**Source:**	Reference Toxicant	**Latitude:**	
Temp °C:	0	**Station:**		**Longitude:**	

Comparison Summary

Analysis	Endpoint	NOEL	LOEL	ChV	MSDp	Method
11-3570-7728	Proportion Survived	0.25	0.5	0.3535534	12.27%	Dunnett's Multiple Comparison

Point Estimate Summary

Analysis	Endpoint	% Effect	Conc-µg/L	95% LCL	95% UCL	Method
09-8304-6571	Proportion Survived	5	0.3041667	0.2647727	0.4041667	Linear Interpolation
		10	0.3583333	0.2795455	0.5583334	
		15	0.4125	0.2943182	0.7125001	
		20	0.4666667	0.3090909	3	
		25	1.125	N/A	2.053571	
		40	2.075	1.775	2.375	
		50	2.5625	2.3125	2.8125	

Proportion Survived Summary

Conc-µg/L	Control Type	Reps	Mean	Minimum	Maximum	SE	SD	CV
0	Lab Water	2	0.95	0.9	1	0.0500000	0.0707107	7.44%
0.25		2	1	1	1	0	0	0.00%
0.5		2	0.75	0.7	0.8	0.0500000	0.0707107	9.43%
1		2	0.75	0.7	0.8	0.0500000	0.0707107	9.43%
2		2	0.6	0.6	0.6	0	0	0.00%
4		2	0.2	0.2	0.2	0	0	0.00%
8		2	0	0	0	0	0	0.00%

Proportion Survived Detail

Conc-µg/L	Control Type	Rep 1	Rep 2
0	Lab Water	1	0.9
0.25		1	1
0.5		0.8	0.7
1		0.8	0.7
2		0.6	0.6
4		0.2	0.2
8		0	0

CETIS Report

Acute Amphipod Survival Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Comparison	15-7487-2829	15-7487-2829	04 Mar-04 11:03 AM	CETISv1.023

Method	Alt H	Data Transform	Z	NOEL	LOEL	Toxic Units	ChV	MSDp
Dunnett's Multiple Comparison	C > T	Angular (Corrected)		0.25	0.5	400.00	0.3535534	12.27%

ANOVA Assumptions

Attribute	Test	Statistic	Critical	P Level	Decision(0.01)
Variances	Modified Levene	65535	8.745895	4.02866E-14	Unequal Variances
Distribution	Shapiro-Wilk W	0.8988709	0.8046539	0.1564349	Normal Distribution

ANOVA Table

Source	Sum of Squares	Mean Square	DF	F Statistic	P Level	Decision(0.05)
Between	1.156878	0.2313756	5	51.9287	7.370531E-05	Significant Effect
Error	0.02673384	0.00445564	6			
Total	1.183612	0.2358312	11			

Group Comparisons

Control	vs	Conc-µg/L	Statistic	Critical	P Level	MSD	Decision(0.05)
Lab Water		0.25	-1.220741	2.83	>0.05	0.1889041	Non-Significant Effect
		0.5	4.215368	2.83	<=0.05	0.1889041	Significant Effect
		1	4.215368	2.83	<=0.05	0.1889041	Significant Effect
		2	6.658426	2.83	<=0.05	0.1889041	Significant Effect
		4	12.9869	2.83	<=0.05	0.1889041	Significant Effect

Data Summary

			Original Data				Transformed Data			
Conc-µg/L	Control Type	Count	Mean	Minimum	Maximum	SD	Mean	Minimum	Maximum	SD
0	Lab Water	2	0.95	0.9	1	0.0707106	1.3305309	1.249046	1.412016	0.1152377
0.25		2	1	1	1	0	1.4120162	1.412016	1.412016	0.0003334
0.5		2	0.75	0.7	0.8	0.0707109	1.0491527	0.9911566	1.107149	0.0820185
1		2	0.75	0.7	0.8	0.0707109	1.0491527	0.9911566	1.107149	0.0820185
2		2	0.6000000	0.6	0.6	0.0001691	0.8860771	0.8860771	0.8860771	0.0001326
4		2	0.2000000	0.2	0.2	5.726E-05	0.4636476	0.4636476	0.4636476	6.506E-05

Data Detail

Conc-µg/L	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Water	1	0.9								
0.25		1	1								
0.5		0.8	0.7								
1		0.8	0.7								
2		0.6	0.6								
4		0.2	0.2								

CETIS Report

Report Date: 04 Mar-04 11:03 AM
Analysis: 09-8304-6571

Acute Amphipod Survival Test — **Pacific EcoRisk**

Endpoint	Analysis Type	Sample Link	Control Link	Date Analyzed	Version
Proportion Survived	Linear Interpolation	15-7487-2829	15-7487-2829	04 Mar-04 11:03 AM	CETISv1.023

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Expanded CL	Method
Linear	Linear	8144900	200	Yes	Two-Point Interpolation

Point Estimates

% Effect	Conc-µg/L	95% LCL	95% UCL
5	0.3041667	0.2647727	0.4041667
10	0.3583333	0.2795455	0.5583334
15	0.4125	0.2943182	0.7125001
20	0.4666667	0.3090909	3
25	1.125	N/A	2.053571
40	2.075	1.775	2.375
50	2.5625	2.3125	2.8125

Data Summary

			Calculated Variate(A/B)						
Conc-µg/L	Control Type	Count	Mean	Minimum	Maximum	SE	SD	A	B
0	Lab Water	2	0.95	0.9	1	0.014434	0.070711	19	20
0.25		2	1	1	1	0	0	20	20
0.5		2	0.75	0.7	0.8	0.014434	0.070711	15	20
1		2	0.75	0.7	0.8	0.014434	0.070711	15	20
2		2	0.6000000	0.6	0.6	3.45E-05	0.000169	12	20
4		2	0.2000000	0.2	0.2	1.17E-05	5.73E-05	4	20
8		2	0	0	0	0	0	0	20

96 Hour Marine Amphipod Reference Toxicant Test Data

Client: PER Test Date: 2-12-04 Test ID#: 9363

Species: *L. plumulosus* Organism Log #: 1588 Test Material: $CdCl_2$

Treatment (mgCd/L)	Temp	pH	DO	Salinity	# Live Animals A	# Live Animals B	Sign-off
Control	25.1	7.94	7.2	19.6	10	~~10~~ 9	Time:
0.25	25.1	7.96	7.2	19.9	10	10	Date: 2·12·04
0.5	25.1	7.96	7.4	19.7	~~10~~ 9	~~10~~ 9	
1	25.1	7.96	7.2	19.9	10	10	1500
2	25.1	7.97	7.3	19.9	10	10	Name:
4	25.1	7.96	7.3	19.9	10	10	NT
8	25.1	7.97	7.4	19.9	10	10	
Control	25.1	7.80	6.8	19.6	10	9	Time: 1245
0.25	25.1	7.83	6.9	19.9	10	10	Date: 2·13·04
0.5	25.1	7.85	7.0	19.9	9	9	
1	25.1	7.85	7.0	20.0	10	10	
2	25.1	7.85	6.9	20.0	10	10	
4	25.1	7.85	6.9	19.9	10	10	Name:
8	25.1	7.86	6.7	20.1	9	9	JF
Control	24.2	7.83	6.1	20.0	10	9	Time: 1540
0.25	24.2	7.88	5.3	20.0	10	10	Date: ~~DG~~
0.5	24.2	7.93	5.8	20.0	8	8	2/14/04
1	24.2	7.94	6.0	20.0	10	9	
2	24.2	7.96	6.2	20.0	10	10	
4	24.2	7.96	6.2	20.0	8	8	Name: NT
8	24.2	7.94	6.0	20.0	3	0	
Control	24.5	7.90	6.6	20.1	10	9	Time: 1245
0.25	24.5	7.95	6.4	20.1	10	10	Date:
0.5	24.5	7.90	6.5	20.1	8	7	2-15-04
1	24.5	7.93	6.6	20.1	8	7	
2	24.5	8.00	6.6	20.1	9	10	Name:
4	24.5	7.99	6.5	20.0	4	5	
8	24.5	7.90	6.6	20.0	0	—	
Control	24.9	7.67	~~24.7~~ 6.3 PG	20.0	10	9	Time:
0.25	24.9	7.78	6.3	20.2	10	10	Date: 2·16·04
0.5	24.9	7.81	6.3	20.2	8	7	1545
1	24.9	7.84	6.5	20.3	8	7	
2	24.9	7.87	6.8	20.0	6	6	
4	24.9	7.88	7.0	19.8	2	2	Name: PG
8	—	—	—	—	—	—	

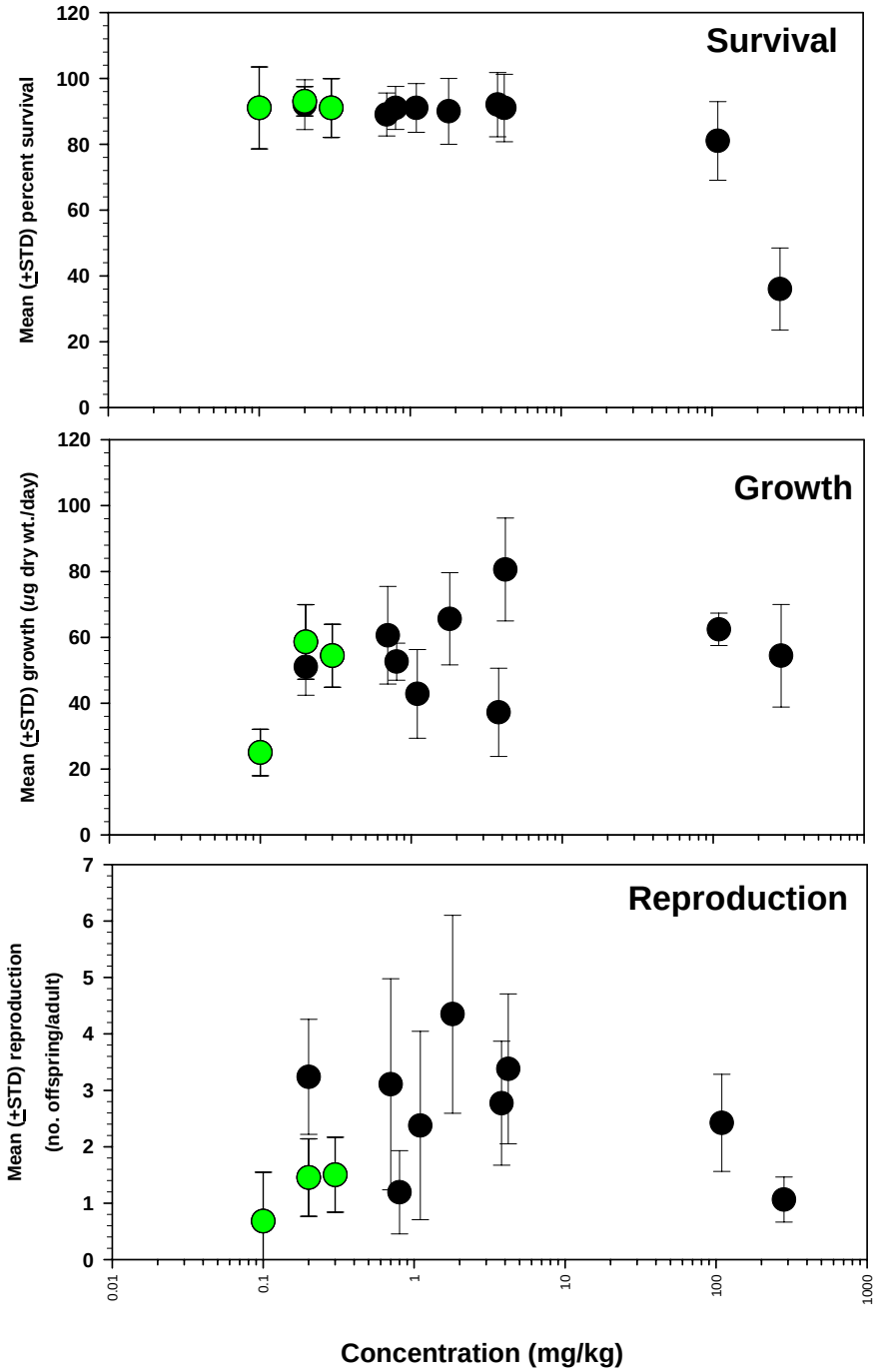


Figure C-1. Mean survival, growth, and reproduction of *Leptocheirus* versus antimony concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

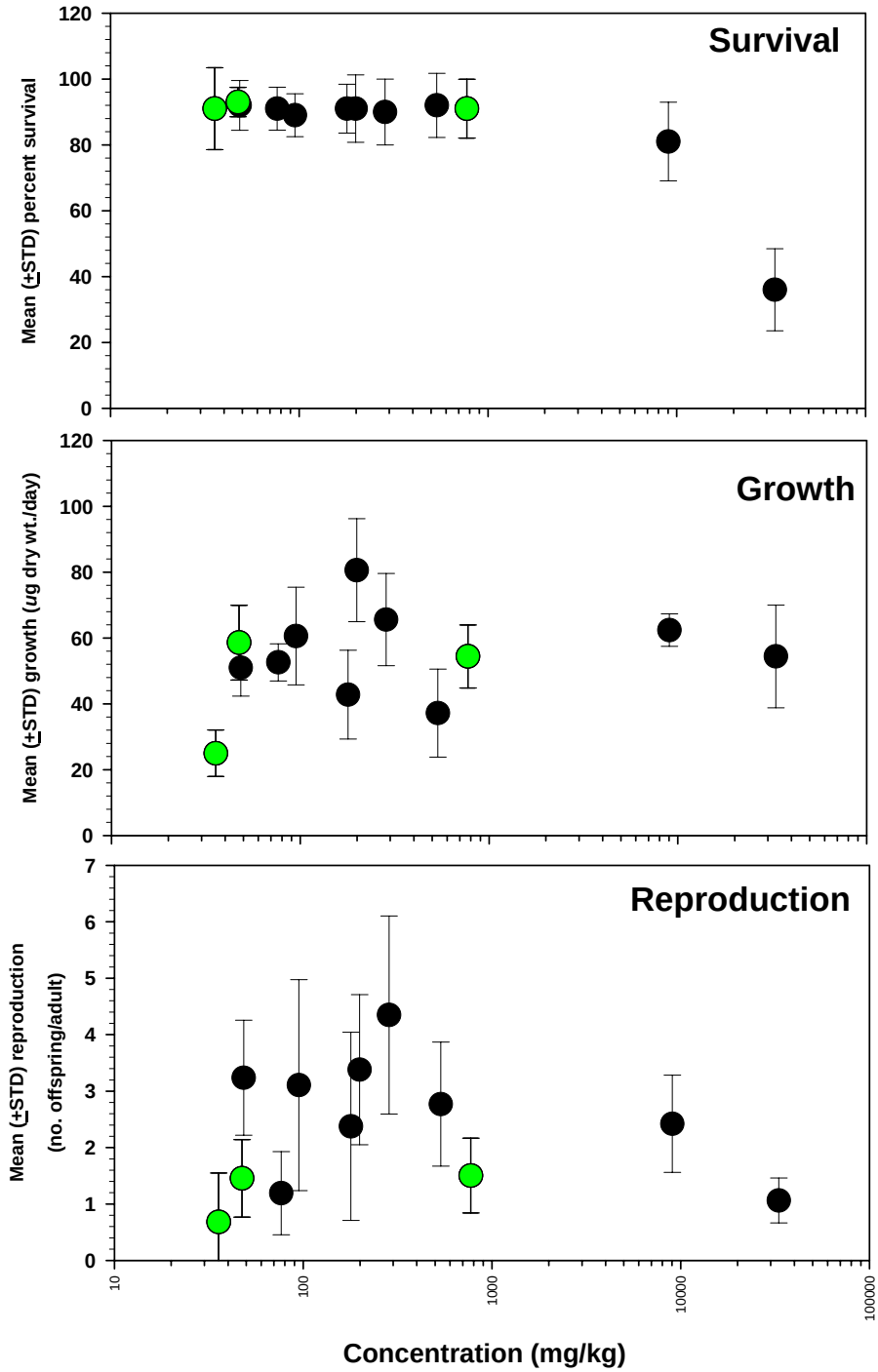


Figure C-2. Mean survival, growth, and reproduction of *Leptocheirus* versus lead concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

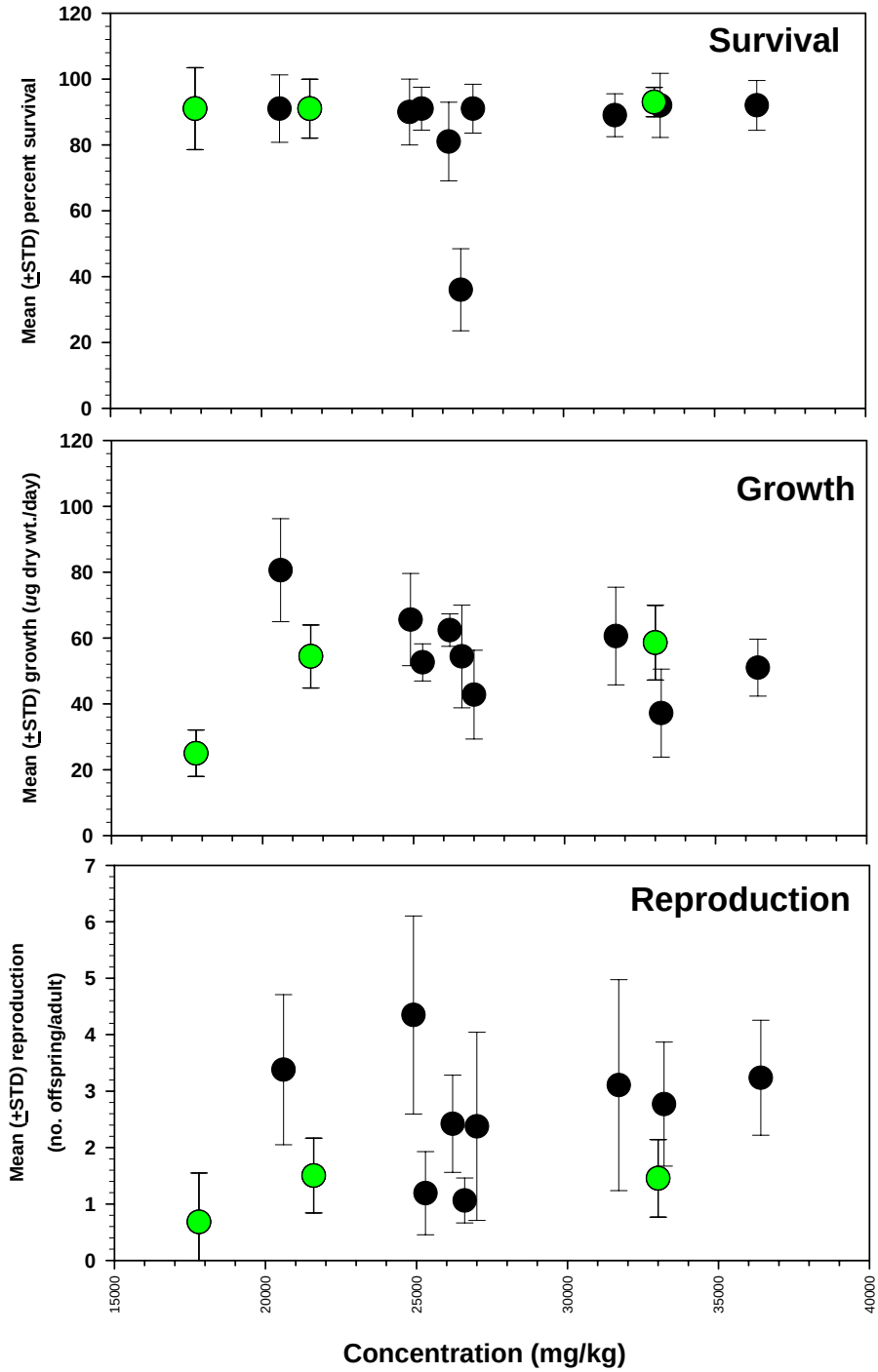


Figure C-3. Mean survival, growth, and reproduction of *Leptocheirus* versus aluminium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

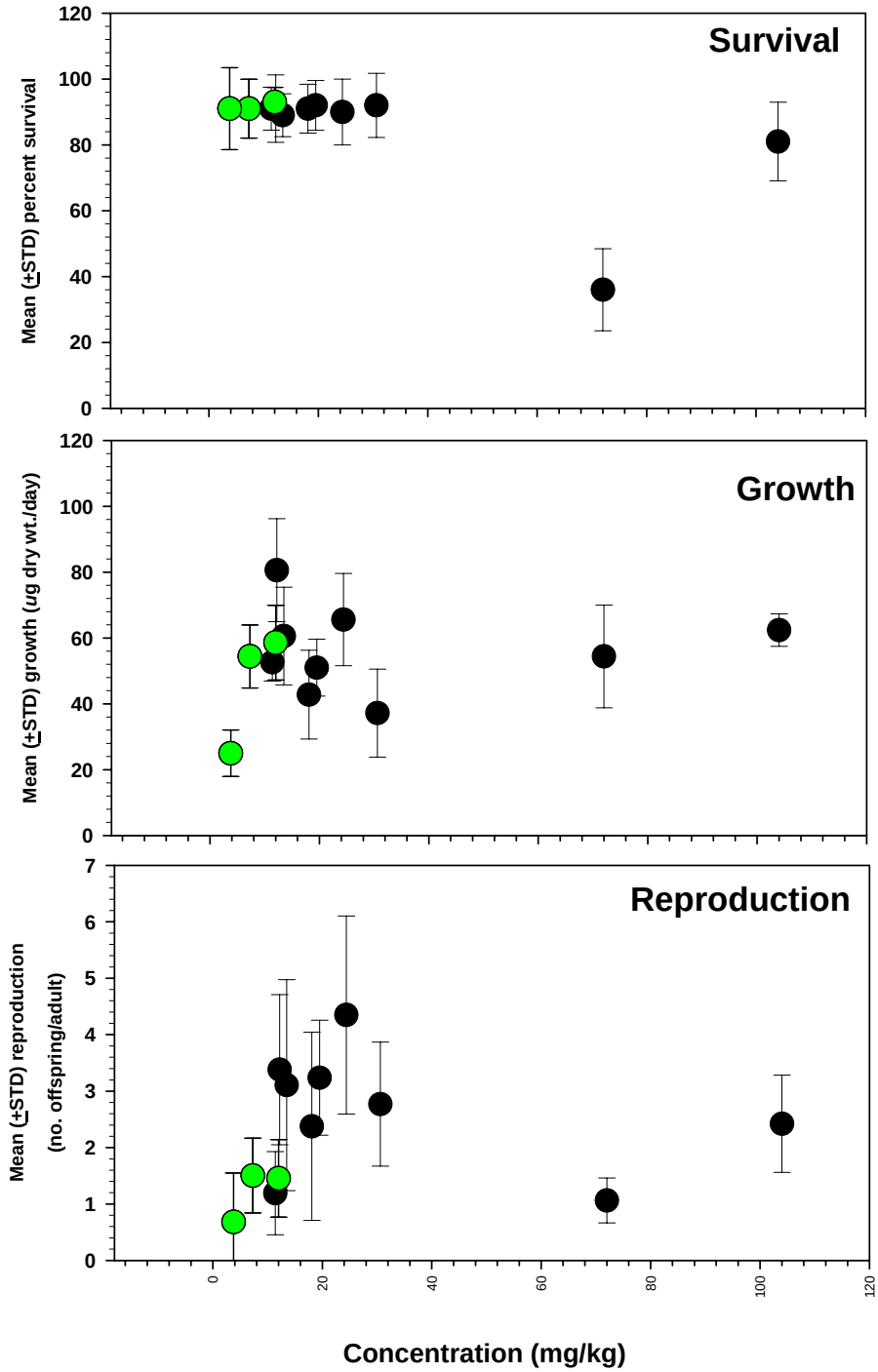


Figure C-4. Mean survival, growth, and reproduction of *Leptocheirus* versus arsenic concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

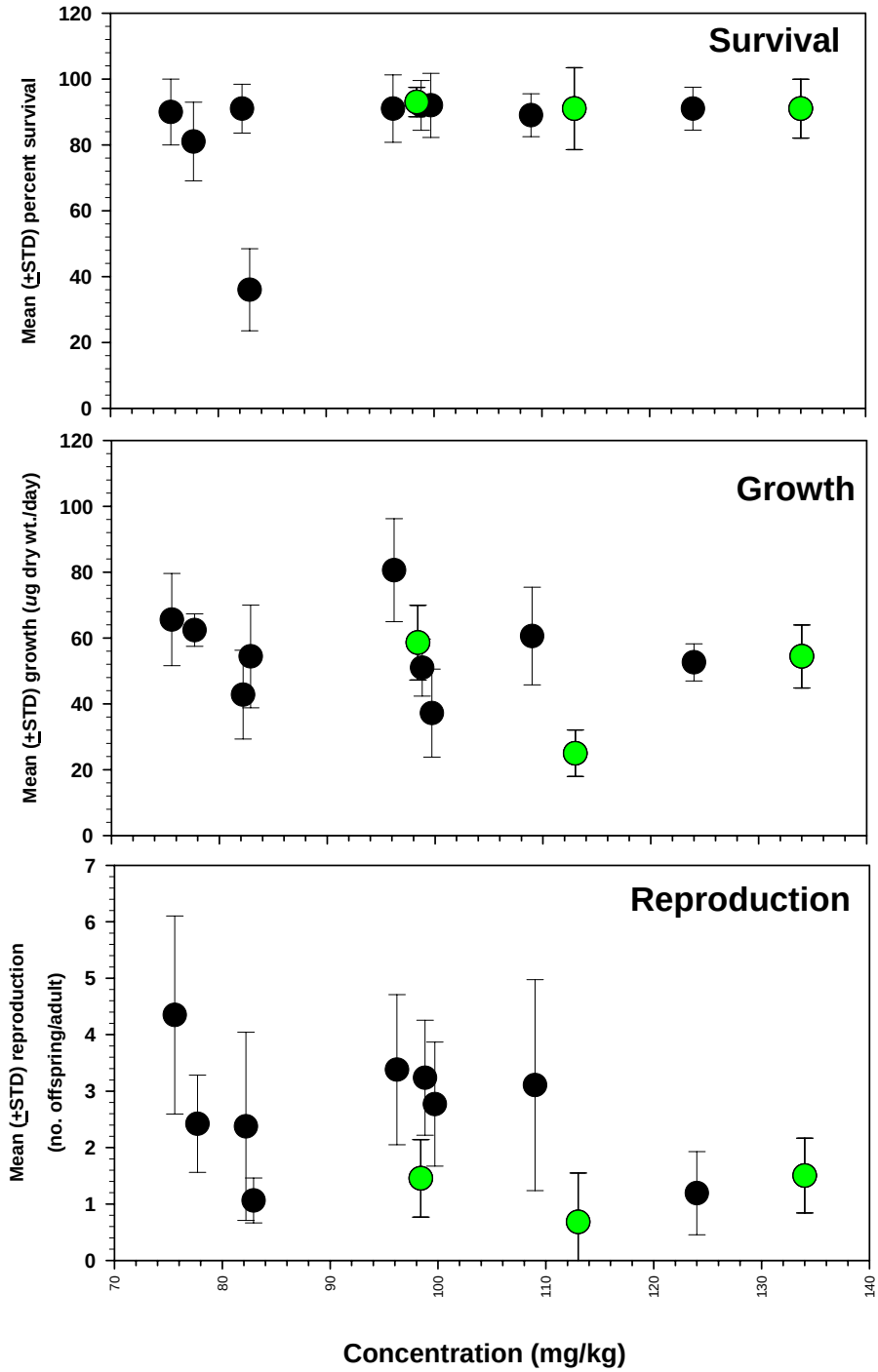


Figure C-5. Mean survival, growth, and reproduction of *Leptocheirus* versus barium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

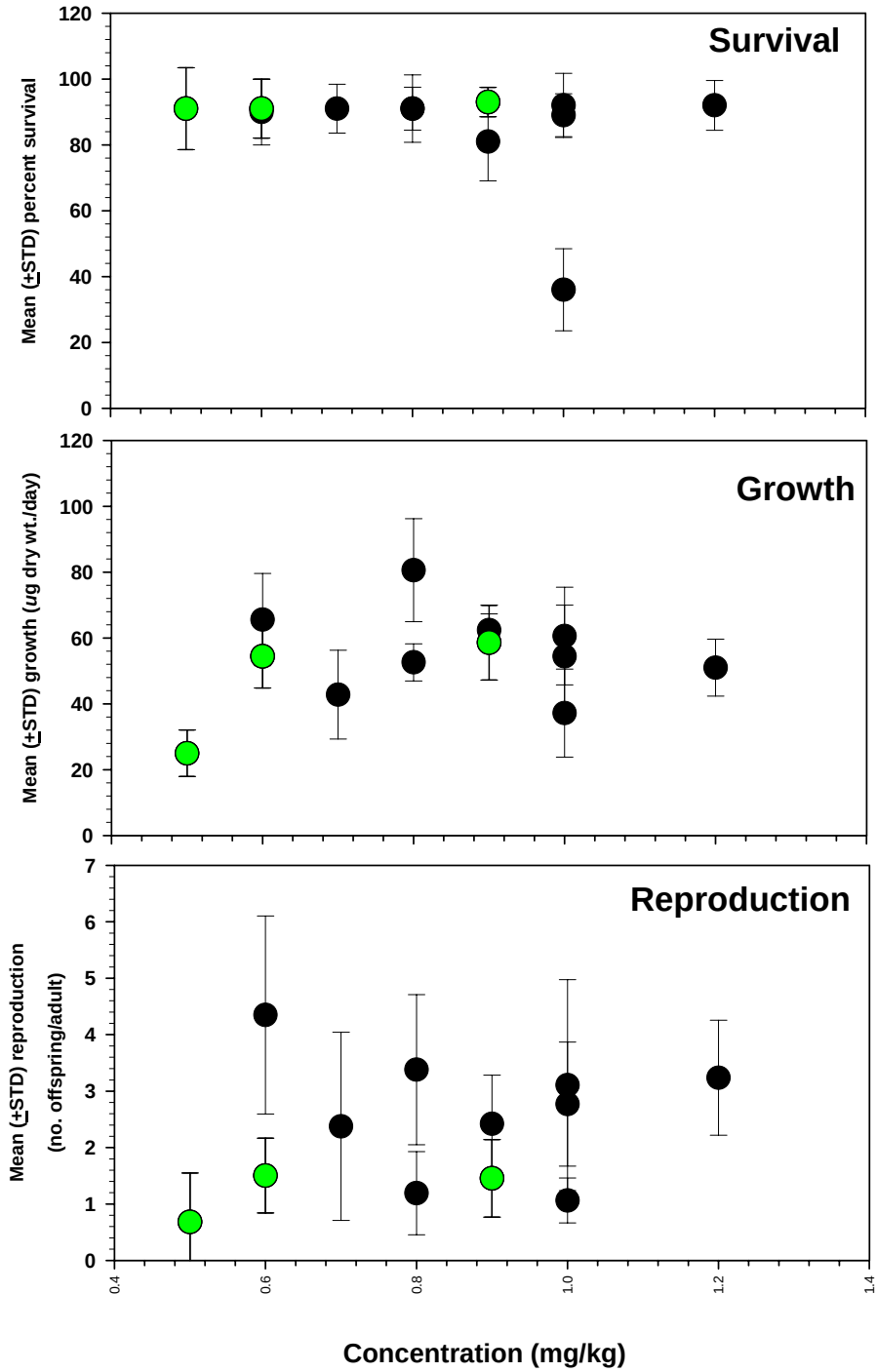


Figure C-6. Mean survival, growth, and reproduction of *Leptocheirus* versus beryllium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

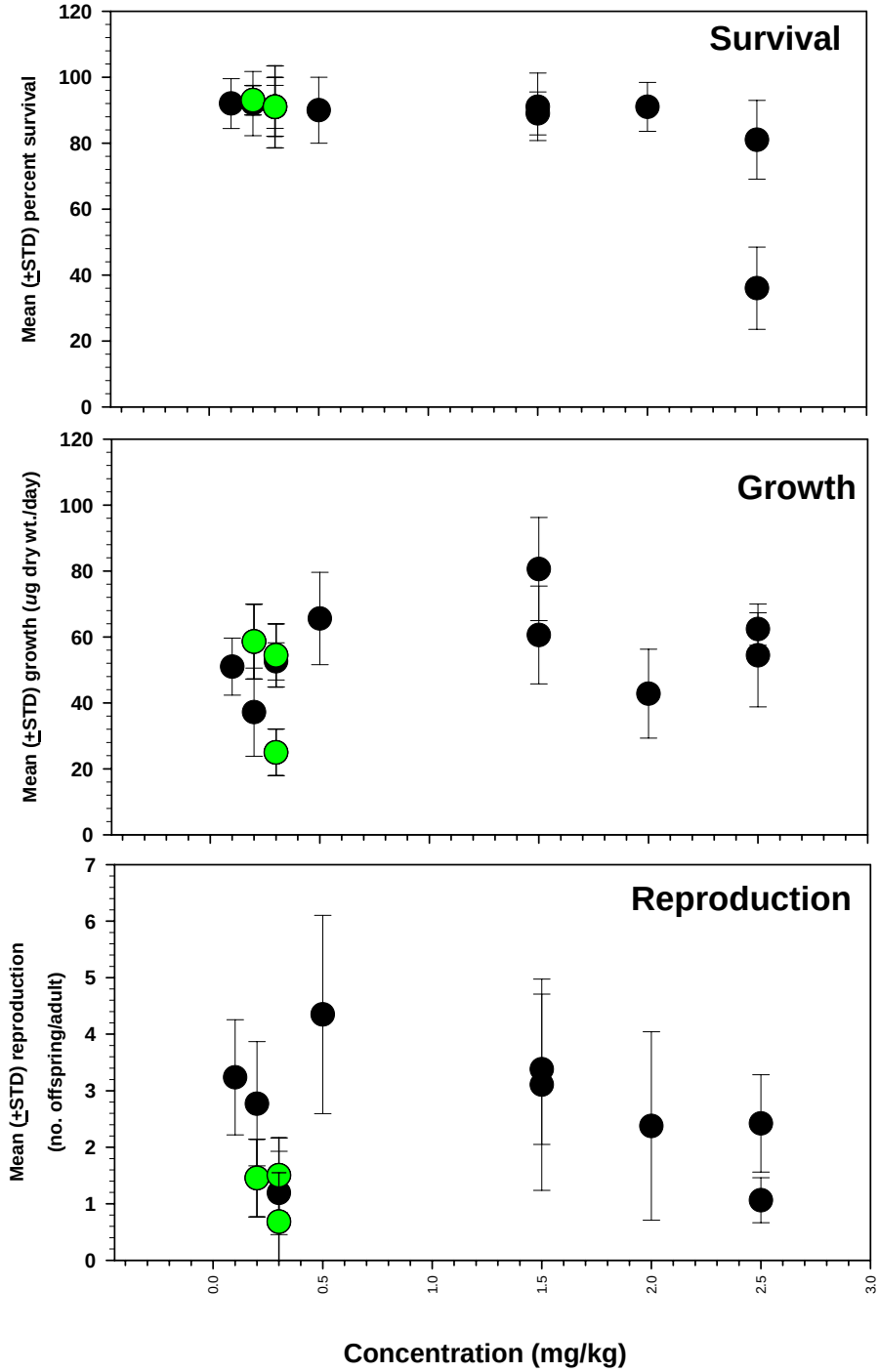
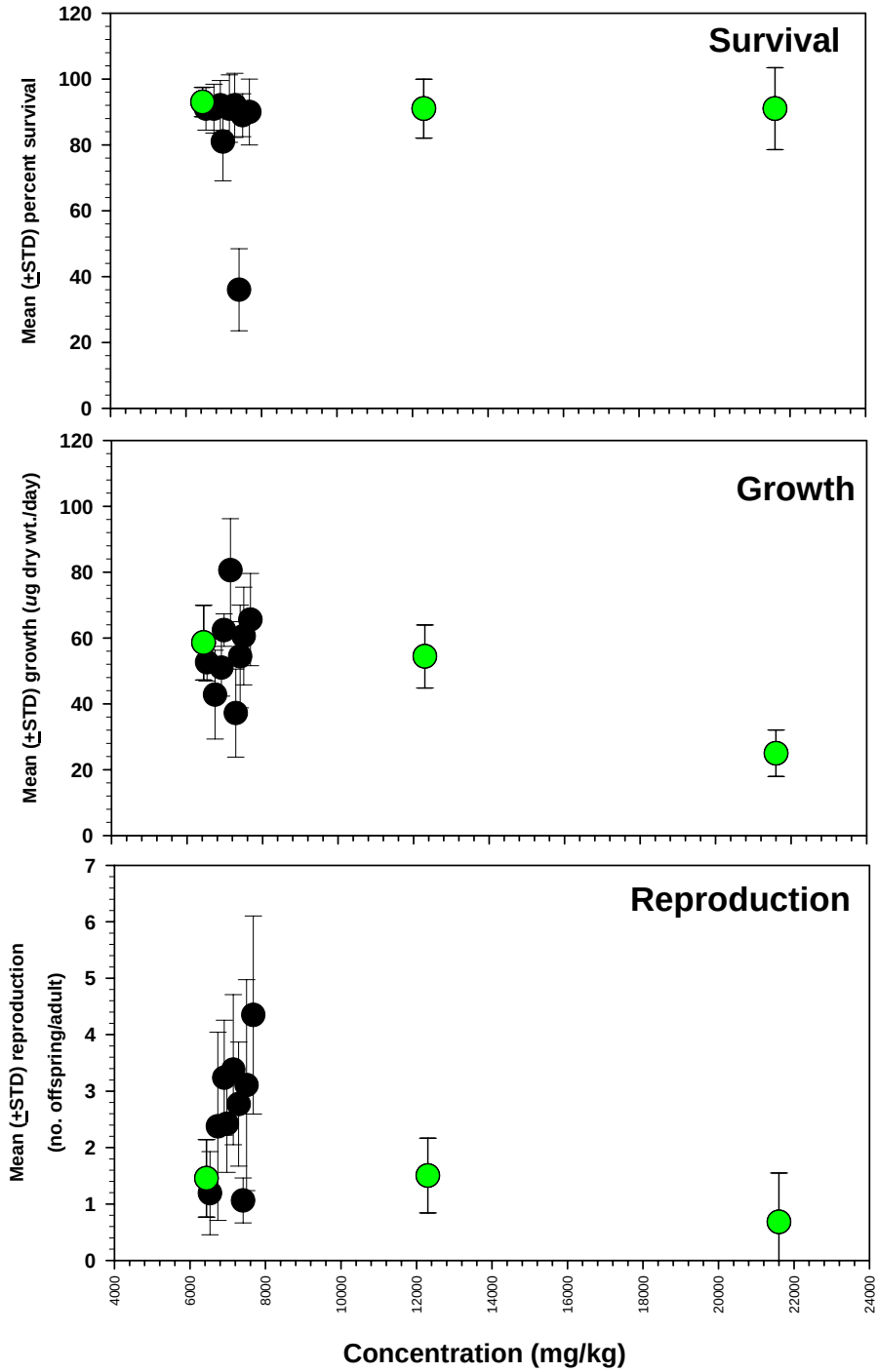


Figure C-7. Mean survival, growth, and reproduction of *Leptocheirus* versus cadmium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.



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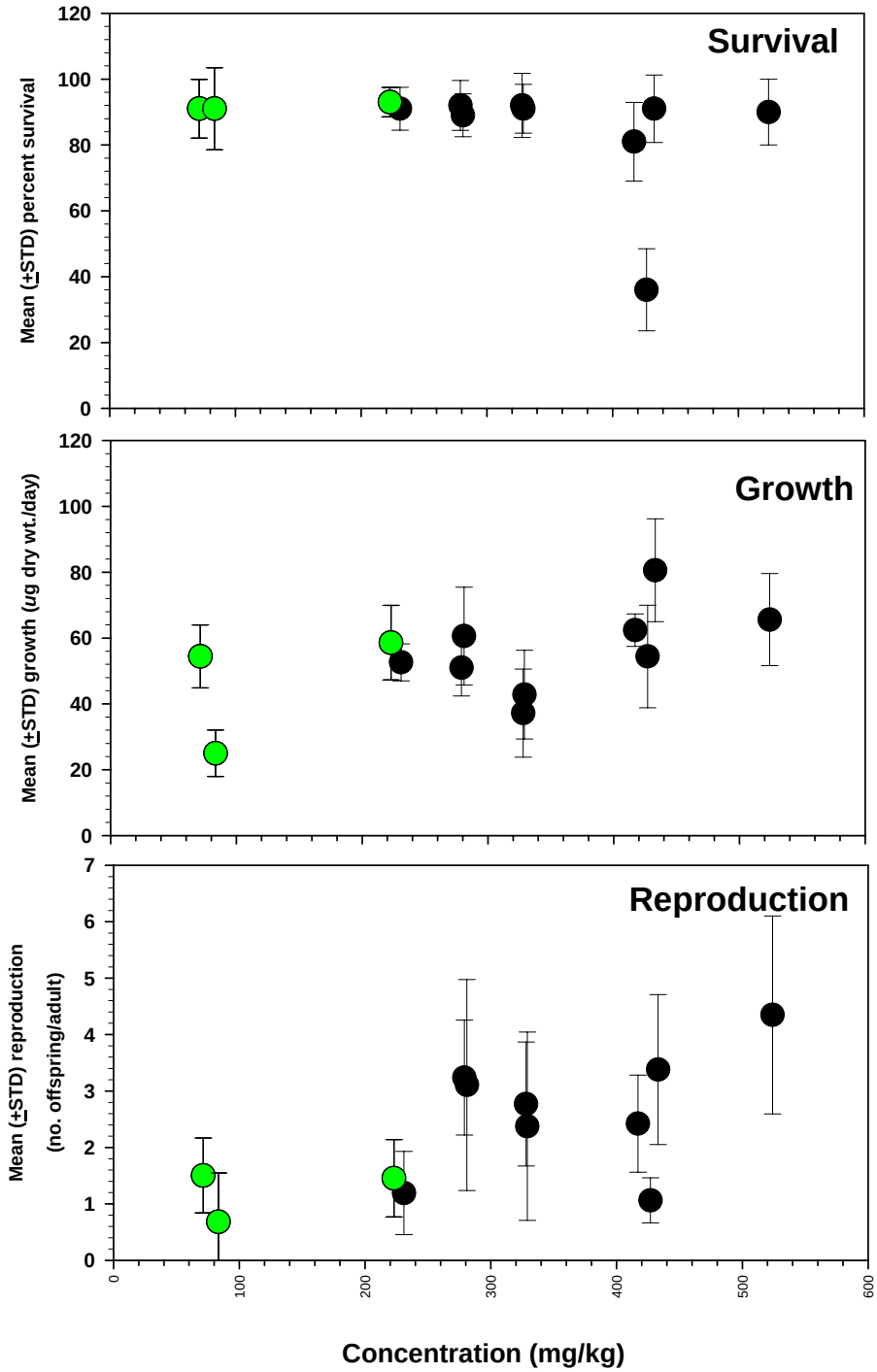


Figure C-9. Mean survival, growth, and reproduction of *Leptocheirus* versus cation exchange capacity (CEC) in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

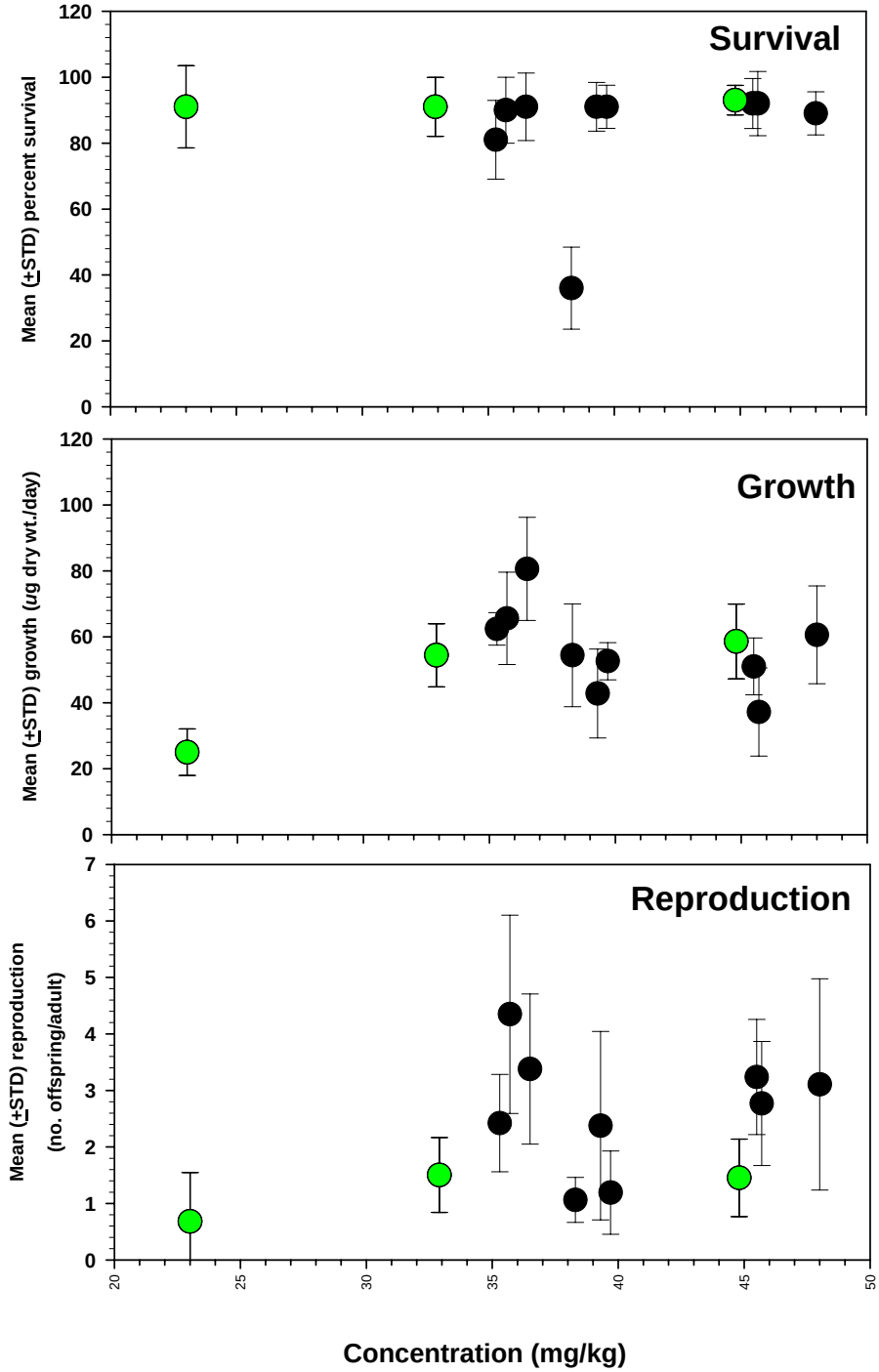
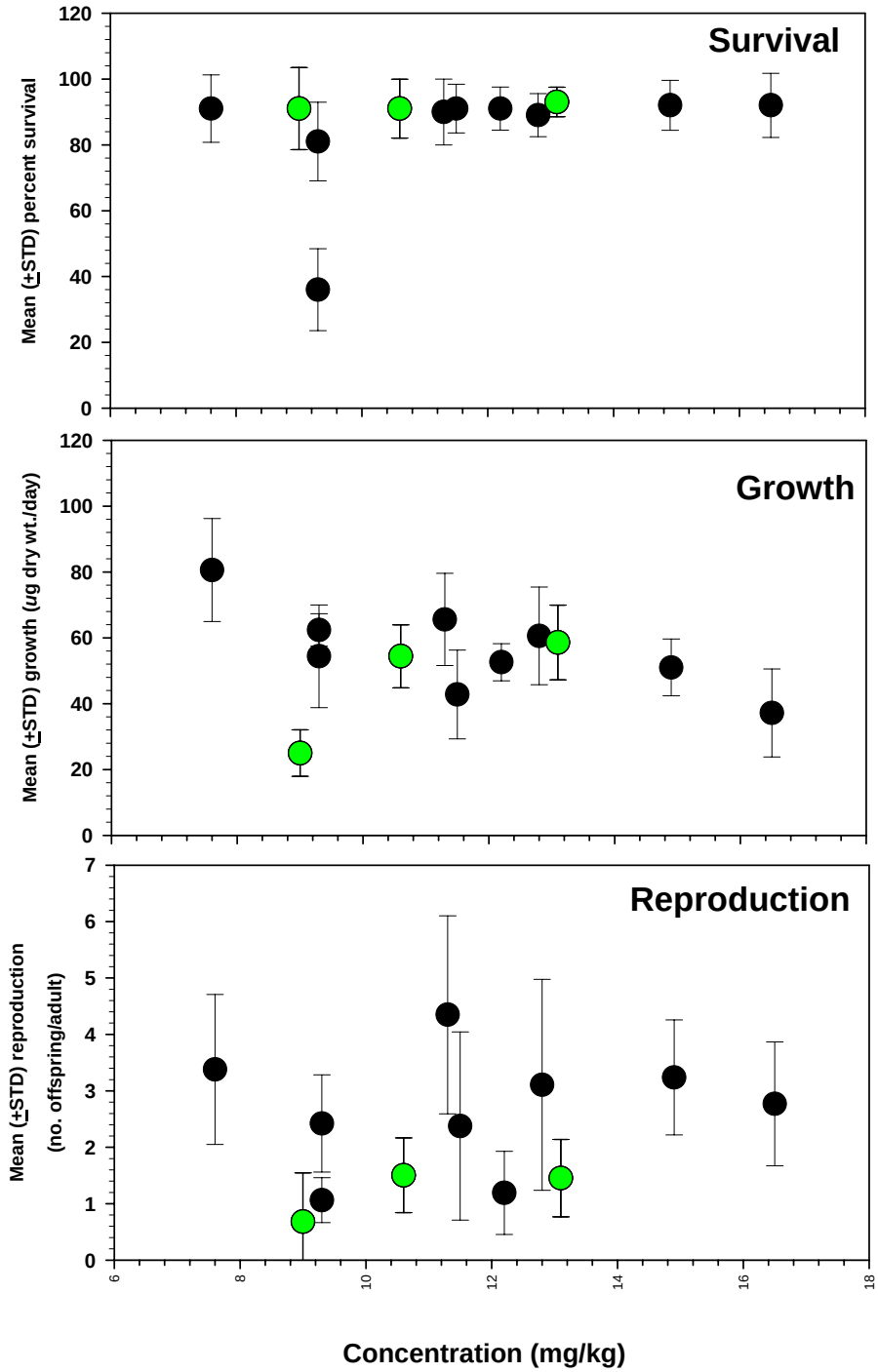


Figure C-10. Mean survival, growth, and reproduction of *Leptocheirus* versus chromium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.



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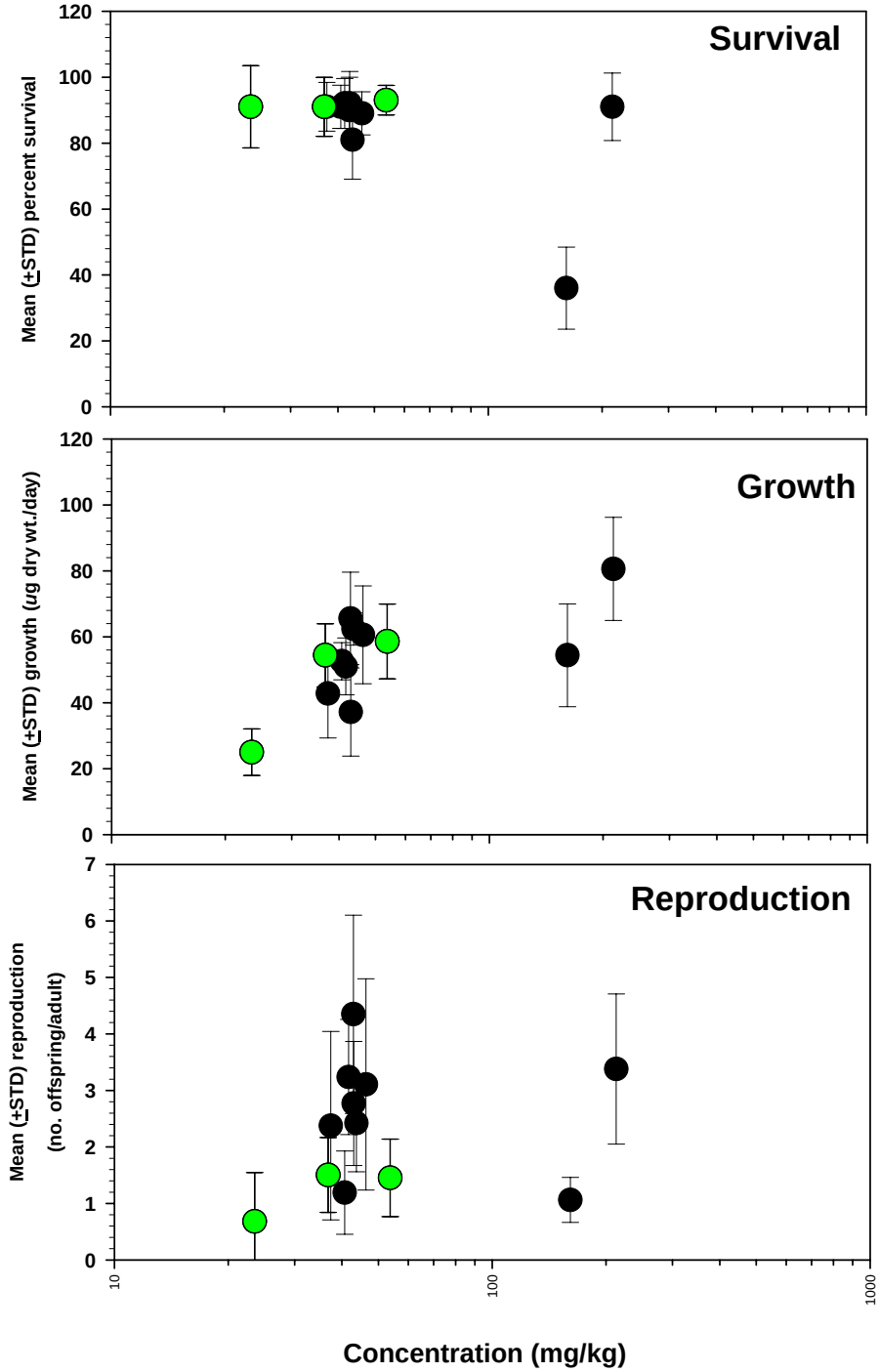


Figure C-12. Mean survival, growth, and reproduction of *Leptocheirus* versus copper concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

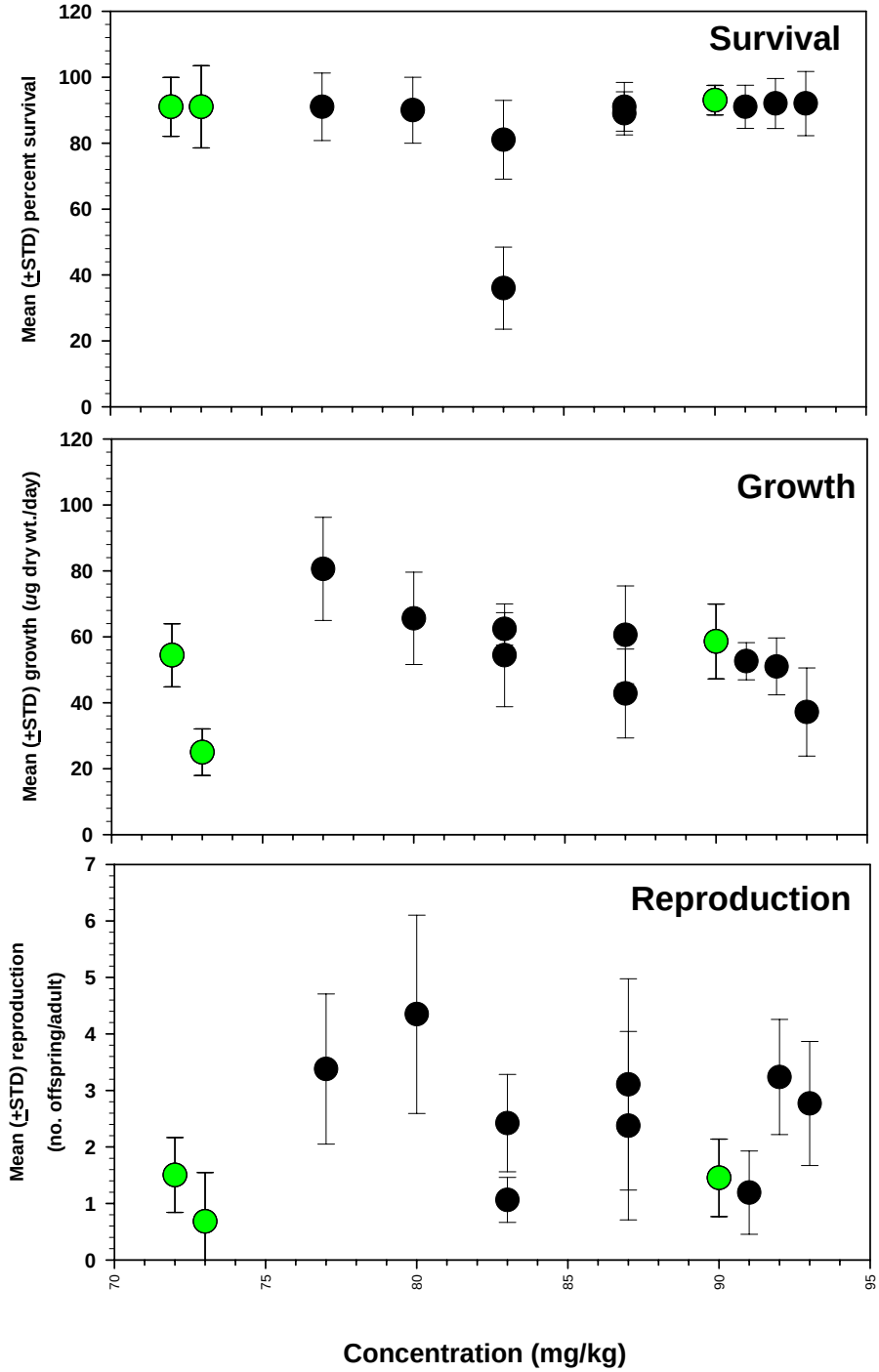


Figure C-13. Mean survival, growth, and reproduction of *Leptocheirus* versus fines concentration in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

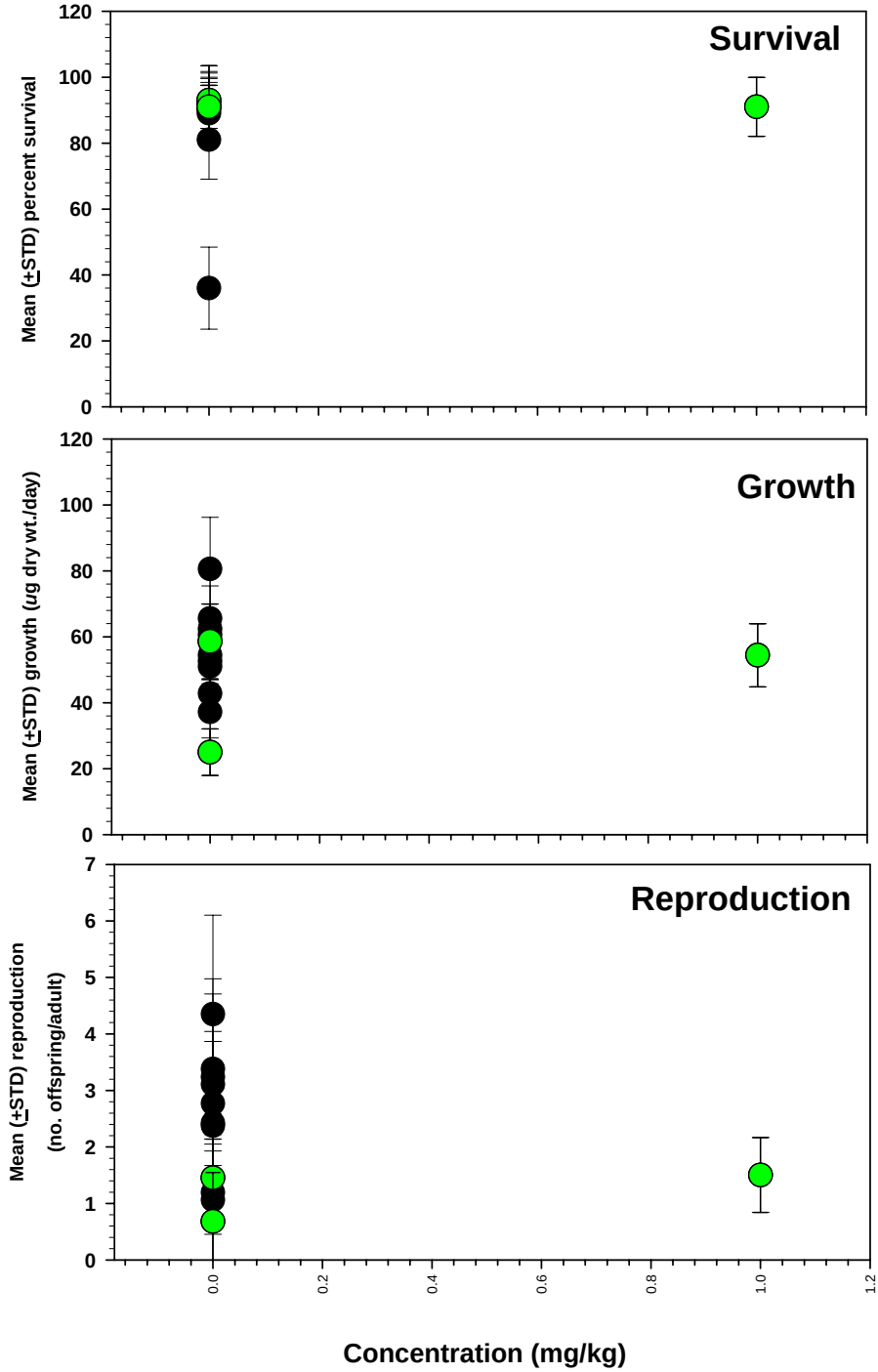


Figure C-14. Mean survival, growth, and reproduction of *Leptocheirus* versus gravel concentration in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

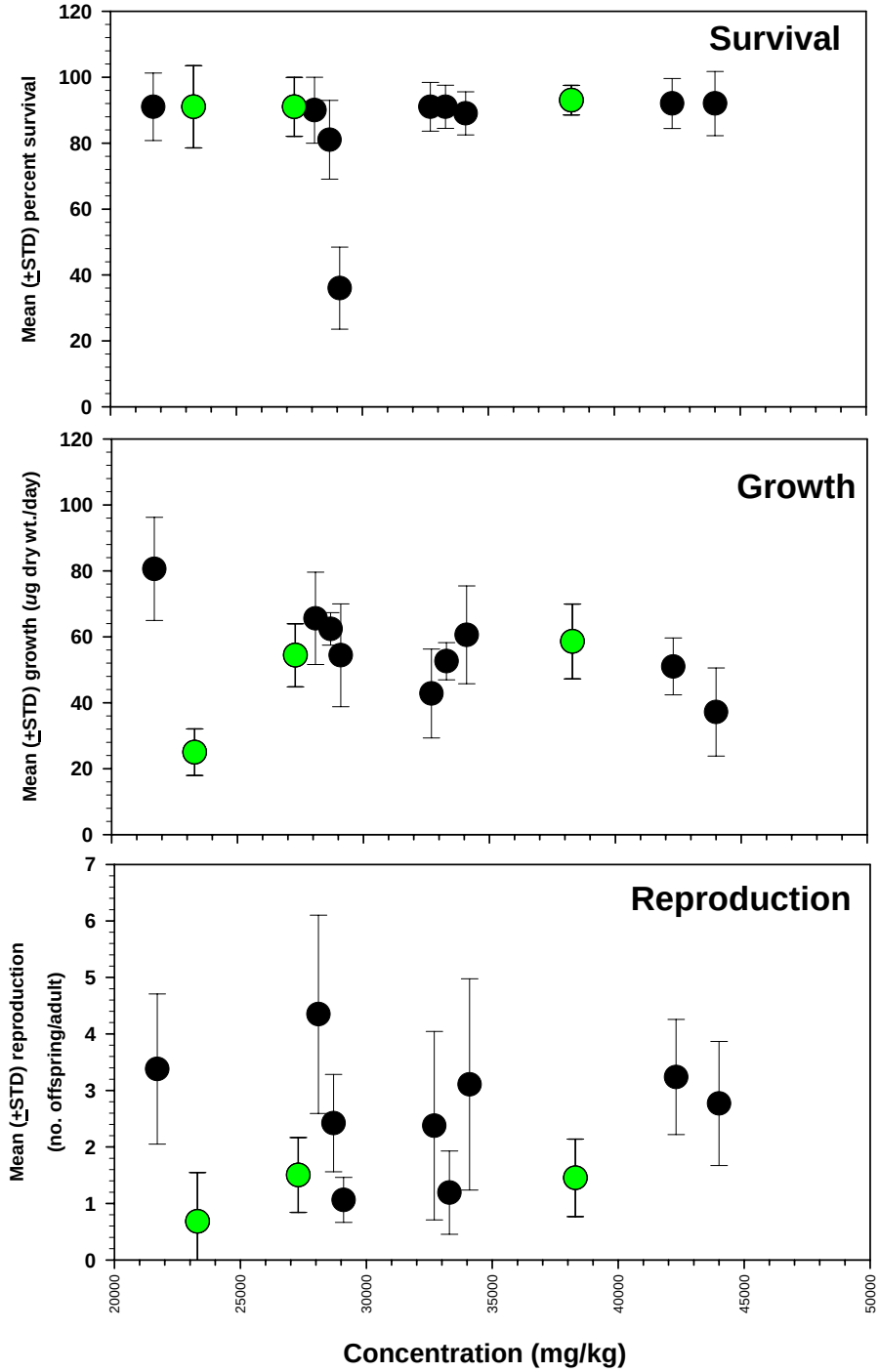
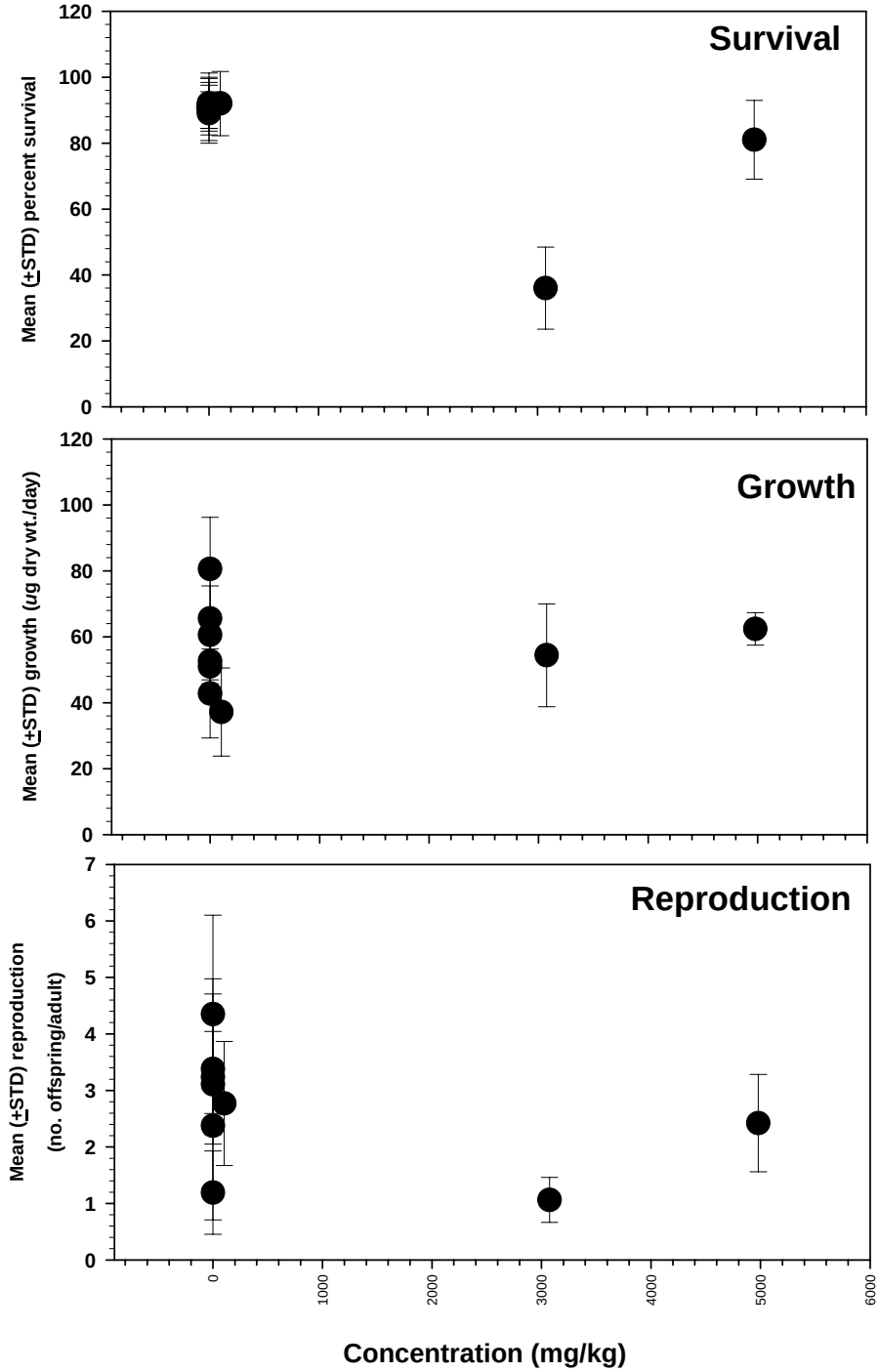


Figure C-15. Mean survival, growth, and reproduction of *Leptocheirus* versus iron concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.



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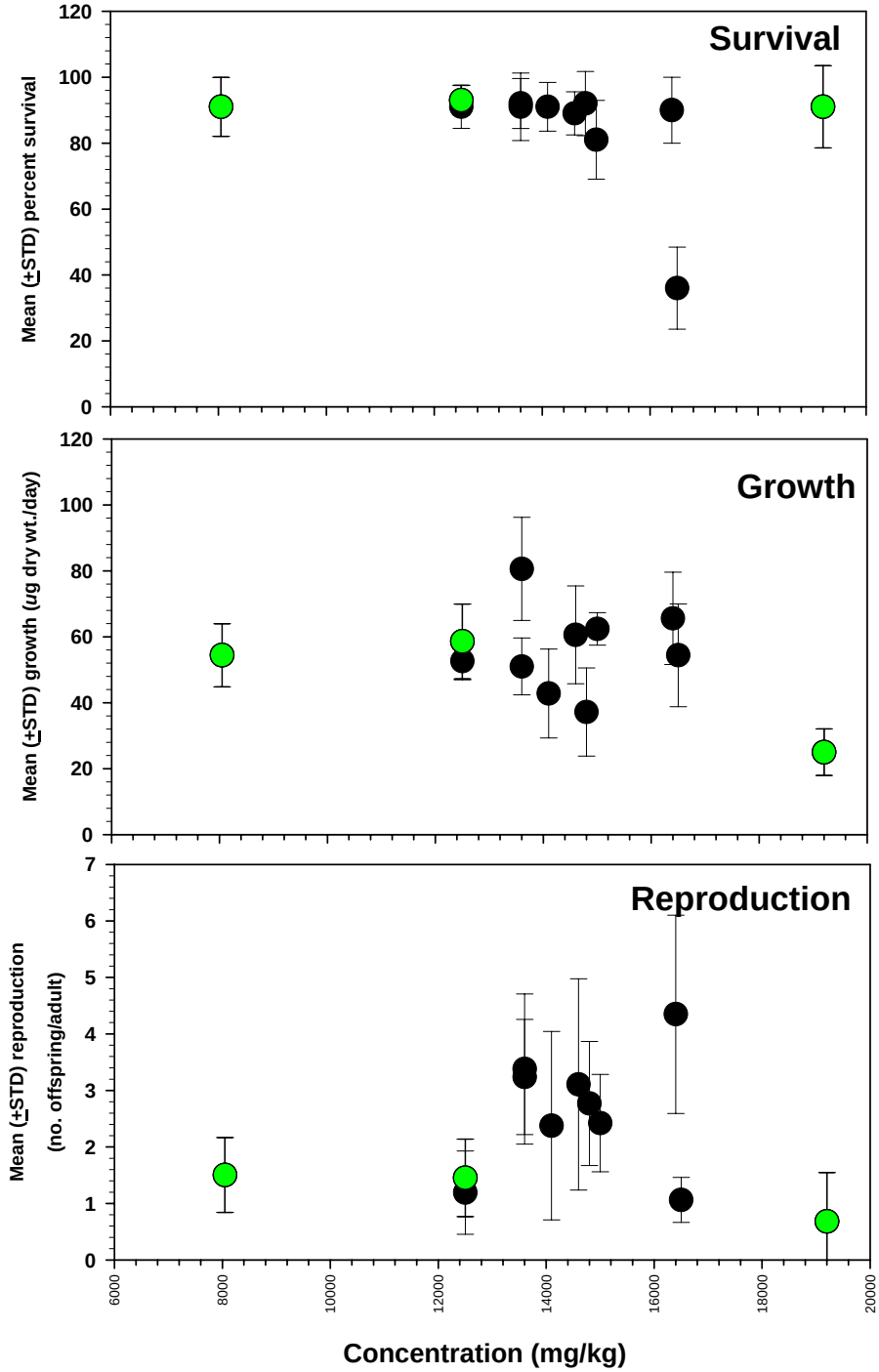


Figure C-17. Mean survival, growth, and reproduction of *Leptocheirus* versus magnesium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

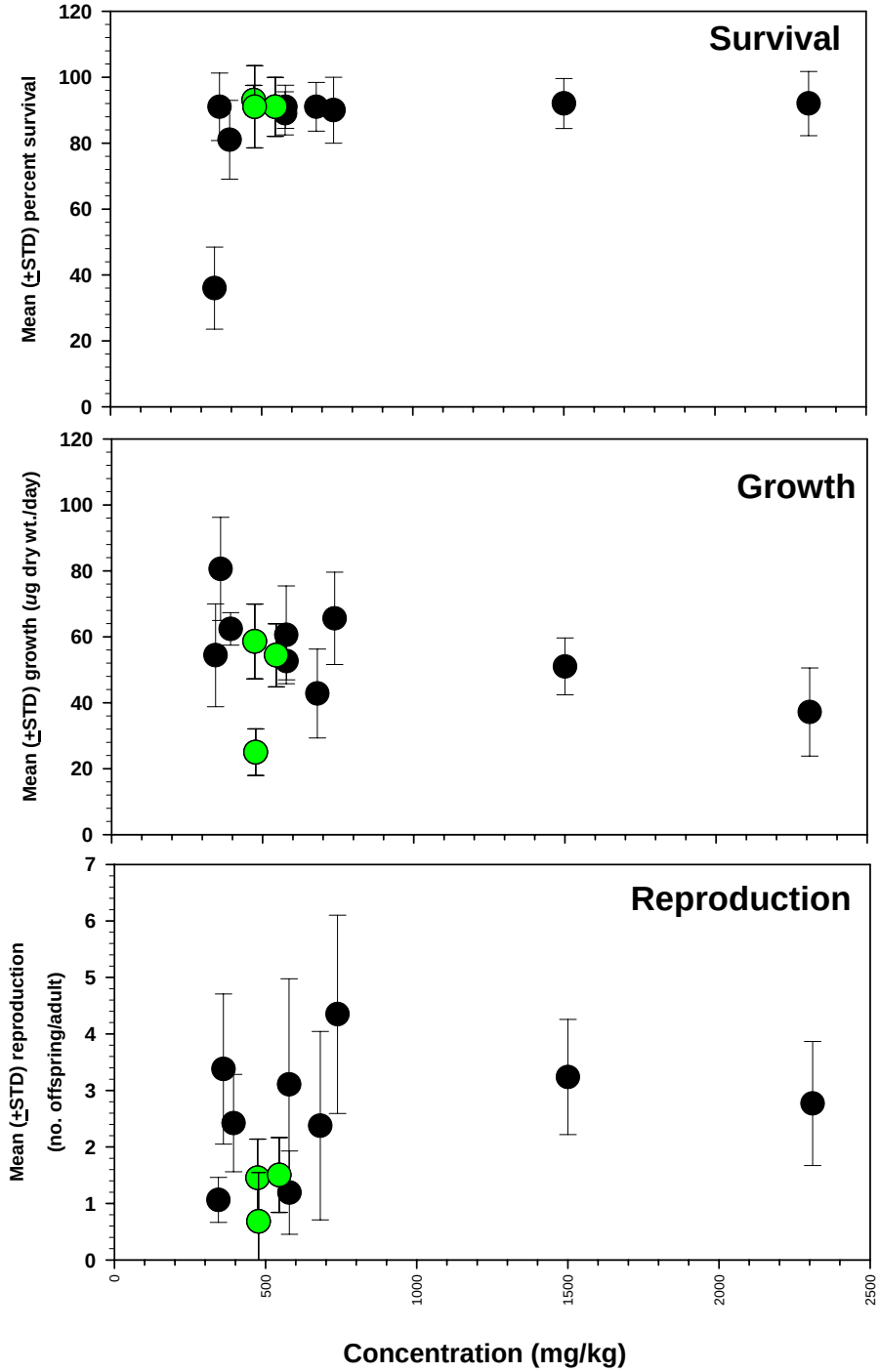


Figure C-18. Mean survival, growth, and reproduction of *Leptocheirus* versus manganese concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.

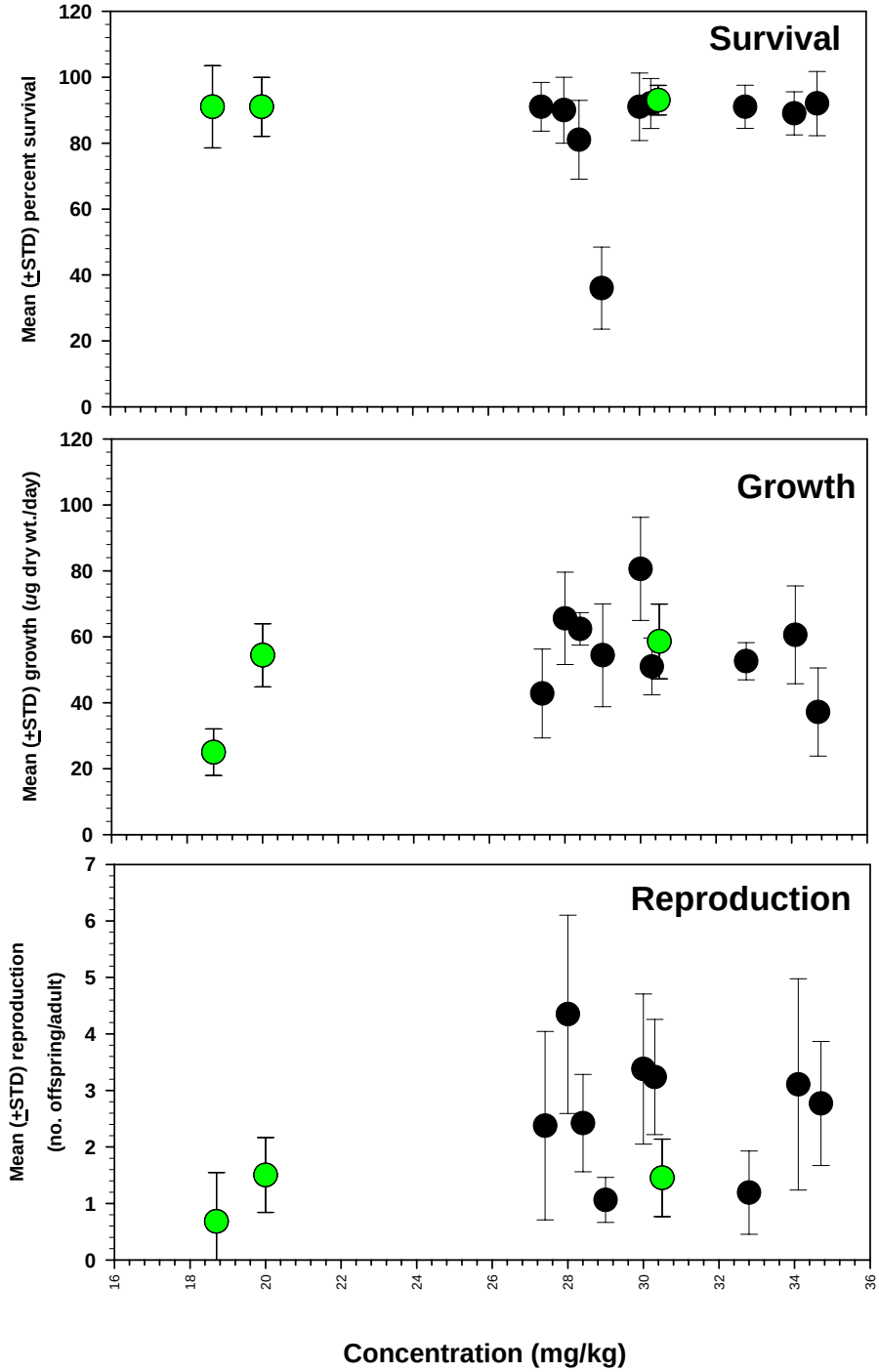
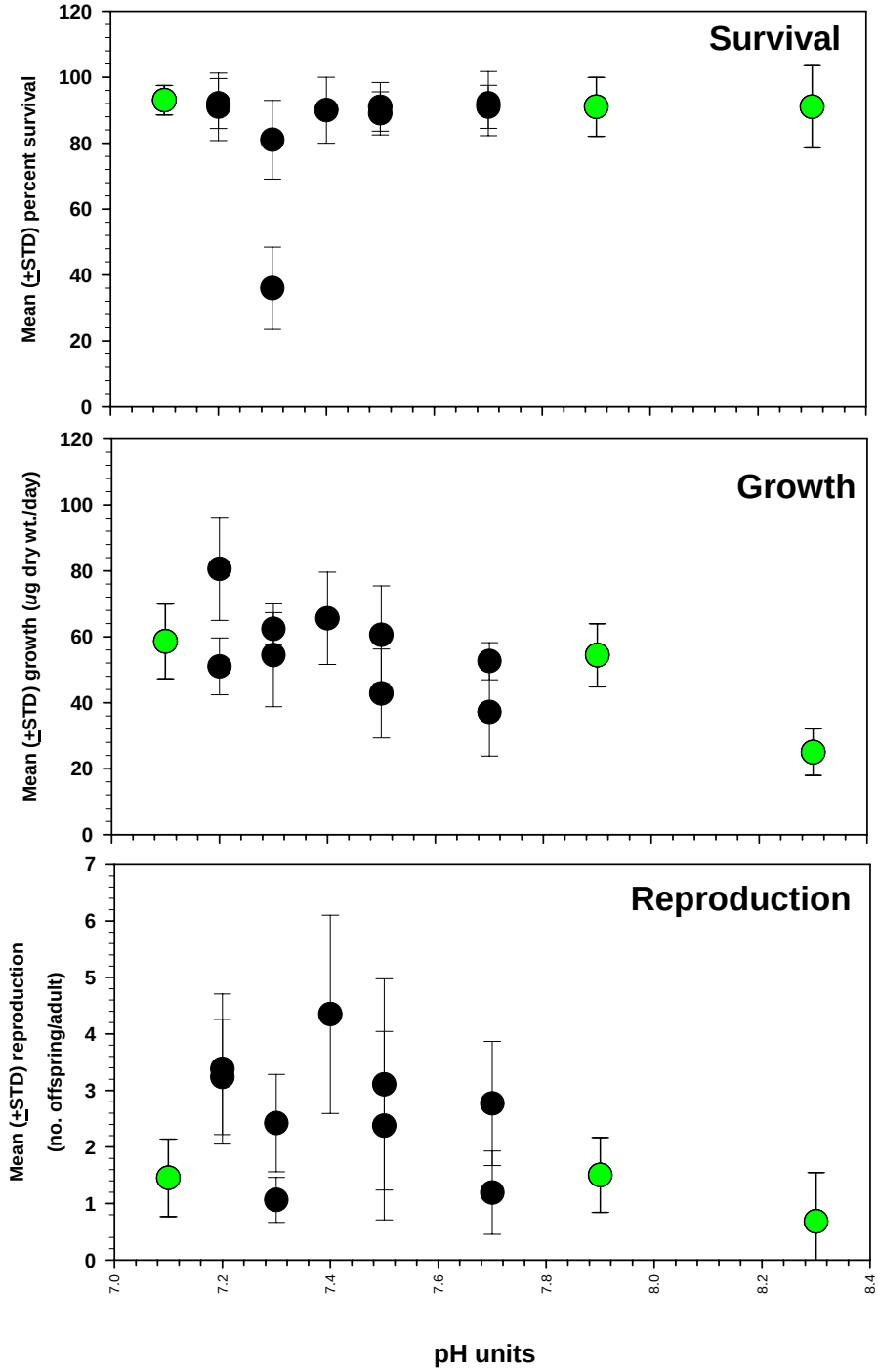


Figure C-19. Mean survival, growth, and reproduction of *Leptocheirus* versus nickel concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.



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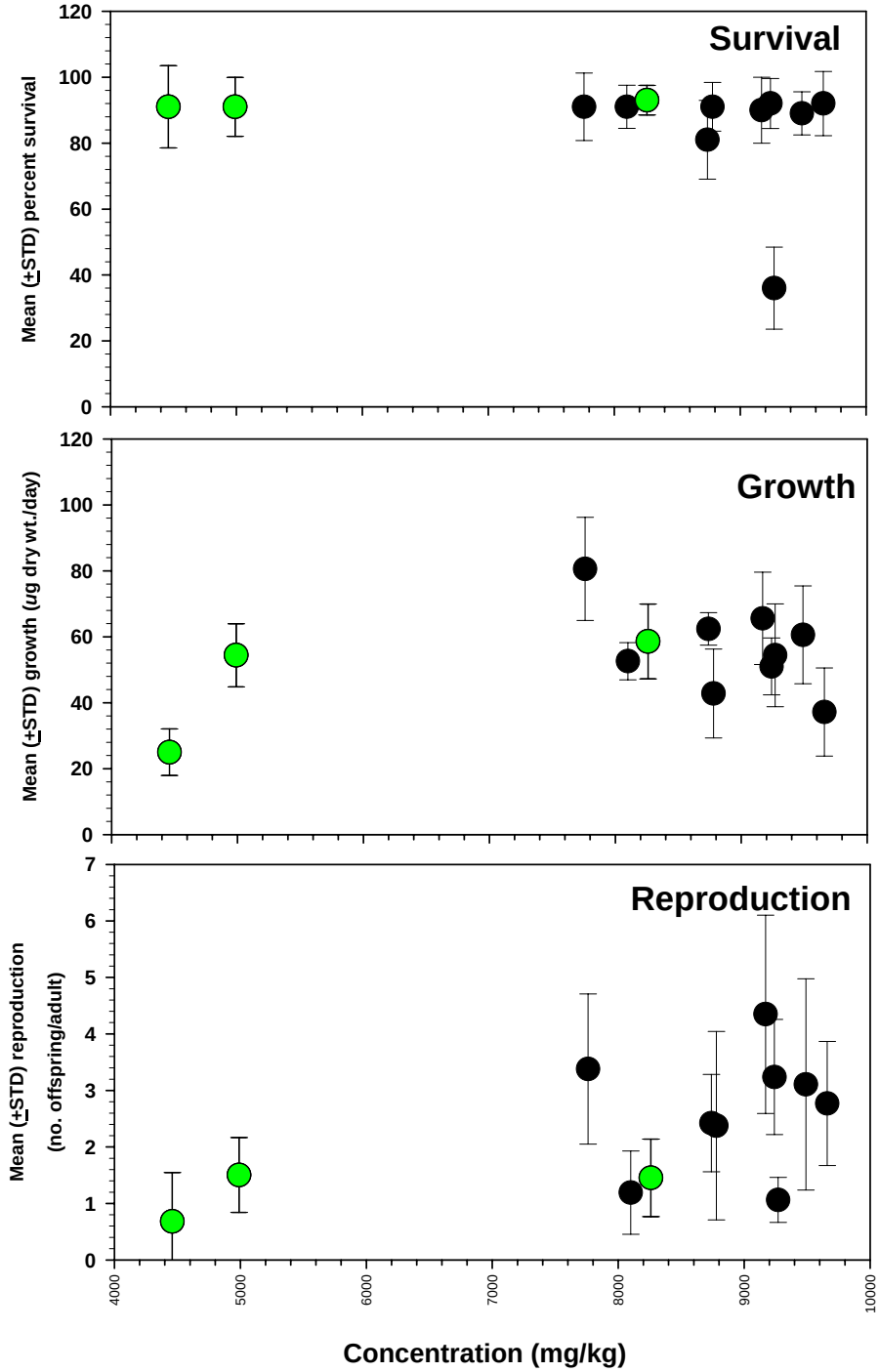
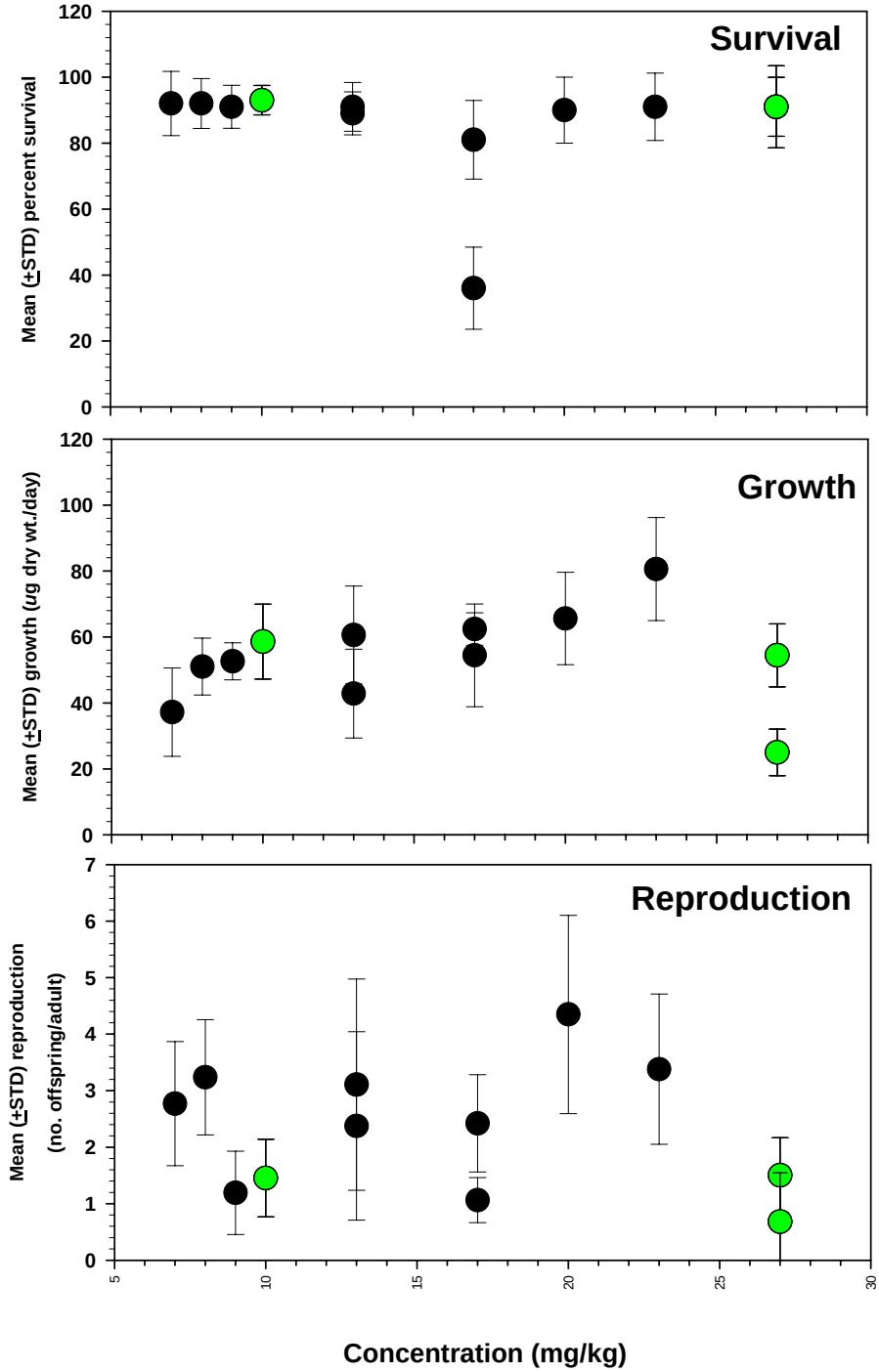


Figure C-21. Mean survival, growth, and reproduction of *Leptocheirus* versus potassium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.



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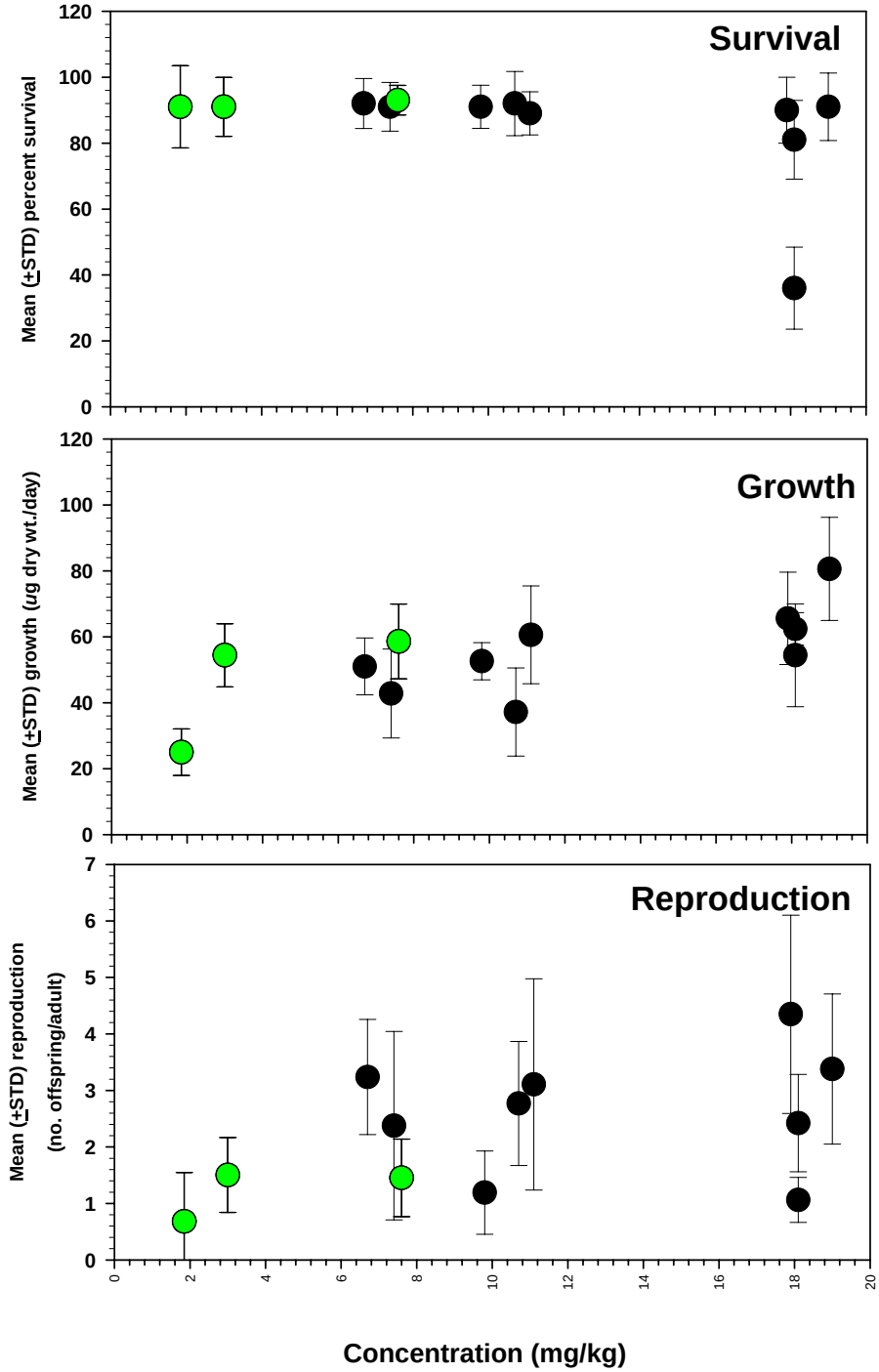
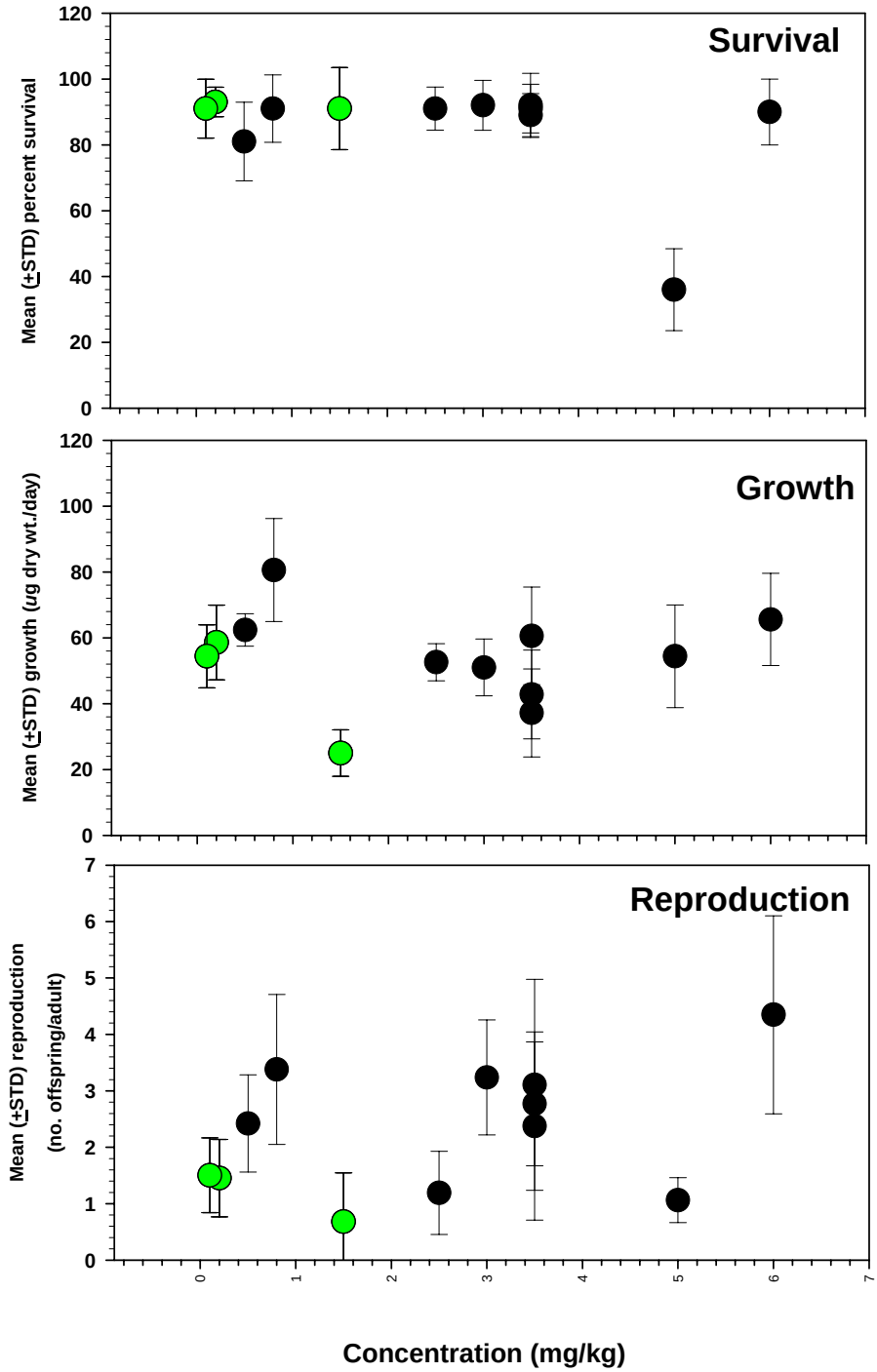


Figure C-23. Mean survival, growth, and reproduction of *Leptocheirus* versus selenium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.



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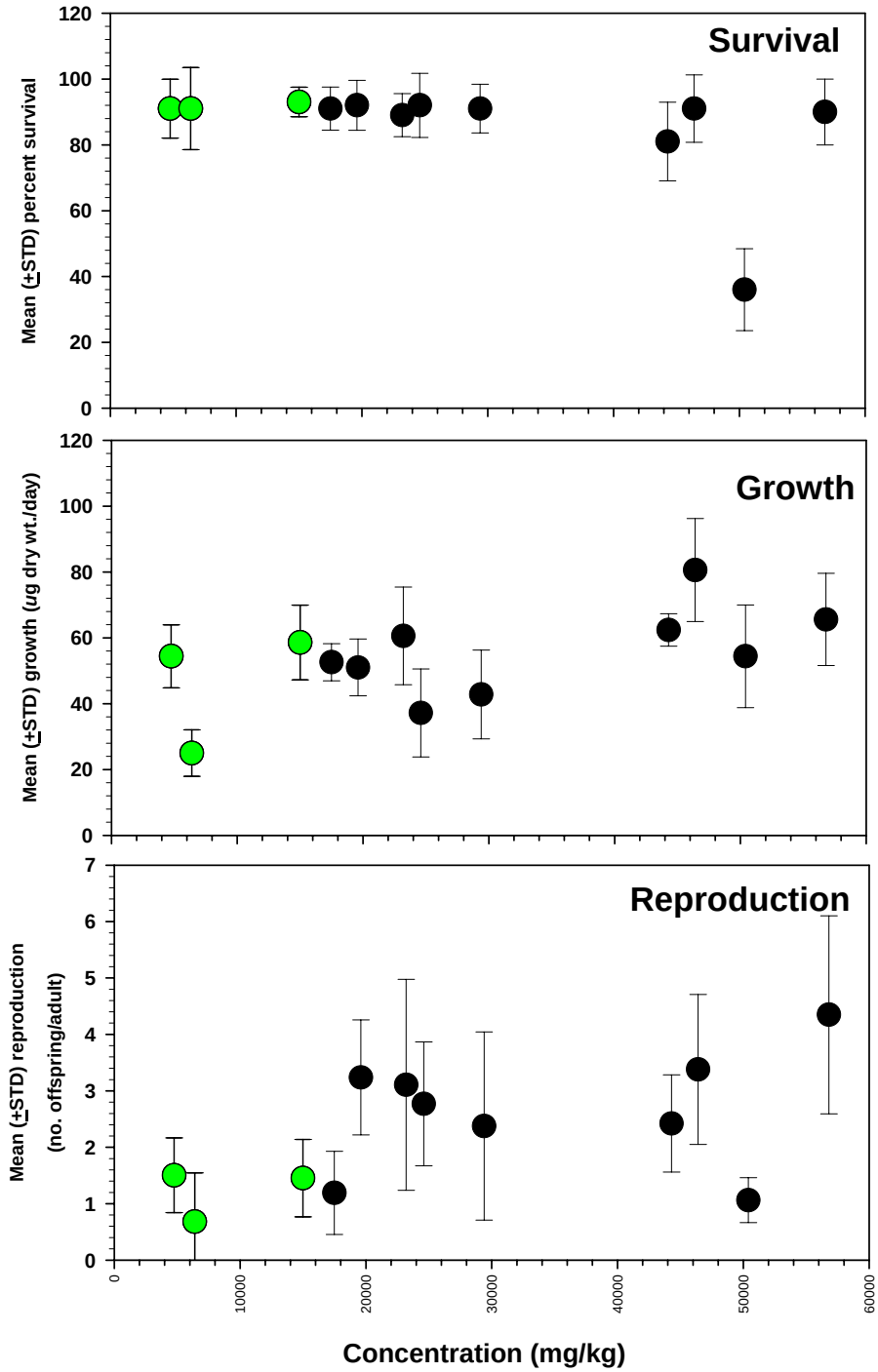
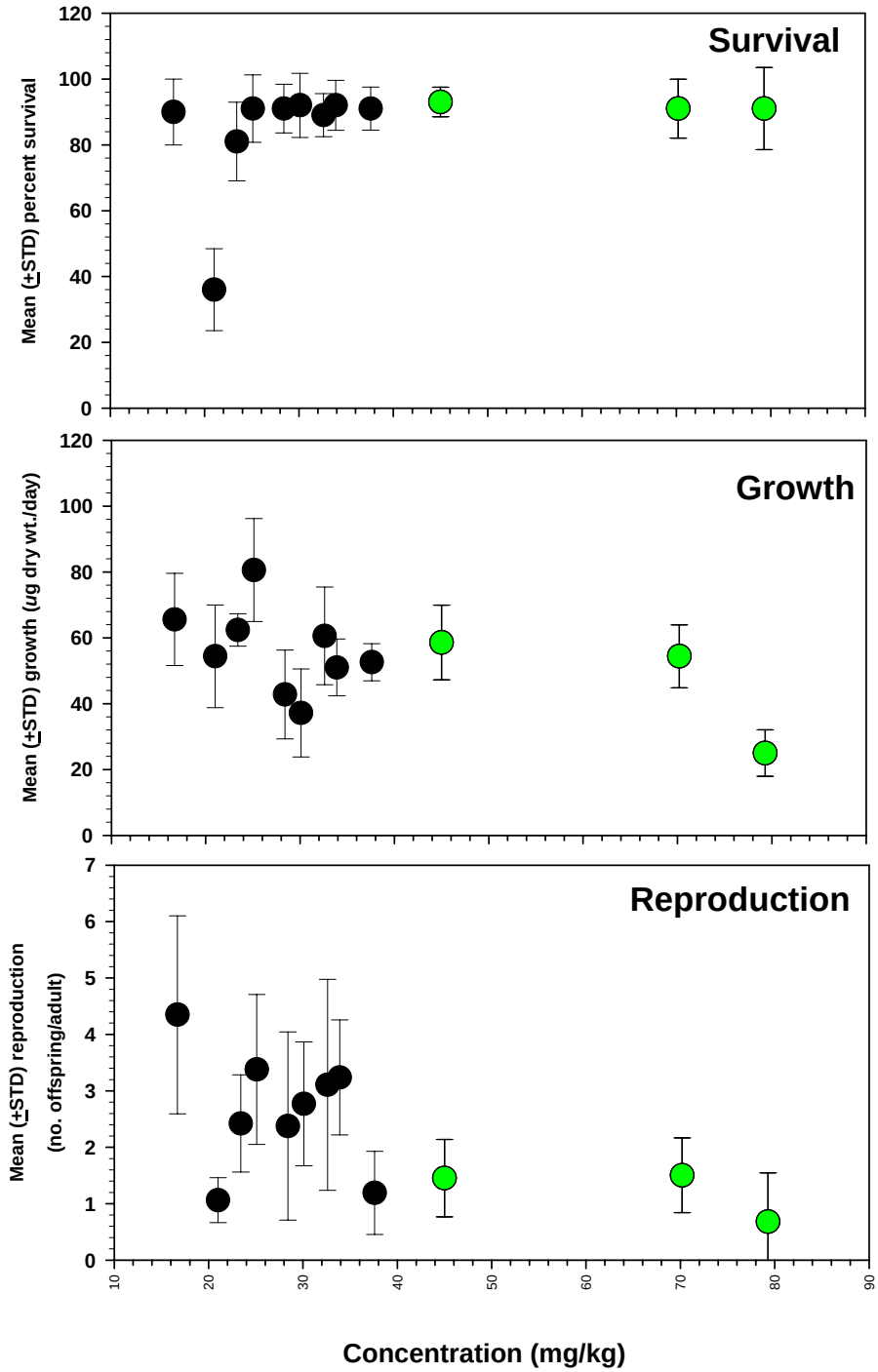


Figure C-25. Mean survival, growth, and reproduction of *Leptocheirus* versus sodium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.



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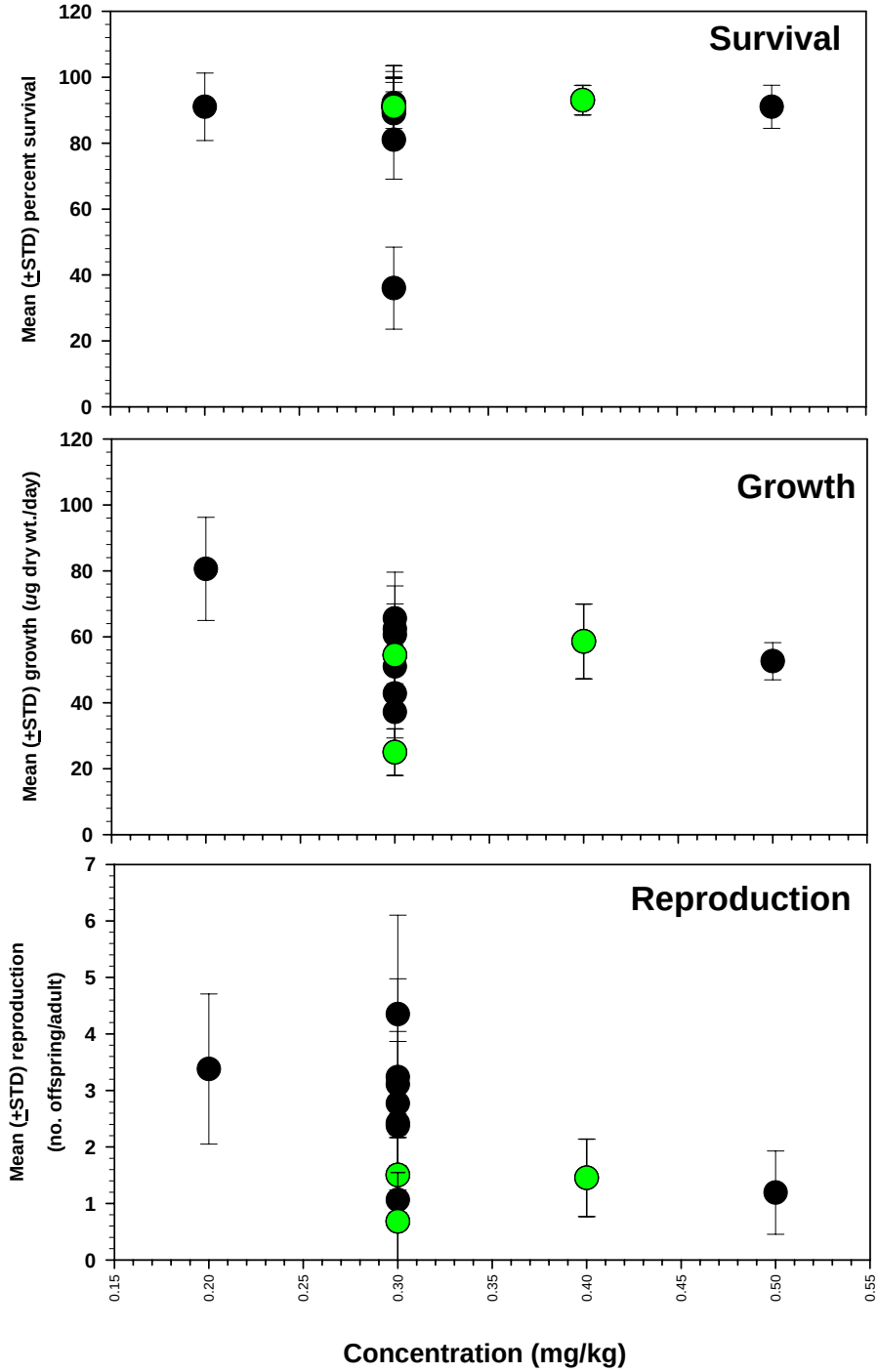
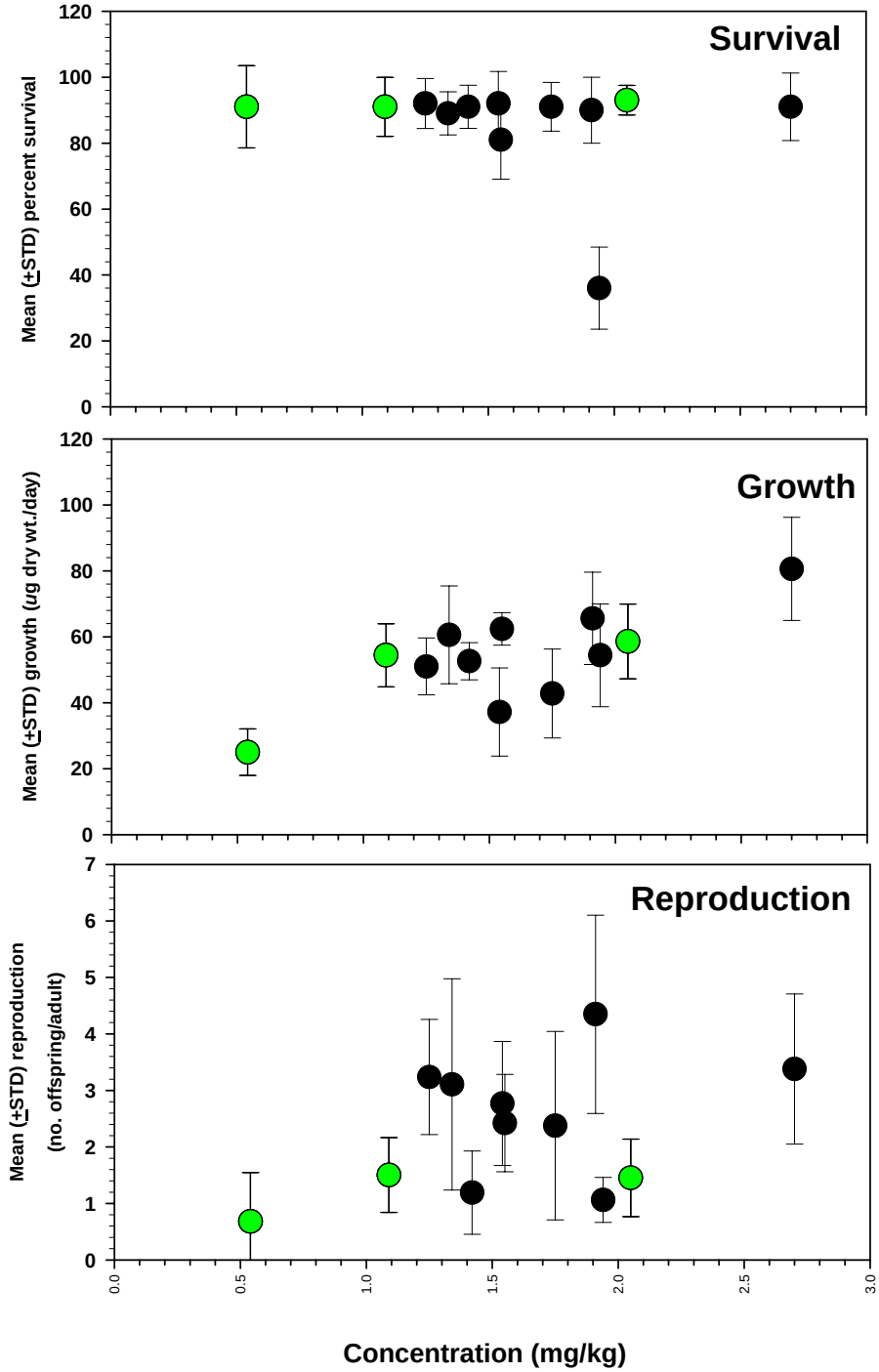


Figure C-27. Mean survival, growth, and reproduction of *Leptocheirus* versus thallium concentrations in sediments from Site 74 at Seal Beach. Gray points represent reference sample results.



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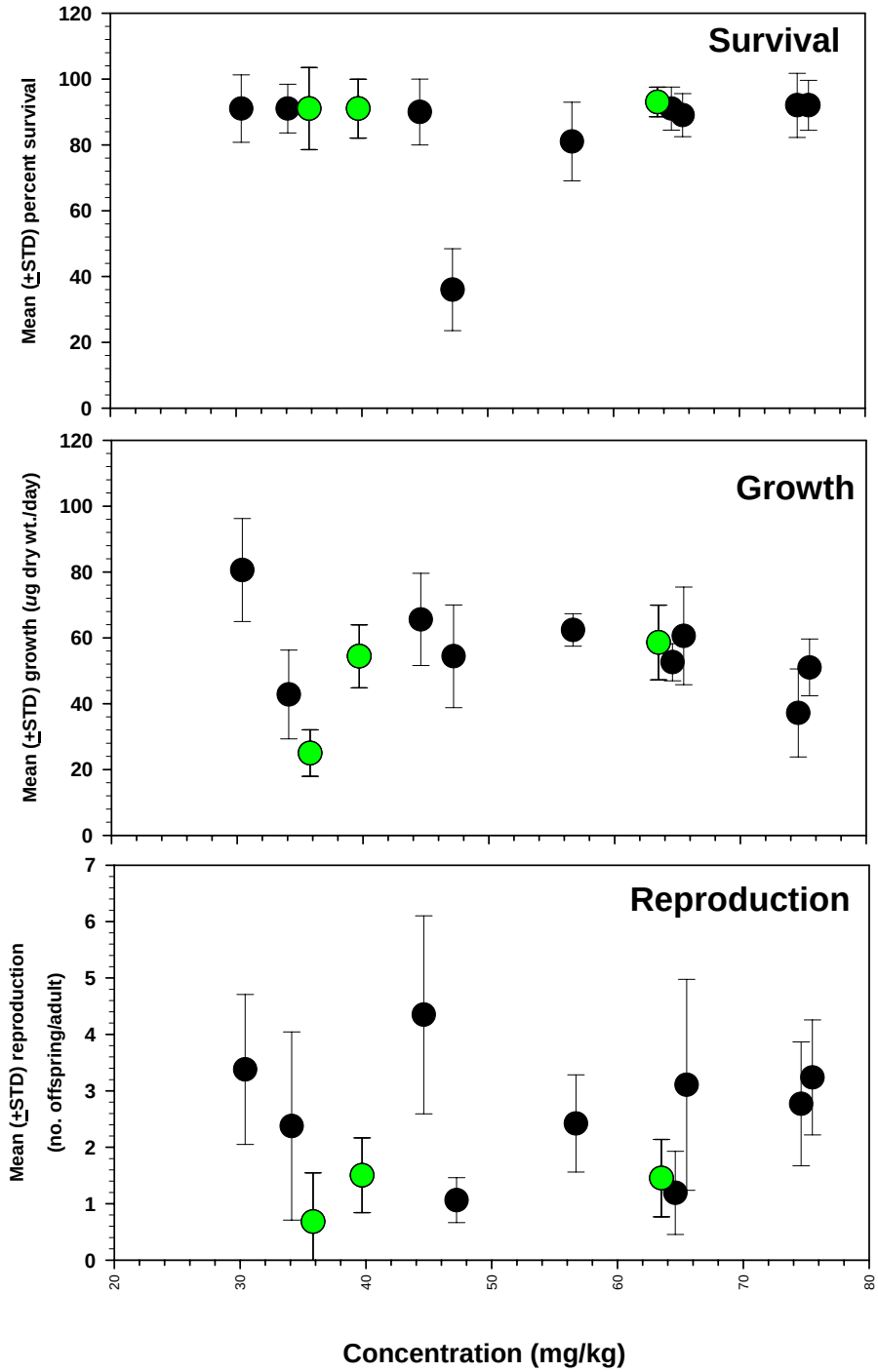

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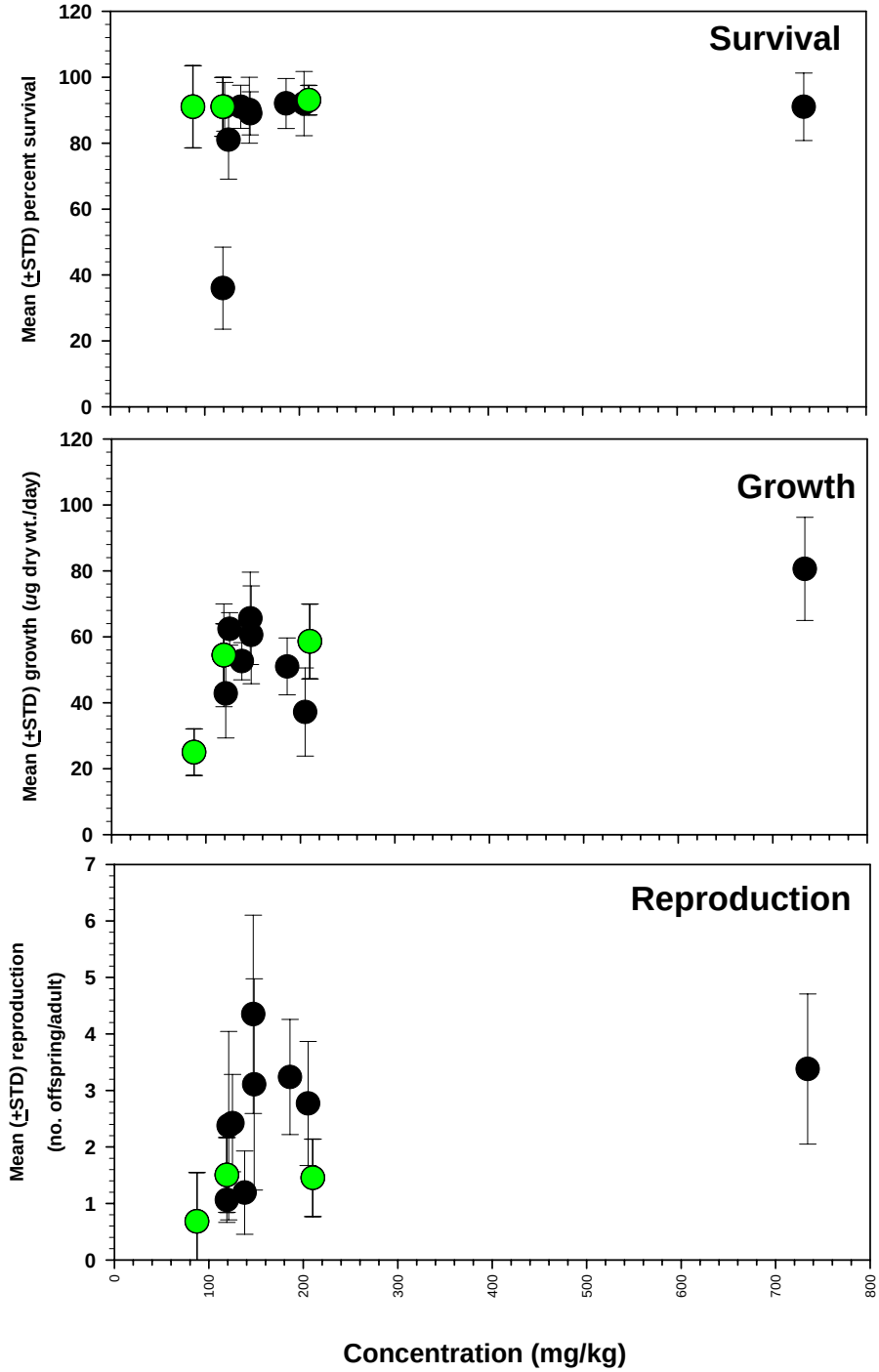

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Appendix D
Plant Bioassy Report from ep&t, Inc. and Associated Dose-Response Figures

Phytotoxicity Tests on soils from the Site 74 Old Skeet Range

Seal Beach Project

prepared for

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July 13, 2004

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preface

This report describes phytotoxicity test results from studies conducted by **e**cological **p**lanning and **t**oxicology, inc. (**ep** and **t**) in the spring of 2004. Staff of CH2MHill collected samples from the Seal Beach Site 74 in the Los Angeles area. The single test species used was barley (*Hordeum distichon*). This report describes the features of the phytotoxicity tests performed and organizes the extensive dataset from the in-life portion of the toxicity tests. Negative and Positive Controls were run as part of the quality assurance/quality control component of the tests. Results from multiple endpoints are compared and interpreted in relation to endpoints measured from a designated reference sample. Information regarding chemical analyses of site soils and vegetation collected from the sites will be analyzed separately by CH2MHill.

Personnel from ep and t involved in the phytotoxicity tests.	
Project Title	**Person**
Principal Investigator	Lawrence A. Kapustka, Ph.D.
Technician	Joan Yocum
Contracts/Data Manager	Elizabeth A. Kapustka

executive summary

Laboratory phytotoxicity tests following the ASTM E1963-98 Standard were conducted by **e**cological **p**lanning and **t**oxicology, inc. on sediments and soils from the Old Skeet Range, Site 74 near Los Angeles California. Samples were collected 13 thru 15 December 2003 and received in Corvallis on 17 December 2003. Twelve soils sites and twelve sediments sites were tested. Negative Controls (i.e., no toxicant) and Positive Controls (at three concentrations of boron as boric acid) were tested along with the 24 samples. Five replicates each of barley were planted as seed. The test began on 8 April 2004 and ended on 15 May 2004. Weekly observations were made noting plant appearance, relative height, and numbers of surviving plants. At harvest, measurement endpoints were: number of plants surviving, color and appearance of shoots and roots, shoot height, root length, shoot mass, and root mass. The mean total plant mass was obtained for each replicate by adding the mean shoot and root mass values. Performance of control plants and environmental parameters during the test were within nominal ranges, indicating the tests were valid for the purposes of evaluating phytotoxic responses. Each of the endpoints of plants from site samples was compared to those of plants from the designated reference sample.

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abbreviations

C .....Celsius

CoC ..... Constituent(s) of Concern

CoI .....Constituent(s) of Interest

cm .....centimeter

Cu .....Copper

ep and **t** ..... **e**cological **p**lanning and **t**oxicology, inc.

g ..... gram

kg .....kilogram

mg .....milligram

mm .....millimeter

Na .....sodium

PAR ..... Photosynthetically Active Radiation

pH ..... negative log of hydrogen ion concentration

ppm .....part per million

RH ..... Relative Humidity

s .....second

μmol .....micromole

1. Introduction

The Site 74 Old Skeet Range contains various Constituents of Concern (CoC). Toxicity testing was selected as a means of gathering site-specific information for use an Ecological Risk Assessment being prepared by CH2MHill. Specific details regarding the CoC and the respective soil concentrations are known by CH2MHill and will be used to interpret results of toxicity tests.

1.1 Scope of Work

ecological **p**lanning and **t**oxicology, inc. (**ep** and **t**) was contracted to perform laboratory phytotoxicity tests on a twenty-four environmental samples from Site 74 Seal Beach site, California. Three samples of soil and three samples of sediment were designated as a site references. The tests performed by **ep** and **t** followed procedures described in the ASTM E1963-98 *Standard Guide for Conducting Plant Toxicity Tests* (ASTM, 2002). The scope of work performed by **ep** and **t** was limited to the conduct laboratory phytotoxicity tests, interpretation of the results in relation to Negative and Positive Controls and the reference sample, and prepare this report. The full dataset compiled as part of this test is submitted separately as the data package supporting this report.

1.2 Objectives

The tests performed by **ep** and **t** were intended to:

1) characterize the magnitude of phytotoxic response to contaminants in soils from the Site 74 Old Skeet Range; and
2) interpret the relationships between phytotoxic responses in relation to Negative and Positive Controls and in relation to the designated reference sample.

2. Materials and Methods

The tests were conducted on twelve soil samples and twelve sediment samples collected from the Site 74 Seal Beach site. Artificial soil was used for negative and positive controls. Barley (*Hordeum distichon*) was the test species.

Soil samples were collected by CH2MHill staff and shipped to **ep** and **t** at 5010 SW Hout Street, Corvallis, OR via Fed Ex in 5-gallon polyethylene containers. Joan Yocum executed chain-of-Custody forms upon receipt of samples on 17 December 2003. All samples were subsequently sieved and individual samples thoroughly mixed and appropriate aliquots taken and sent to other laboratories for soil chemistry and invertebrate testing.

CH2MHill Sample ID	Sample Type	Lab Sample ID
74 B02 DB0-05	Sediment	1
74 B02 DB0-15	Sediment	2
74 B02 DB0-26	Sediment	3
74 B02 DB0-35	Sediment	4
74 B02 DB0-36	Sediment	5
74 B02 DB0-41	Sediment	6
74 B02 DB0-44	Sediment	7
74 B02 DB0-52	Sediment	8
74 B02 DB3-46	Sediment	9
74 B03 DB0-01	Sediment Reference	10
74 B03 DB0-02	Sediment Reference	11
74 B03 DB0-03	Sediment Reference	12
74 B01 SB0-01	Soil	13
74 B01 SB0-07	Soil	14
74 B01 SB0-09	Soil	15
74 B01 SB0-10	Soil	16
74 B01 SB0-20	Soil	17
74 B01 SB0-27	Soil	18
74 B01 SB0-32	Soil	19
74 B01 SB0-43	Soil	20
74 B01 SB3-04	Soil	21
74 B03 SB0-01	Soil Reference	22
74 B03 SB0-02	Soil Reference	23
74 B03 SB0-03	Soil Reference	24

2.1 Test species

The original test species specified for this test was *Spartina foliosa.* **ep** and **t** went through an intensive search to procure seed for use in this project but no seed could be found. *Spartina foliosa* primary reproductive method is vegetative, and as a result seed germination rates very low. In addition, no assurances could be made that the seed had not hybridized with *Spartina alterniflora,* a problem that appears to be common in California salt marshes at this time. *S. alterniflora* as well as its hybrid is a robust species that easily out competes *S. foliosa* in the Pacific salt marsh environments and is considered an invasive species.

A decision was then made to go forward with the project using *S. alterniflora* as the test species, and again we found the seed difficult to procure. It was found that there was no commercial seed available due to low seed yield and viability. A *Spartina alterniflora* breeding project was located at the Golden Meadow Plant Materials Center in Louisiana and a request was made to procure seed of their variety “Vermillion”. We could only receive a small amount. (approximately 50 grams of fresh seed harvested in late November 2003). No purity or germination test information was sent with the seed. Also, the seed seemed of poor quality, containing many immature seeds and chaff.

Seed of *Spartina alterniflora* needs to be primed or “stratified” in order to initiate germination. Per discussions with Gary Fine (USDA-NRCS) the priming process involves soaking the seeds in water and refrigerating for a period of one to two months.

The seed was hand winnowed to remove the chaff and immature seed. The seed was then put up in jars with deionized water and put into a refrigerator at 4 degrees Celsius. The water was changed every four to five days as per instructions. Starting at week four, two sets of twenty-five seeds each were pulled from the cooler to room temperature to assess their germination rate. At 8 weeks into the priming, the germination rate settled at a very poor 4% to 8% germ. At this poor germination rate we had an insufficient number of plants to conduct the project.

Through communication at this time a decision was made to use commercially available Barley, (*Hordeum distichon)* for the project.

Seeds were purchased for the study (Table 1).

Table 1. Source of seeds used in tests.

Common Name:	Barley
Binomial:	*Hordeum distichon*
Supplier:	*Corvallis Feed and Seed*
Lot Number:	Lot# L084-3-231
Germination:	94% (in house germ test)

2.2 Test design

The ASTM E1963-98 *Standard Guide for Conducting Plant Toxicity Tests Annex 1 Seedling Emergence* (ASTM, 2002) was used for this project. This Guide provides descriptions of steps used in testing environmental (i.e., site) samples to determine phytotoxicity vis-à-vis reference samples. Plant performance was evaluated in comparison to endpoints measured using negative controls. The Guide also provides for a wide range of plant species that are suited for use in such tests. The duration of the test minimizes nutrient effects and therefore focuses on faster acting toxicity effects without the need to supplement the test soils with plant nutrients.

2.2.1 set-up

Twenty-four site samples were tested. One hundred twenty pots (24 samples x 5 replicates) were prepared for the test species. Five replicate pots for each of three Positive Control concentrations (160-, 320-, and 640 ppm boron as boric acid) and ten replicate Negative Controls (5 replicates for sediments and five replicates for soils, since they were started on different days) were prepared. Negative and Positive Controls used standard artificial soil consisting of sand (70%), kaolinite (20%), peat moss (10%), and calcium carbonate to achieve pH$\simeq$7 (~0.4%). Nine seeds were planted into each pot The basic steps in the test involved:

- preparation of test matrix [natural soil or artificial soil (for controls)] in pots;
- introduction of seeds into the test matrix;
- observation of emergence, general growth conditions, and survival over the test period; and
- quantitative measures of several plant growth parameters at the conclusion of the test.

2.2.2 measurement endpoints

We recorded qualitative information during the course of the tests. This included relative height of plants and appearance of the plants at emergence and at weekly intervals until harvest.

Qualitative observations of shoot height were recorded as relative to the reference (Negative Controls). General height of all plants in each replicate pot was noted as nominal or assigned to a quartile rank:

N ..... nominal defined as ≥90% of the reference;

-1..... 75% to <90%;

-2..... 50% to <75%;

-3..... 25% to <50%; and

-4..... <25%.

Similarly, the appearance of shoots and roots were noted categorically:

N = normal color;

-1..... one or a few plants showing slight streaking, spotting, or yellowing;

-2..... one or a few plants showing obvious streaking, spotting, or yellowing;

-3..... most plants showing obvious streaking spotting, or yellowing; and

-4..... most plants showing severe chlorosis or other discoloration.

Phytotoxicity may be expressed in one or more plant endpoints (Kapustka, 1997). The ASTM Guide recommends measurement of multiple endpoints. Quantitative data (counts, height or length, and mass; see summary table (Appendix 1), as well as qualitative observations were gathered during and at the conclusion of the test (Table 2).

Table 2. Endpoints used to evaluate phytotoxicity.

Endpoint	Method	Level
Emergence	count	individual
Day 7 post-emergence	count	individual
Day 7 post-emergence shoot appearance	qualitative observations	replicate group (pot)
Day 14 post-emergence	count	individual
Day 14 post-emergence shoot appearance	qualitative observations	replicate group (pot)
Day 14 post-emergence root appearance	qualitative observations	replicate group (pot)
Day 21 post emergence	count	individual
Day 21 post emergence shoot appearance	qualitative observations	replicate group (pot)
Day 21 post emergence root appearance	qualitative observations	replicate group (pot)
Day 28 post emergence	count	individual
Day 28 post emergence shoot appearance	qualitative observations	replicate group (pot)
Day 28 post emergence root appearance	qualitative observations	replicate group (pot)
Survival	count	individual
stem height	ruler	individual heights averaged for replicate group (pot)
root length (longest root)	ruler	individual lengths averaged for replicate group (pot)
shoot mass (wet and dry)	balance	replicate group (pot)
root mass (wet and dry)	balance	replicate group (pot)
total mass (wet and dry)	summed (shoot and root mass)	replicate group (pot)
total mass (dry) per plant	total mass/number of survivors	replicate group (pot)

2.2.3 test conditions

Generalized ranges of test conditions appropriate for the tests [e.g., and at least 100 μmol m^{-2} s^{-1} photosynthetically active radiation (PAR); ambient temperatures between 20 C and 30 C] and descriptions of other factors important to the conduct of the test are detailed in the Guide.

Following receipt and processing of soils, the tests were initiated on 8 April 2004 (Table 3). All the plants were harvested by 15 May 2004.

Table 3. Phytotoxicity test dates and species tested

Test Species		Start Date	End Date
Barley	*Hordeum distichon* with soils and Negative Control-1	8 April 2004	13 May 2004
Barley	*Hordeum distichon* with sediments Negative Control-2	9 April 2004	14 May 2004
Barley	*Hordeum distichon* positive controls	10 April 2004	15 May 2004

The test room used for this study has dedicated controls for temperature, ventilation, and lighting. The target temperature was set at 22 C. A 16:8 (light: dark) photoperiod was used. Lighting was provided by Westinghouse Real Lite™, 48-inch fluorescent, 40 Watt, Full Spectrum bulbs (Domestic Code F40T12/FS). The Guide recommends ambient temperatures between 20 C and 30 C and at least 100 μmol m^{-2} s^{-1} photosynthetically active radiation (PAR). Conditions during the test satisfied the guidelines (Table 4, Appendix 2).

Table 4. Environmental parameters of test room.

Parameter	Minimum	Maximum	Mean	Standard Deviation
Temperature	20.9	28.8	23.5	1.0
Relative Humidity	32.0	65.0	42.0	5.0

Light fluence rate was measured using a LiCor Sunfleck Quantum Sensor Model SF-80 during the test. Fluence rate for different locations in the growing area ranged from 154 to 185 μmol m^{-2} s^{-1} PAR. The mean fluence rate was 170 μmol m^{-2} s^{-1} PAR.

2.3 Statistical tests

Data were transcribed from paper data sheets into electronic format in a Microsoft ACCESS® Database. All entries were crosschecked for accuracy. Data reports prepared in Access were converted to EXCEL® files. The parametric means test (AOV) was run using STATISTIX7® (ANALYTICAL SOFTWARE, 2000).

3. Results and Discussion

Information presented in this section includes narrative descriptions and quantitative summaries of endpoints for each sample. Selected digital photographs of test plants provide qualitative impressions of the range of response (Appendix 3).

In this experiment using barley, many of the treatments did not germinate. Investigation has revealed the apparent cause is the high salinity of the sediments and soils we are testing. Samples with sodium levels at 4760 mg/kg and above had no plant survival and those below 2190 mg/kg had plant survival (Table 5).

Table 5. Sodium Chemistry and Survival

Sample	Percent Plant Count at Harvest	Sodium mg/kg	Matrix
74B02DB0-05	0%	44300	sediment
74B02DB0-15	0%	29400	sediment
74B02DB0-26	0%	56800	sediment
74B02DB0-35	0%	24600	sediment
74B02DB0-36	0%	50400	sediment
74B02DB0-41	0%	17500	sediment
74B02DB0-44	0%	23200	sediment
74B02DB0-52	0%	46400	sediment
74B02DB3-46	0%	19600	sediment
74B03DB0-01	0%	6390	sediment
74B03DB0-02	0%	15000	sediment
74B03DB0-03	0%	4760	sediment
74B01SB0-01	60%	2090	soil
74B01SB0-07	0%	5670	soil
74B01SB0-09	0%	7360	soil
74B01SB0-10	0%	17300	soil
74B01SB0-20	51%	2150	soil
74B01SB0-27	0%	20900	soil
74B01SB0-32	24%	2190	soil
74B01SB0-43	35%	2060	soil
74B01SB3-04	87%	1030	soil
74B03SB0-01	60%	2060	soil
74B03SB0-02	60%	2050	soil
74B03SB0-03	93%	243	soil

Because of these problems Joan Yocum contacted Dr. Sally Hacker of Washington State University and Oregon State University. Dr. Hacker was contacted because of her work on *Spartina anglica*. In a lengthy discussion describing the methodology of the experiment it came to light that growing plants in sediments from a marine environment poses special problems. In particular, there is a form of concretion that occurs when the sediment, especially those high in clay, go through a “watering then evaporative” cycle which occurs in our current methodology. The preferred method is a flood table, where the pots are almost submerged and water is circulated around the pots and the resulting salinity is brought down to, for Spartina, 15 mg/kg or even lower. She informed us that even if we had used Spartina for this experiment it would not have succeeded because of these problems. Apparently the need for water flow and oxygenation is necessary to plant growth. We also discussed other possible plant material to use, and she suggested *Distichlis spicata* because of its good seed germination and robust growth, although, given our current methodology, growing even *Distichlis* would be problematical.

3.1 Narrative descriptions of plant performance in laboratory phytotoxicity tests

Barley was planted directly into the soil and run for 28-Days Post Emergence. Growth of Negative and Positive Controls followed nominal patterns during the course of this study. For the purposes of describing the results of this test, comparisons were made to the corresponding endpoints as a percentage of the Negative Controls.

All Site 74 Sediment Samples: All Sediment samples had no growth.

Site 74 Soil Samples: All Soil samples except those noted below had no growth

74 BO1 SB0 01: The mean plant count at harvest for 74 BO1 SB0 01 was moderately inhibited. Mean shoot height, mean shoot dry weight, mean root dry weight and mean total dry weight per pot was slightly inhibited. Mean root length was nominal. Mean total dry weight per plant was stimulated.

74 BO1 SB0 20: The mean plant count at harvest for 74 BO1 SB0 20 along with the mean shoot dry weight, mean root dry weight and mean total dry weight per pot was moderately inhibited. Mean shoot height and mean root length was slightly inhibited. Mean total dry weight per plant was nominal.

74 B01 SB0 32: The mean plant count at harvest for 74 B01 SB0 32 along with the mean shoot dry weight, mean root dry weight and mean total dry weight per pot was highly inhibited. Mean shoot height and mean root length was slightly inhibited. Mean total dry weight per plant was nominal.

74 B01 SB0 43: The mean plant count at harvest for 74 B01 SB0 43 was highly inhibited. The mean shoot dry weight, mean root dry weight and mean total dry weight per pot was moderately inhibited. Mean shoot height and mean root length was nominal. Mean total dry weight per plant was moderately stimulated.

74 B01 SB3 04: The mean plant count at harvest and mean root length for 74 B01 SB3 04 was nominal. Mean shoot height was slightly inhibited. Mean shoot dry weight and mean total dry weight per pot was stimulated. Mean root dry weight and mean total dry weight per plant was moderately stimulated.

74 B03 SB0 01 Reference: The mean plant count at harvest, mean shoot dry weight, mean root dry weight and mean total dry weight per pot for 74 B03 SB0 01 were moderately inhibited. Mean shoot height and mean root length was slightly inhibited. Mean total dry weight per plant was nominal.

74 B03 SB0 02 Reference: The mean plant count at harvest and the mean shoot dry weight for 74 B03 SB0 02 were moderately inhibited. Mean shoot height, total dry weight per pot and mean root dry weight was slightly inhibited. The mean root length was nominal. The mean total dry weight per plant was slightly stimulated.

74 B03 SB0 03 Reference: Mean shoot height for 74 B03 SB0 03 was slightly inhibited. The mean plant count at harvest, the mean root length and mean root dry weight was nominal. The mean shoot dry weight, mean total dry weight per pot and the mean total dry weight per plant were slightly stimulated.

3.2 Quantitative summaries

The large number of samples with no survival hampered measurements of plant performance. Even upon censoring these data from the data set, the variation among reference samples limits the ability to discern statistically significant differences among other samples. One-way Analysis of Variance was performed on data after censoring using the software package STATISTIX. The summary statistic tables (Appendix 5) and box-and-whisker plots (Appendix 4) reveal the differences among the soil samples from sediment samples. Differences also appear among the reference samples and of surviving samples relative samples to Negative Controls (Table 6 and Appendix 6). Scatter plots of plant endpoints and various constituents of interest (COI) in the site samples (including various metals and organics) suggest apparent trends in which the plant parameter (e.g., dry weight) decrease as the COI increases. This is clearly the case for Na; other COI such as Cu and some of the PAHs seem to show apparent trends. The interpretation of these relationships is confounded by the fact that COI values for the reference samples are interspersed with those from the site samples, though in each case the two highest values for any COI are from site samples. This may indicate a patchiness or heterogeneous distribution of COI across the site. Regression analyses could be performed on these data, however, even if the trends were statistically significant, any subsequent use of this information would be suspect do to the influence of the highest two concentrations on the regression relationship (a phenomenon known as leverage of the regression).

Typical use of negative controls is to verify the acceptance criteria for the test were met for organisms used in the test (e.g., minimum emergence, target dry weight). Comparisons can be used to indicate whether the species used in the test was appropriate for the site matrix. For example in this project, such comparisons indicate that all of the sediment samples were too saline to support terrestrial plant growth. Without the benefit of Negative Control data, one would not know if the seeds used were defective or if the matrix material was simply unsuitable for the species. In this case, chemical analyses indicated the sodium levels were too high. If no site reference is available then negative controls may be used for comparison. Positive controls are used primarily for QA-QC control charting unless the toxicant used is one that is designated as a COI.

Table 6. Analysis of Variance for Endpoints

Asterisks * indicate values are statistically different from negative controls

Sample ID	Plant Count at Harvest	Root Length	Root Dry Weight	Shoot Height	Shoot Dry Weight	Total Dry Weight per Pot	Total Dry Weight per Plant
B01 SB0-01	5.4	287.00	0.1532	160.00	0.1860	0.3392*	0.0627
BO1 SB0 20	4.6	253.20	0.1008	167.20	0.1304	0.2312*	0.0504
B01 SB0 32	2.2*	274.25	0.0616	169.75	0.0642	0.1260*	0.0577
B01 SB0 43	3.2*	322.00	0.1136	180.40	0.1198	0.2334*	0.0727
B01 SB3 04	7.8	306.00	0.2394	178.20	0.2698	0.5092*	0.0654
B03 SB0 01	5.4	273.40	0.0998	163.80	0.1626	0.2624*	0.0493
B03 SB0 02	5.4	320.20	0.1506	176.80	0.1616	0.3122*	0.0582
B03 SB0 03	8.4	298.20	0.1972	175.40	0.2736	0.4708*	0.0565

4. Conclusions

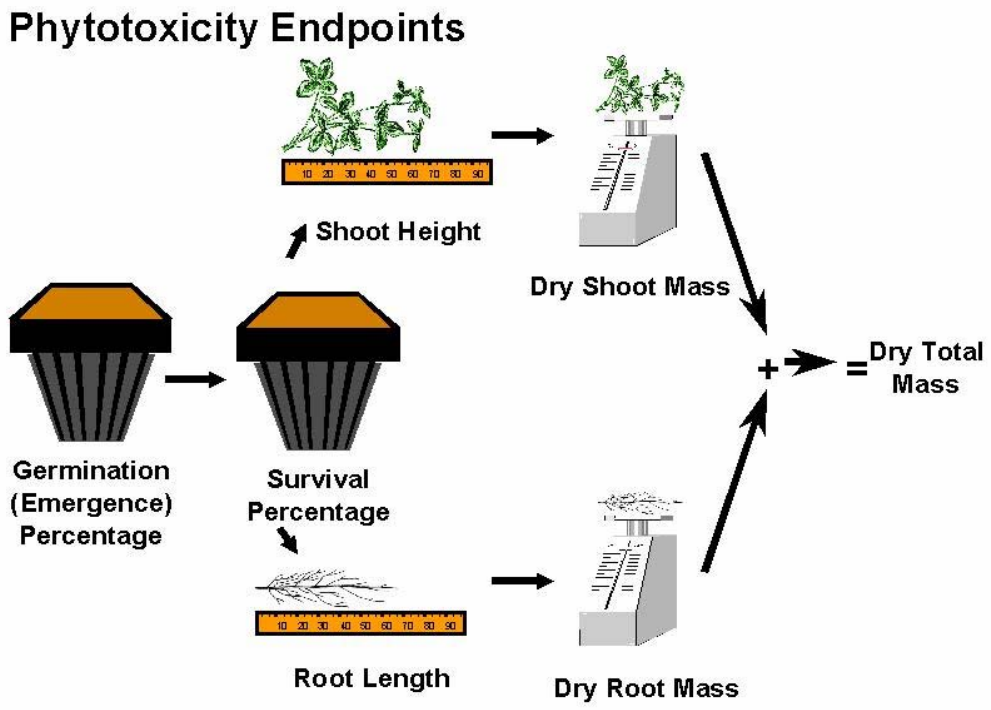
Based on the performance of negative and positive controls as well as the test room environment being within guideline specifications, the results of this test are valid for the purposes of evaluating phytotoxic responses. Examination of scatterplots for the various COI concentrations versus plant endpoints indicated that salinity (using sodium as the indicator) dominated the responses. The sodium level in each of the sediment samples was too high for emergence or survival of the test species, and likely was too high for any terrestrial species including *Spartina*. Heterogeneity among reference and site samples with respect to the COI also confounded assignment of putative causality of reduced growth in soil samples to a COI.

5. References Cited

ASTM. 2002. Standard Guide for Conducting Terrestrial Plant Toxicity Tests. Designation: E 1963-98 *Annual Book of Standards*. American Society for Testing and Materials. West Conshohocken, PA.

Analytical Software. 2000. *Statistix7 for Windows 95, 98, NT, 2000*. Analytical Software, Tallahassee, FL 32317.

Appendix 1. Illustration of quantitative measurement endpoints.



Appendix 2. Test room environmental data.

Date	Max Temp	Min Temp	Ave Temp	Max Humidity	Min Humidity	Ave Humidity
4/8/04	22.0	20.7	21.2	42	35	39
4/9/04	23.0	20.8	21.6	38	35	37
4/10/04	23.3	20.9	21.8	39	34	37
4/11/04	23.5	20.9	21.9	40	37	38
4/12/04	25.9	20.9	22.8	40	34	38
4/13/04	24.6	20.5	22.5	40	32	35
4/14/04	25.2	21.4	22.7	37	33	35
4/15/04	26.7	20.7	23.0	47	33	37
4/16/04	28.8	20.6	24.5	60	46	53
4/17/04	27.8	20.8	23.8	65	40	56
4/18/04	27.9	25.3	26.9	40	36	38
4/19/04	25.7	20.7	23.7	52	41	46
4/20/04	24.3	20.7	22.4	41	37	39
4/21/04	26.4	20.7	23.1	42	36	39
4/22/04	25.9	20.7	23.2	45	38	41
4/23/04	26.7	20.5	23.6	57	40	45
4/24/04	26.4	20.6	23.3	50	34	41
4/25/04	25.3	20.6	23.0	52	39	43
4/26/04	25.3	20.6	22.9	55	41	47
4/27/04	27.1	20.6	23.7	55	42	49
4/28/04	26.1	20.6	23.6	48	42	45
4/29/04	25.5	20.6	23.2	48	42	45
4/30/04	25.9	20.6	23.3	46	42	45
5/1/04	26.2	20.6	23.8	46	35	43
5/2/04	26.7	20.6	23.8	48	36	43
5/3/04	26.3	20.8	24.1	49	40	45
5/4/04	26.8	21.1	24.2	51	39	44
5/5/04	26.7	20.7	24.1	45	38	41
5/6/04	26.2	20.6	23.9	42	38	40
5/7/04	26.4	21.1	24.2	55	42	49
5/9/04	26.7	20.6	23.8	44	39	41
5/10/04	26.6	20.6	24.1	47	38	41
5/11/04	26.6	20.6	23.9	44	37	41
5/12/04	26.7	20.6	23.9	42	36	39
5/13/04	26.8	20.6	24.0	40	36	38
5/14/04	26.6	20.9	24.3	44	38	40
5/15/04	26.3	21.1	24.4	45	36	40
Mean	26.0	20.9	23.5	47	38	42
Std Dev	1.4	0.8	1.0	7	3	5

Max Temp	Min Temp
28.8	20.5

Max Humidity	Min Humidity
65	32

Appendix 3. Selected digital photographs of test plants.

Photo of Soil Matrix Negative Control Before Harvest

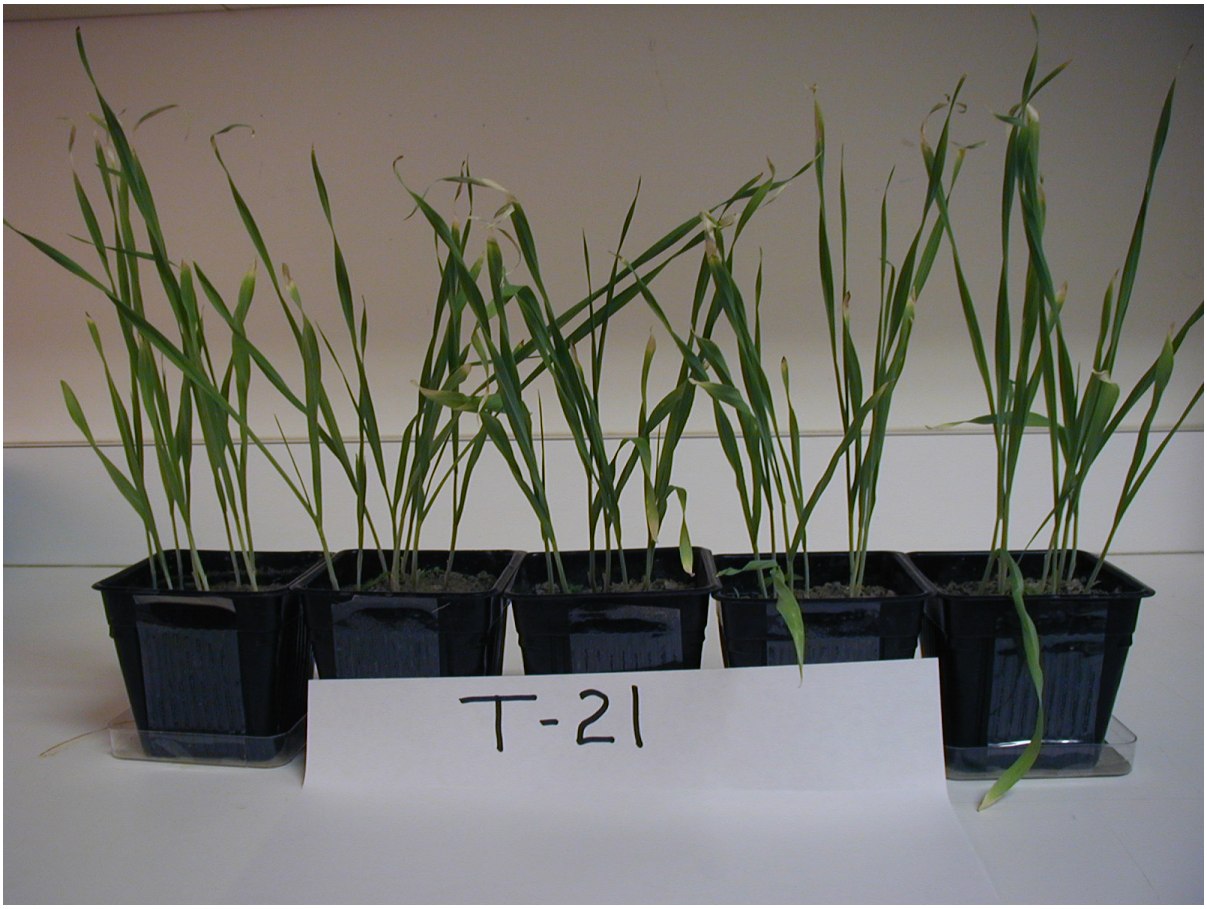


Photo of 74 B01 SB3-04 before harvest showing typical growth of surviving plants

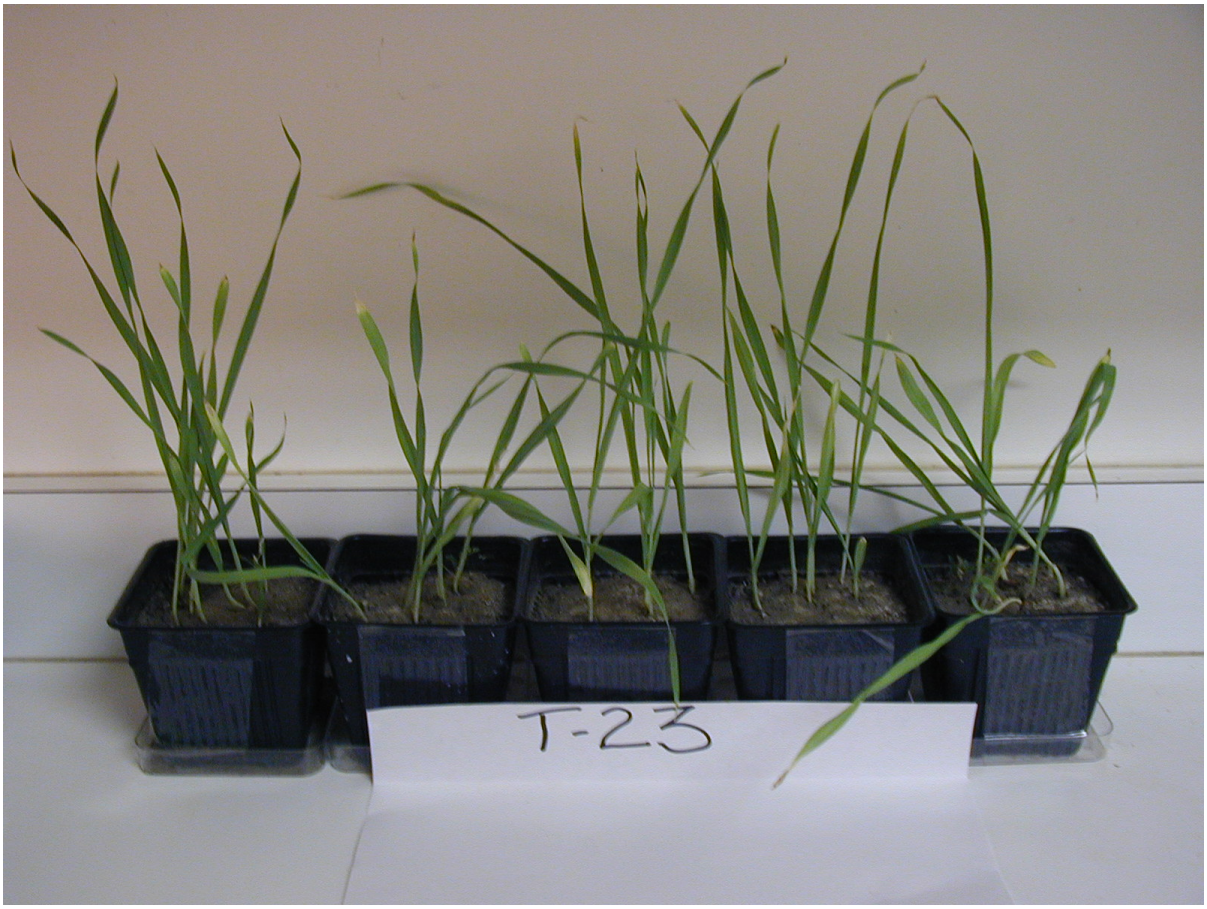
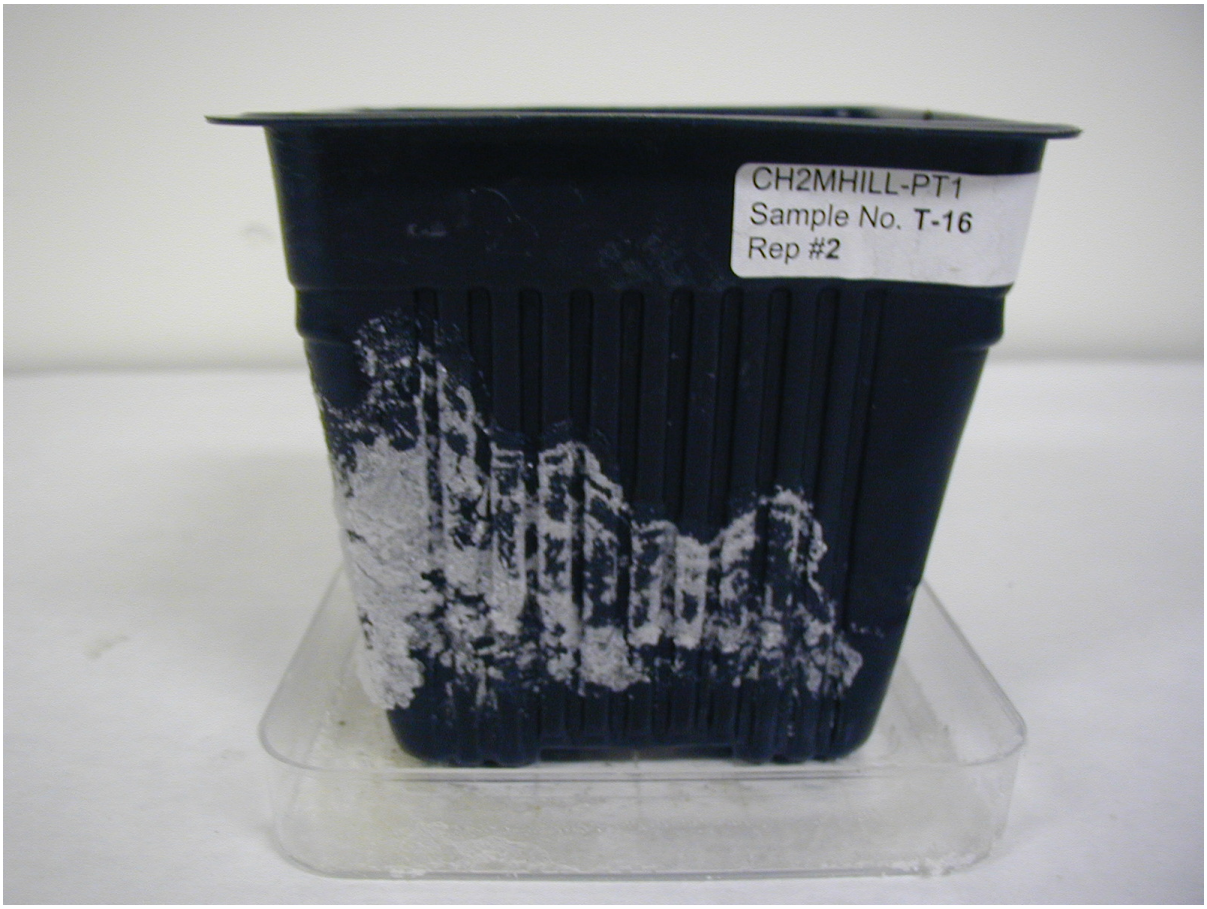


Photo of 74 B03 SB0-02 before harvest showing typical growth of surviving plants

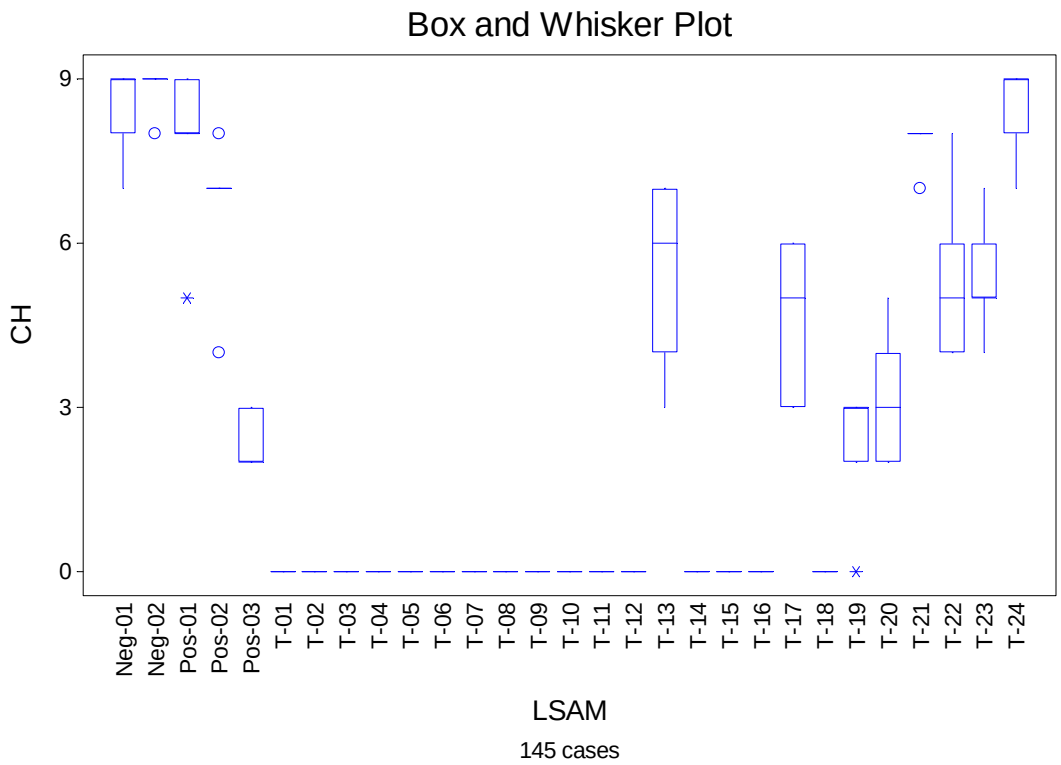
Example of salt crystal growth on soil sample 74 B01 SB0-27 typical in samples with 0% survival.



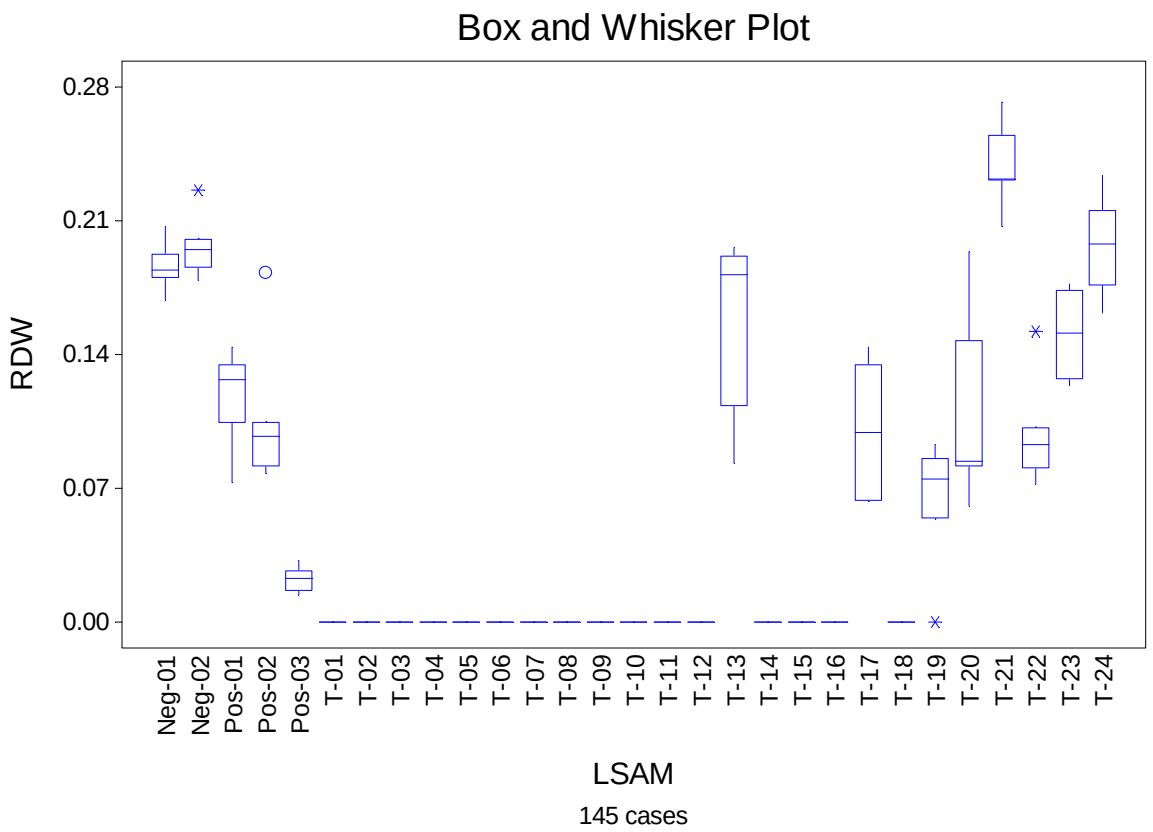
Example of salt crystal growth on soil sample 74 B01 SB0-10 typical in samples with 0% survival.

Example of salt crystal growth on sediment sample 74 B02 DB0-44 typical in samples with 0% survival.

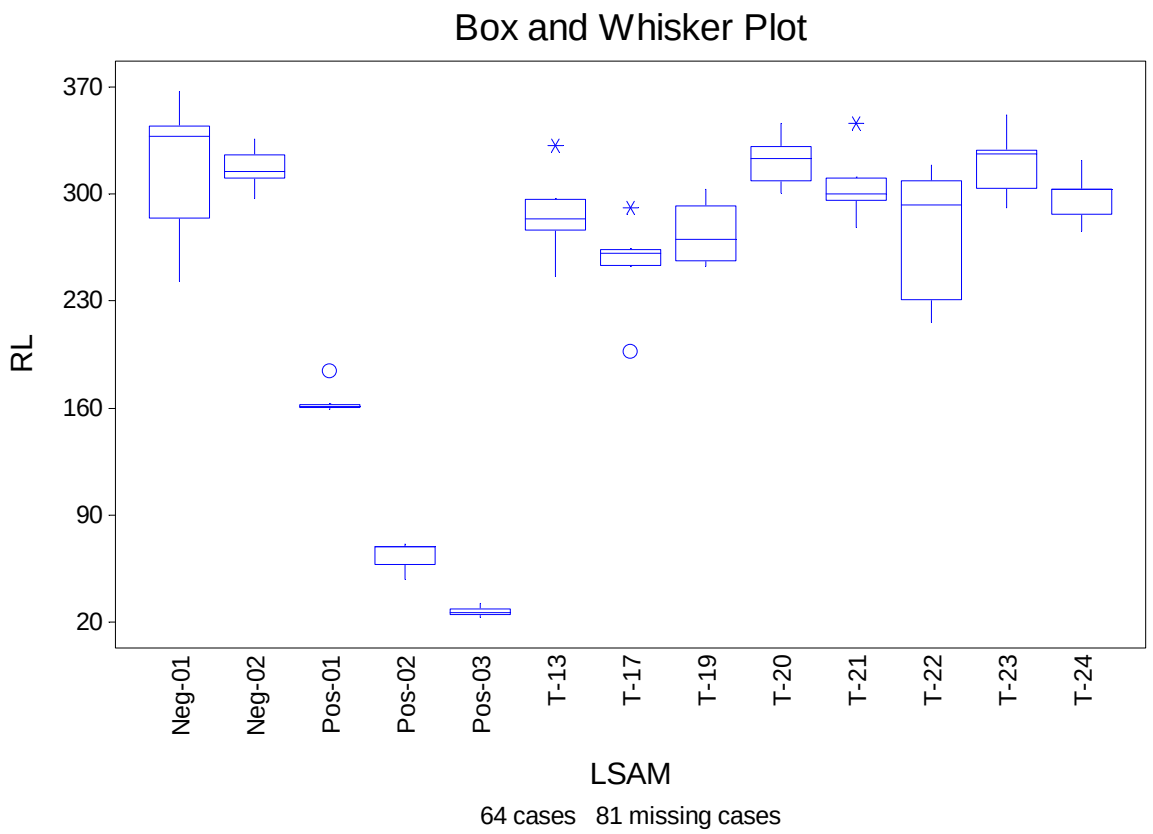
Appendix 4. Box and Whisper Diagrams



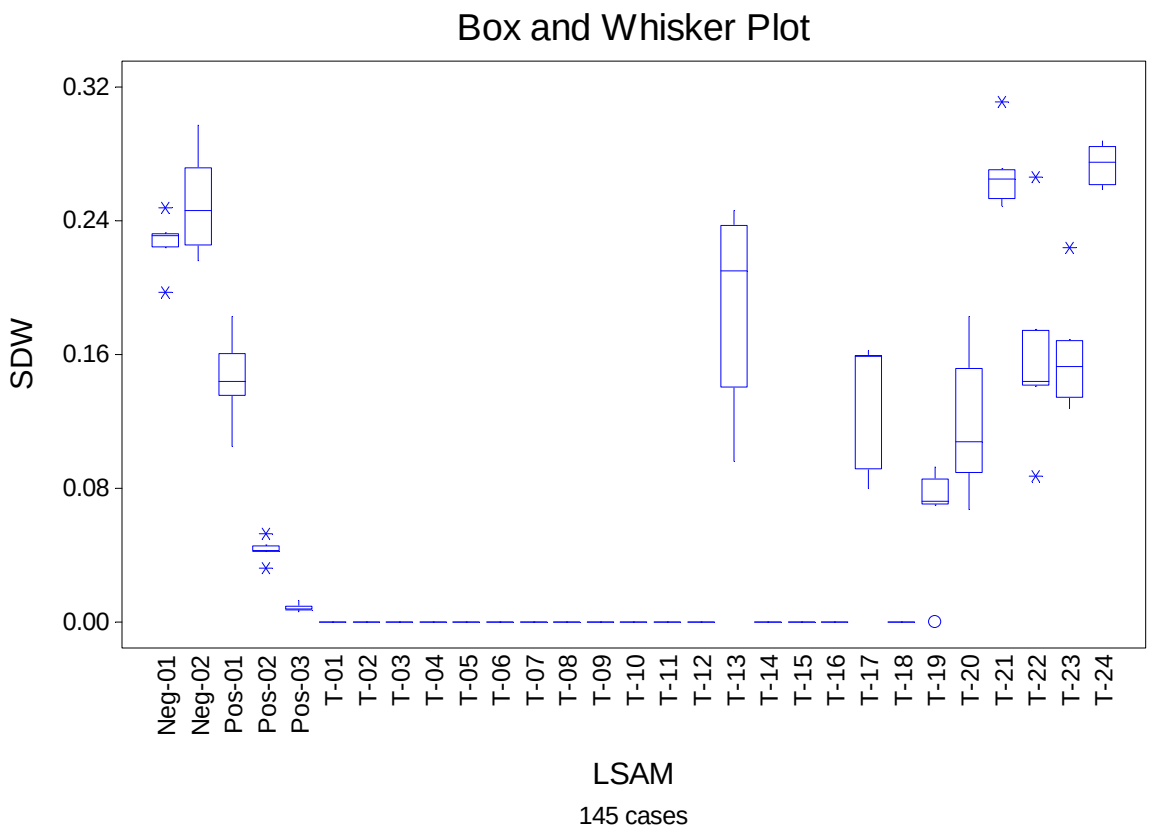
Harvest Count



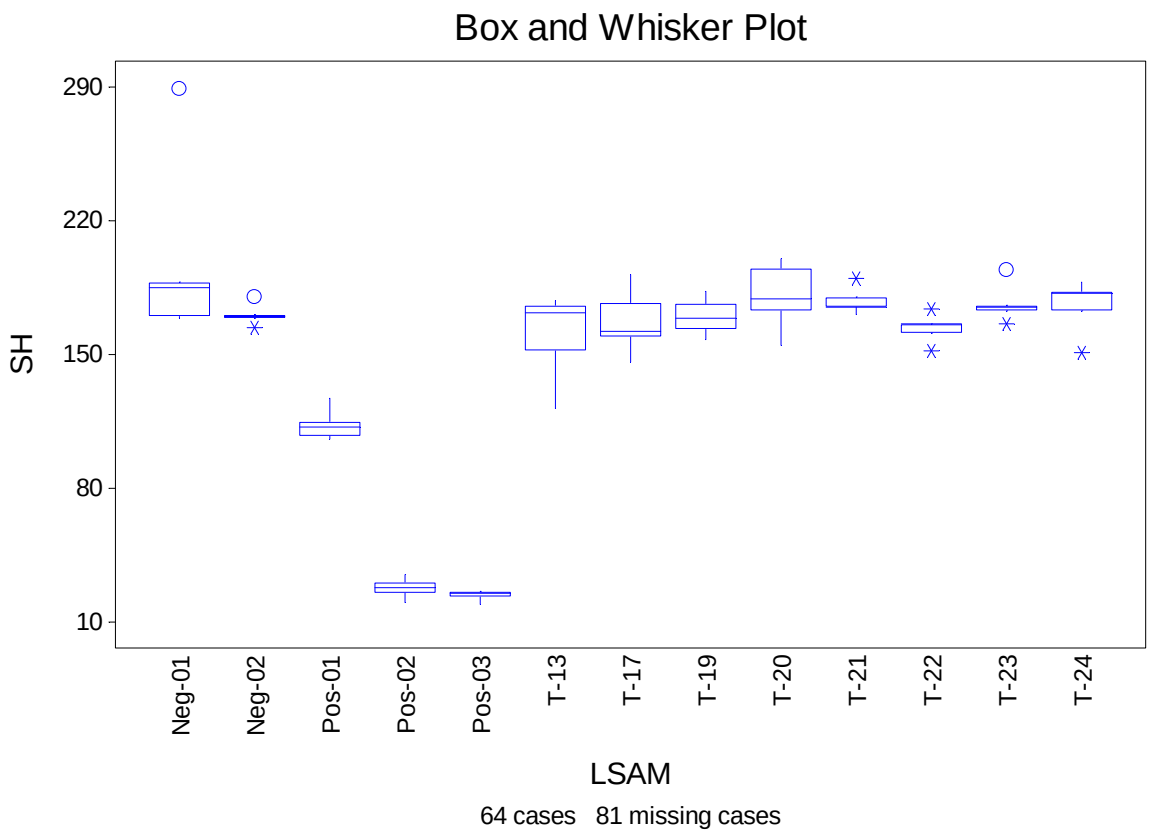
Root Dry Weight


Box and Whisker Plot
370
300
230
160
90
20
RL
Neg-01
Neg-02
Pos-01
Pos-02
Pos-03
T-13
T-17
T-19
T-20
T-21
T-22
T-23
T-24
LSAM
64 cases 81 missing cases

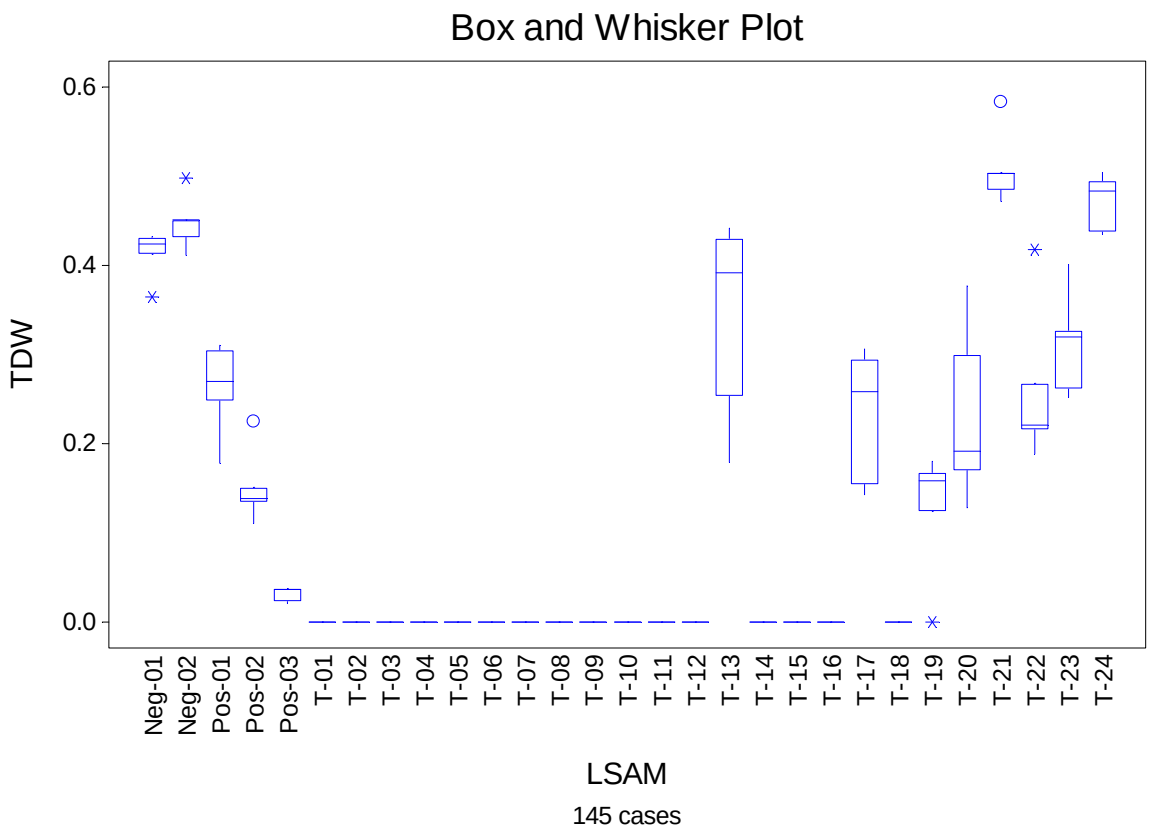
Root Length



Shoot Dry Weight



Shoot Height



Total Dry Weight per Pot

Appendix 5. Statistical summaries

STATISTIX 7 STAT FILES, 7/13/2004, 2:10:54 PM

DESCRIPTIVE STATISTICS FOR LSAM Neg-1

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	8.4	0.89	7	9
2 Count Day-7	5	8.4	0.89	7	9
3 Count Day-14	5	8.4	0.89	7	9
4 Count Day-21	5	8.4	0.89	7	9
5 Count at Harvest	5	8.4	0.89	7	9
6 Shoot Height (mm)	5	200	50	169	289
7 Root Length	5	315	51	243	367
8 Shoot Wet Weight (g)	5	1.3016	0.19	1.057	1.512
9 Root Wet Weight (g)	5	1.628	0.20	1.276	1.781
10 Shoot Dry Weight (g)	5	0.2266	0.02	0.197	0.248
11 Root Dry Weight (g)	5	0.1864	0.01	0.168	0.207
12 Total Wet Weight (g) per Pot	5	2.9296	0.38	2.333	3.239
13 Total Dry Weight (g) per Pot	5	0.413	0.03	0.365	0.432
14 Total Dry Weight (g) per Plant	5	0.413	0.03	0.365	0.432

DESCRIPTIVE STATISTICS FOR LSAM Neg-2

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	8.4	0.89	7	9
2 Count Day-7	5	8.4	0.89	7	9
3 Count Day-14	5	8.4	0.89	7	9
4 Count Day-21	5	8.4	0.89	7	9
5 Count at Harvest	5	8.8	0.45	8	9
6 Shoot Height (mm)	5	171	6	164	180
7 Root Length	5	317	15	297	336
8 Shoot Wet Weight (g)	5	1.422	0.111	1.252	1.546
9 Root Wet Weight (g)	5	1.807	0.061	1.710	1.872
10 Shoot Dry Weight (g)	5	0.251	0.034	0.216	0.297
11 Root Dry Weight (g)	5	0.197	0.018	0.179	0.226
12 Total Wet Weight (g) per Pot	5	3.229	0.099	3.096	3.346
13 Total Dry Weight (g) per Pot	5	0.448	0.032	0.411	0.498
14 Total Dry Weight (g) per Plant	5	0.448	0.032	0.411	0.498

DESCRIPTIVE STATISTICS FOR LSAM Pos-1

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	7.8	1.64	5	9
2 Count Day-7	5	7.8	1.64	5	9
3 Count Day-14	5	7.8	1.64	5	9
4 Count Day-21	5	7.8	1.64	5	9
5 Count at Harvest	5	7.8	1.64	5	9
6 Shoot Height (mm)	5	113	8	106	127
7 Root Length	5	165	11	159	184
8 Shoot Wet Weight (g)	5	0.853	0.171	0.575	1.008

9 Root Wet Weight (g)	5	0.978	0.233	0.616	1.260
10 Shoot Dry Weight (g)	5	0.146	0.029	0.105	0.183
11 Root Dry Weight (g)	5	0.117	0.029	0.073	0.144
12 Total Wet Weight (g) per Pot	5	1.831	0.400	1.191	2.268
13 Total Dry Weight (g) per Pot	5	0.262	0.054	0.178	0.310
14 Total Dry Weight (g) per Plant	5	0.262	0.054	0.178	0.310

DESCRIPTIVE STATISTICS FOR LSAM Pos-2

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	6.8	1.64	4	8
2 Count Day-7	5	7	1.22	5	8
3 Count Day-14	5	7	1.22	5	8
4 Count Day-21	5	6.8	1.10	5	8
5 Count at Harvest	5	6.6	1.52	4	8
6 Shoot Height (mm)	5	28	6	20	35
7 Root Length	5	63	10	48	71
8 Shoot Wet Weight (g)	5	0.181	0.047	0.112	0.232
9 Root Wet Weight (g)	5	0.508	0.122	0.364	0.683
10 Shoot Dry Weight (g)	5	0.043	0.008	0.032	0.053
11 Root Dry Weight (g)	5	0.109	0.043	0.078	0.183
12 Total Wet Weight (g) per Pot	5	0.689	0.159	0.476	0.915
13 Total Dry Weight (g) per Pot	5	0.152	0.044	0.110	0.225
14 Total Dry Weight (g) per Plant	5	0.152	0.044	0.110	0.225

DESCRIPTIVE STATISTICS FOR LSAM Pos-3

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	5.8	0.84	5	7
2 Count Day-7	5	5.8	0.84	5	7
3 Count Day-14	5	5.6	0.55	5	6
4 Count Day-21	5	3.6	0.55	3	4
5 Count at Harvest	5	2.4	0.55	2	3
6 Shoot Height (mm)	5	24	3	19	26
7 Root Length	5	27	4	23	32
8 Shoot Wet Weight (g)	5	0.045	0.018	0.030	0.070
9 Root Wet Weight (g)	5	0.095	0.034	0.062	0.138
10 Shoot Dry Weight (g)	5	0.009	0.003	0.006	0.013
11 Root Dry Weight (g)	5	0.022	0.008	0.014	0.032
12 Total Wet Weight (g) per Pot	5	0.140	0.051	0.092	0.195
13 Total Dry Weight (g) per Pot	5	0.031	0.008	0.021	0.038
14 Total Dry Weight (g) per Plant	5	0.031	0.008	0.021	0.038

DESCRIPTIVE STATISTICS FOR LSAM T-1

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000

11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-2

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-3

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-4

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000

13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-5

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-6

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-7

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-8

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-9

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-10

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-11

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-12

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-13

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	5.4	1.82	3	7
2 Count Day-7	5	5.4	1.82	3	7
3 Count Day-14	5	5.4	1.82	3	7
4 Count Day-21	5	5.4	1.82	3	7
5 Count at Harvest	5	5.4	1.82	3	7
6 Shoot Height (mm)	5	160	24	122	178
7 Root Length	5	287	31	246	332
8 Shoot Wet Weight (g)	5	0.782	0.319	0.389	1.169
9 Root Wet Weight (g)	5	1.671	0.742	0.798	2.552
10 Shoot Dry Weight (g)	5	0.186	0.065	0.096	0.246
11 Root Dry Weight (g)	5	0.153	0.052	0.083	0.196
12 Total Wet Weight (g) per Pot	5	2.453	1.041	1.187	3.500
13 Total Dry Weight (g) per Pot	5	0.339	0.117	0.179	0.442
14 Total Dry Weight (g) per Plant	5	0.339	0.117	0.179	0.442

DESCRIPTIVE STATISTICS FOR LSAM T-14

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-15

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	4	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-16

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	5	0	0.00	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-17

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	4.4	1.34	3	6

2 Count Day-7	5	4.4	1.34	3	6
3 Count Day-14	5	4.4	1.34	3	6
4 Count Day-21	5	4.6	1.52	3	6
5 Count at Harvest	5	4.6	1.52	3	6
6 Shoot Height (mm)	5	167	18	146	192
7 Root Length	5	253	35	197	291
8 Shoot Wet Weight (g)	5	0.775	0.249	0.507	1.062
9 Root Wet Weight (g)	5	1.393	0.472	1.069	2.182
10 Shoot Dry Weight (g)	5	0.130	0.041	0.080	0.162
11 Root Dry Weight (g)	5	0.101	0.038	0.063	0.144
12 Total Wet Weight (g) per Pot	5	2.168	0.693	1.576	3.244
13 Total Dry Weight (g) per Pot	5	0.231	0.078	0.143	0.306
14 Total Dry Weight (g) per Plant	5	0.231	0.078	0.143	0.306

DESCRIPTIVE STATISTICS FOR LSAM T-18

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	0	0.00	0	0
2 Count Day-7	1	0	M	0	0
3 Count Day-14	5	0	0.00	0	0
4 Count Day-21	5	0	0.00	0	0
5 Count at Harvest	5	0	0.00	0	0
6 Shoot Height (mm)	0	M	M	M	M
7 Root Length	0	M	M	M	M
8 Shoot Wet Weight (g)	5	0.000	0.000	0.000	0.000
9 Root Wet Weight (g)	5	0.000	0.000	0.000	0.000
10 Shoot Dry Weight (g)	5	0.000	0.000	0.000	0.000
11 Root Dry Weight (g)	5	0.000	0.000	0.000	0.000
12 Total Wet Weight (g) per Pot	5	0.000	0.000	0.000	0.000
13 Total Dry Weight (g) per Pot	5	0.000	0.000	0.000	0.000
14 Total Dry Weight (g) per Plant	5	0.000	0.000	0.000	0.000

DESCRIPTIVE STATISTICS FOR LSAM T-19

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	2.6	0.55	2	3
2 Count Day-7	5	2.6	0.55	2	3
3 Count Day-14	5	2.6	0.55	2	3
4 Count Day-21	5	2.2	1.30	0	3
5 Count at Harvest	5	2.2	1.30	0	3
6 Shoot Height (mm)	4	170	10	158	183
7 Root Length	4	274	23	253	303
8 Shoot Wet Weight (g)	5	0.269	0.157	0.000	0.372
9 Root Wet Weight (g)	5	0.529	0.314	0.000	0.747
10 Shoot Dry Weight (g)	5	0.064	0.037	0.000	0.093
11 Root Dry Weight (g)	5	0.062	0.038	0.000	0.093
12 Total Wet Weight (g) per Pot	5	0.798	0.471	0.000	1.100
13 Total Dry Weight (g) per Pot	5	0.126	0.074	0.000	0.180
14 Total Dry Weight (g) per Plant	5	0.126	0.074	0.000	0.180

DESCRIPTIVE STATISTICS FOR LSAM T-20

VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1 Count at Emergence	5	3.2	1.30	2	5
2 Count Day-7	5	3.2	1.30	2	5
3 Count Day-14	5	3.2	1.30	2	5

4	Count Day-21	5	3.2	1.30	2	5
5	Count at Harvest	5	3.2	1.30	2	5
6	Shoot Height (mm)	5	180	18	155	200
7	Root Length	5	322	18	301	346
8	Shoot Wet Weight (g)	5	0.545	0.228	0.322	0.865
9	Root Wet Weight (g)	5	1.761	0.746	1.046	2.779
10	Shoot Dry Weight (g)	5	0.120	0.047	0.067	0.183
11	Root Dry Weight (g)	5	0.114	0.056	0.061	0.194
12	Total Wet Weight (g) per Pot	5	2.306	0.972	1.390	3.644
13	Total Dry Weight (g) per Pot	5	0.233	0.102	0.128	0.377
14	Total Dry Weight (g) per Plant	5	0.233	0.102	0.128	0.377

DESCRIPTIVE STATISTICS FOR LSAM T-21

	VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1	Count at Emergence	5	7.8	0.45	7	8
2	Count Day-7	5	7.8	0.45	7	8
3	Count Day-14	5	7.8	0.45	7	8
4	Count Day-21	5	7.8	0.45	7	8
5	Count at Harvest	5	7.8	0.45	7	8
6	Shoot Height (mm)	5	178	7	171	190
7	Root Length	5	306	25	278	346
8	Shoot Wet Weight (g)	5	1.534	0.065	1.480	1.648
9	Root Wet Weight (g)	5	2.575	0.392	2.169	3.040
10	Shoot Dry Weight (g)	5	0.270	0.025	0.249	0.311
11	Root Dry Weight (g)	5	0.239	0.025	0.207	0.272
12	Total Wet Weight (g) per Pot	5	4.109	0.432	3.681	4.560
13	Total Dry Weight (g) per Pot	5	0.509	0.043	0.472	0.583
14	Total Dry Weight (g) per Plant	5	0.509	0.043	0.472	0.583

DESCRIPTIVE STATISTICS FOR LSAM T-22

	VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1	Count at Emergence	5	5.4	1.67	4	8
2	Count Day-7	5	5.4	1.67	4	8
3	Count Day-14	5	5.4	1.67	4	8
4	Count Day-21	5	5.4	1.67	4	8
5	Count at Harvest	5	5.4	1.67	4	8
6	Shoot Height (mm)	5	164	8	152	174
7	Root Length	5	273	47	216	319
8	Shoot Wet Weight (g)	5	0.989	0.252	0.780	1.408
9	Root Wet Weight (g)	5	0.953	0.284	0.669	1.391
10	Shoot Dry Weight (g)	5	0.163	0.066	0.087	0.266
11	Root Dry Weight (g)	5	0.100	0.031	0.072	0.152
12	Total Wet Weight (g) per Pot	5	1.942	0.533	1.449	2.799
13	Total Dry Weight (g) per Pot	5	0.262	0.092	0.189	0.418
14	Total Dry Weight (g) per Plant	5	0.262	0.092	0.189	0.418

DESCRIPTIVE STATISTICS FOR LSAM T-23

	VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1	Count at Emergence	5	5.4	1.14	4	7
2	Count Day-7	5	5.4	1.14	4	7
3	Count Day-14	5	5.4	1.14	4	7
4	Count Day-21	5	5.4	1.14	4	7
5	Count at Harvest	5	5.4	1.14	4	7

6	Shoot Height (mm)	5	177	10	166	194
7	Root Length	5	320	24	291	352
8	Shoot Wet Weight (g)	5	1.025	0.262	0.724	1.369
9	Root Wet Weight (g)	5	1.265	0.283	0.912	1.645
10	Shoot Dry Weight (g)	5	0.162	0.038	0.128	0.224
11	Root Dry Weight (g)	5	0.151	0.025	0.124	0.177
12	Total Wet Weight (g) per Pot	5	2.290	0.544	1.636	3.014
13	Total Dry Weight (g) per Pot	5	0.312	0.060	0.252	0.401
14	Total Dry Weight (g) per Plant	5	0.312	0.060	0.252	0.401

DESCRIPTIVE STATISTICS FOR LSAM T-24

	VARIABLE	N	MEAN	Std Dev	MINIMUM	MAXIMUM
1	Count at Emergence	5	8.4	0.89	7	9
2	Count Day-7	5	8.4	0.89	7	9
3	Count Day-14	5	8.4	0.89	7	9
4	Count Day-21	5	8.4	0.89	7	9
5	Count at Harvest	5	8.4	0.89	7	9
6	Shoot Height (mm)	5	175	15	151	188
7	Root Length	5	298	18	276	322
8	Shoot Wet Weight (g)	5	1.576	0.164	1.400	1.755
9	Root Wet Weight (g)	5	1.523	0.206	1.263	1.755
10	Shoot Dry Weight (g)	5	0.274	0.013	0.259	0.288
11	Root Dry Weight (g)	5	0.197	0.029	0.162	0.234
12	Total Wet Weight (g) per Pot	5	3.099	0.345	2.663	3.402
13	Total Dry Weight (g) per Pot	5	0.471	0.033	0.435	0.504
14	Total Dry Weight (g) per Plant	5	0.471	0.033	0.435	0.504

Appendix 6. AOV for censored soil data

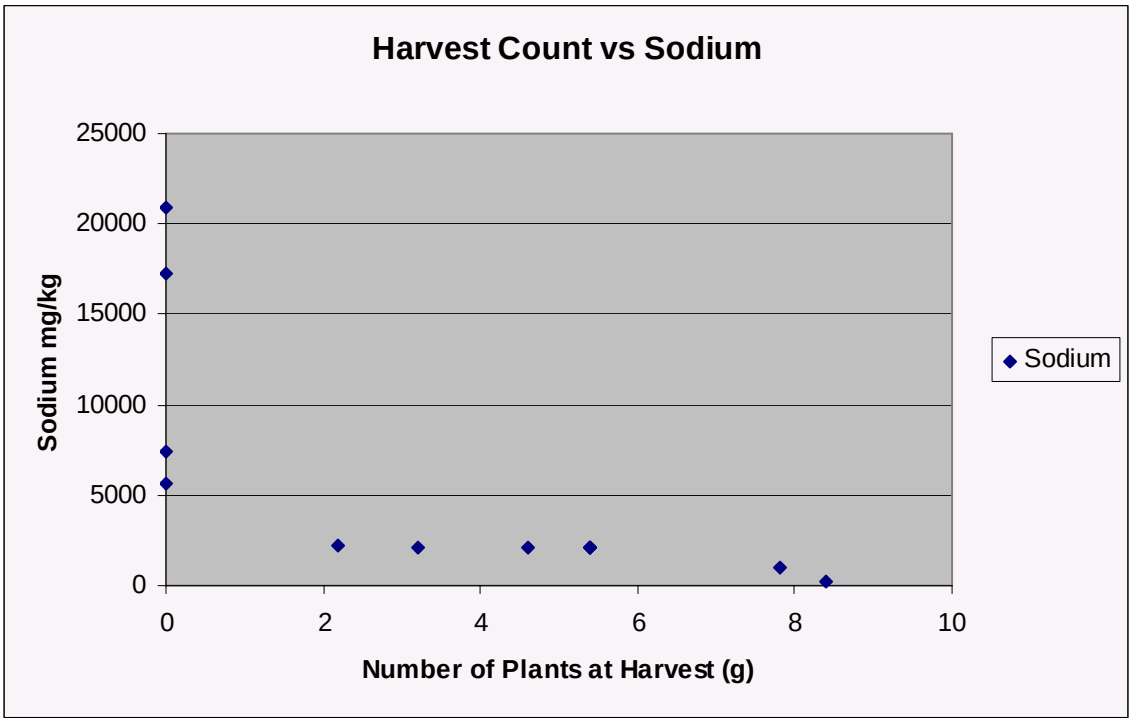
```
STATISTIX 7.1                                STAT FILES4, 7/22/2004, 10:55:55 AM

ONE-WAY AOV FOR CH BY LSAM

SOURCE    DF       SS         MS        F       P
-------  ----  ---------  ---------  ------  ------
BETWEEN    8     194.711    24.3389   14.70  0.0000
WITHIN    36     59.6000    1.65556
TOTAL     44     254.311

                    CHI-SQ    DF       P
BARTLETT'S TEST OF  ------  ------  ------
   EQUAL VARIANCES    8.10     8    0.4236

COCHRAN'S Q                    0.2215
LARGEST VAR / SMALLEST VAR     16.500

COMPONENT OF VARIANCE FOR BETWEEN GROUPS    4.53667
EFFECTIVE CELL SIZE                             5.0

                        SAMPLE     GROUP
   LSAM         MEAN     SIZE     STD DEV
---------   ----------  ------  ----------
Neg-01         8.4000      5       0.8944
T-13           5.4000      5       1.8166
T-17           4.6000      5       1.5166
T-19           2.2000      5       1.3038
T-20           3.2000      5       1.3038
T-21           7.8000      5       0.4472
T-22           5.4000      5       1.6733
T-23           5.4000      5       1.1402
T-24           8.4000      5       0.8944
TOTAL          5.6444     45       1.2867

CASES INCLUDED 45    MISSING CASES 0


STATISTIX 7.1                                STAT FILES4, 7/22/2004, 10:56:34 AM

ONE-WAY AOV FOR RDW BY LSAM

SOURCE    DF       SS         MS        F       P
-------  ----  ---------  ---------  ------  ------
BETWEEN    8     0.12693    0.01587   11.96  0.0000
WITHIN    36     0.04776    0.00133
TOTAL     44     0.17469

                    CHI-SQ    DF       P
BARTLETT'S TEST OF  ------  ------  ------
   EQUAL VARIANCES    8.68     8    0.3700

COCHRAN'S Q                    0.2587
LARGEST VAR / SMALLEST VAR     14.479

COMPONENT OF VARIANCE FOR BETWEEN GROUPS    0.00291
EFFECTIVE CELL SIZE                             5.0

                        SAMPLE     GROUP
   LSAM         MEAN     SIZE     STD DEV
---------   ----------  ------  ----------
Neg-01         0.1864      5       0.0146
T-13           0.1532      5       0.0517
T-17           0.1008      5       0.0384
T-19           0.0616      5       0.0375
T-20           0.1136      5       0.0556
T-21           0.2394      5       0.0249
T-22           0.0998      5       0.0314
T-23           0.1506      5       0.0250
```

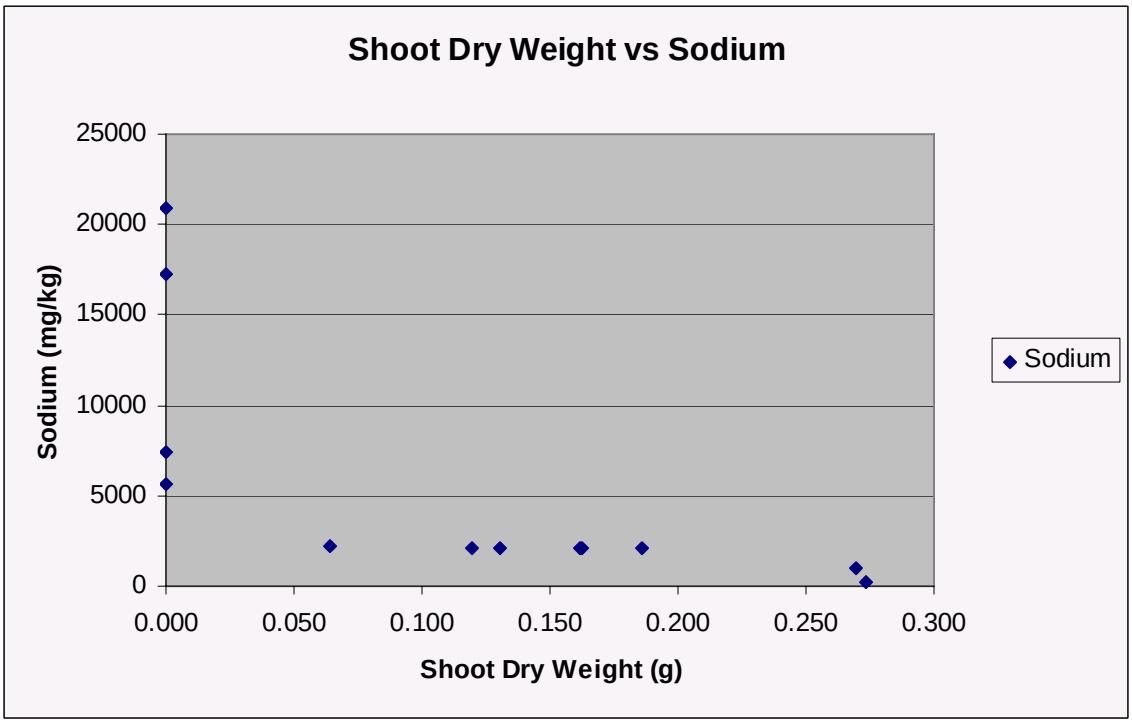
```
T-24           0.1972      5       0.0291
TOTAL          0.1447     45       0.0364

CASES INCLUDED 45    MISSING CASES 0
STATISTIX 7.1                               STAT FILES4, 7/22/2004, 10:57:08 AM

ONE-WAY AOV FOR RL BY LSAM

SOURCE    DF       SS         MS        F       P
-------  ----  ---------  ---------  ------  ------
BETWEEN    8     22667.6    2833.45    2.69  0.0205
WITHIN    35     36921.6    1054.90
TOTAL     43     59589.2

                    CHI-SQ    DF       P
BARTLETT'S TEST OF  ------  ------  ------
   EQUAL VARIANCES    8.40     8    0.3953

COCHRAN'S Q                    0.2743
LARGEST VAR / SMALLEST VAR     8.1256

COMPONENT OF VARIANCE FOR BETWEEN GROUPS    363.983
EFFECTIVE CELL SIZE                             4.9

                        SAMPLE     GROUP
   LSAM         MEAN     SIZE     STD DEV
---------   ----------  ------  ----------
Neg-01         315.40      5       50.688
T-13           287.00      5       31.369
T-17           253.20      5       34.514
T-19           274.25      4       23.229
T-20           322.00      5       18.125
T-21           306.00      5       25.328
T-22           273.40      5       47.194
T-23           320.20      5       23.826
T-24           298.20      5       17.782
TOTAL          294.86     44       32.479

CASES INCLUDED 44    MISSING CASES 1


STATISTIX 7.1                               STAT FILES4, 7/22/2004, 10:58:23 AM

ONE-WAY AOV FOR SDW BY LSAM

SOURCE    DF       SS         MS        F       P
-------  ----  ---------  ---------  ------  ------
BETWEEN    8     0.19548    0.02444   13.30  0.0000
WITHIN    36     0.06614    0.00184
TOTAL     44     0.26162

                    CHI-SQ    DF       P
BARTLETT'S TEST OF  ------  ------  ------
   EQUAL VARIANCES   13.85     8    0.0857

COCHRAN'S Q                    0.2627
LARGEST VAR / SMALLEST VAR     24.428

COMPONENT OF VARIANCE FOR BETWEEN GROUPS    0.00452
EFFECTIVE CELL SIZE                             5.0

                        SAMPLE     GROUP
   LSAM         MEAN     SIZE     STD DEV
---------   ----------  ------  ----------
Neg-01         0.2266      5       0.0187
T-13           0.1860      5       0.0654
T-17           0.1304      5       0.0412
T-19           0.0642      5       0.0372
T-20           0.1198      5       0.0472
T-21           0.2698      5       0.0247
T-22           0.1626      5       0.0659
```

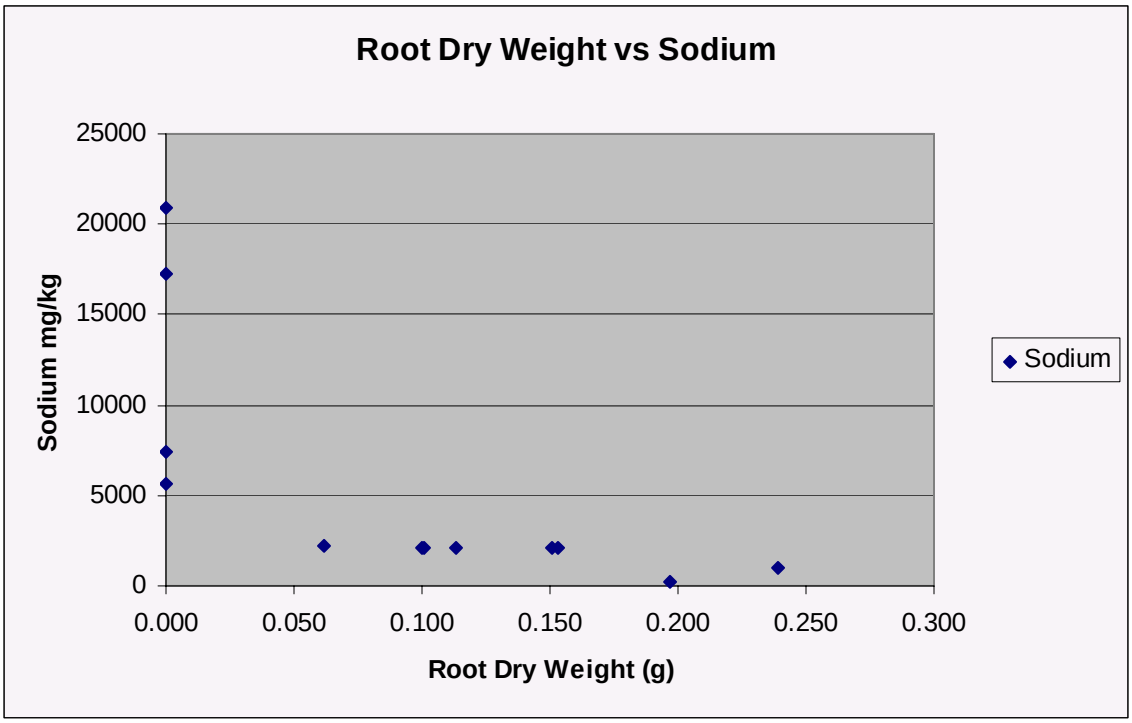
```
T-23           0.1616      5       0.0384
T-24           0.2736      5       0.0133
TOTAL          0.1772     45       0.0429

CASES INCLUDED 45    MISSING CASES 0
STATISTIX 7.1                               STAT FILES4, 7/22/2004, 10:57:55 AM


ONE-WAY AOV FOR SH BY LSAM

SOURCE    DF       SS         MS        F       P
-------  ----  ---------  ---------  ------  ------
BETWEEN    8     5553.10    694.137    1.43  0.2198
WITHIN    35     17021.1    486.319
TOTAL     43     22574.2

                    CHI-SQ    DF       P
BARTLETT'S TEST OF  ------  ------  ------
   EQUAL VARIANCES   24.57     8    0.0018

COCHRAN'S Q                    0.5927
LARGEST VAR / SMALLEST VAR     47.257

COMPONENT OF VARIANCE FOR BETWEEN GROUPS    42.5304
EFFECTIVE CELL SIZE                             4.9

                        SAMPLE     GROUP
   LSAM         MEAN     SIZE     STD DEV
---------   ----------  ------  ----------
Neg-01         200.20      5       50.376
T-13           160.00      5       23.622
T-17           167.20      5       17.712
T-19           169.75      4       10.275
T-20           180.40      5       18.022
T-21           178.20      5       7.3280
T-22           163.80      5       8.0747
T-23           176.80      5       10.378
T-24           175.40      5       14.673
TOTAL          174.75     44       22.053

CASES INCLUDED 44    MISSING CASES 1
STATISTIX 7.1                               STAT FILES4, 7/22/2004, 10:59:09 AM

ONE-WAY AOV FOR TDW BY LSAM

SOURCE    DF       SS         MS        F       P
-------  ----  ---------  ---------  ------  ------
BETWEEN    8     0.61960    0.07745   13.59  0.0000
WITHIN    36     0.20511    0.00570
TOTAL     44     0.82471

                    CHI-SQ    DF       P
BARTLETT'S TEST OF  ------  ------  ------
   EQUAL VARIANCES   12.31     8    0.1379

COCHRAN'S Q                    0.2667
LARGEST VAR / SMALLEST VAR     17.587

COMPONENT OF VARIANCE FOR BETWEEN GROUPS    0.01435
EFFECTIVE CELL SIZE                             5.0

                        SAMPLE     GROUP
   LSAM         MEAN     SIZE     STD DEV
---------   ----------  ------  ----------
Neg-01         0.4130      5       0.0279
T-13           0.3392      5       0.1169
T-17           0.2312      5       0.0777
T-19           0.1260      5       0.0735
T-20           0.2334      5       0.1023
T-21           0.5092      5       0.0434
T-22           0.2624      5       0.0915
```

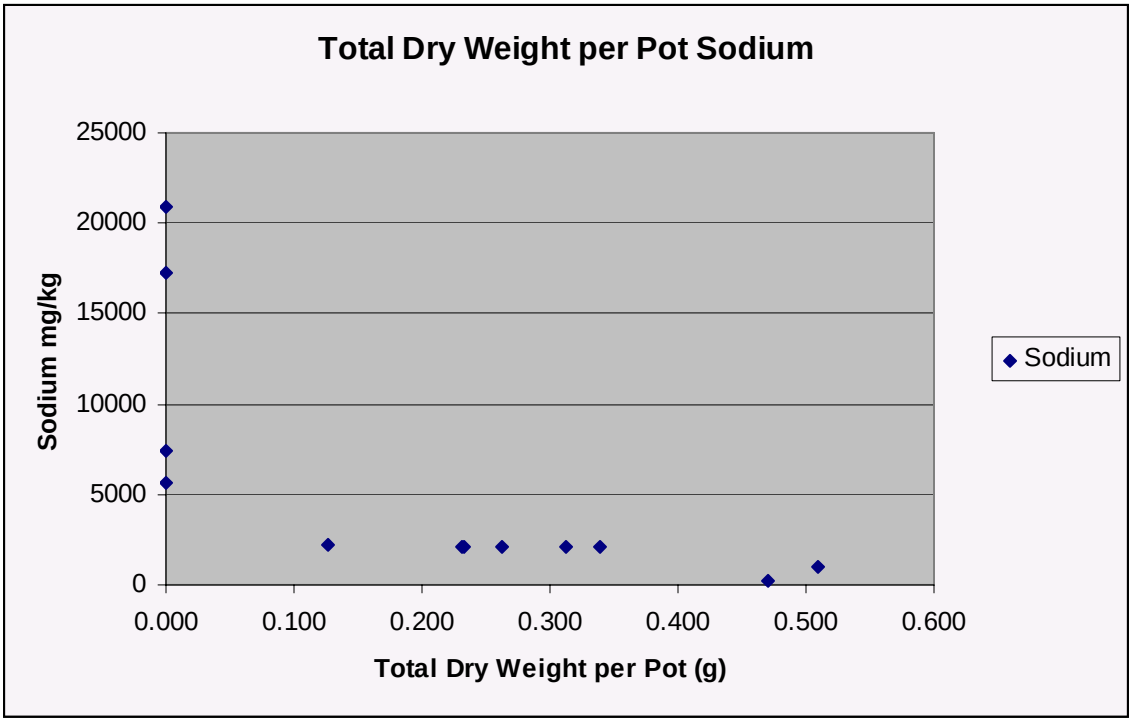
```
T-23           0.3122      5       0.0600
T-24           0.4708      5       0.0326
TOTAL          0.3219     45       0.0755

CASES INCLUDED 45    MISSING CASES 0
STATISTIX 7.1                              STAT FILES4, 7/22/2004, 10:59:41 AM

ONE-WAY AOV FOR TDWP BY LSAM

SOURCE    DF       SS         MS        F       P
-------  ----  ---------  ---------  ------  ------
BETWEEN    8     0.00251  3.137E-04    7.48  0.0000
WITHIN    35     0.00147  4.192E-05
TOTAL     43     0.00398

                    CHI-SQ    DF       P
BARTLETT'S TEST OF  ------  ------  ------
   EQUAL VARIANCES    6.21     8    0.6242

COCHRAN'S Q                    0.2704
LARGEST VAR / SMALLEST VAR     8.2731

COMPONENT OF VARIANCE FOR BETWEEN GROUPS  5.561E-05
EFFECTIVE CELL SIZE                             4.9

                        SAMPLE     GROUP
   LSAM         MEAN     SIZE     STD DEV
---------   ----------  ------  ----------
Neg-01         0.0494      5    3.483E-03
T-13           0.0627      5    5.809E-03
T-17           0.0504      5    5.861E-03
T-19           0.0577      4    4.163E-03
T-20           0.0727      5    8.878E-03
T-21           0.0654      5    5.545E-03
T-22           0.0493      5       0.0100
T-23           0.0582      5    5.177E-03
T-24           0.0565      5    6.072E-03
TOTAL          0.0580     44    6.475E-03

CASES INCLUDED 44    MISSING CASES 1
```

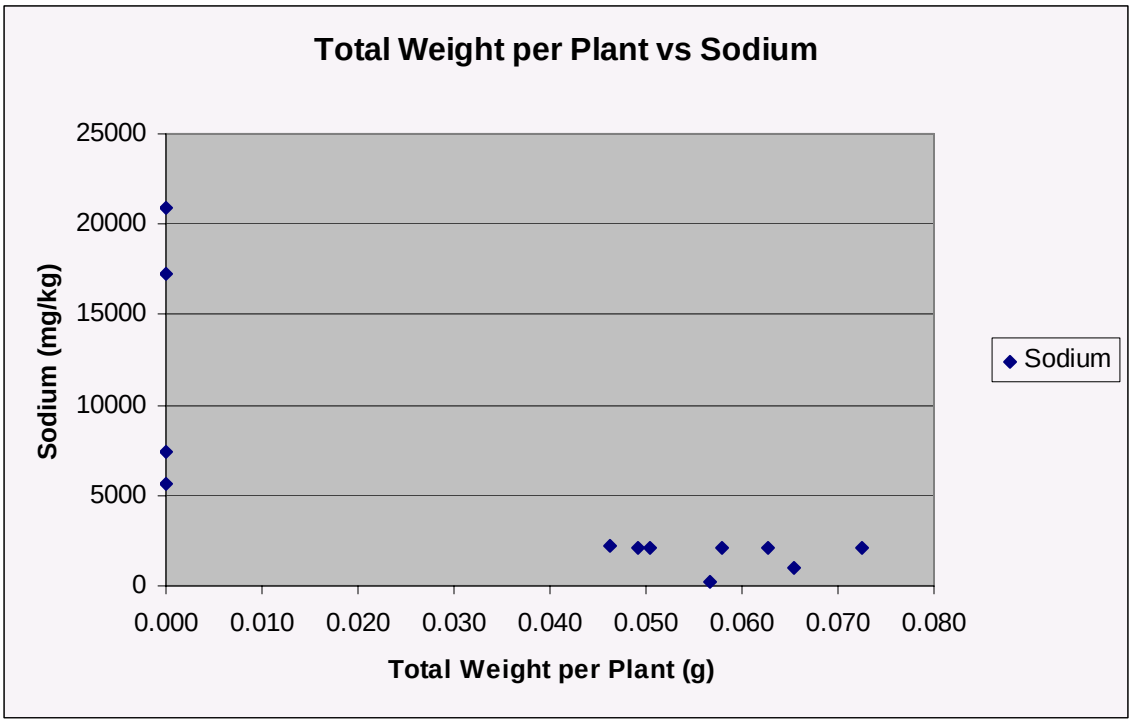
Appendix 7. Scatterplots for Sodium vs. All Soil Samples






Root Dry Weight vs Sodium
Sodium mg/kg
25000
20000
15000
10000
5000
0
0.000
0.050
0.100
0.150
0.200
0.250
0.300
Root Dry Weight (g)
Sodium


Total Dry Weight per Pot Sodium
Sodium mg/kg
25000
20000
15000
10000
5000
0
0.000
0.100
0.200
0.300
0.400
0.500
0.600
Total Dry Weight per Pot (g)
Sodium


Total Weight per Plant vs Sodium
Sodium (mg/kg)
25000
20000
15000
10000
5000
0
0.000
0.010
0.020
0.030
0.040
0.050
0.060
0.070
0.080
Total Weight per Plant (g)
Sodium

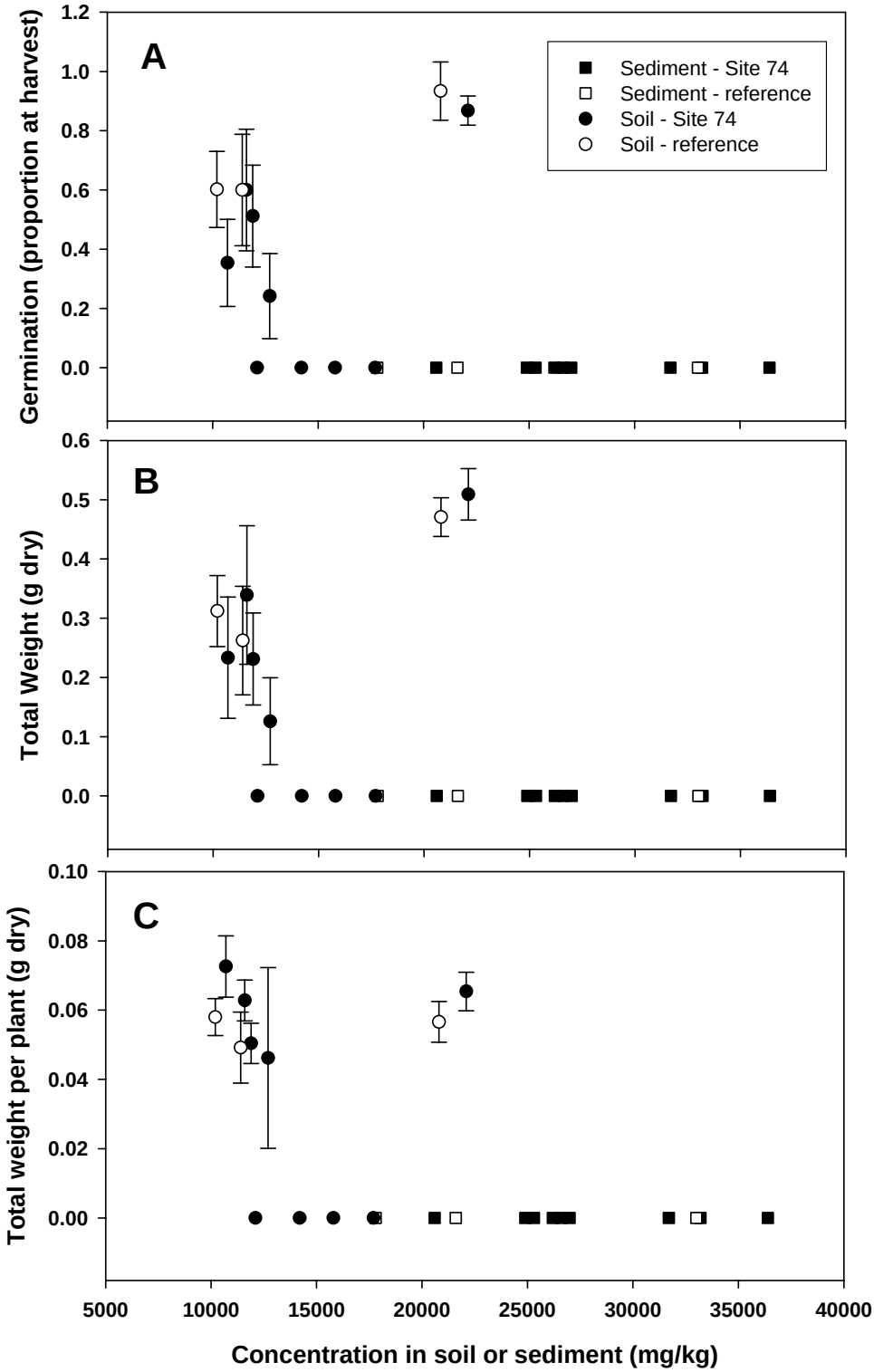


Figure D-1. Scatterplots of aluminum in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

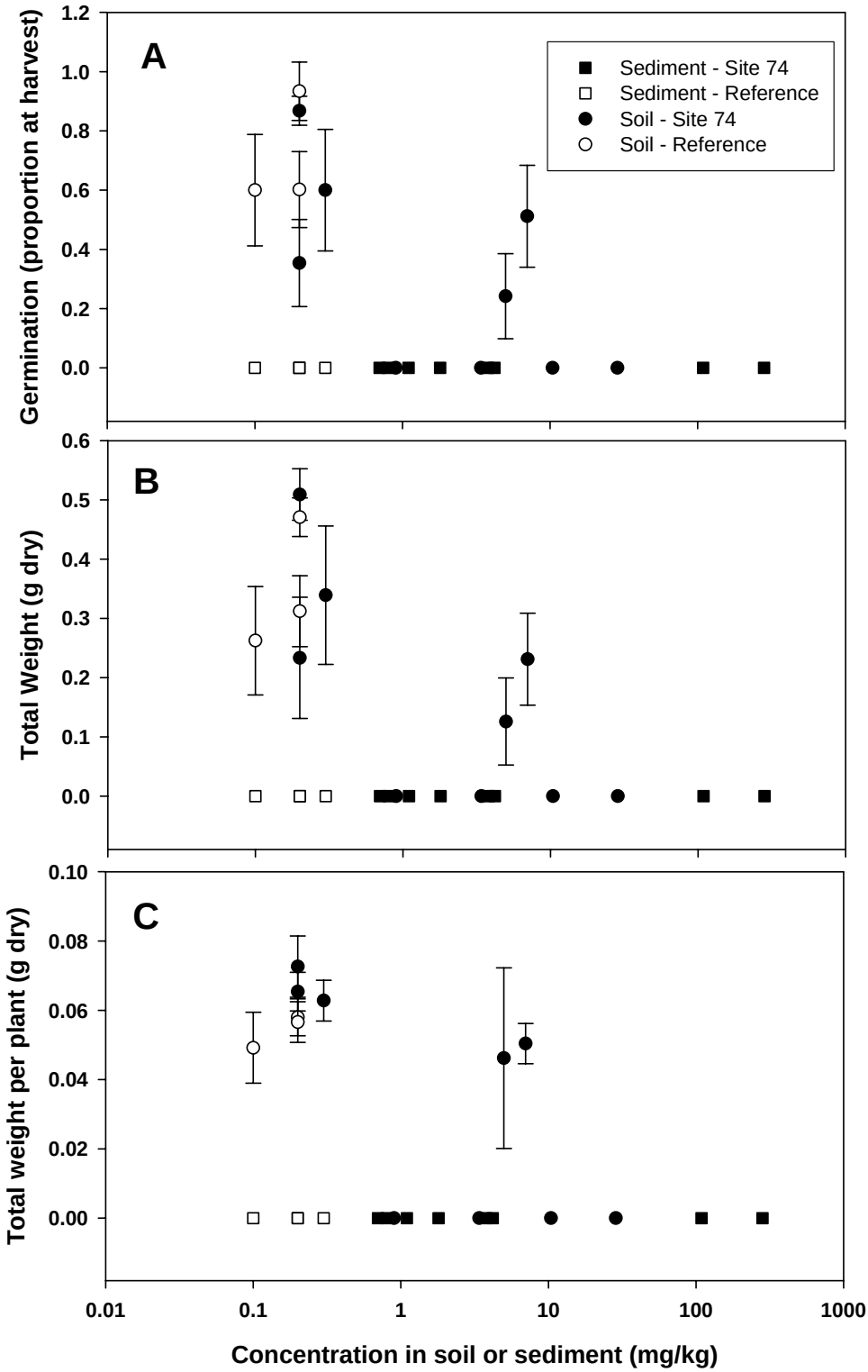


Figure D-2. Scatterplots of antimony in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

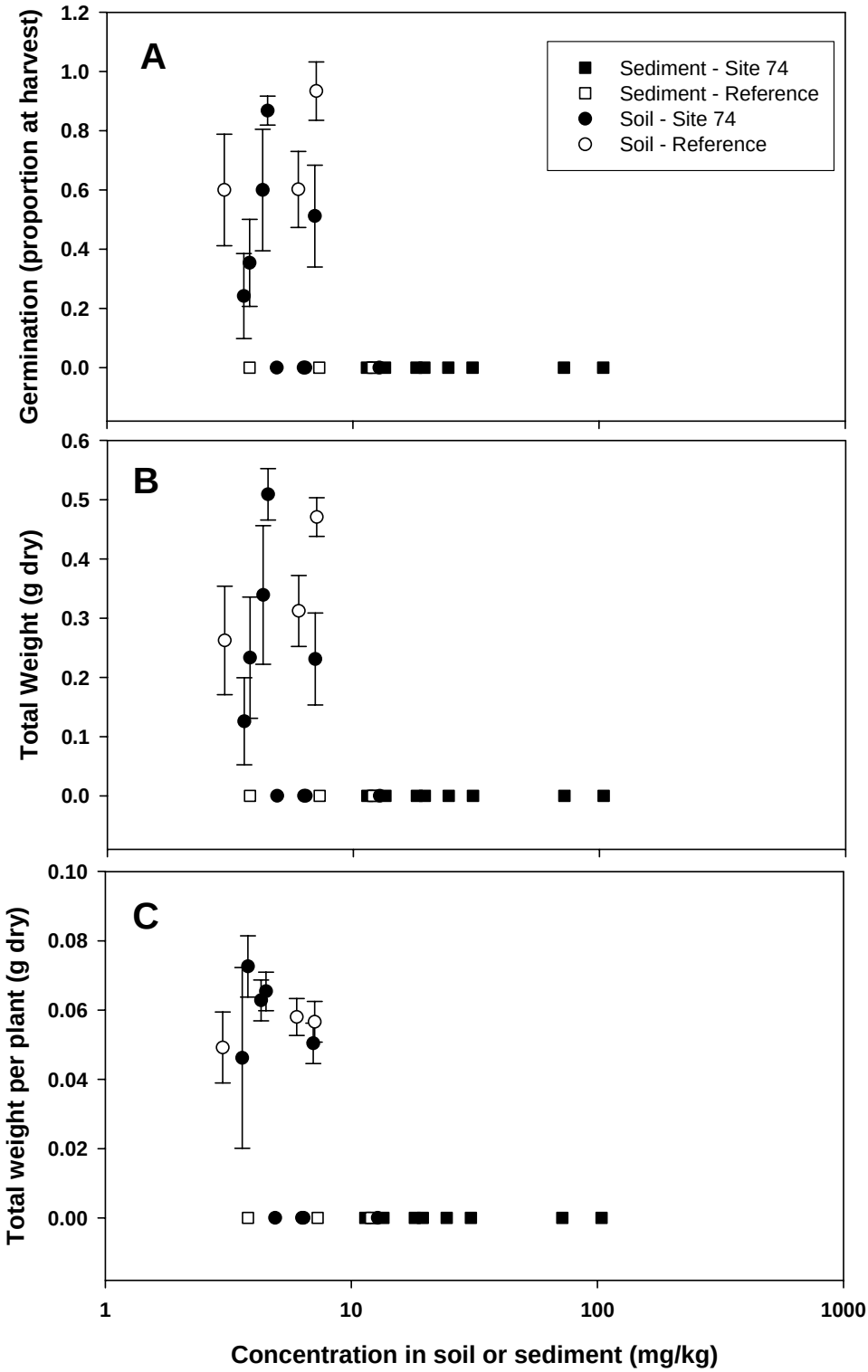


Figure D-3. Scatterplots of arsenic in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

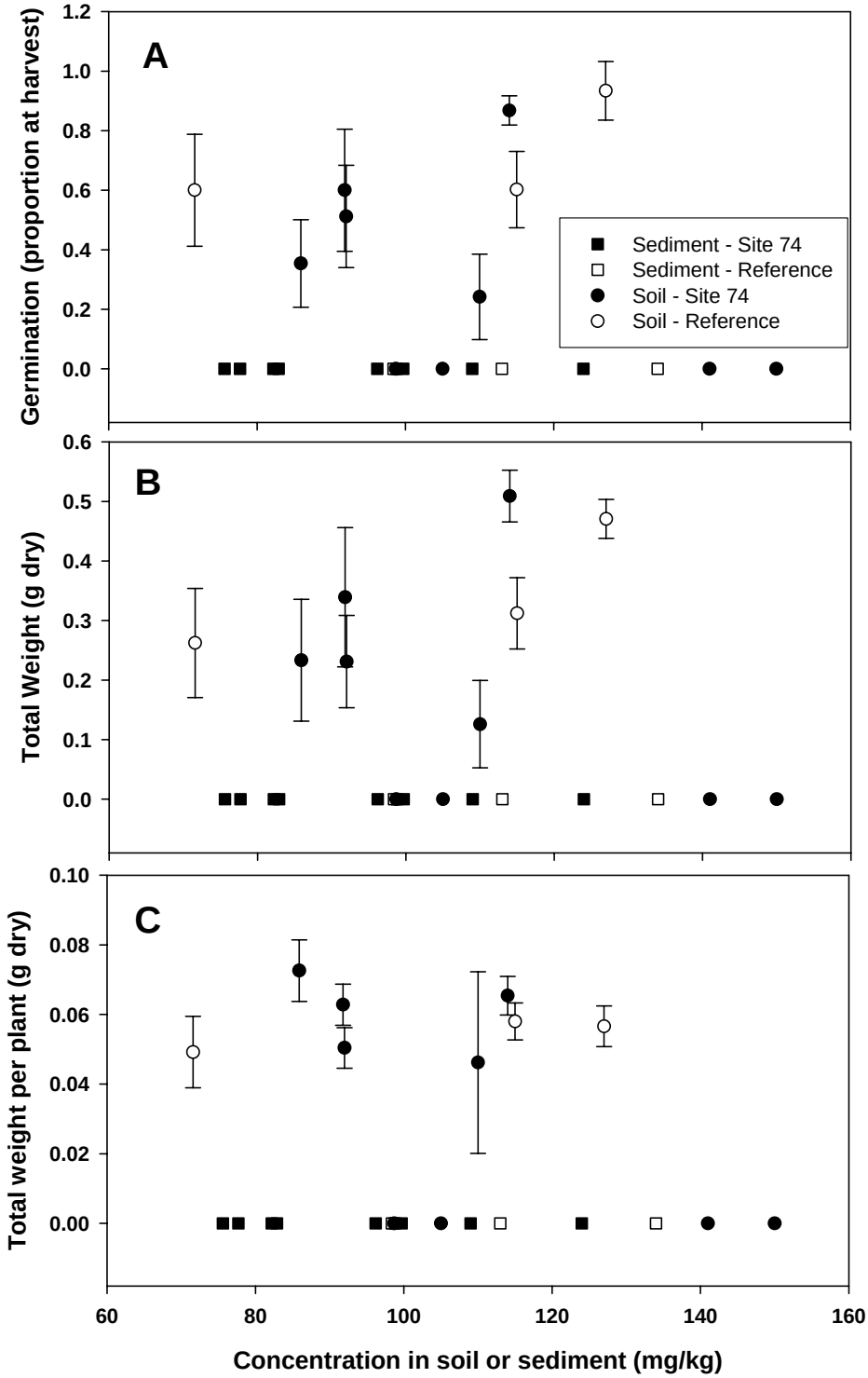


Figure D-4. Scatterplots of barium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

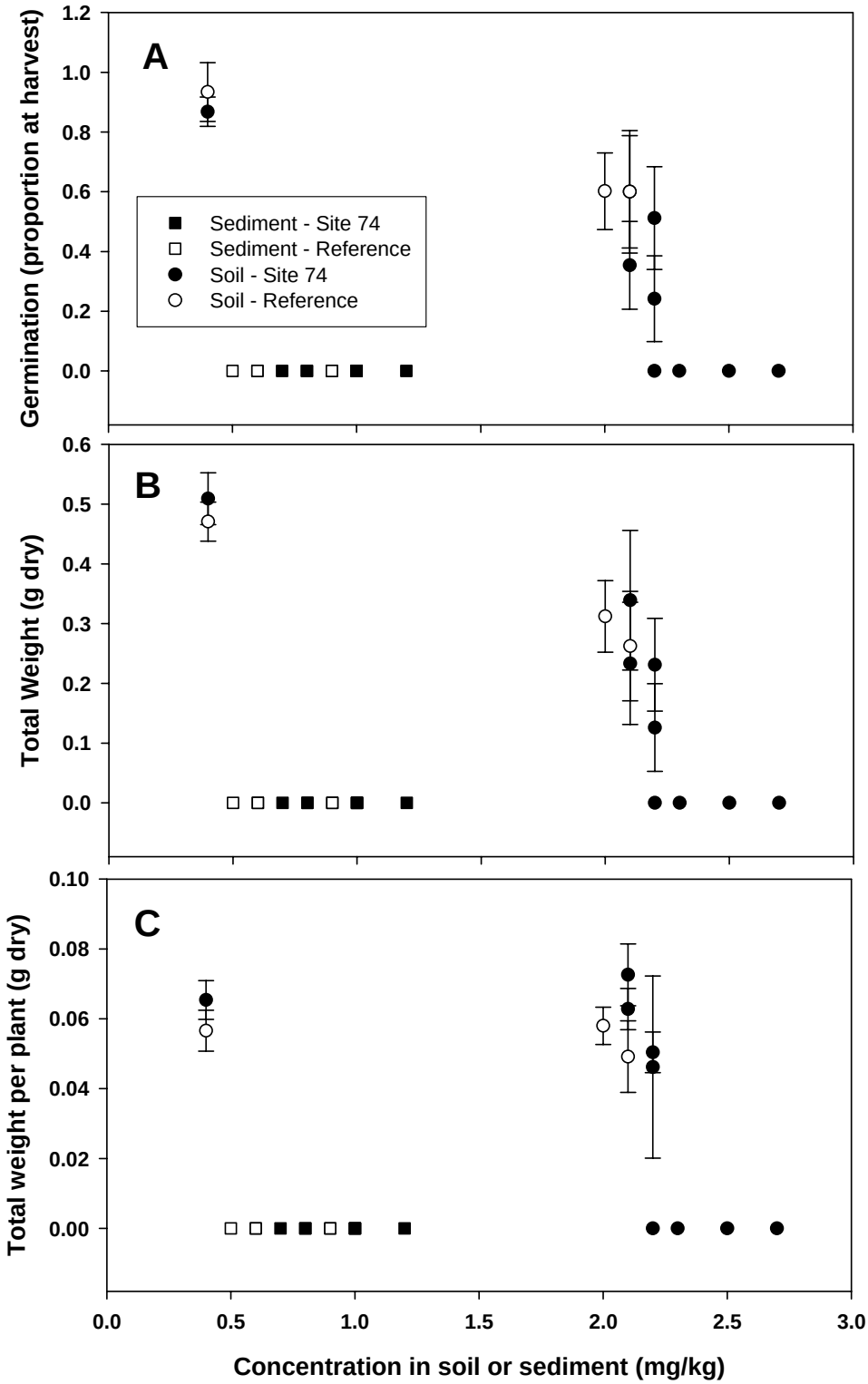


Figure D-5. Scatterplots of beryllium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

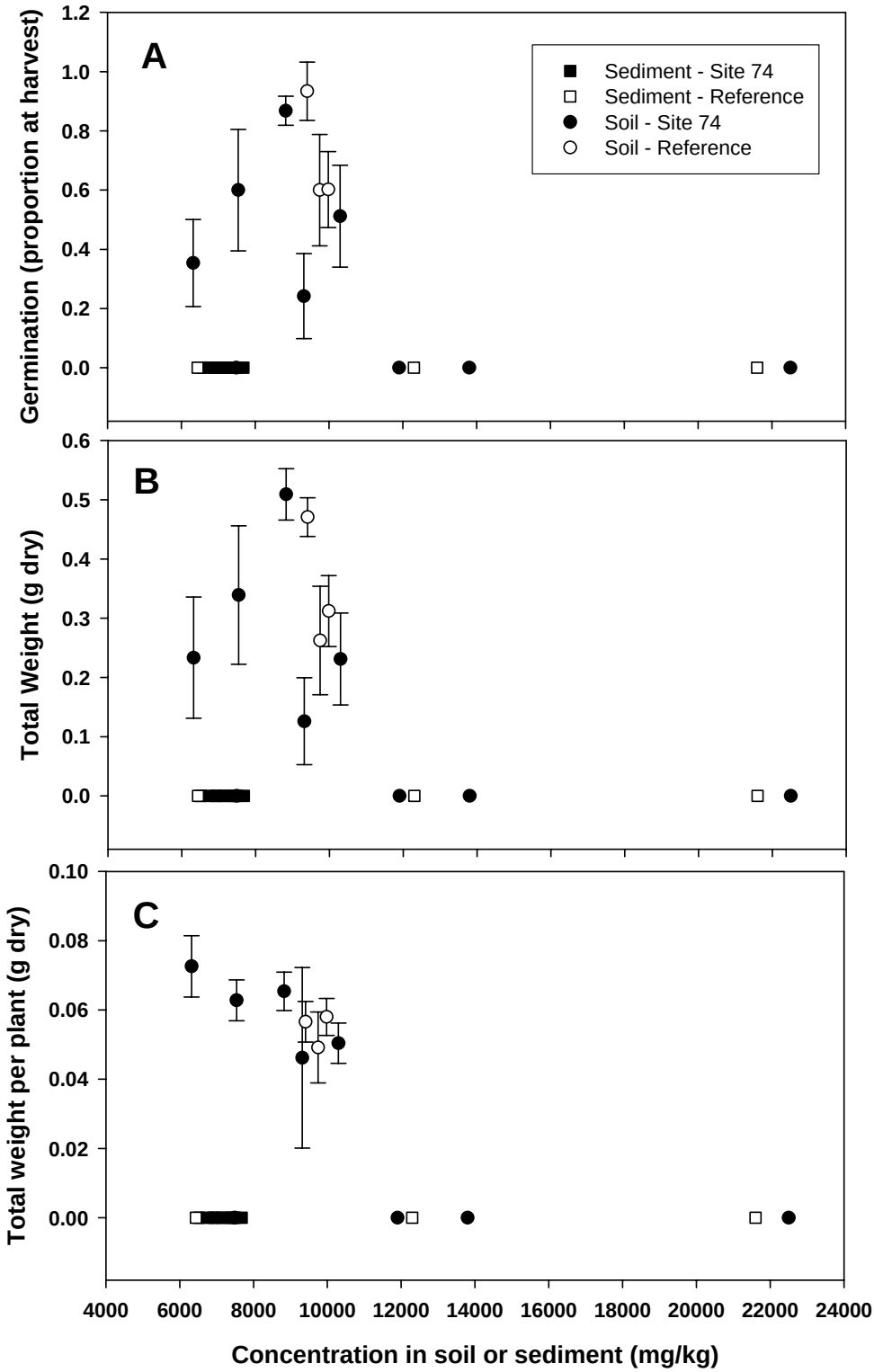


Figure D-6. Scatterplots of calcium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

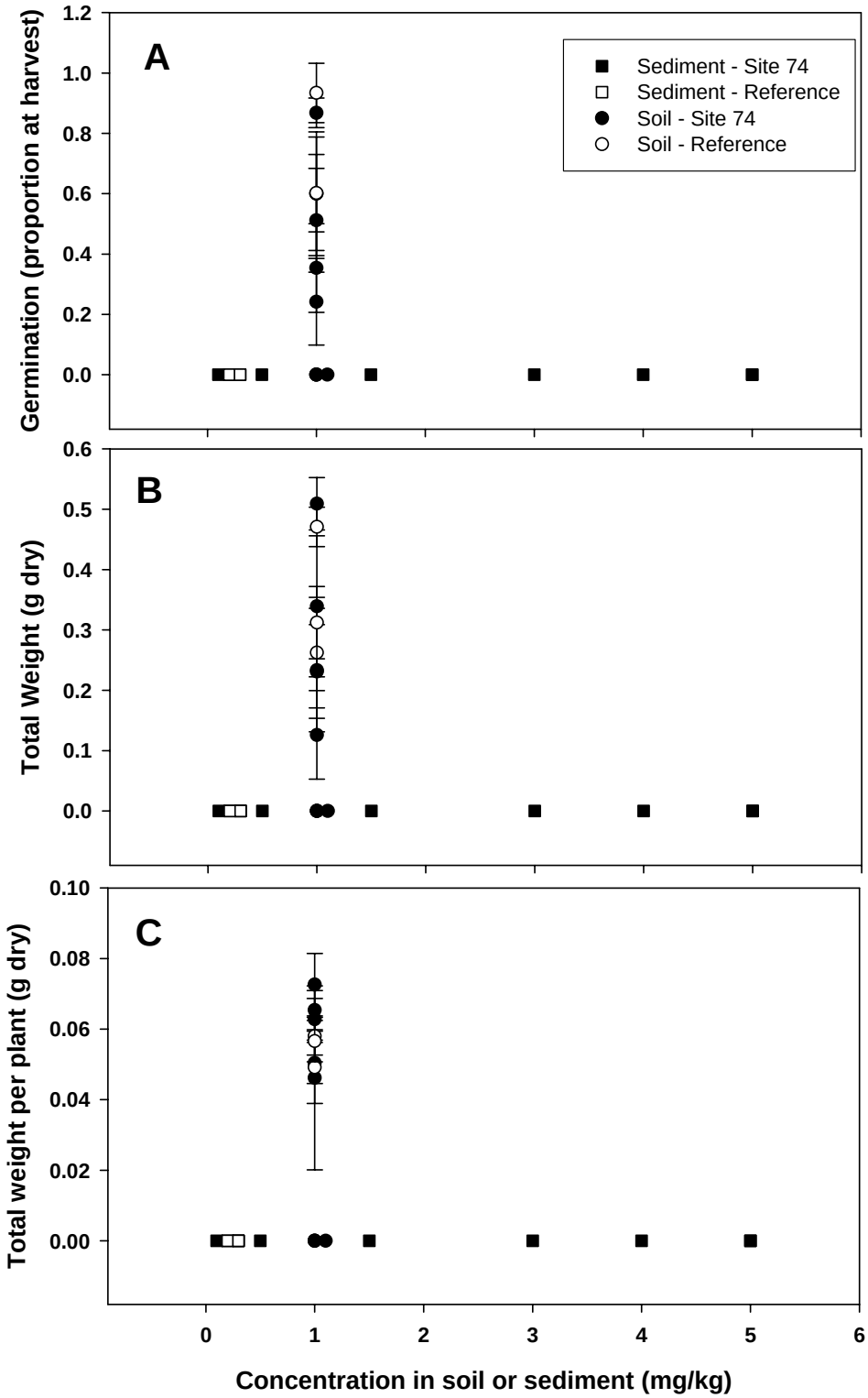


Figure D-7. Scatterplots of cadmium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

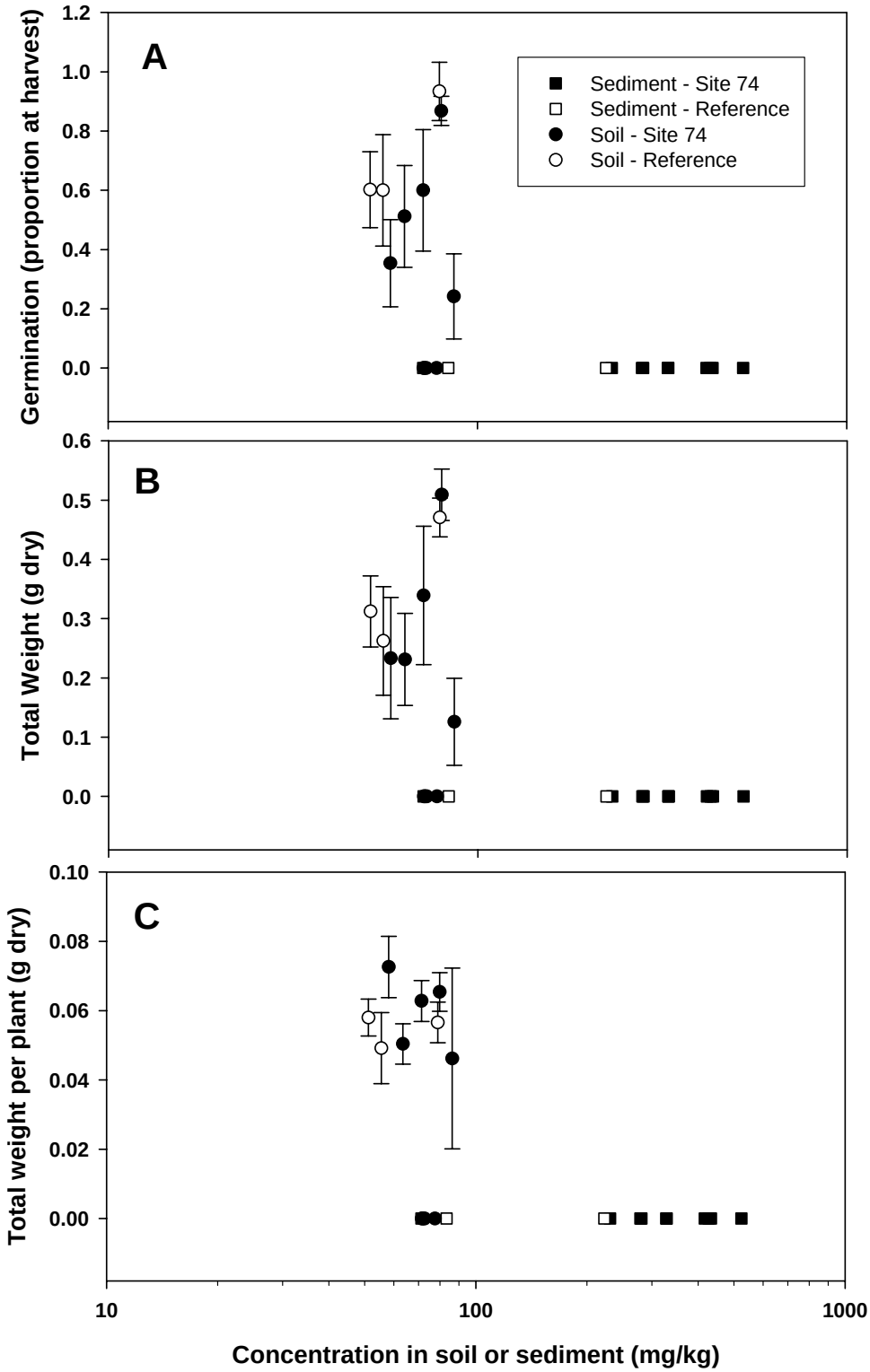


Figure D-8. Scatterplots of cation exchange capacity in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

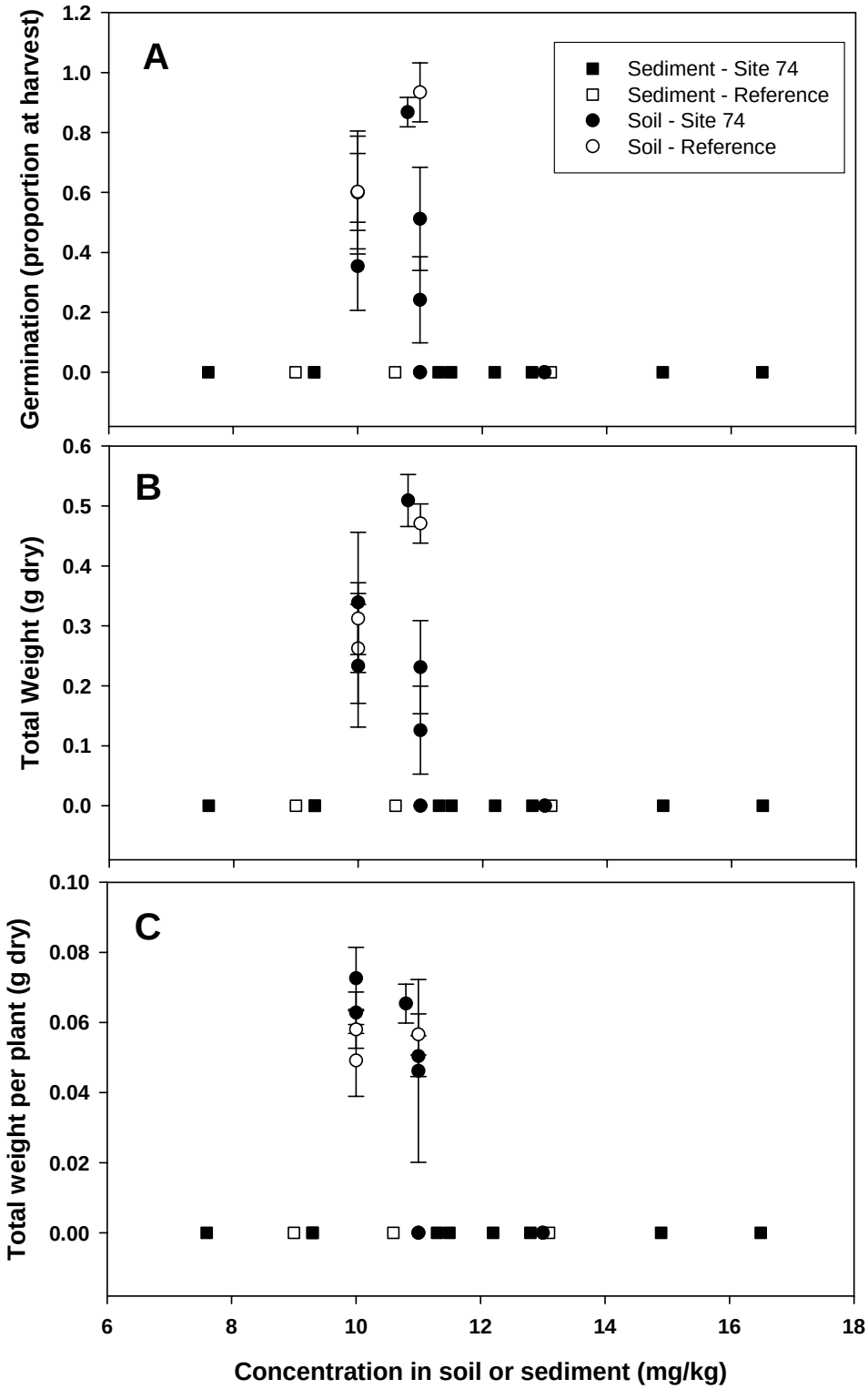


Figure D-9. Scatterplots of cobalt in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

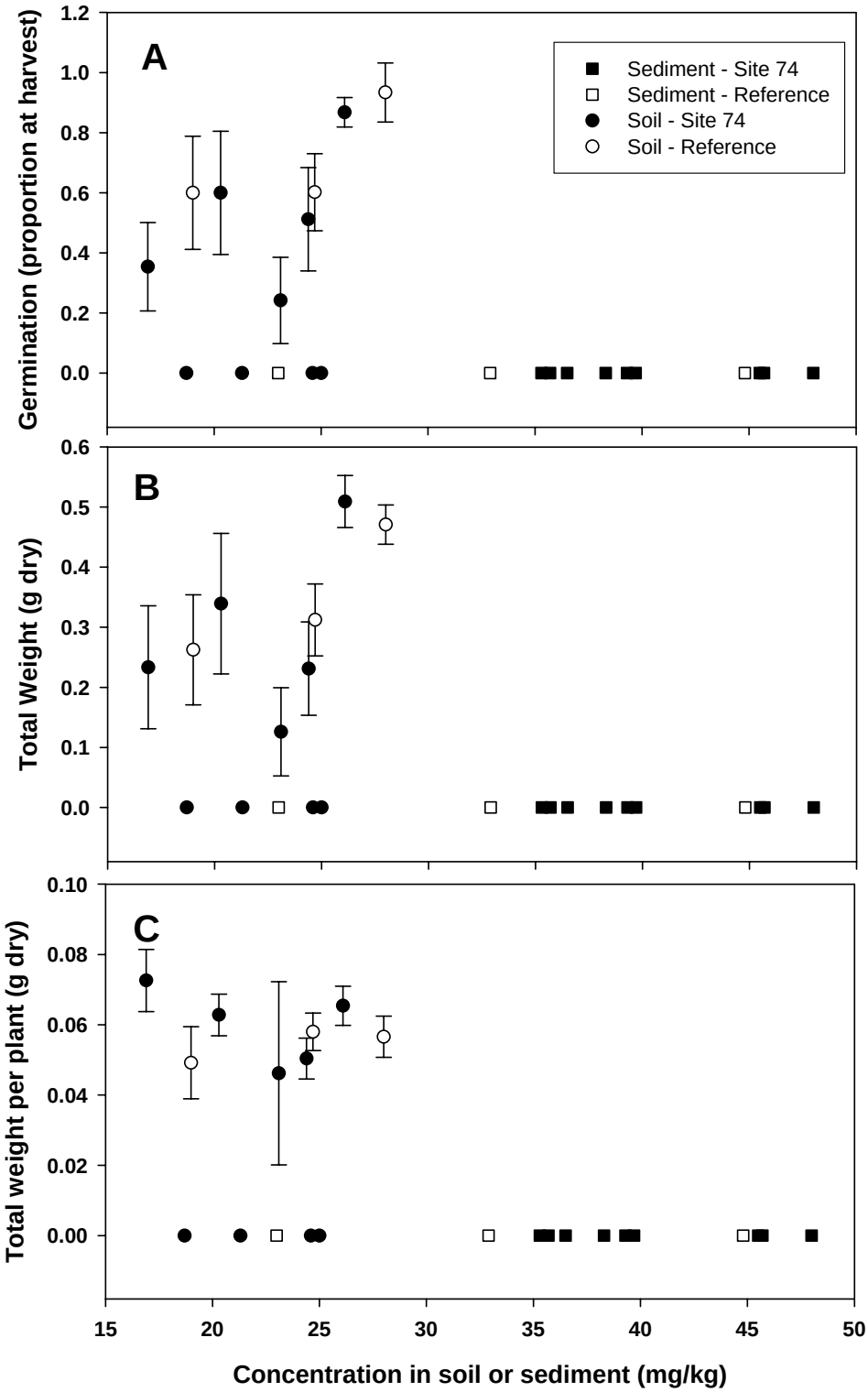


Figure D-10. Scatterplots of chromium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

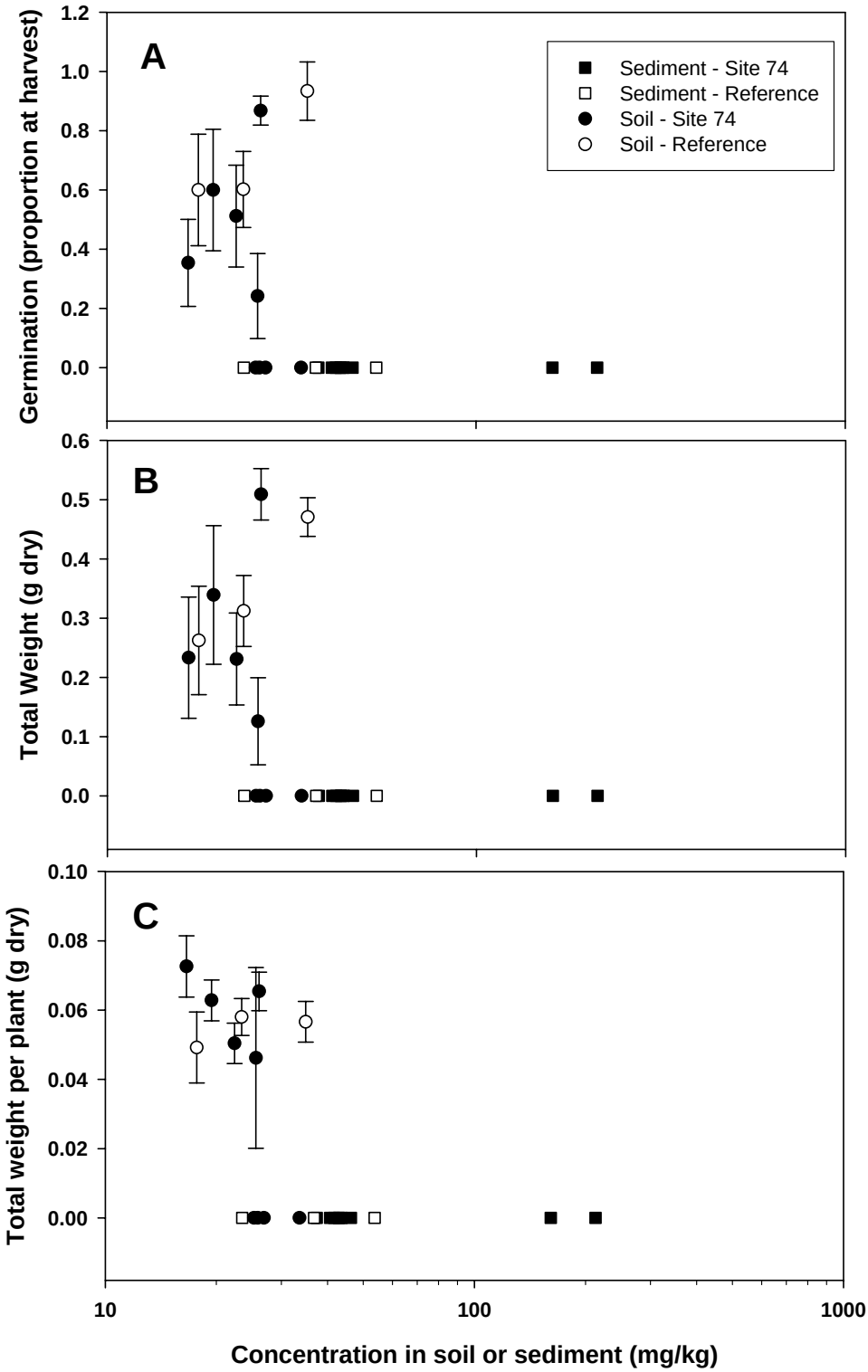


Figure D-11. Scatterplots of copper in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

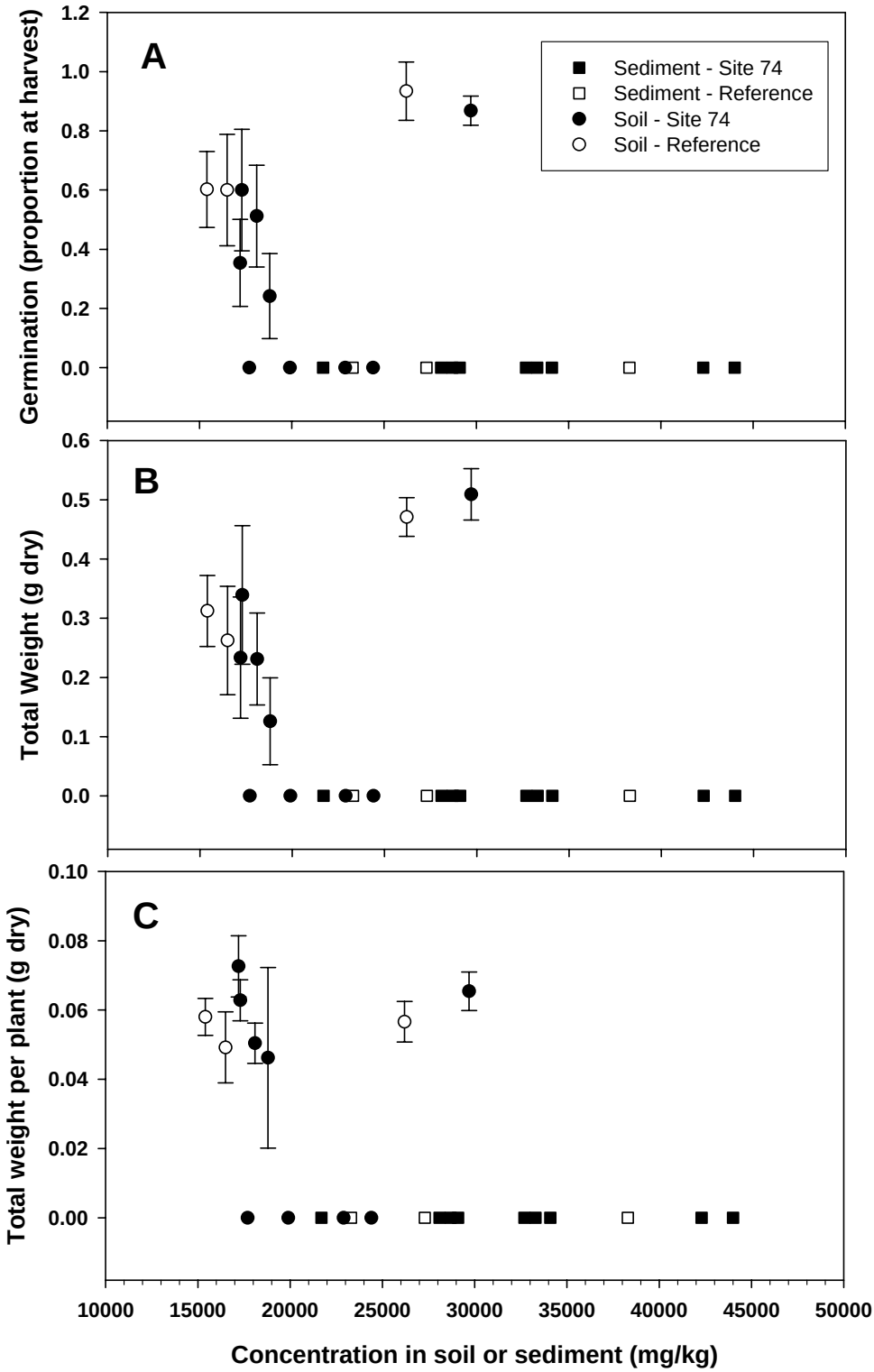


Figure D-12. Scatterplots of iron in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

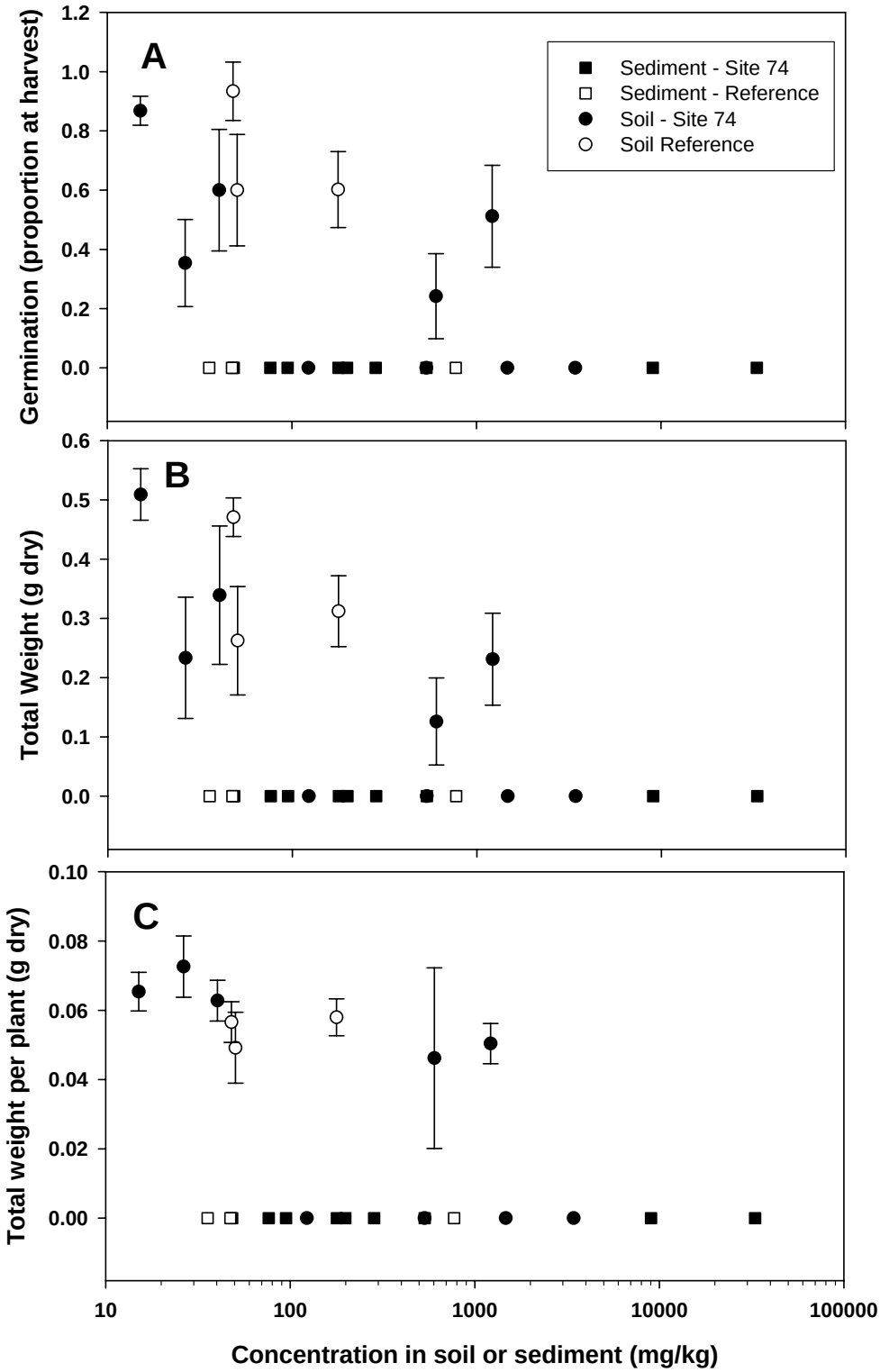


Figure D-13. Scatterplots of lead in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

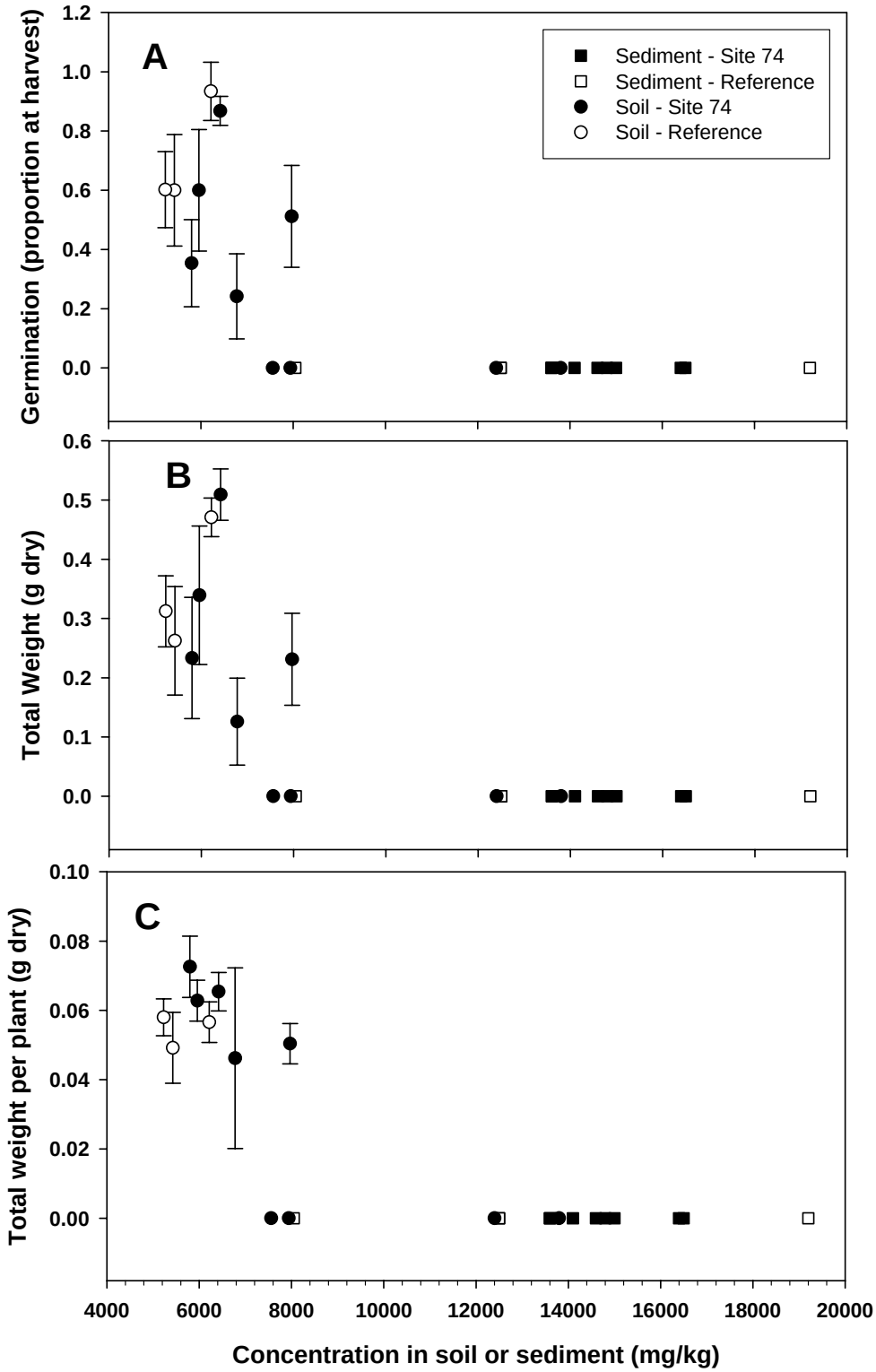


Figure D-14. Scatterplots of magnesium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

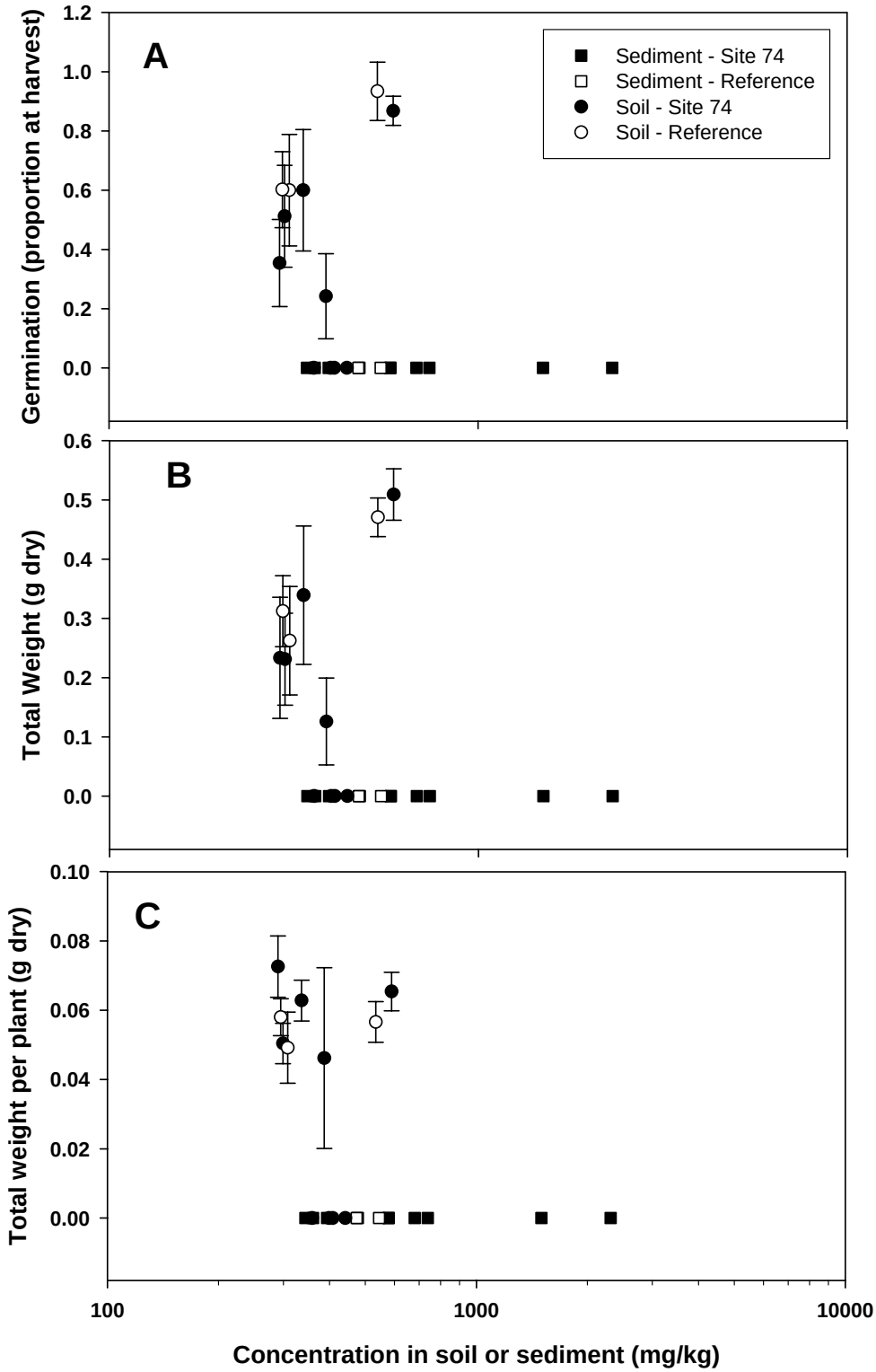


Figure D-15. Scatterplots of manganese in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

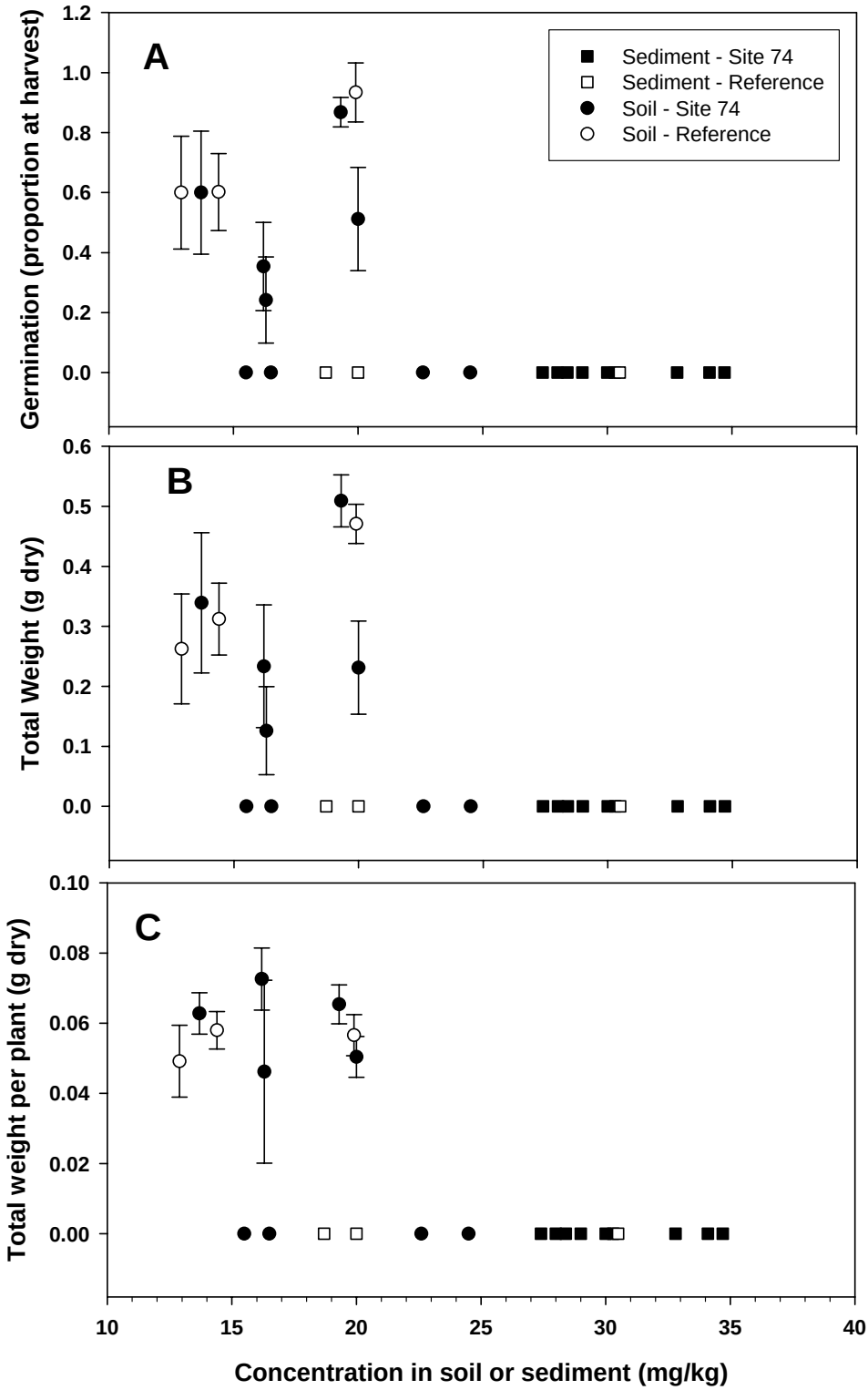


Figure D-16. Scatterplots of nickel in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

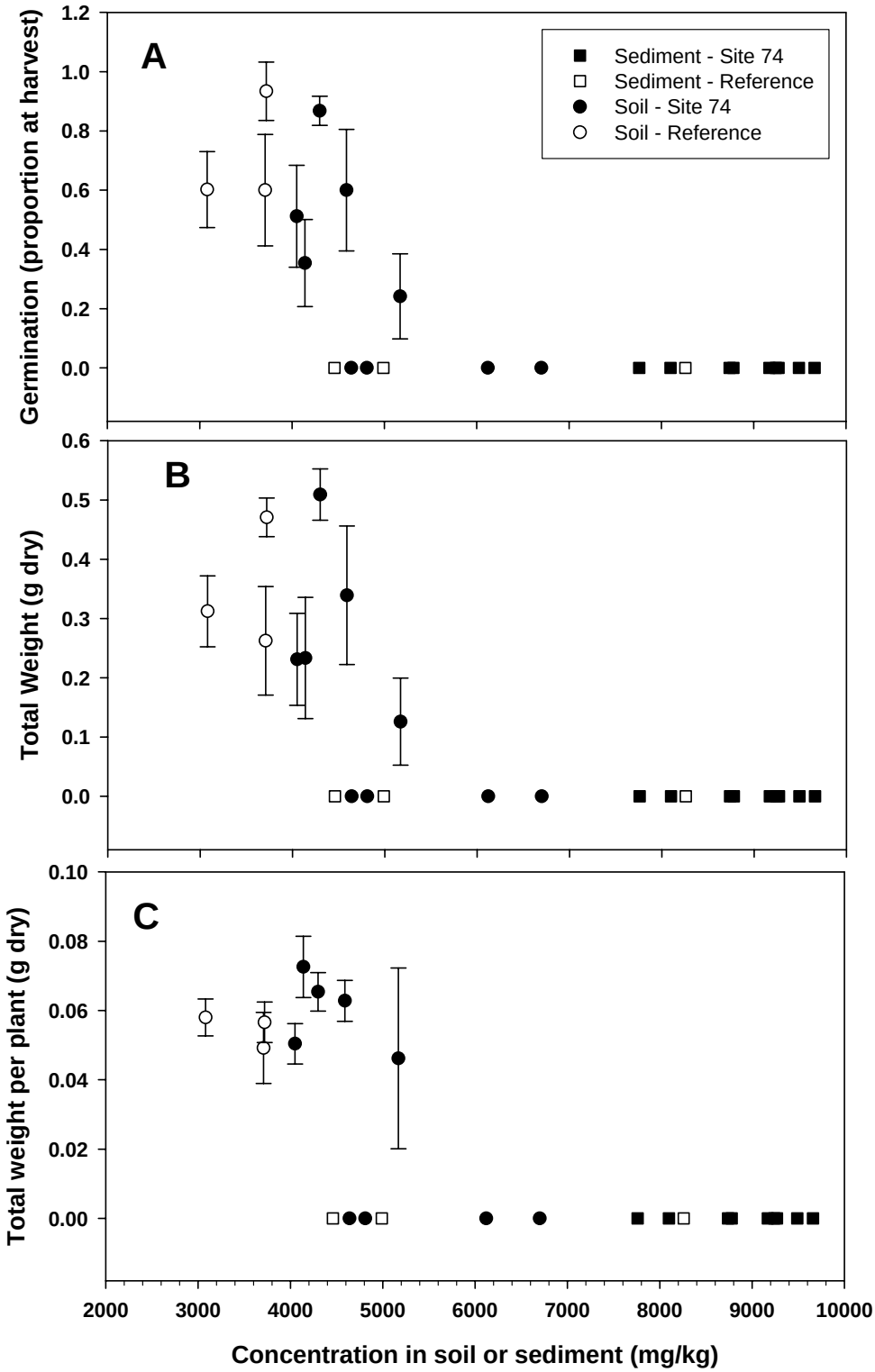


Figure D-17. Scatterplots of potassium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

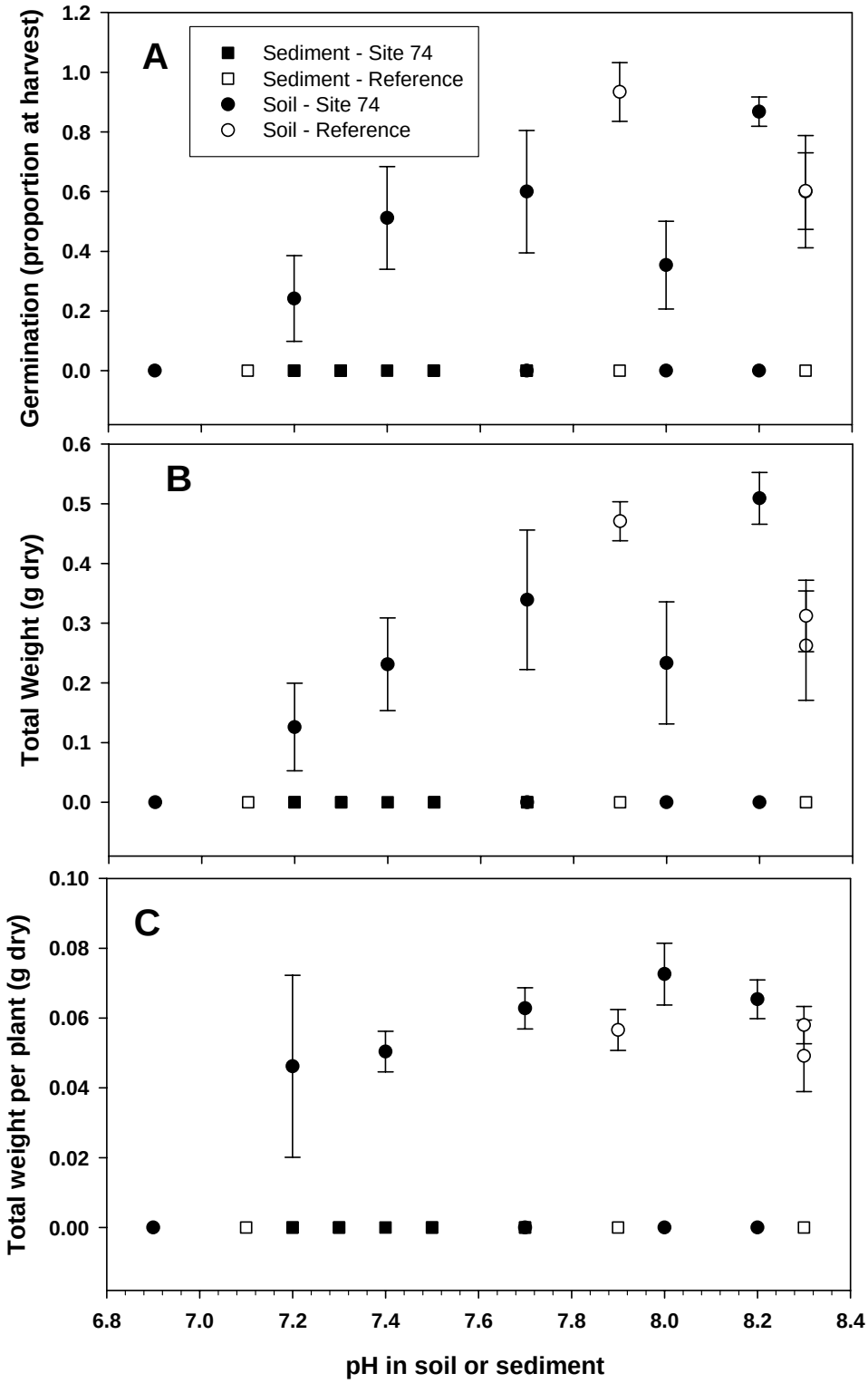


Figure D-18. Scatterplots of pH in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

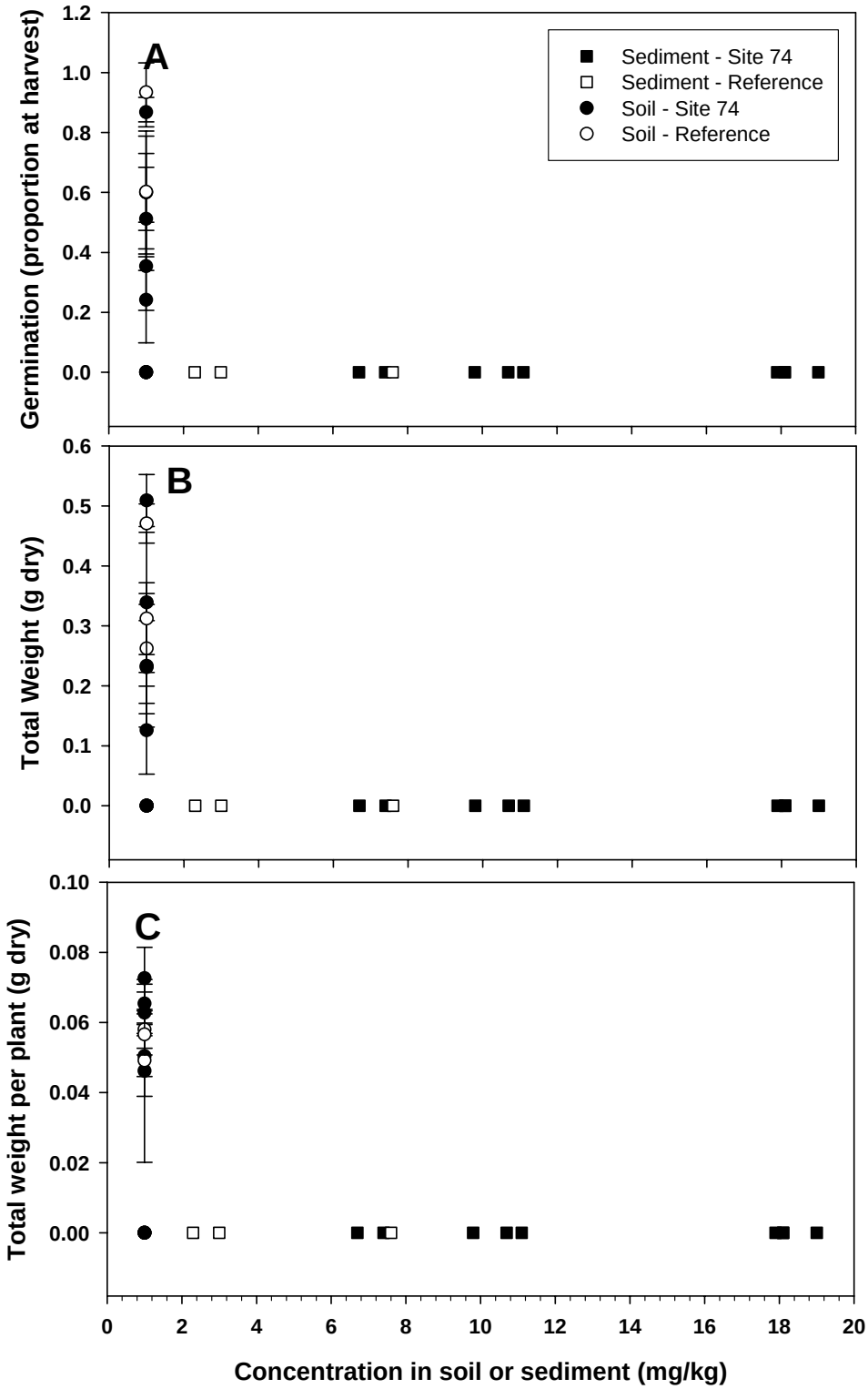


Figure D-19. Scatterplots of selenium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

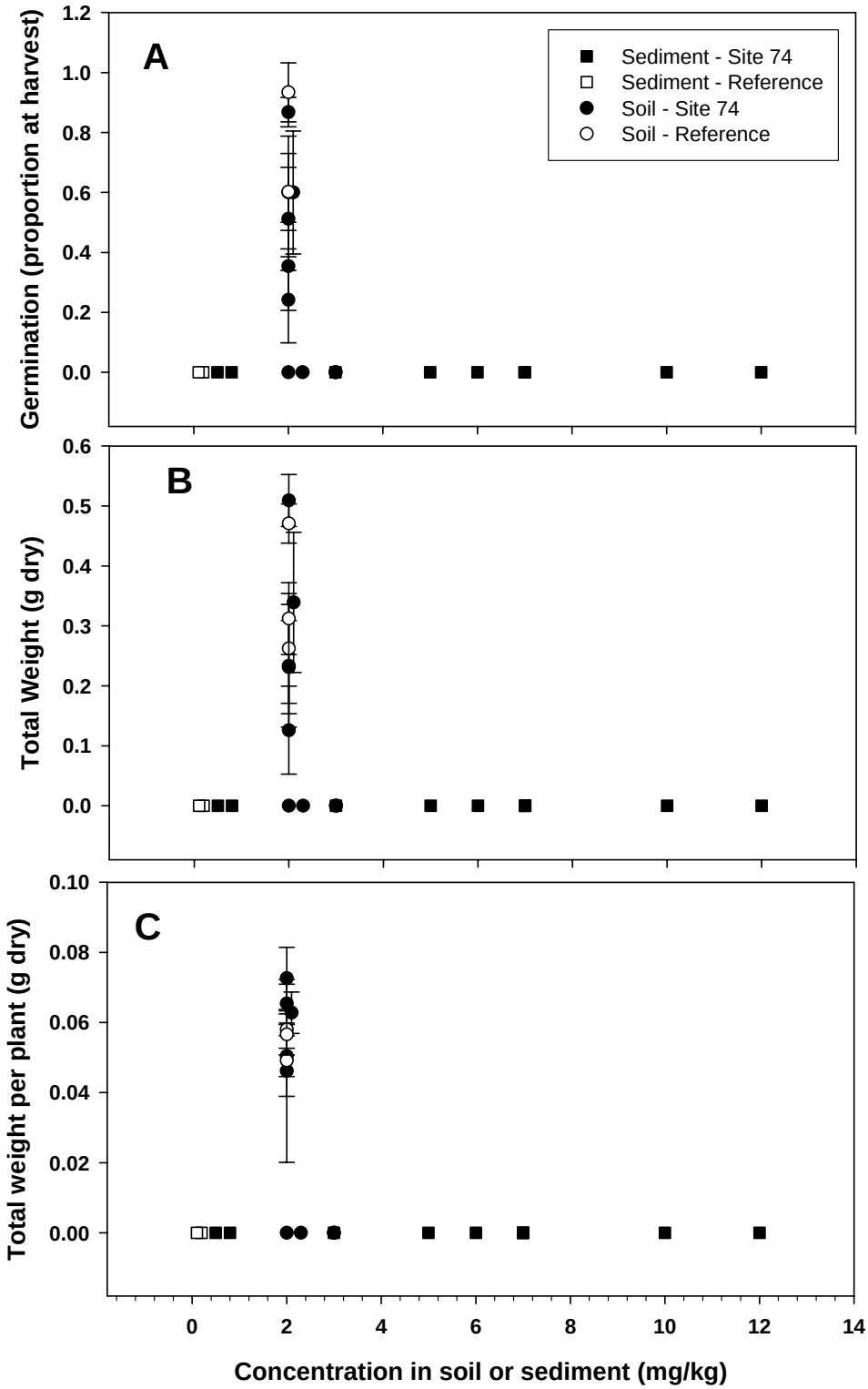


Figure D-20. Scatterplots of silver in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

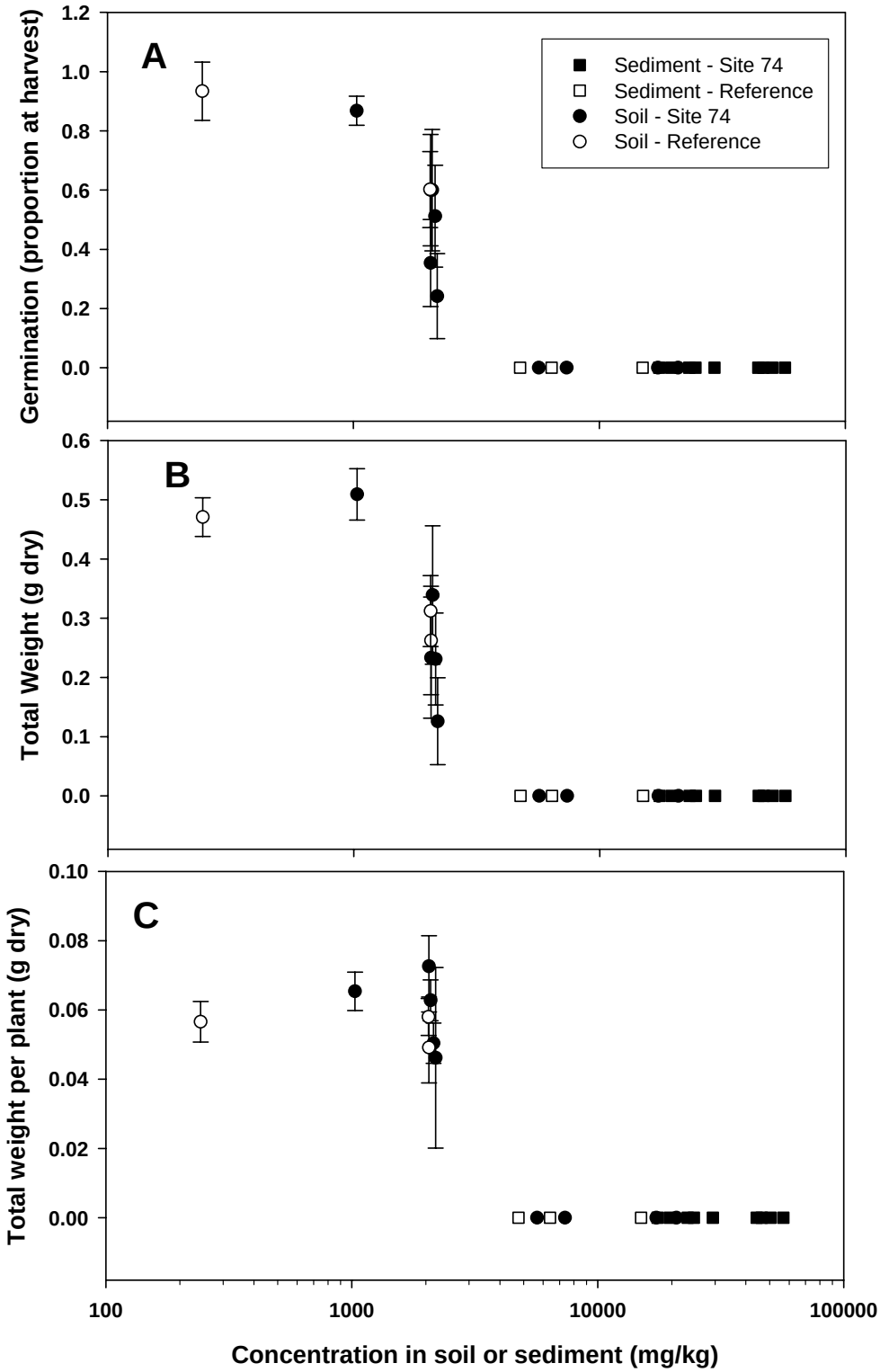


Figure D-21. Scatterplots of sodium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

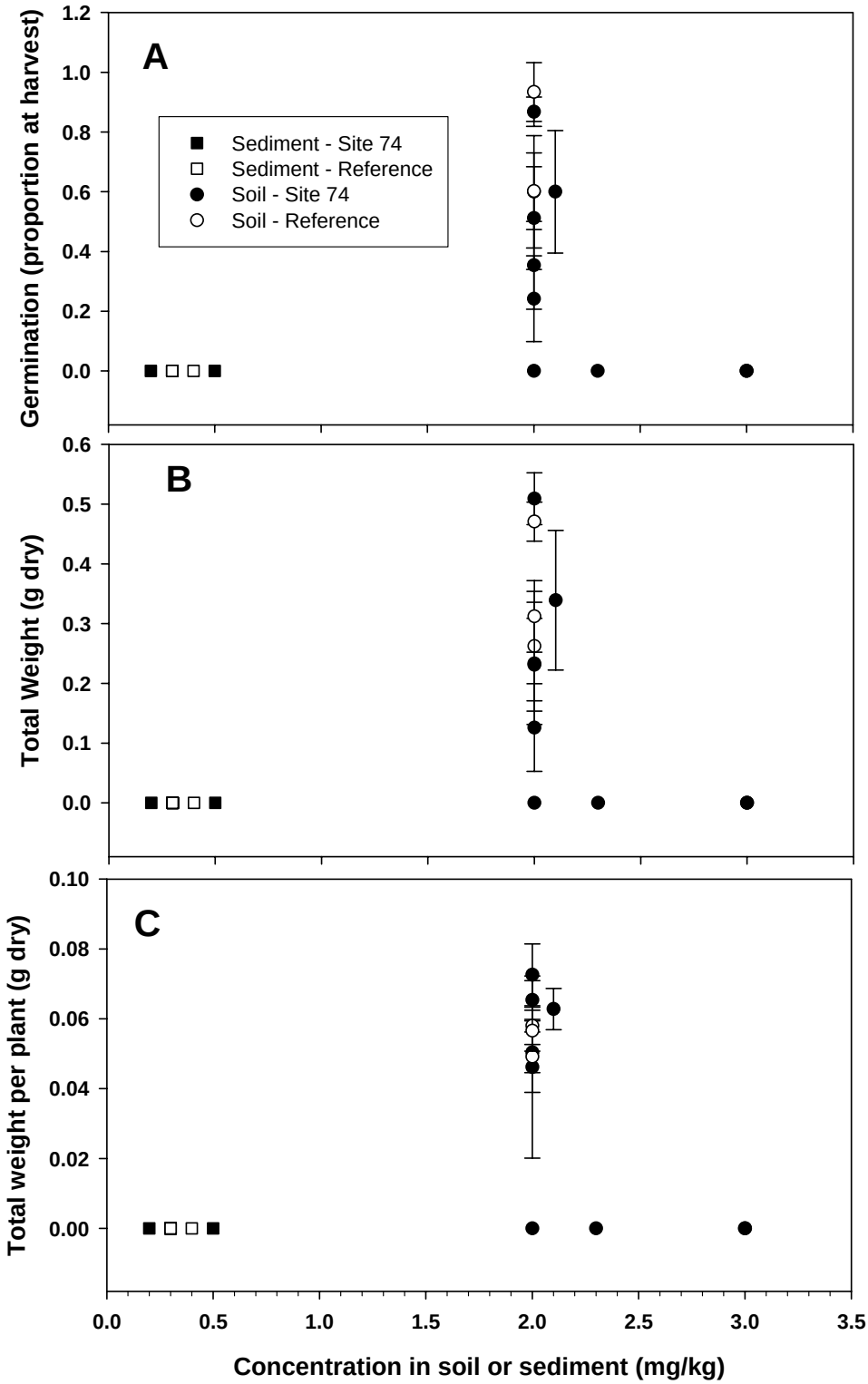


Figure D-22. Scatterplots of thallium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

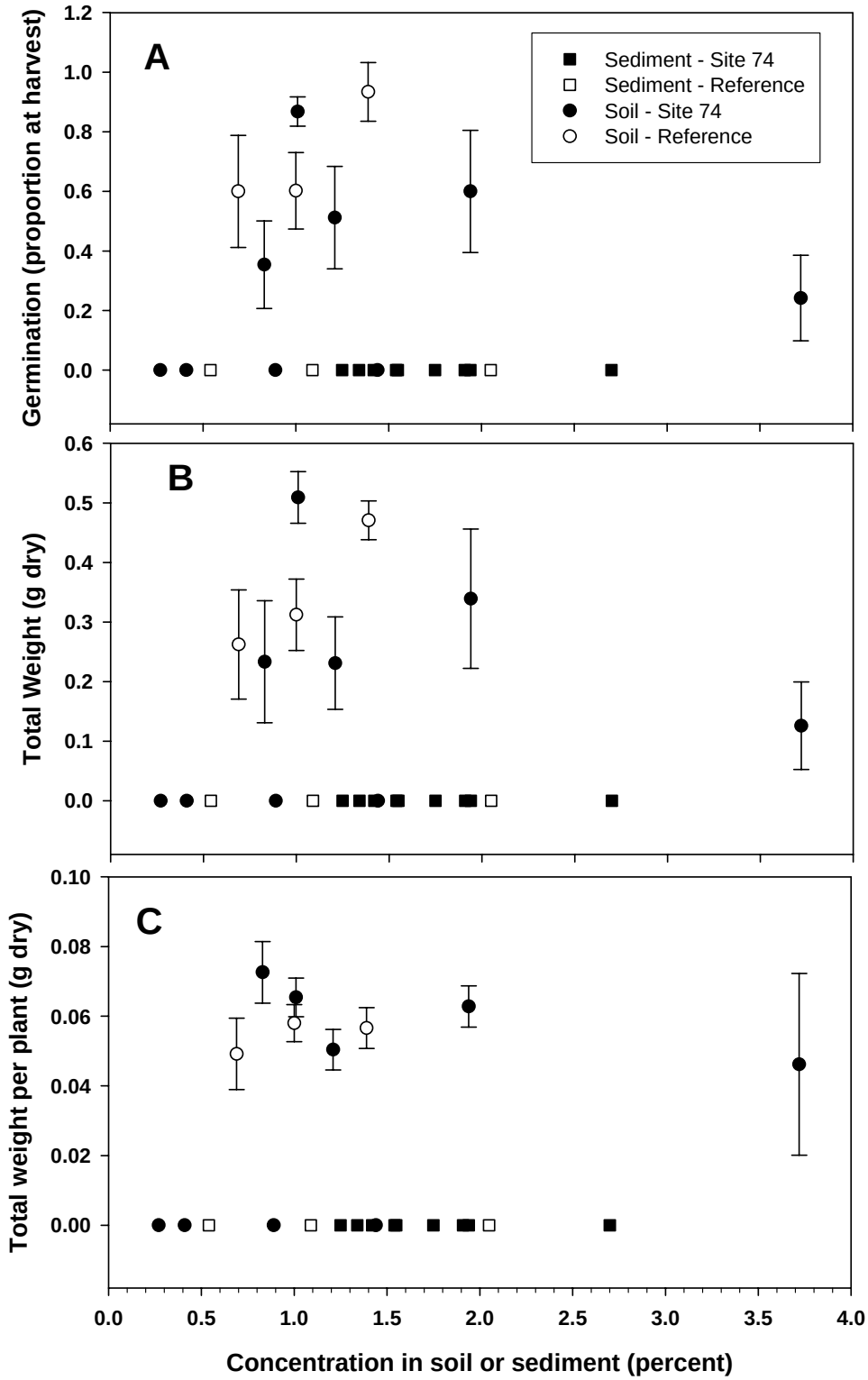


Figure D-23. Scatterplots of total organic carbon in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

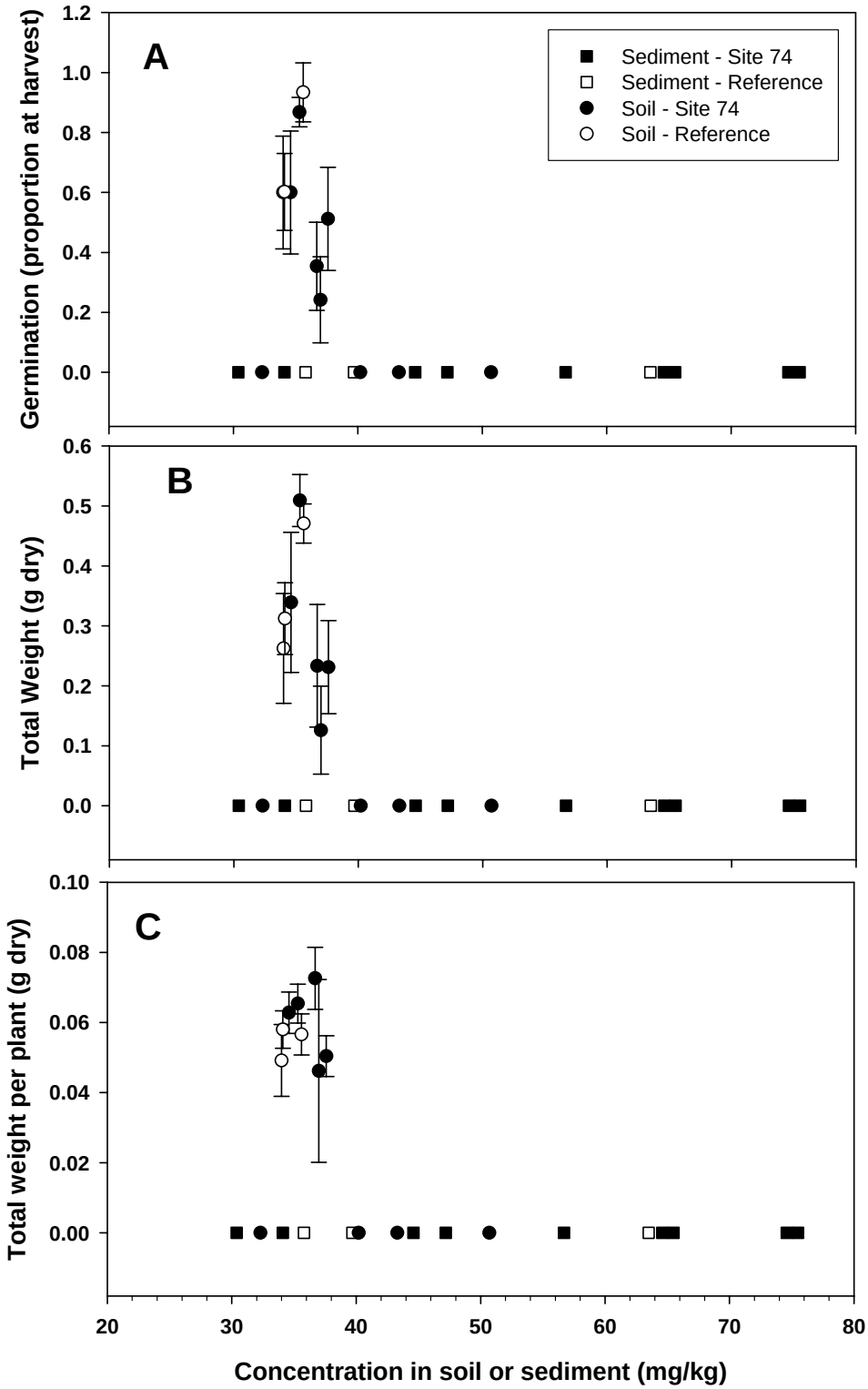


Figure D-24. Scatterplots of vanadium in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

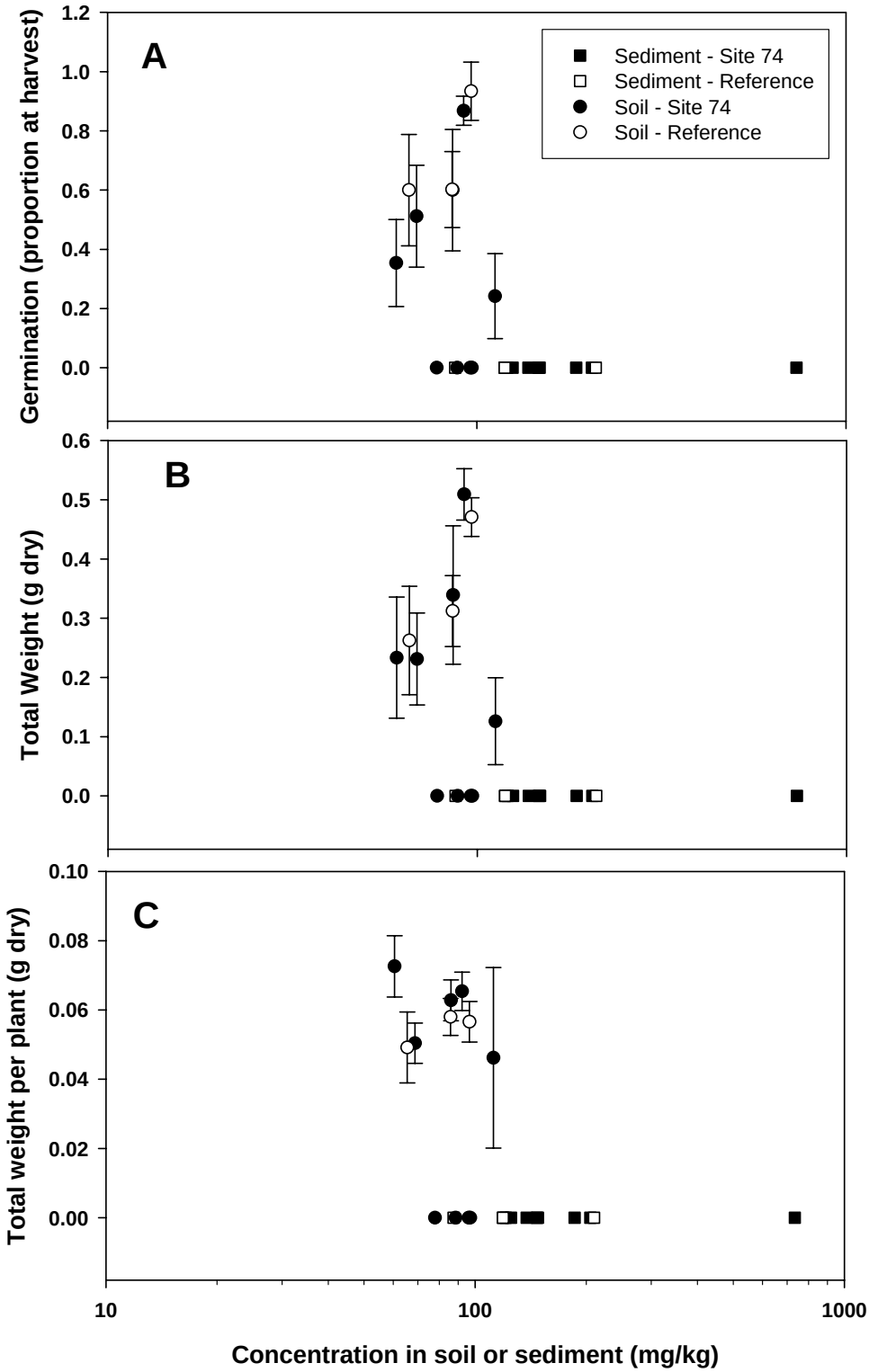


Figure D-25. Scatterplots of zinc in soil or sediment versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

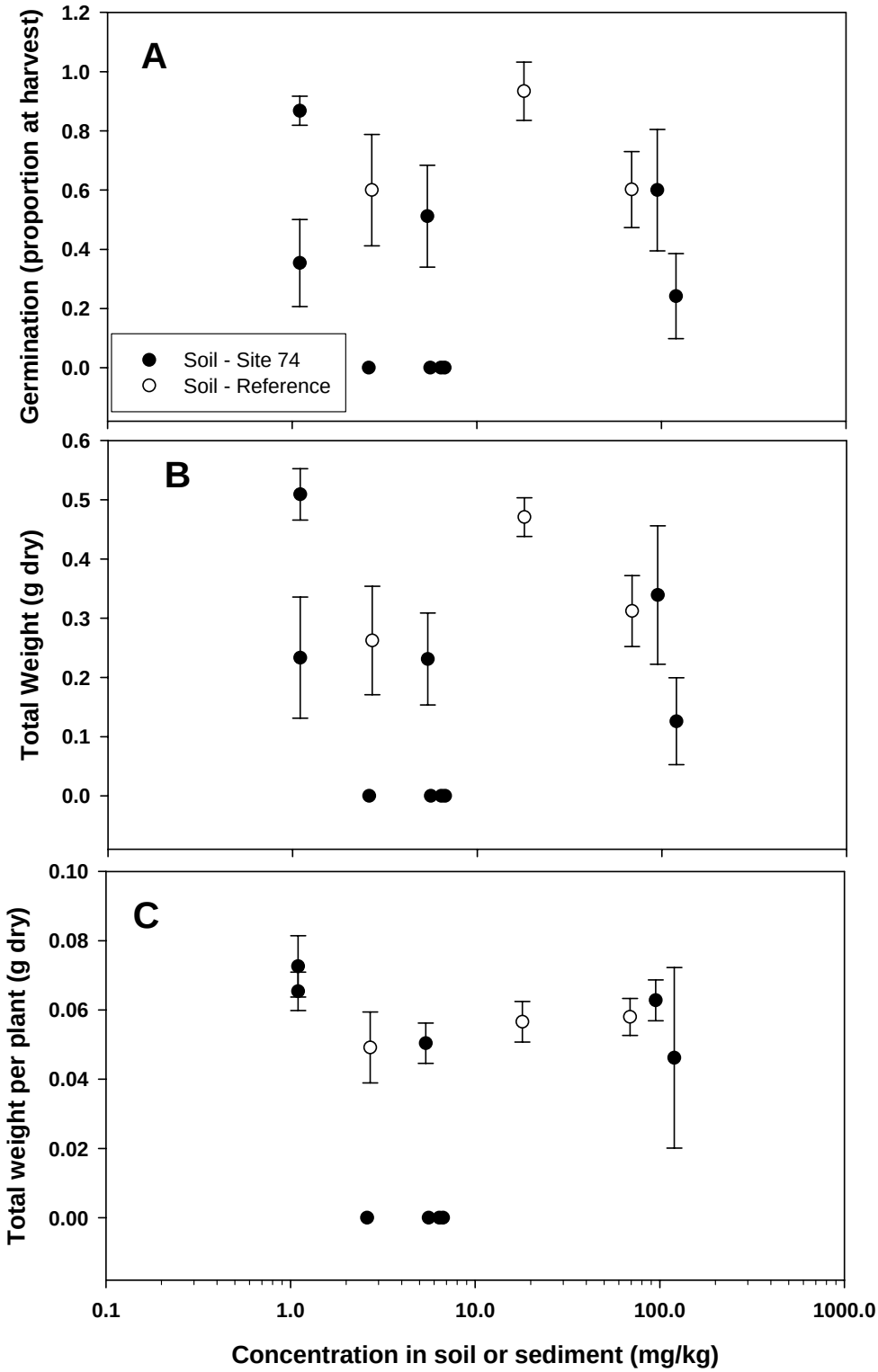


Figure D-26. Scatterplots of 2-methylnaphthalene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

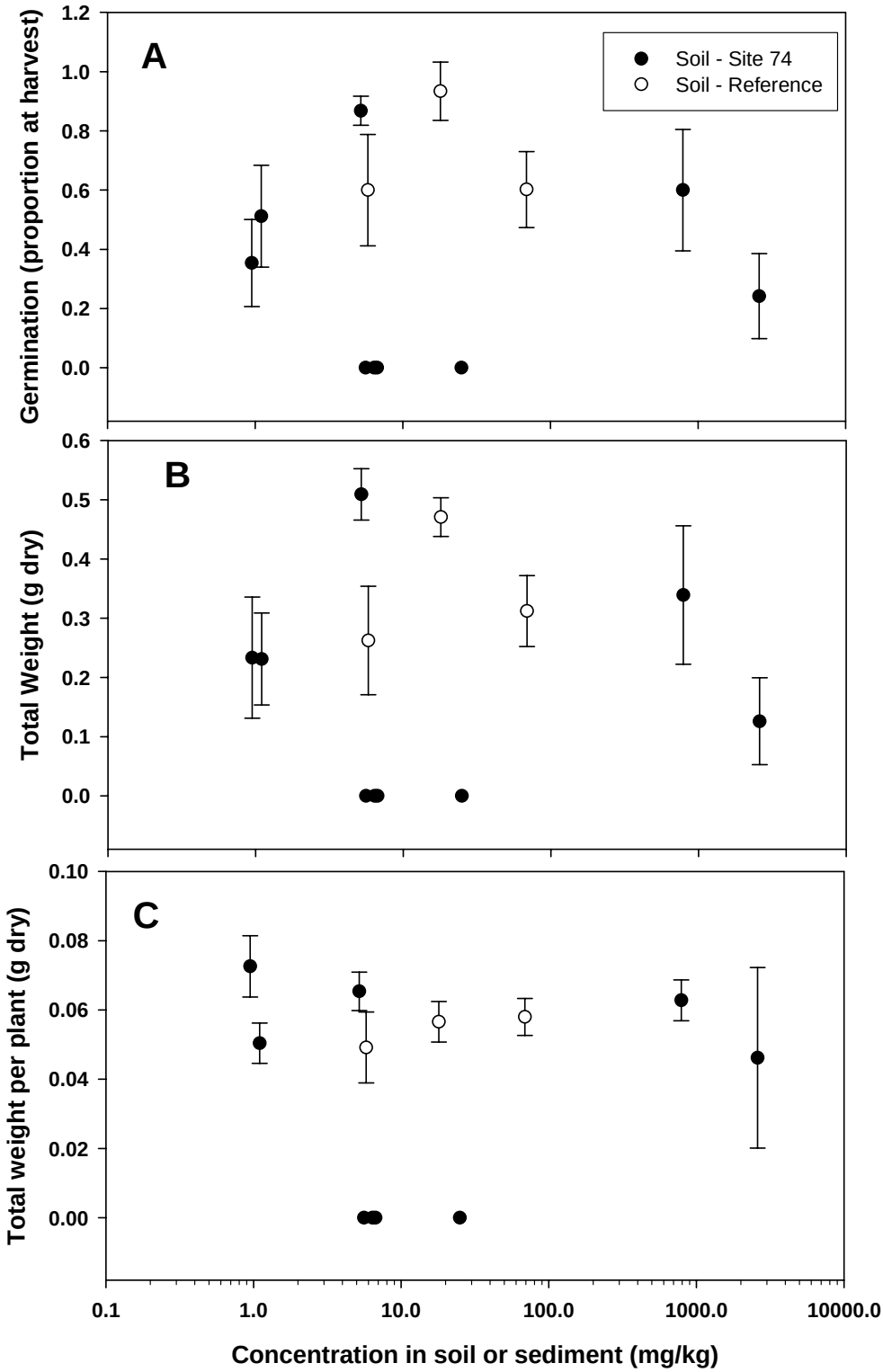


Figure D-27. Scatterplots of acenaphthene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

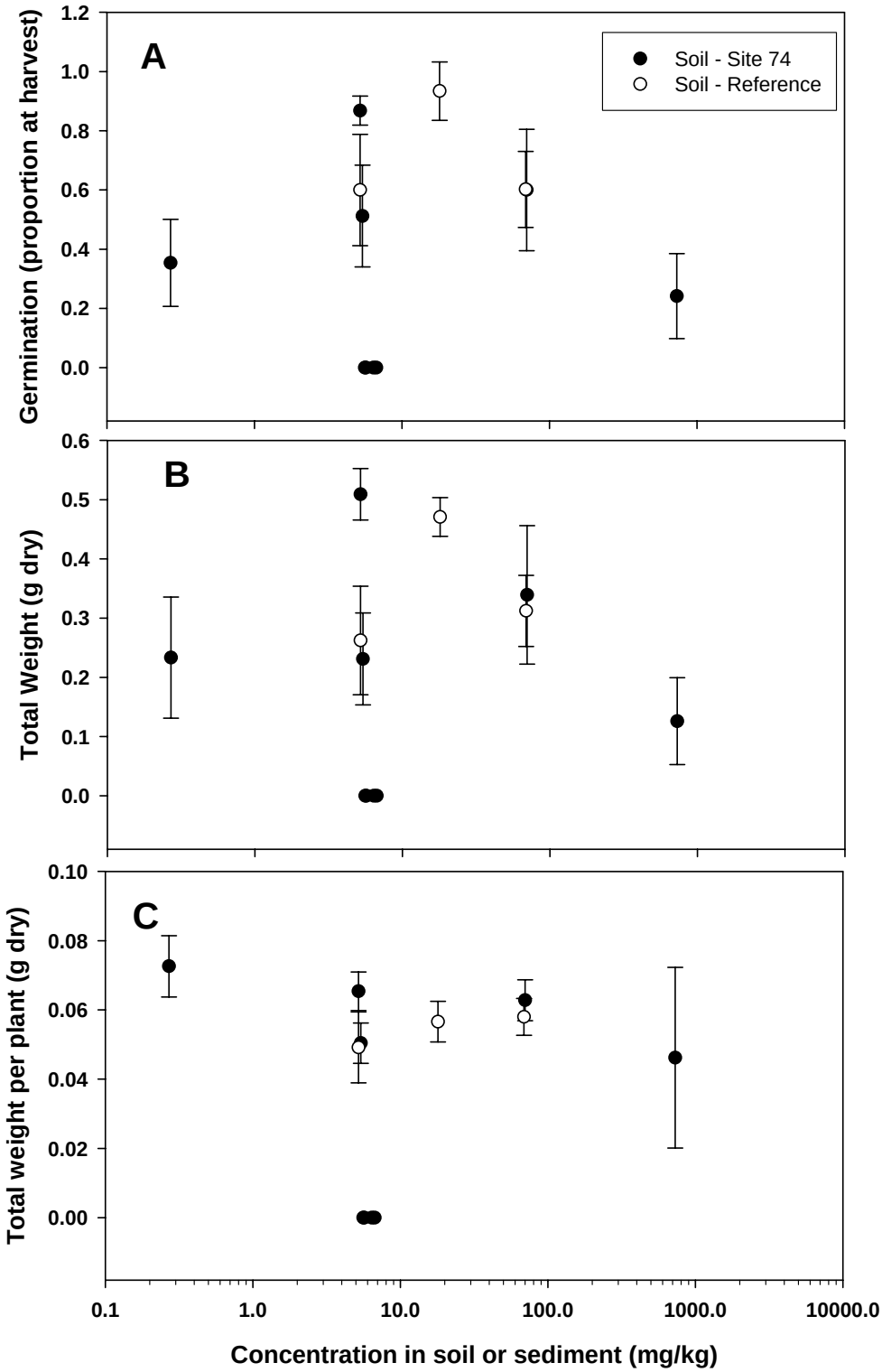


Figure D-28. Scatterplots of acenaphthylene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

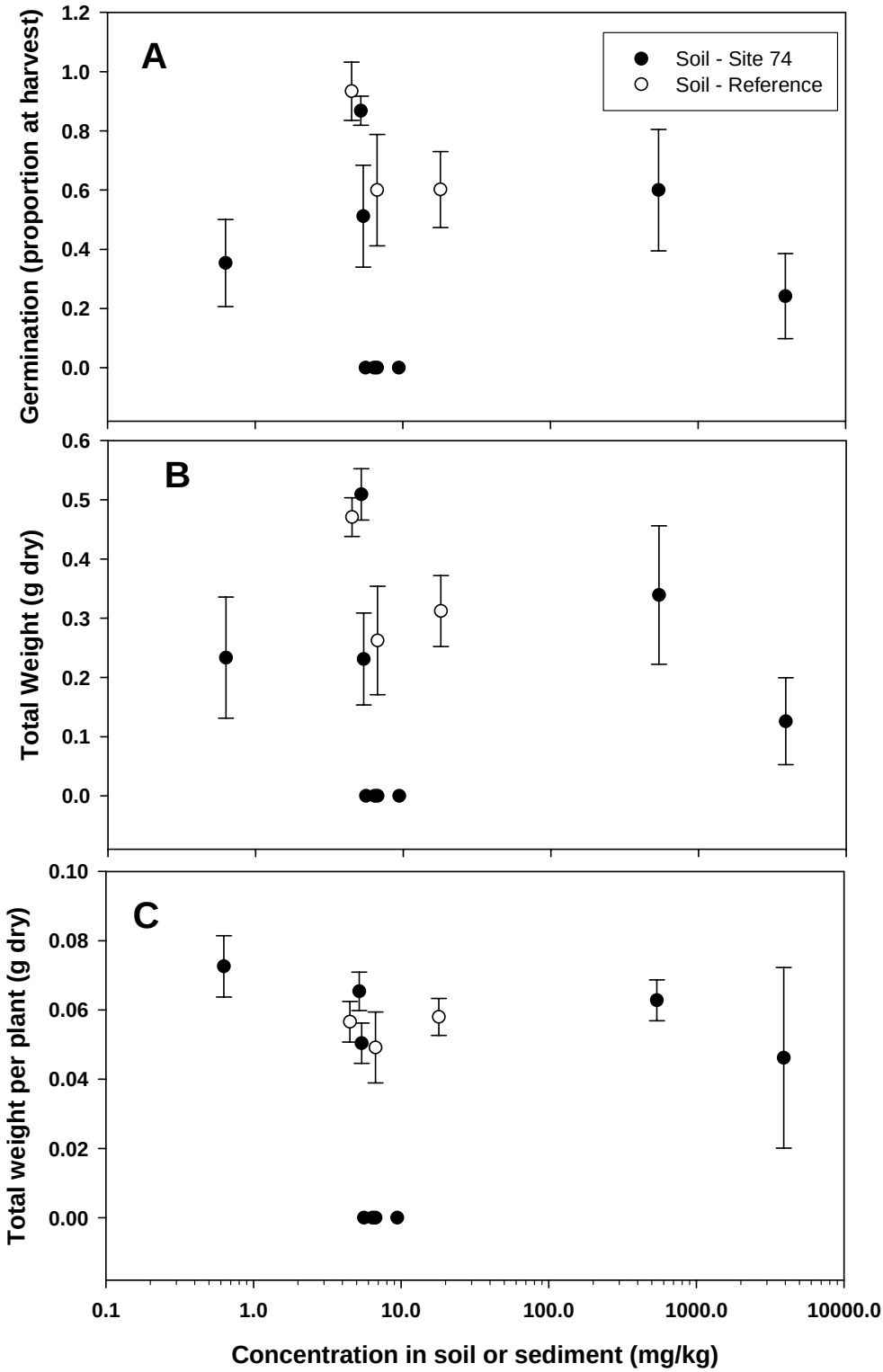


Figure D-29. Scatterplots of anthracene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

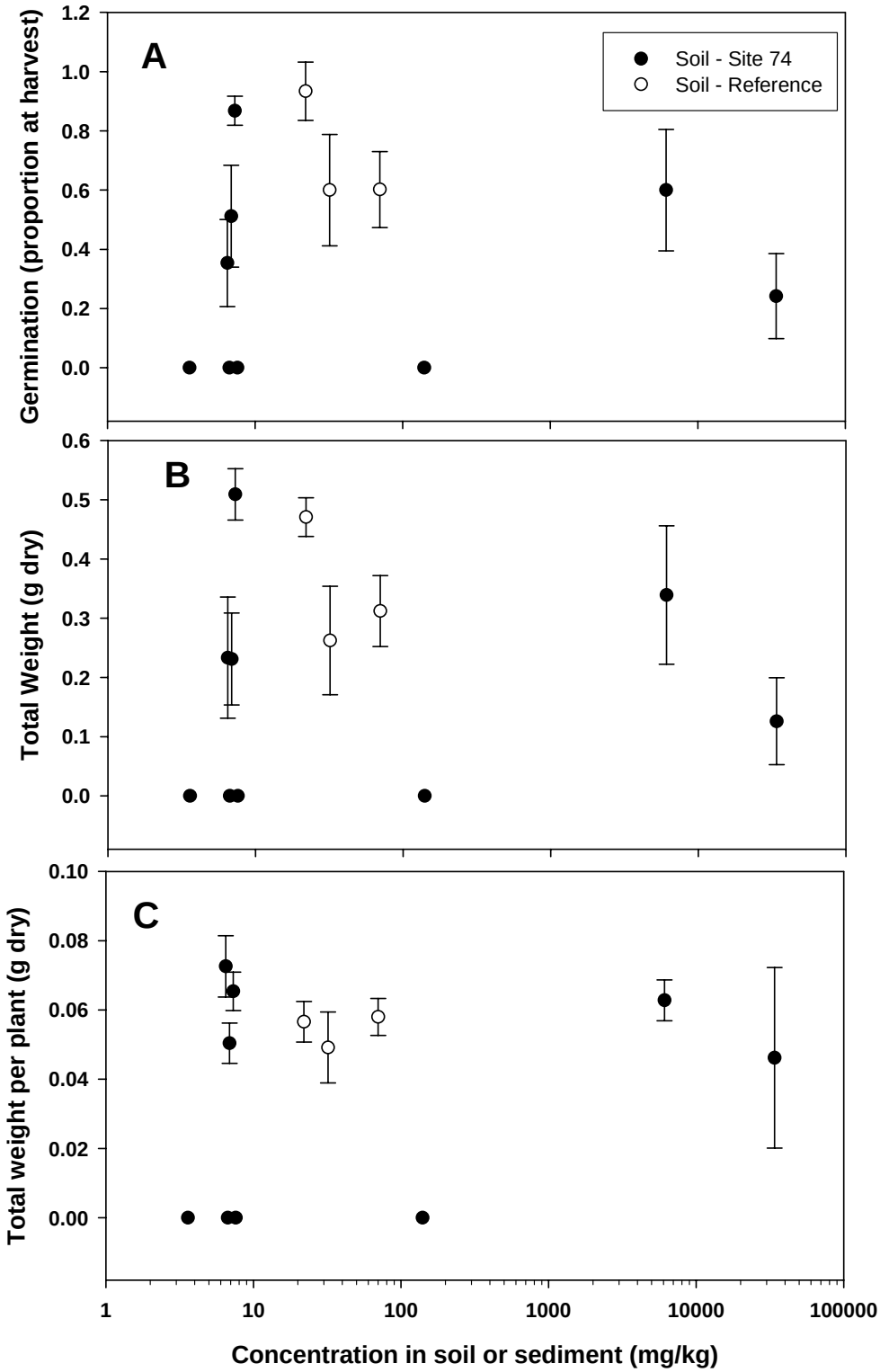


Figure D-30. Scatterplots of benzo(a)anthracene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

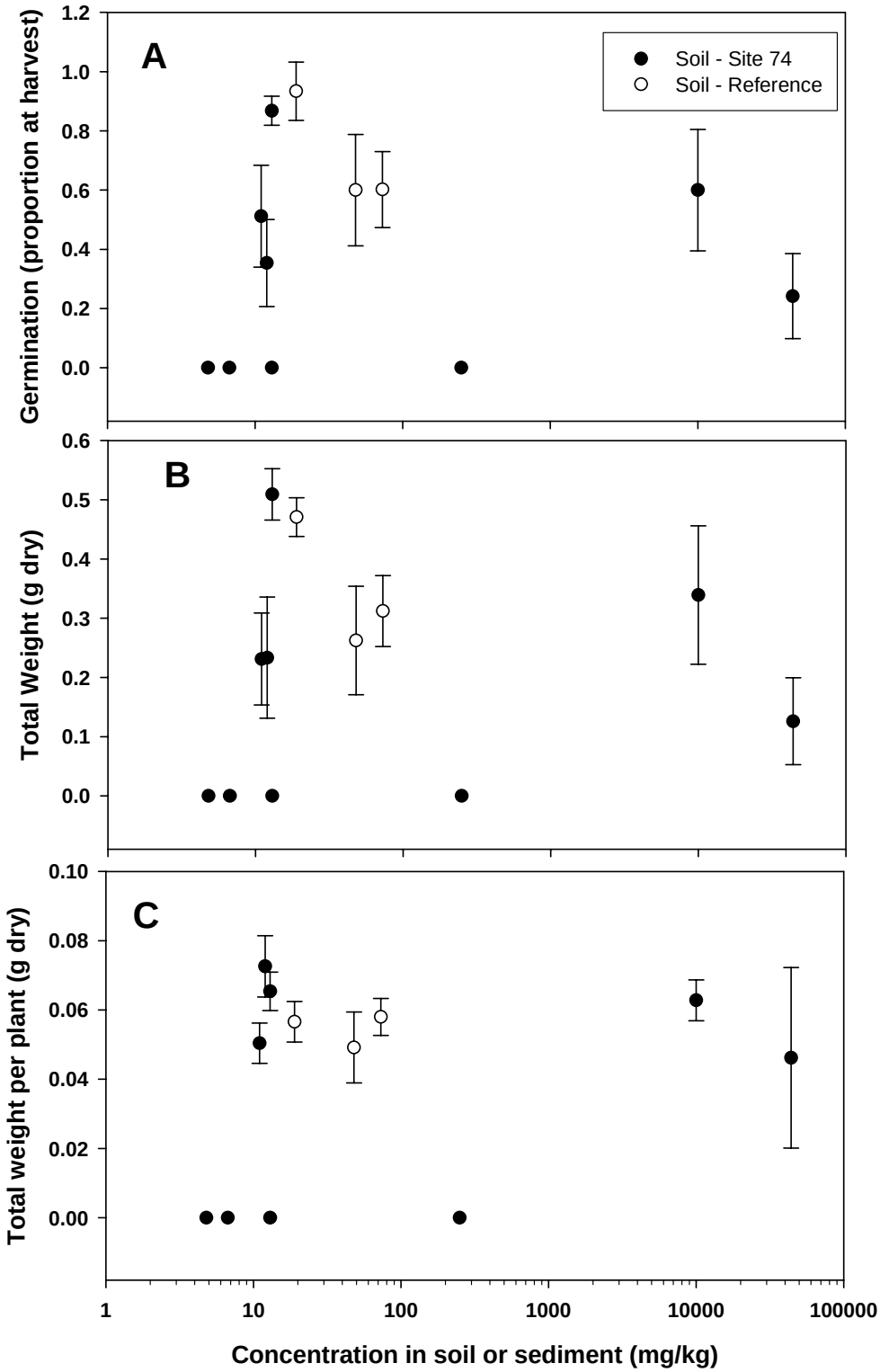


Figure D-31. Scatterplots of benzo(a)pyrene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

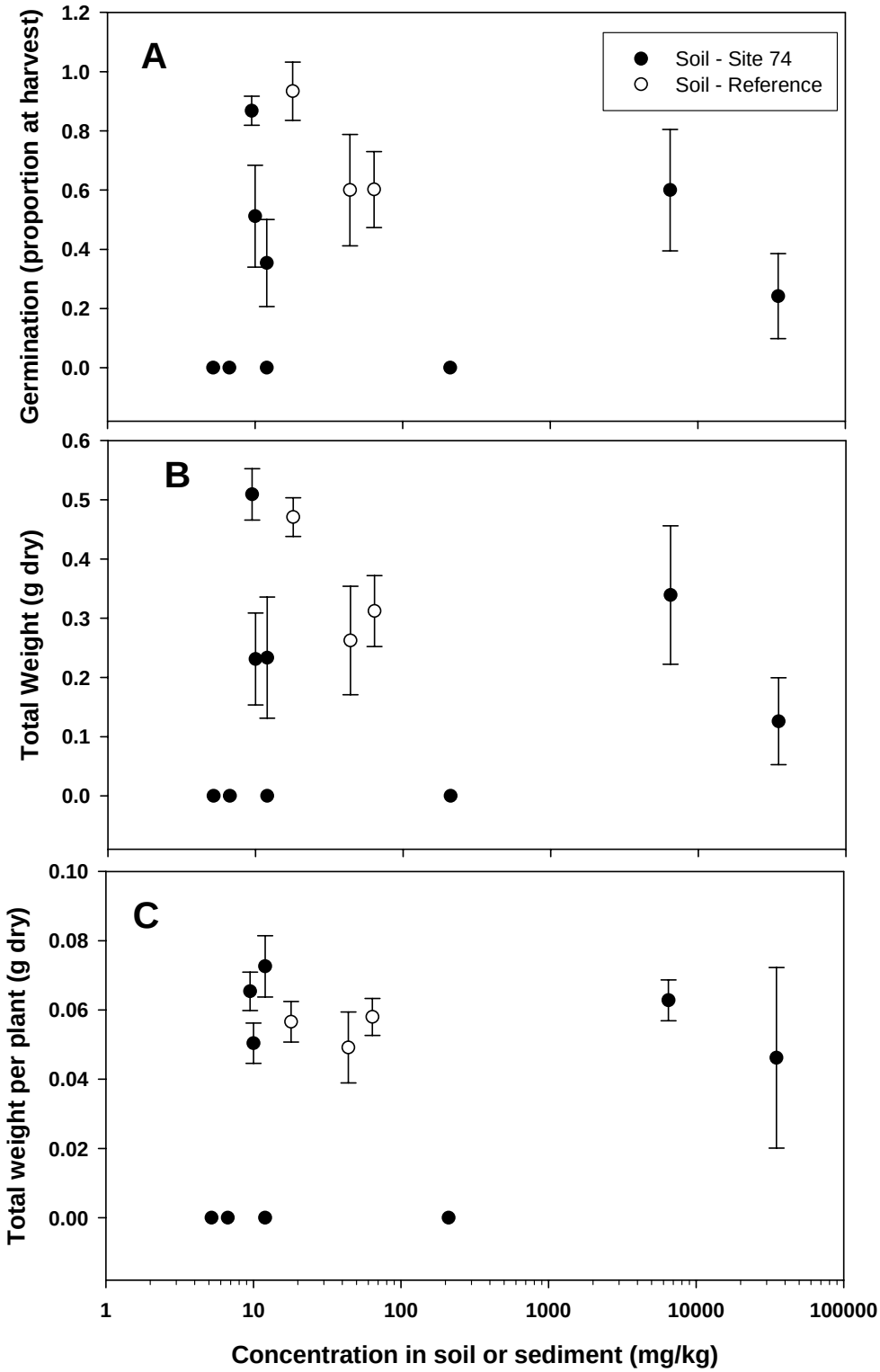


Figure D-32. Scatterplots of benzo(b)fluoranthene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

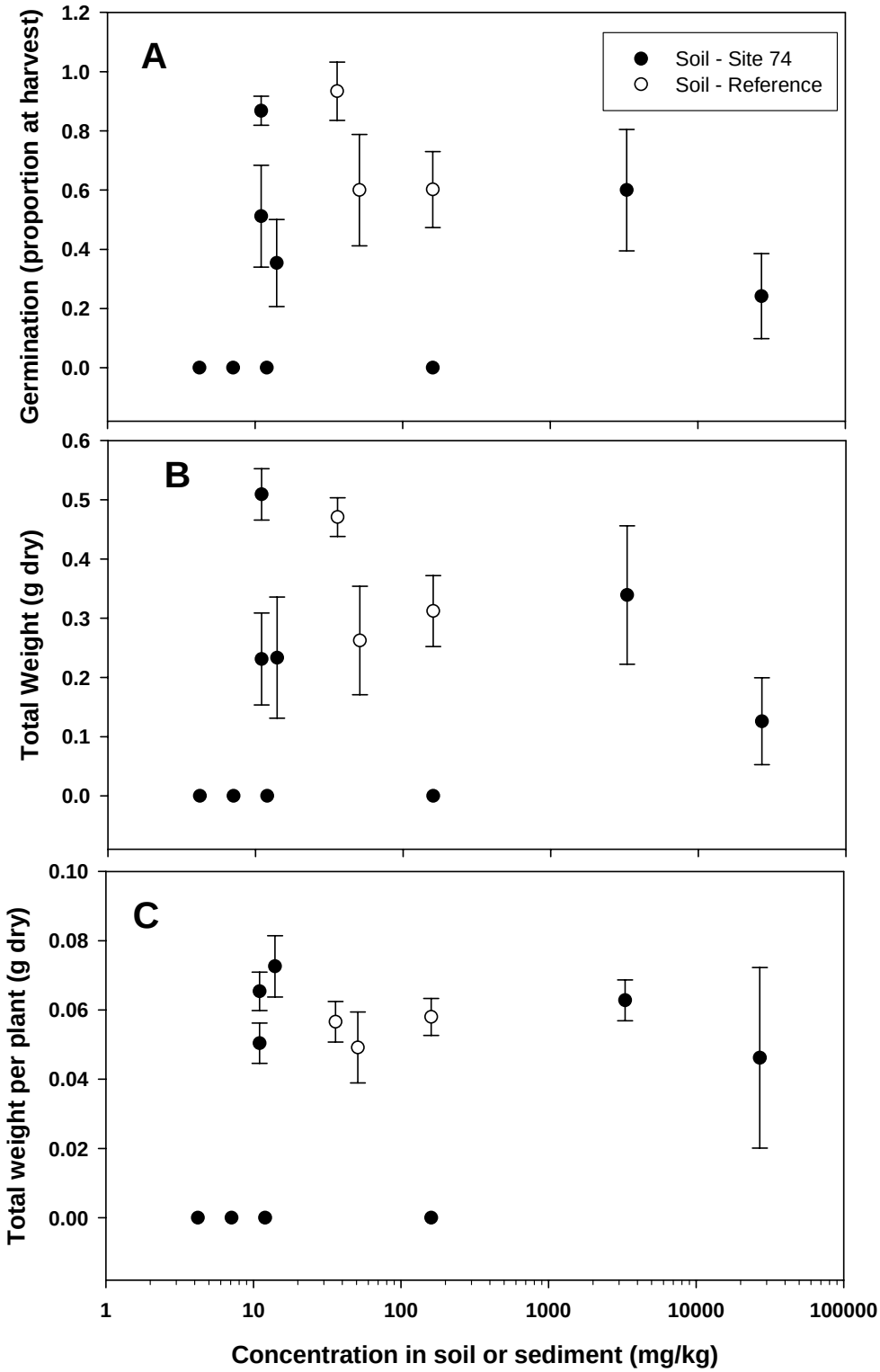


Figure D-33. Scatterplots of benzo(g,h,i)perylene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

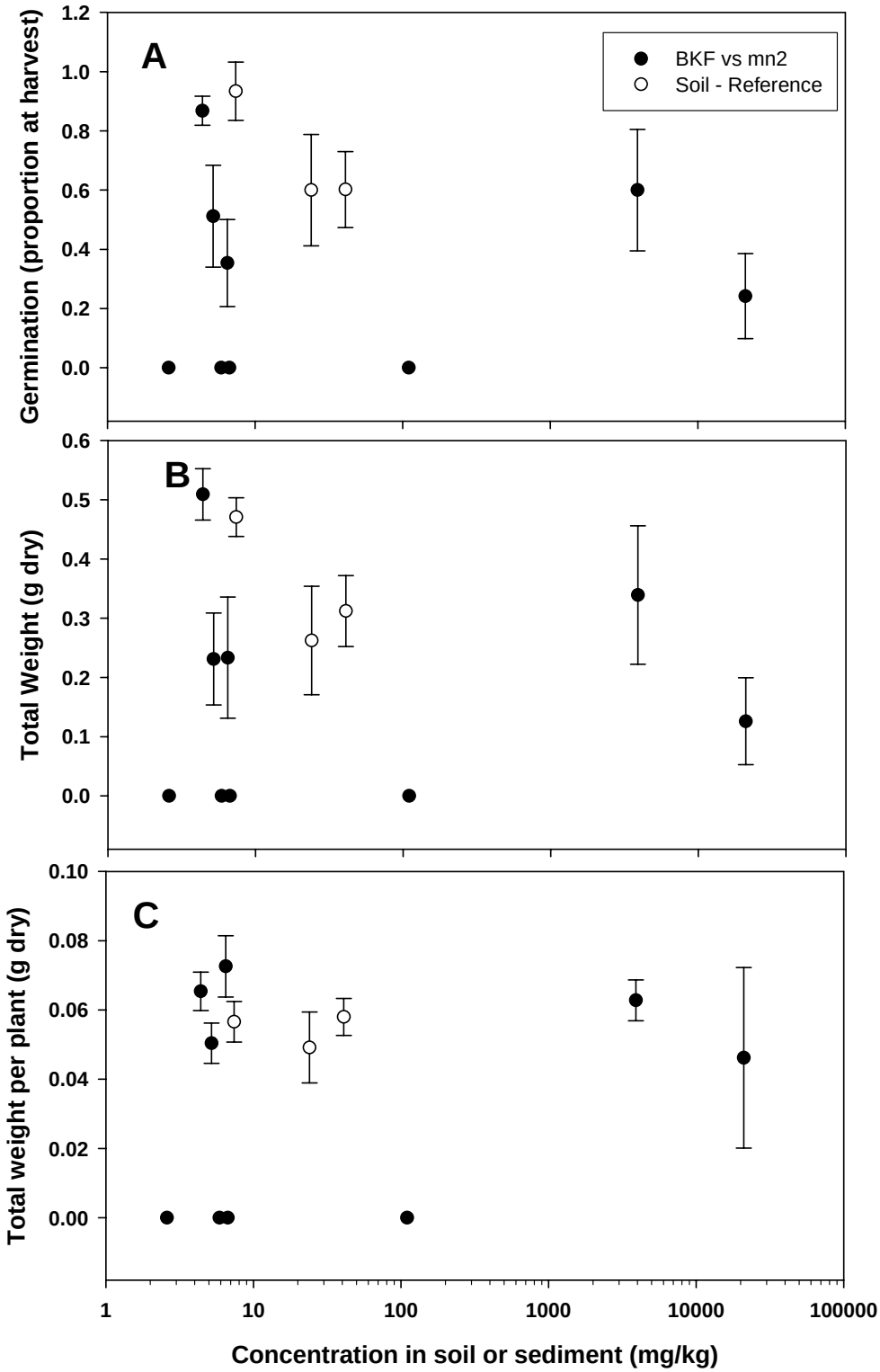


Figure D-34. Scatterplots of benzo(k)fluorathene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

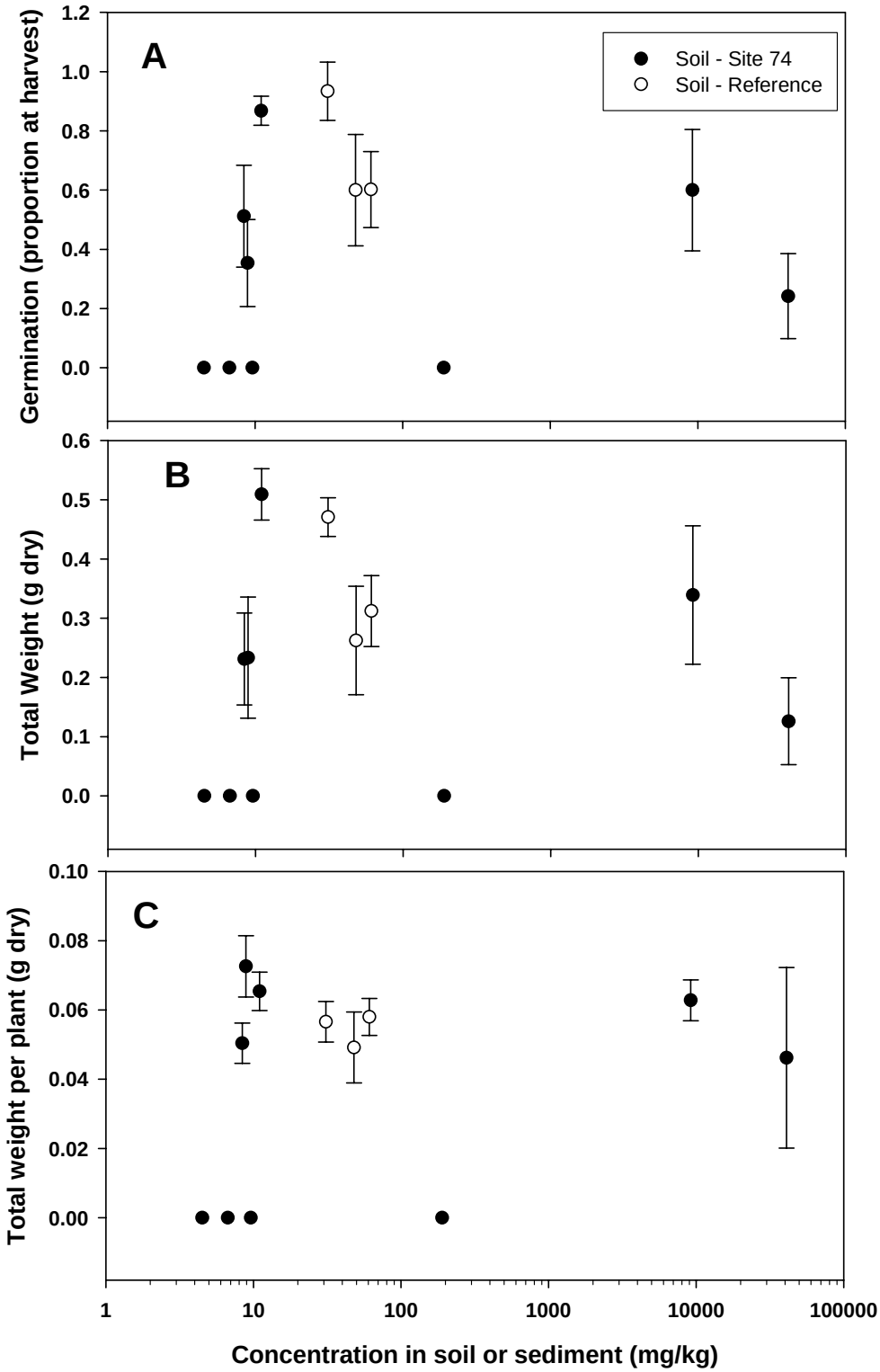


Figure D-35. Scatterplots of chrysene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

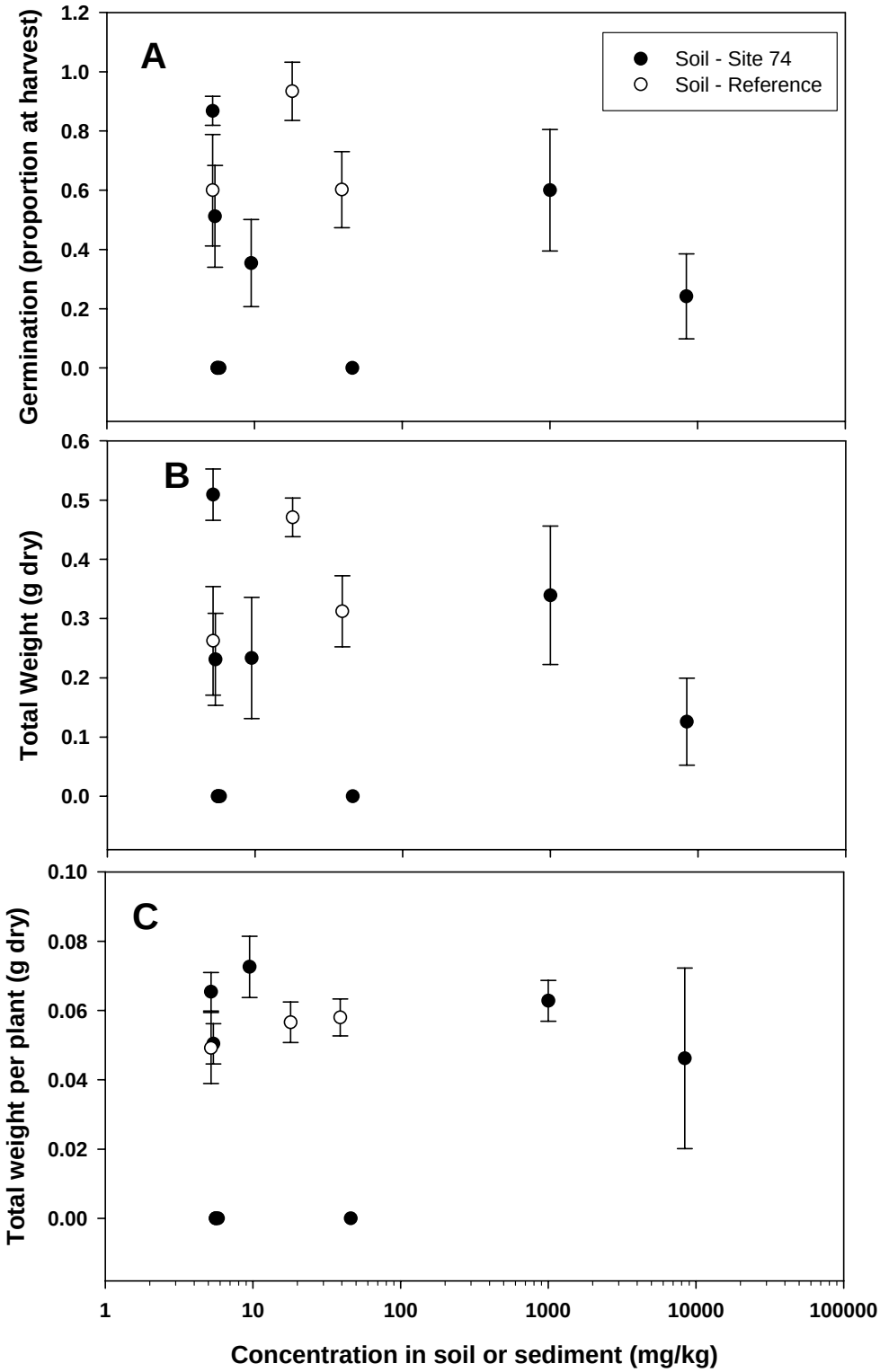


Figure D-36. Scatterplots of dibenzo(a,h)anthracene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

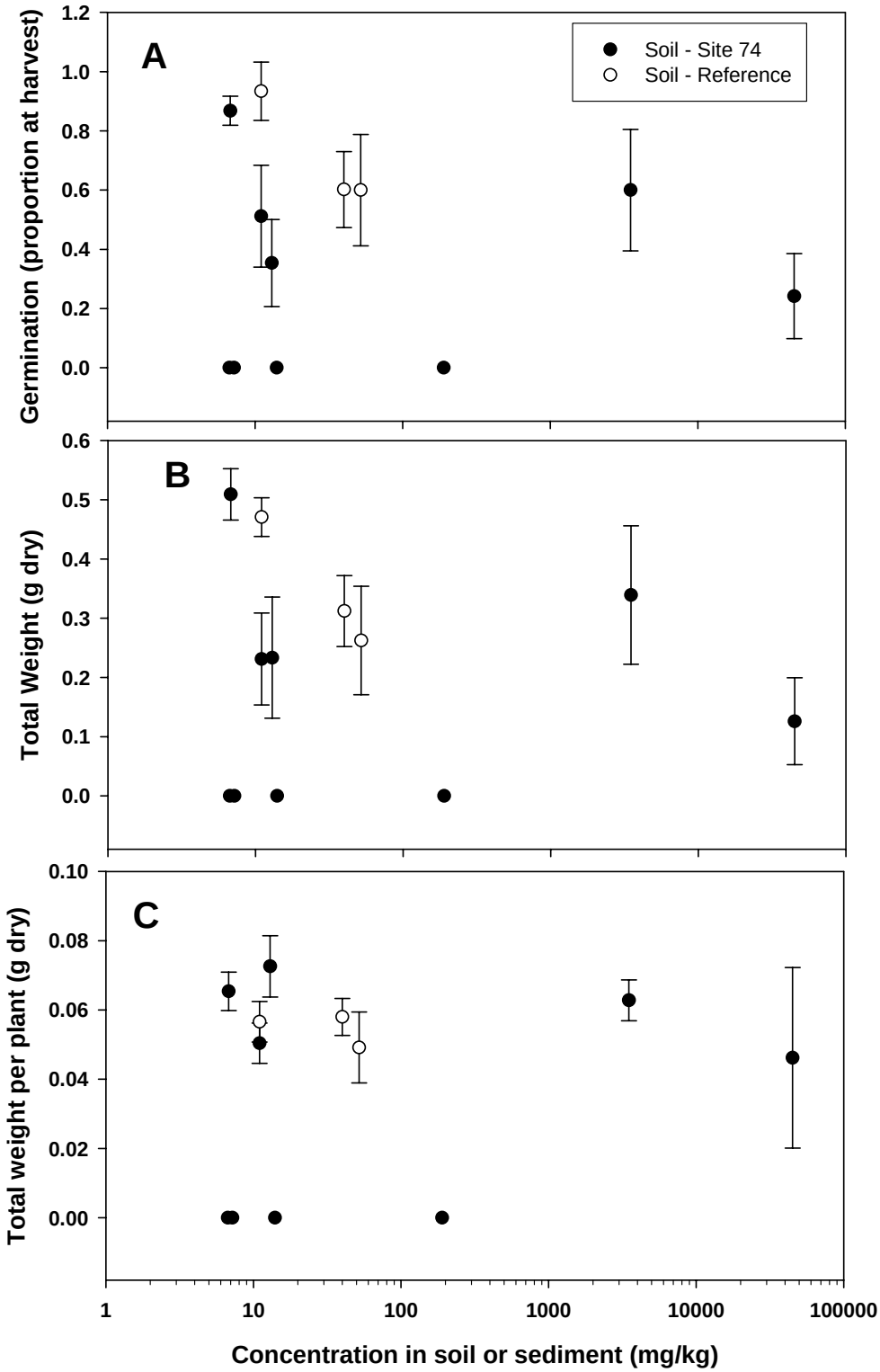


Figure D-37. Scatterplots of fluoranthene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

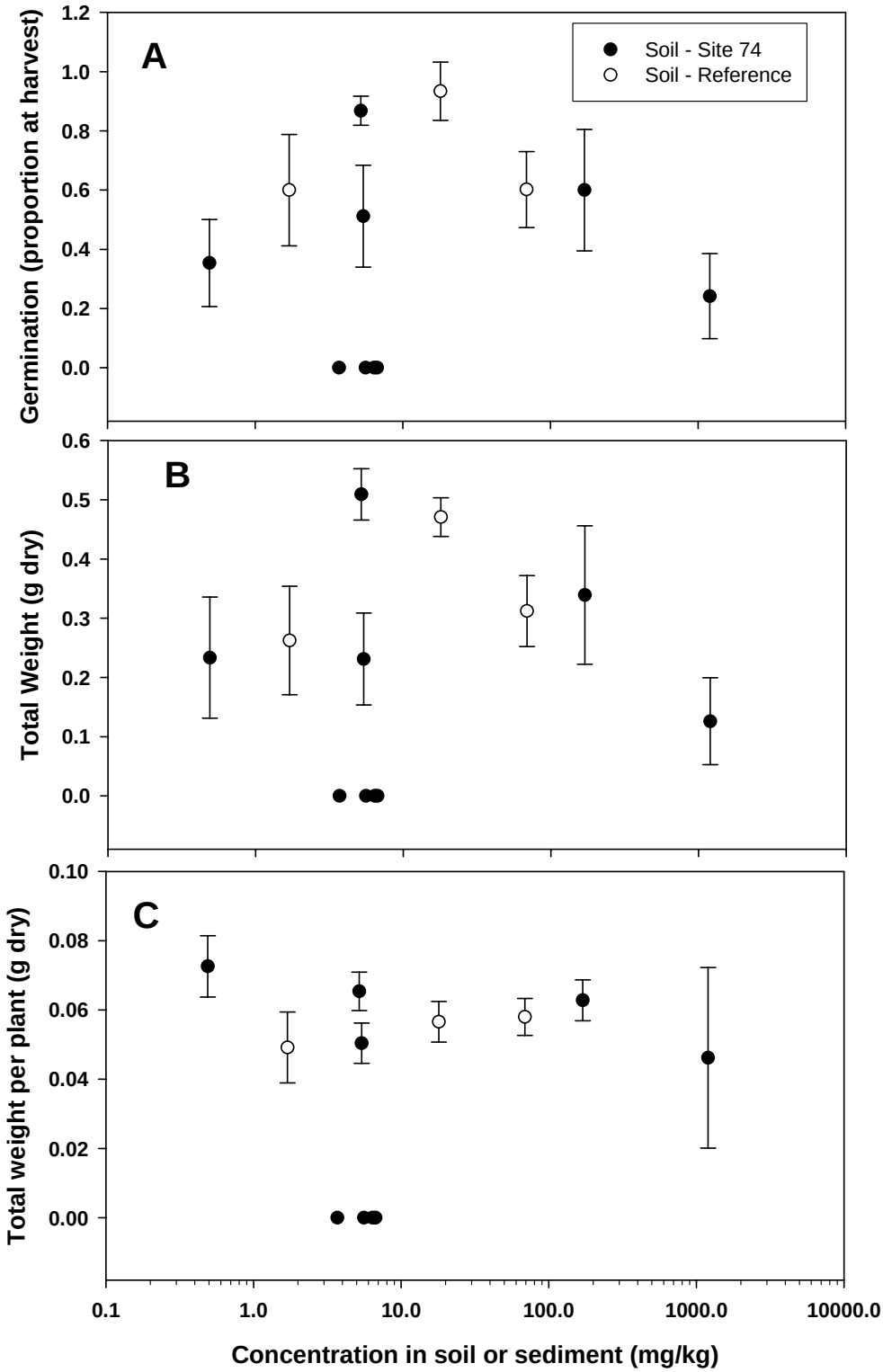


Figure D-38. Scatterplots of fluorene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

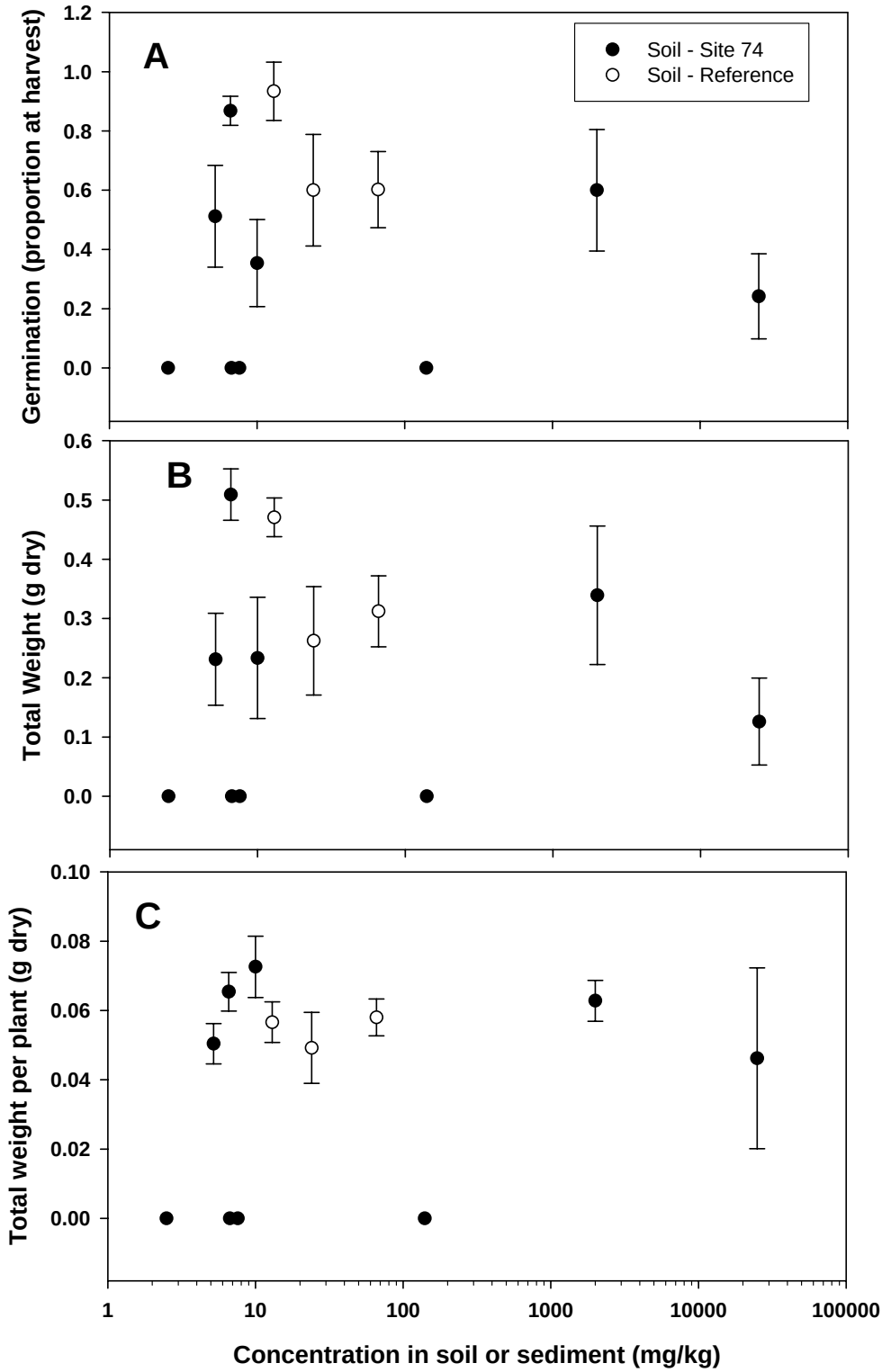


Figure D-39. Scatterplots of indeno(1,2,3-cd)pyrene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

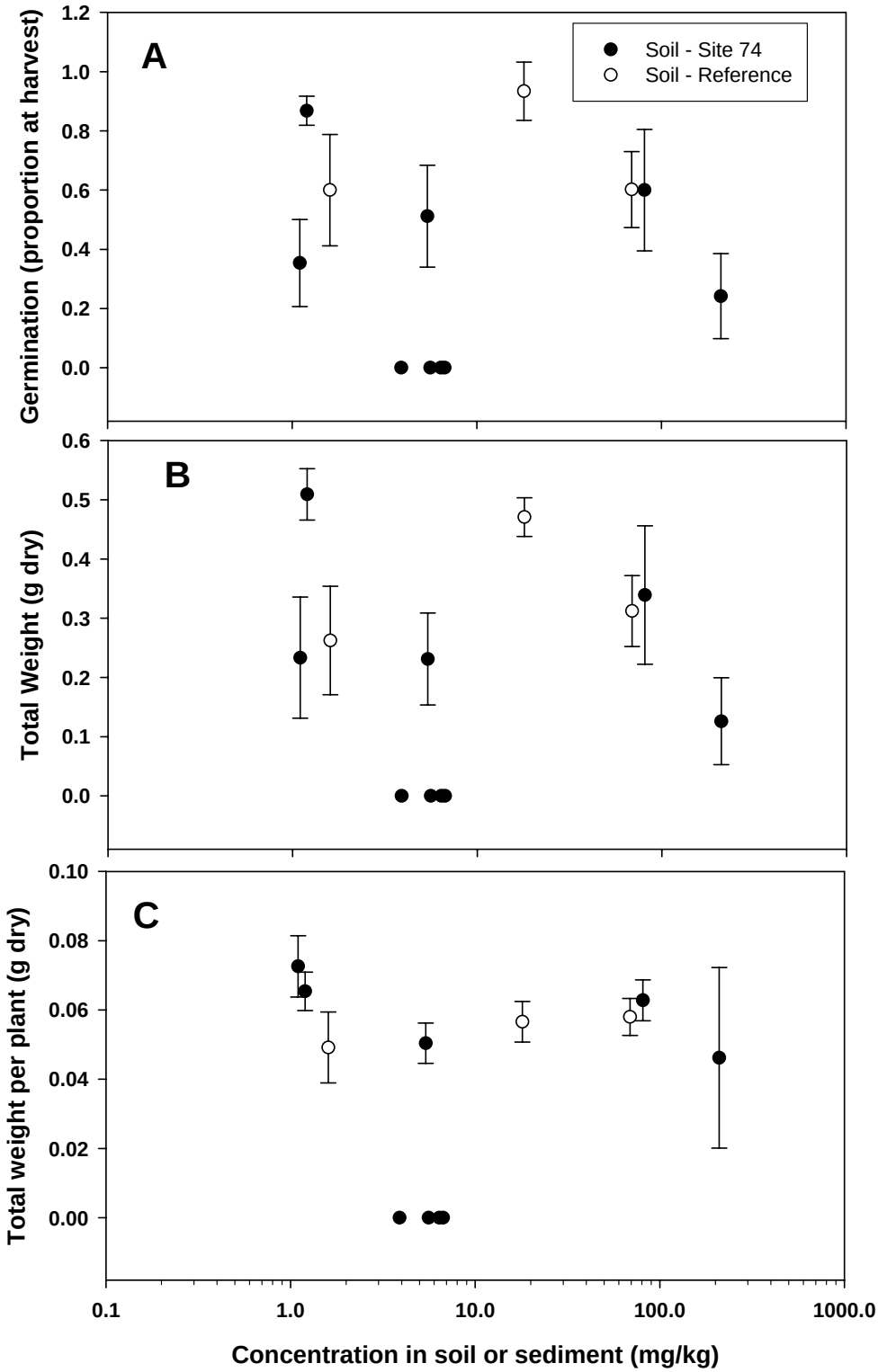


Figure D-40. Scatterplots of naphthalene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

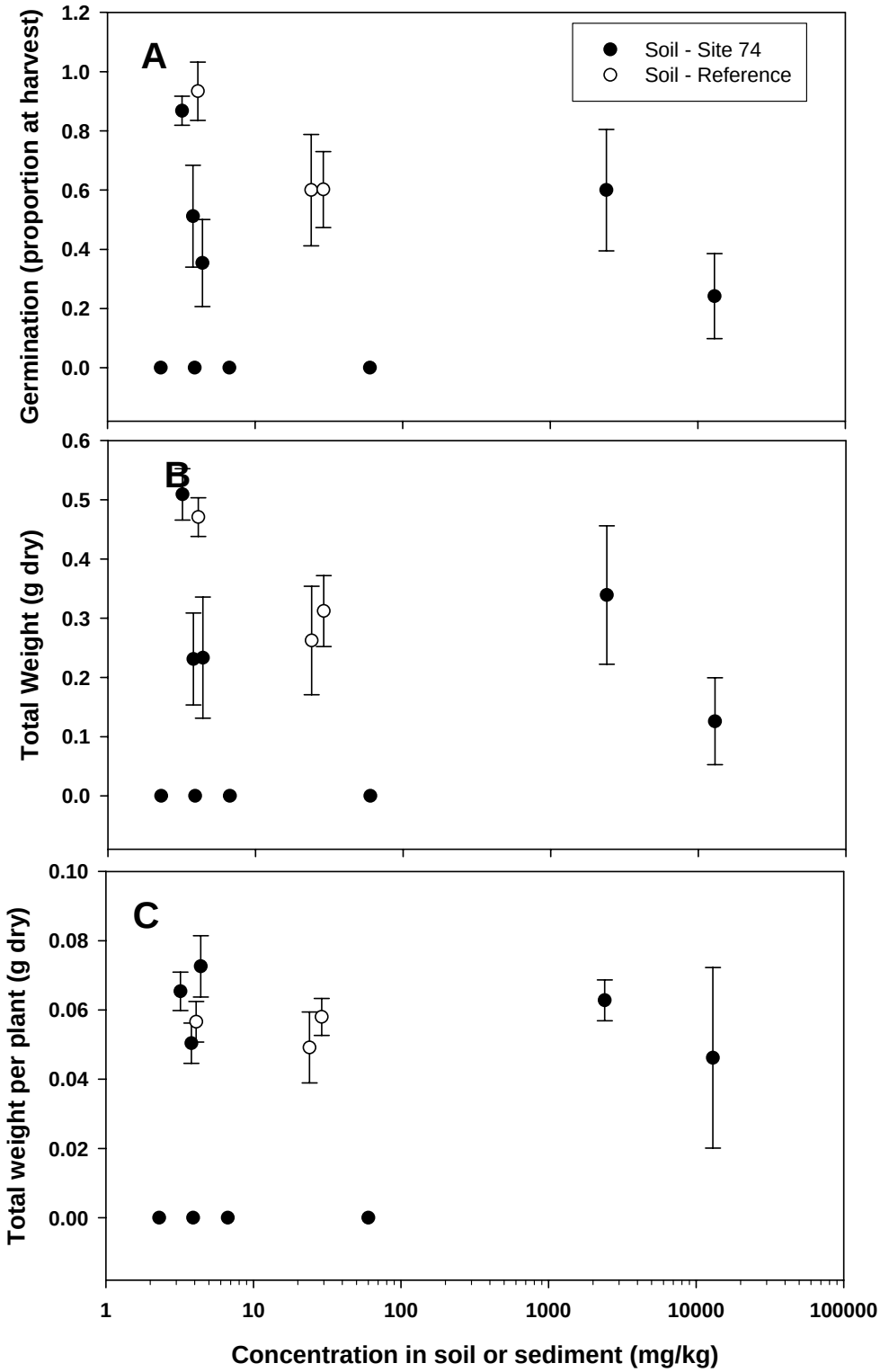


Figure D-41. Scatterplots of phenanthrene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

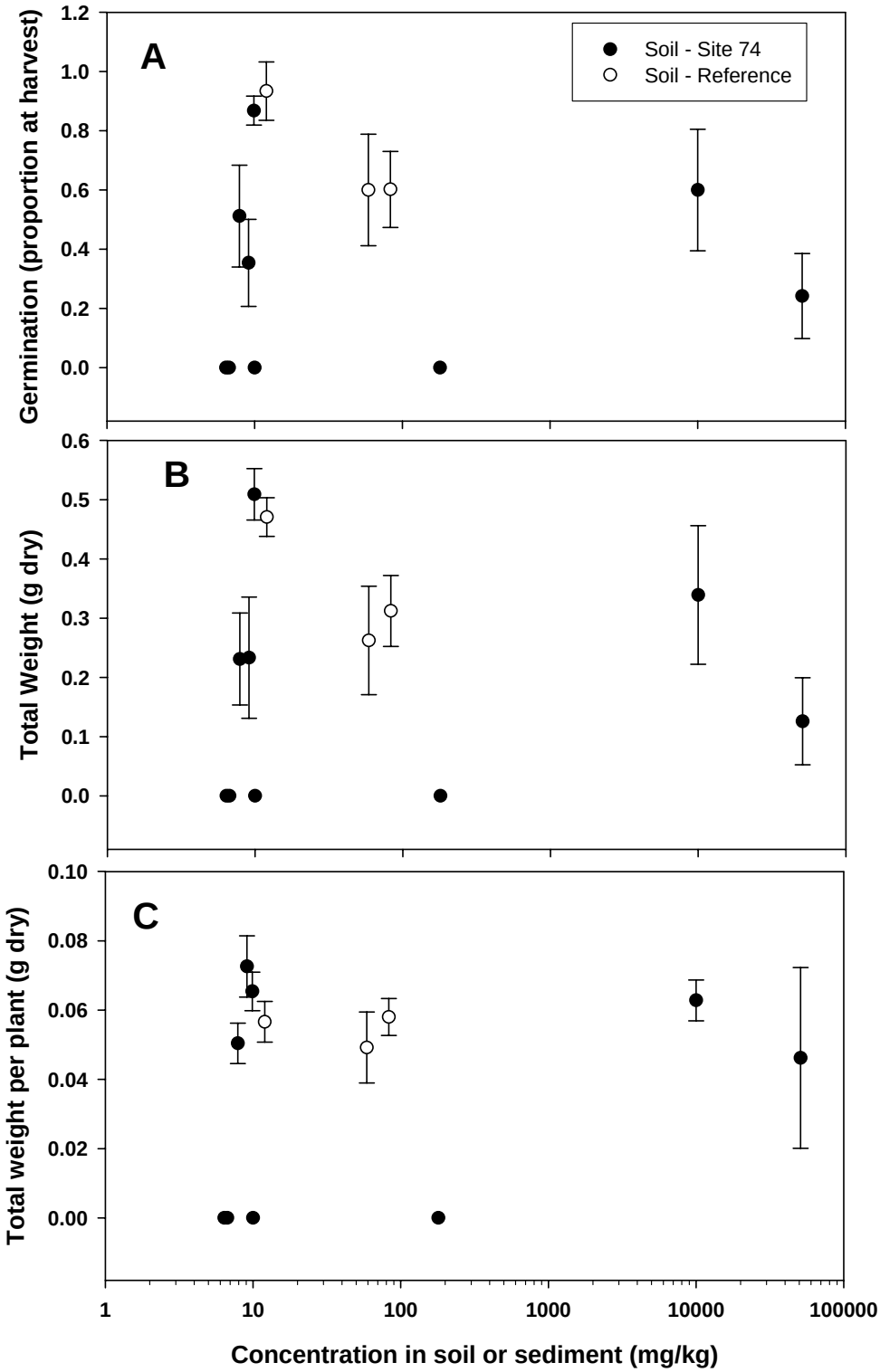


Figure D-42. Scatterplots of pyrene in soil versus plant bioassay results for Site 74. Data represent (A) proportion germination at harvest, (B) total weight per pot, and (C) total weight per plant.

Appendix E
Derivation of Avian Toxicity Threshold for Lead Shot

APPENDIX E

Derivation of Avian Toxicity Threshold for Lead Shot

Studies on the acute effects of lead pellet ingestion in mallards, ring-necked ducks, and black ducks were reported in the literature (Table E-1). A two-parameter logistic dose-response function was fitted to acute toxicity data for lead shot (as mg lead/kg body weight) to waterfowl consuming natural diets (Figure E-1). From this dose-response model, the dose required to kill 50% of exposed receptors (LD_{50} in mg/kg) was calculated (534 mg/kg). Whereas LD_{50}s represent acute, single-dose values, birds in the field may be exposed repeatedly throughout the year. If it is assumed that the lead from ingested lead pellets consumed by a bird is retained and none is excreted over the year (a very conservative assumption), the annual LD_{50} dose-equivalent was estimated by dividing the LD_{50} by 365 days. This annual LD_{50} dose-equivalent (1.46 mg/kg/d) was used as the toxicity threshold for exposure to lead pellets.

TABLE E-1
Summary of Studies of the Acute Effects of Lead Pellet Ingestion in Mallards, Ring-necked Ducks, and Black Ducks[a]
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Species	Body Weight (kg)	Shot Number	Shot Weight (mg)[b]	Dose (No. of Shot)	Dose (mg Pb/kg)	Diet	N	Percent Mortality	Reference	Notes
Mallard	1.23			0	0.0	Ca + corn or Ca + cracked corn	5	0	Carlson and Nielsen 1984	BW = mean from other treatments in study
Wild mallard	1.23			0	0.0	natural diet	5	0	Chasko et al. 1984	BW = mean from Carlson and Nielsen 1984
wild black duck	1.25			0	0.0	natural diet	5	0	Chasko et al. 1984	BW = mean of males and females from Dunning 1993
wild black duck	1.25	6	127	2	203.2	natural diet	4	25	Chasko et al. 1984	BW = mean of males and females from Dunning 1993
wild mallard	1.23	6	127	2	206.5	natural diet	6	0	Chasko et al. 1984	BW = mean from Carlson and Nielsen 1984
ring-necked duck	0.654	4	219	1	334.8	commercial mash + green forage	27	14.8	Mautino and Bell 1986	BW = mean of males and females from Dunning 1993
mallard	1.23	4	223[c]	2	362.6	rice + scratch grains	16	18.8	Rocke and Samuel 1991	BW = mean from Carlson and Nielsen 1984
wild black duck	1.25	6	127	5	508.0	natural diet	4	50	Chasko et al. 1984	BW = mean of males and females from Dunning

TABLE E-1
Summary of Studies of the Acute Effects of Lead Pellet Ingestion in Mallards, Ring-necked Ducks, and Black Ducks[a]
Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach

Species	Body Weight (kg)	Shot Number	Shot Weight (mg)[b]	Dose (No. of Shot)	Dose (mg Pb/kg)	Diet	N	Percent Mortality	Reference	Notes
										1993
wild mallard	1.23	6	127	5	516.3	natural diet	6	33.3	Chasko et al. 1984	BW = mean from Carlson and Nielsen 1984
mallard	1.167	4	221	4	721.0	Ca + corn	10	50	Carlson and Nielsen 1984	BW from study
mallard	1.18	4	221	4	721.0	Ca + cracked corn	10	100	Carlson and Nielsen 1984	BW from study
mallard	1.23	6	127[d]	8	826.0	yellow corn	10	90	Bates et al. 1968	BW = mean from Carlson and Nielsen 1984

[a] This is a subset of all available lead shot acute toxicity data, and was selected because the diets used in these studies most closely matched field diets.

[b] Shot weight from study unless otherwise noted

[c] Number 4 shot weight for this study is the mean of number 4 shot weights presented in Carlson and Nielsen (1984), Rattner et al. (1989), and Mautino and Bell (1986).

[d] Number 6 shot weight for this study is the mean of number 6 shot weights presented in Chasko et al. (1984).

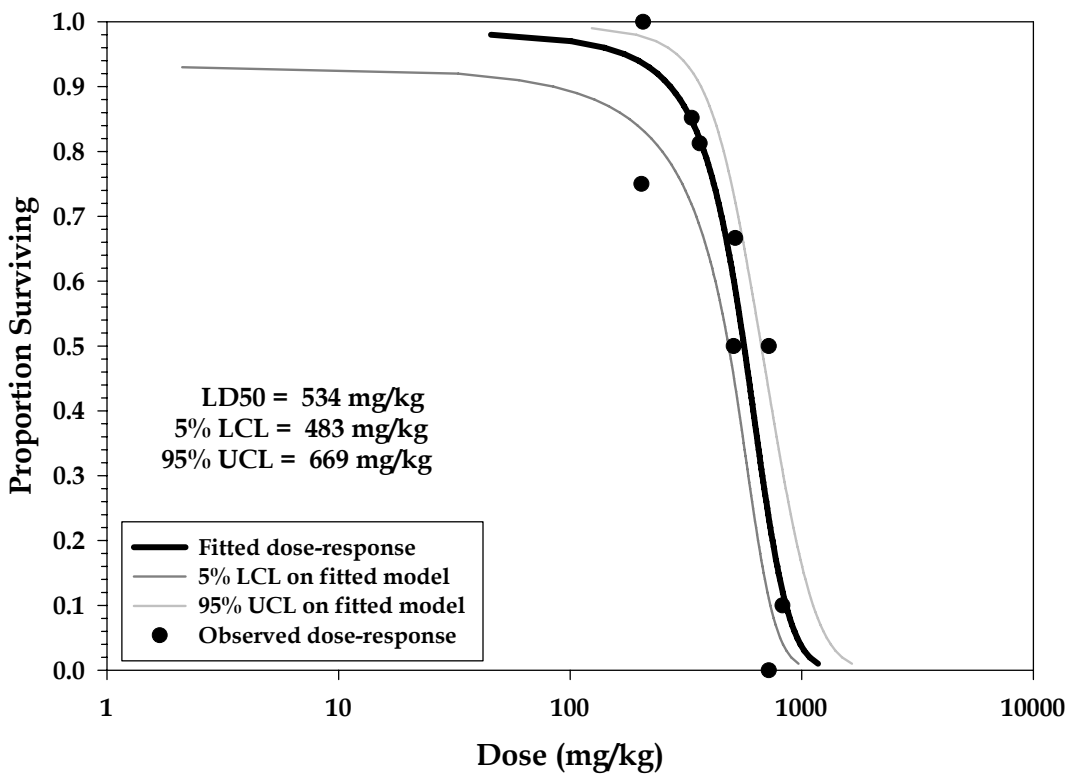


Figure E-1. Acute Toxicity of Lead Shot (as mg Lead/kg Body Weight) to Waterfowl Consuming Natural Diets (Data Derived From Multiple Studies

Appendix F
Responses to Comments

Project Note

Date issued: 14 March 2005
Recorded by: Brad Sample and Bryant Wong/CH2M HILL

Project Number: 171335.24.RT

Subject: Responses to Comments on the Draft Tier II Ecological Risk Assessment for Site 74, NAVWPNSTA Seal Beach
Contract No. N62474-96-D-6115, Delivery Order 0024

The purpose of this project note is to provide written responses to comments from Jim Polisini at the California Department of Toxic Substances Control (DTSC), Charlie Huang at the California Department of Fish and Game (CDFG), Mario Voce at the City of Seal Beach, Patricia Hannon at the California Regional Water Quality Control Board (RWQCB), and Katie Zeeman at the United States Fish and Wildlife Service (USFWS), on the 8 October 2004 Draft Tier II Ecological Risk Assessment for Site 74 at Naval Weapons Station (NAVWPNSTA), Seal Beach. The responses are numbered to correspond to the numbering system used by the reviewer. Additionally, the reviewer comments appear in bold italics and the response to the comments are in regular font.

Responses to Comments from Jim Polisini (DTSC)

BACKGROUND

HERD reviewed the document titled Tier II Ecological Risk Assessment Site 74, Naval Weapons Station, Seal Beach, Seal Beach, Orange County, California dated October 8, 2004. This second-level Ecological Risk Assessment (ERA) was produced by CH2MHill or Santa Ana, California as a follow-up to the initial screening level ERA for Site 74, the Old Skeet Range (OSR).

Site 74, the OSR, is a former skeet and trap range located at the NAVWPNSTA Seal Beach. The OSR consists of two skeet houses, a trap house, a concrete pad with approximately six shooting stations and a trailer. It was constructed in the late 1960s and was in use for approximately 25 years. Skeet and trap shooting activities have resulted in a wide distribution of lead shot and broken clay targets within Site 74. The Site 74 screening-level ERA indicated potential ecological hazard due to lead and antimony from lead shot and polycylic aromatic hydrocarbons (PAHs) from clay targets. Site 74 is bisected by Case Road. The portion to the west of Case Road is within the National Wildlife Refuge (NWR) while the portion to the east is sandy upland habitat vegetated with tall grass and shrub outside the NWR. The extent of Site 74 to the west and south has not yet been clearly delineated.

NWS Seal Beach is located approximately 26 miles south of the Los Angeles urban center and consists of about 5000 acres of land along the Pacific Ocean within the city of Seal Beach in Orange County, California. Naval Weapons Station (NWS) Seal Beach is bordered on the southwest by Anaheim Bay, to the north, east and west by Long Beach, Seal Beach,

Los Alamitos, Westminster and Huntington Beach. Anaheim Bay and the associated salt marsh were designated a National Wildlife Refuge (NWR) in 1964. On August 30, 1972, 200 additional upland acres were added to the NWR.
No response needed.

GENERAL COMMENTS

The Tier II Ecological Risk Assessment (ERA) contained in this document employs an assessment of multiple components of the biological community in and surrounding Site 74, the Old Skeet Range (OSR), to more accurately assess the finding of potential ecological hazard developed in the Tier I ERA for Site 74. These measures of ecological hazard for multiple species and biological community components are then used to develop a range of soil and sediment concentrations of lead and antimony which can be used to assess potential remedial alternatives for Site 74. HERD agrees with the procedures used at this stage of the Site 74 investigation, and indeed, the stepped process follows DTSC and U.S. EPA guidance for the preparation of an ERA.

Comment appreciated, no response needed.

SPECFIFIC COMMENTS

1. ***Previous estimates of ecological hazard for birds relied solely on lead as no avian toxicity data were available for antimony (Section 1.2, page 2). As concentrations of lead and antimony covary, any remediation of areas indicated by hazard associated with lead should resolve the hazard associated with antimony. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.***

No response needed.

2. ***No shorebirds were present at NAWWPNSTA Seal Beach during collection and observation periods, so no shorebird collection was performed (Section 1.3.1.1, page 4). Lack of shorebird tissue data is a data gap in this ERA, but based on the results for the mallard assessment does not appear critical. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.***

No response needed.

3. ***Insufficient decant water was available in the sediment samples (Section 1.3.1.2, page 4 and Section 1.3.2.4, page 7) therefore decant water samples were not taken for determination of lead and antimony concentrations. This is a data gap in interpretation of hazard to aquatic receptors through exposure to water overlying sediments at Site 74. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.***

No response needed.

4. ***Eighteen soil samples were collected from east of Case Road (Section 1.3.2.1, page 5) and analyzed for inorganic elements using Inductively Coupled Plasma Atomic Absorption (ICP). The results of the complete ICP analysis are reported only for a subset of three of these samples in Section 2.6.1. This is a data gap, as HERD specifically requested the results of the ICP analyses for all ICP elements. The ICP data for all available elements was furnished by the contractor at HERD's request during review of this document. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.***

No response needed.

5. ***Please provide a more detailed description of the sampling methods used in the attempt to obtain additional terrestrial invertebrates during the December 2003 sampling event (Section 1.3.2.1, page 6) due to the insufficient invertebrate collection during the August 2003 collection event.***

Terrestrial invertebrates were captured in December 2003 using pit fall traps (as was done in August 2003). The text in Section 1.3.2.1 under the subheading Biota on page 6 will be modified as follows (modifications are in italics):

A total of up to 35 plant and 35 invertebrate samples were planned for collection at Site 74 as part of the Tier II sampling. The 35 plant samples were to include 15 terrestrial, 15 marsh, 3 duplicate, and 2 MS/MSD samples. Assuming adequate biomass was available, the 35 invertebrate samples were to include 15 terrestrial, 15 marsh, 3 duplicate, and 2 MS/MSD samples. *All plant samples and all marsh invertebrate samples were collected as planned in August 2003. However,* very few terrestrial invertebrates were available for collection *at that time*. Therefore, attempts were made during the December 2003 sampling event to collect additional terrestrial invertebrates at each sampling location. *Pitfall traps at the same locations as sampled in August were used for this second collection attempt (see SWDIV, 2003 for details on terrestrial invertebrate collection methods).* Despite this additional sampling, only 12 terrestrial invertebrate samples (representing six sampling locations) were collected due to inadequate biomass.

6. ***Use of barley, the standard plant test species, due to the low germination of cordgrass in control soil samples (Section 1.3.2.4, page 7) should not affect interpretation of the plant bioassays for Site 74. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.***

No response needed.

7. ***The screening-level ERA in the Focused Site Inspection (FSI) Phase II Report concluded that a removal action was required at Site 74 based on the results of a screening level ERA (Section 1.4, page 8). The Upper Limit Background Value (ULBV) of 35.7 mg/kg lead was selected as the Remedial Action Objective (RAO). HERD has reviewed and accepted ecologically-based RAOs for other lead-contaminated sites at NAVWPNSTA Seal Beach. These are outlined below, but generally were accepted as a not-to-exceed concentration coupled with an area-wide average concentration. This***

comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

No response needed.

8. ***While not associated with Site 74, please transmit directly to HERD a description of the oil water separation ponds on Oil Island (Section 2.1.3.1, page 12) which indicates the size of these separation ponds and any lining material (synthetic or natural) included in construction. A telephone message or electronic mail is sufficient response to this request.***

The description provided is misleading. The ponds located on Oil Island are not used for oil-water separation as implied. The text will be revised to replace the last two sentences of page 12 with the following:

Water present in fluids pumped to the surface is separated in surface vessels. The water is then injected down wells to force oil from pores in the reservoir rock.

9. ***HERD defers to the DTSC Geological Services Unit (GSU) regarding the adequacy and accuracy of the hydrogeological description (Section 2.3.1.5, page 14 and 15). This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.***

No response needed.

10. ***The Sampling and Analysis Plan (SAP) indicated that grain size and total organic carbon (TOC) would be determined for all soil and sediment samples. However, the number of samples was reduced to reduce cost (Section 2.6.1, page 28). Please provide a more complete description in the text of the basis for assuming that grain size and TOC would not vary 'significantly' which was used to delete these measurements.***

A review of the SAP for the August 2003 sampling event (SWDIV, 2003), indicates that TOC and grain size were to be measured in all sediment samples. These measures were not indicated for soil samples. Just prior to sampling in August, it was erroneously assumed that TOC and grain size needed to be measured in both soil and sediment. Because Site 74 is a geologically small site and grain size and TOC were not expected to vary significantly across the site (due to the homogenous nature of the soils and sediments at the site), there was discussion to measure TOC and grain size in a subset of the soil and sediment samples collected. This was primarily indicated because these two parameters were not required for the development of the bioaccumulation models for the site. In contrast, TOC and grain size are vital to interpretation of the site-specific bioassays, and were measured in all 12 soil and all 12 sediment samples collected for the soil and sediment bioassays. As was done for numerous issues during the sampling at the site (e.g., change of plant bioassay test species, lack of shorebirds, change of reference location, etc), it was the intent of CH2M HILL to discuss this proposed deviation from the SAP with all parties prior to a final decision. Unfortunately, this discussion did not occur and chain of custody forms were completed based on the perceived decision.

An analysis of the TOC and grain size results from the two sampling events suggest that surface soils and sediments at the site are fairly homogenous, as predicted. In general, sediments had higher percentages of fines and slightly greater TOC compared to soils. This trend was observed for samples collected in August and December 2003. Though the trend is similar, it should be noted that TOC in sediment samples collected in August was greater than in sediment samples collected in December (mean value of 7.2 mg/L compared to 1.7 mg/L in the bioassay samples).

The text will be edited to reflect the nature of the change and the results. Additionally, the distinction between text referring to either the August 2003 or December 2003 sampling events will be delineated in the discussion. The 2nd paragraph under Section 2.6.1 on page 28 will be replaced with the following 3 paragraphs.

Soil and sediment samples also were collected during both sampling events conducted in support of this Tier II ERA. These included a total of 27 soil and 27 sediment samples. Of those, 15 soil and 15 sediment samples were collected for the bioaccumulation analyses (August 2003 sampling), and 12 soil and 12 sediment samples were collected for the bioassays (December 2003 sampling).

Laboratory analyses for the bioaccumulation samples (collected August 2003) were restricted to the primary chemicals of concern, lead and antimony. However, a subset of sediment and soil samples (three samples each) was analyzed for CLP TAL metals (excluding mercury and cyanide), and pH was measured in each of these six samples. Additionally, moisture content was determined in all collected soil and sediment, and grain size and percent TOC were determined in a subset of soil and sediment samples (six soil and six sediment; two each from low, medium, and high lead concentration areas east and west of Case Road). It should be noted that the SAP indicated that grain size and TOC would be measured in all sediment samples collected during the August 2003 sampling. These measurements were not planned for soil samples. Just prior to sampling, it was erroneously assumed that TOC and grain size needed to be measured in both soil and sediment. Because these two parameters were not required for the development of the bioaccumulation models for the site, TOC and grain size were measured in a subset of the soil and sediment samples collected. Given that Site 74 is a geologically small site and grain size and TOC were not expected to vary significantly across the site (due to the homogenous nature of the soils and sediments at the site), two samples from each of the low, medium, and high lead areas (for soil and for sediment) were assumed to be sufficient for characterization of the site. An analysis of the TOC and grain size results from the two sampling events suggest that surface soils and sediments at the site are fairly homogenous, as predicted. In general, sediments had higher percentages of fines and slightly greater TOC compared to soils. This trend was observed for samples collected in August and December 2003. Though the trend is similar, it should be noted that the mean TOC in sediment samples collected in August was greater than in sediment samples collected in December (mean value of 7.2 mg/L compared to 1.7mg/L in the bioassay samples).

For the bioassay samples (collected December 2003), laboratory analyses consisted of lead, antimony, TAL metals (excluding mercury and cyanide), lead shot count, moisture content, pH, TOC, CEC, and grain size for all soil and sediment samples. In contrast to the bioaccumulation study, TOC and grain size were required for interpretation of the bioassay results, and were, therefore, measured in all soil and sediment samples collected. Additionally, PAHs were measured in all 12 soil samples.

11. ***The fact that mammalian samples were not radiographically screened by X-ray for lead shot, as avian samples were screened (Section 2.6. 4, page 30), is a data gap in the assessment of mammalian hazard for Site 74. Given the results of the ERA and the species used as the basis for developing RAOs this does not appear to be a critical data gap.***

Comment noted. However, the Navy does not consider this a data gap. There were three reasons that mammalian samples were not radiographically screened for lead shot: 1) there is no reason to believe that lead shot is retained in the digestive tract of mammals; 2) birds are known to retain lead shot in the crop; and 3) the decision to exclude mammals from radiographic screening was made in consultation with the U.S. Fish and Wildlife Service during development of the sampling and analysis plan (SAP) for the Tier II evaluation (SWDIV, 2003). This SAP was reviewed and agreed to by all participating agencies. Therefore, no gap in data collection occurred.

12. ***Dermal exposure was considered to be low in this ERA with the presence of protective hair or feathers as one factor limiting exposure (Section 2.3, page 18 and Section 3.1.2.1, page 32). While HERD would agree with this semi-quantitative comparison given the habitat, soil type and receptors included in the Conceptual Site Model (CSM), an alternate view of the importance of feathers or hair to dermal exposure (National Research Council, 2003, page 178) is:***

    "Hair follicles and sweat glands, although offering means for chemicals to circumvent the stratum corneum barrier, have usually been regarded as minor pathways for dermal absorption because they comprise a very small percentage of the surface area of the skin. However, experiments using rat skin where hair follicles and sweat gland pathways have been eliminated suggest that, at least in some circumstances, their contribution to dermal absorption may be substantial (Zatz, 1993)."

    This information is provided to clarify HERD's position that the presence of hair or feathers is not an absolute barrier to dermal exposure and that exclusion of dermal exposure in estimating intake is a site-by-site determination.

Comment noted. No response needed.

13. ***The complete analytical data base for all samples, listed as presented in Appendix A.3 (on CD) (Section 2.6.1, page 29) was not furnished in the copy submitted for HERD review. CH2MHill staff forwarded a copy of several databases electronically in a response to a HERD request. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.***

No response needed.

14. ***A 20 percent reduction in an attribute is proposed as the 'maximum acceptable adverse effect level' selected for assessment endpoints (Section 2.4.1, page 20). HERD has discussed the interpretation of a twenty percent effect level as the indicator of an adverse population effects in previous reviews for NWS Seal Beach. In a February 5, 2003 telephone discussion with Navy contractors, HERD agreed to the methodology used for Site 4 Areas of Potential Concern (AOPC) as site-specific for Site 4 AOPC.***

However, HERD does not categorically agree that an adverse effect level of 20 percent, based on a Lowest Observable Adverse Effect Level (LOAEL) on individual adverse effects, is indicative of the threshold at which wildlife populations are adversely affected (Section 2.4.1, page 20). Extrapolation from individual effects to population effects is extremely complex, dependent on many factors such the toxic endpoint measured in the toxicity experiment and whether a species is an r-selected or k-selected species:

a. LOAEL values are usually established based on the adverse effect on the <u>average</u> cohort group response in an exposure (e.g., n>1), not the lowest intake value of an individual which demonstrates an adverse effect. Some of the toxicity experiments on small mammals or avian species may have generated a LOAEL based on a 10 percent, 20 percent or 30 percent adverse effect level in the <u>average</u> response of one of the cohorts. Otherwise, estimated LOAELs can be established by the use of uncertainty factors or modifying factors based on frank effects. Use of a mean body weight, to calculate intake rates based on a regression, or use of a mean intake rate, indicates that the intake rate is the <u>estimated</u> median intake for the species in mg/kg/day. Using a 20 percent reduction in the LOAEL value of mg/kg/day based on growth logically means that there is a 20 percent adverse effect on those individuals with intake rates above the mean body weight intake rate. This level of adverse effect, depending on the toxic effect measured in the laboratory experiment, could have extremely adverse effects on a population of vertebrates. All of these comments are, of course, based on the lack of uncertainty factors or modifying factors in development of the LOAEL. Given this, HERD does not accept a 20 percent or 30 percent adverse effect level based on a LOAEL Toxicity Reference Value (TRV) as appropriate in an ERA as a general approach to ERAs for vertebrate species.

b. Assuming that the 20 percent adverse effect level in the LOAEL exposure would produce population effects is completely dependent on the life history of the representative species being evaluated. A population of a species producing few offspring with a lengthy breeding/hatching or gestation/development period would suffer a much greater adverse effect than a population of a species which produces multiple offspring in multiple breeding seasons over the same period of time (e.g., r-selected versus k-selected species). Most of the vertebrate species evaluated in ERAs produce few offspring with lengthy breeding and developmental stages.

HERD considers the Hazard Quotient (HQ) developed using the Navy/BTAG No Observable Adverse Effect Level (NOAEL) and the HQ developed using the Navy/BTAG LOAEL to be the bounds within which population level ecological hazard may be inferred. These Site 74 HQs should be furnished for consideration of the Risk Managers, but may be furnished as additional columns in the tables presenting the ecological hazard calculations based on the TRVs proposed by the Navy.

It is acknowledged that an adverse effect level of 20 percent would have varying effects on populations related to varying life-history strategies. We have confirmed this in previous

research in which we modeled the population responses of hypothetical r- and k-selected avian species (Sample et al., 2000). However, for this assessment, specific data required to model population-level responses were lacking. Therefore, effect levels that produce population effects are uncertain. The following discussion describing the impact of reproductive strategy on population effects will be added to the uncertainty section (Section 4.3).

An adverse effect level of 20 percent was selected as an assessment endpoint for plant and invertebrate communities, and all bird and mammal populations, except the light-footed clapper rail and Belding's savannah sparrow. A 20 percent effect level in an individual, may have varying effects on communities or populations related to varying life-history strategies. For example, population modeling for hypothetical r- and k-selected species confirmed the theory that k-selected (long lived, delayed sexual maturity, small broods, and low annual reproductive effort) species are more sensitive to stress, but r-selected (short-lived, early sexual maturity, large broods, and high annual reproductive effort) species are more sensitive to short term reproductive failure (Sample et al., 2000). Specific data required to model population effects for Site 74 bird and mammal receptors are lacking; therefore, effect levels that produce population effects are uncertain. Consequently, risk to communities or populations may be over-estimated or underestimated at the assumed effect level.

The Navy considers the avian TRVs for lead used in the ERA to be more defensible than the BTAG TRVs suggested by the reviewer. First, the avian BTAG low-TRV for lead was derived by applying an uncertainty factor to a LOAEL that was itself uncertain. In the U.S. Army review of the proposed BTAG values, the selection of the LOAEL was disputed based on the lack of repeatability by the same authors in a second study. The next dose level up was considered a more appropriate LOAEL because it resulted in reproductive effects that were significantly different than controls in both studies. While sufficient for a screening-level assessment, selection of an effect level that is not significantly different than controls, is overly conservative for a Tier II ERA.

Additionally, the more recently developed USEPA lead EcoSSLs (USEPA, 2003) were derived from an extensive literature review in which over 2,400 studies with avian or mammalian lead toxicity data were identified and evaluated. From these, 54 avian studies containing 106 results for specified endpoints (e.g., reproduction, growth, survival, pathology, physiological) that received a sufficient data evaluation score for inclusion in the TRV development were selected. The avian NOAEL was developed from these 106 results (compared to just 2 studies/results used to develop the BTAG value), and the BTAG NOAEL (0.014 mg/kg/d) was lower than the lowest no effect level (even those based on biochemical responses) in all 106 results. Therefore, use of the avian Navy BTAG low-TRV for lead is not supported by the mass of literature toxicity data.

15. Please explain how the proposal to utilize toxicity values based on a 20 percent effect, commented on above, is sufficient to assess potential hazard to mallards and meadowlarks, representative species in this analysis, for which 'no adverse effect' is a decision point (Section 2.4.1, page 20).

Although mallards and western meadowlarks are protected under the Migratory Bird Treaty Act, these species are not threatened or endangered across their ranges. Therefore, these receptors were evaluated at the population level in the risk characterization. The first

two sentences in the last paragraph on page 20 in Section 2.4.1 will be replaced with the following text:

Although mallards and western meadowlarks are migratory birds protected by the Migratory Bird Treaty Act, these species are not threatened or endangered across their range. Therefore, mallards and meadowlarks were assessed at the population level. As a threatened or endangered species (protected by the Endangered Species Act), any adverse effect on the health or survival of individual light-footed clapper rails and Belding's savannah sparrows is unacceptable, and these receptors were evaluated at the individual level.

Table 2-1 will be corrected to indicate that mallards and meadowlarks were evaluated at the population level.

16. Birds collected exhibiting symptoms of lead toxicity were presumed at ecological risk (Section 2.5.2.5, page 26). Please list these symptoms and the count of the number of birds which were classified as 'at ecological risk'.

As indicated in Table 4-16, no animals were observed exhibiting symptoms of lead or antimony toxicity. The fifth decision point at the top of Page 26 in Section 2.5.2.5 will be replaced with the following sentence that includes the symptoms of lead and antimony toxicity. .

If any of the animals collected for tissue samples exhibited symptoms of lead or antimony toxicity (e.g., tremors, weakness, wing droop [in birds], limb paralysis, seizures and blindness for lead and anorexia and hind limb weakness for antimony), significant ecological risk was presumed.

Section 3.1.2.2 on page 37 contains the results of the bird and mammal sample collection effort. Therefore, the lack of observable signs of toxicity in animals collected will be added to this section. The following text will be inserted after the second sentence in the first paragraph under the subheading "Measured Tissue Data".

No signs of lead or antimony toxicity (e.g., tremors, weakness, wing droop [in birds], limb paralysis, seizures and blindness for lead and anorexia and hind limb weakness for antimony) were observed in any of the 35 collected birds and mammals.

17. The relationship of lead in invertebrate tissues and horned snail tissue to soil or sediment lead concentrations (Figure 3-1) is interesting. As horned snails are terrestrial invertebrates, please indicate the source and type of 'terrestrial invertebrates' presented in the figure as a group separate from horned snails. If these 'terrestrial invertebrates' are mainly juvenile arthropods, which shed their exoskeleton during growth, it may be that these invertebrates depurate some lead tissue burden with the exoskeleton in high concentration soils or sediments (i.e., a threshold response). Removal of the single 'terrestrial invertebrate' sample at soil concentrations of approximately 50,000 mg/kg lead would result in a 'terrestrial invertebrate' regression much more similar in slope to that presented for horned snails which retain their shells, a potential sequestration reservoir, for life. Please explain whether horned snail shells were removed prior to tissue analysis. No response,

except concerning the horned snail tissue preparation, is required from the Navy or Navy contractor regarding this comment.

Horned snails were collected in the salt marsh areas of Site 74, and were therefore considered salt marsh invertebrates with exposure via sediment. Additionally, these snails are food items for the clapper rail, an aquatic receptor. In contrast, those invertebrates collected in soil at Site 74 were considered terrestrial invertebrates. The snails were analyzed with shells on (as indicated in Section 3.1.2.1, 5th paragraph under subheading "Site-Specific Bioaccumulation Values" on page 35). The following text will be added at the end of the first paragraph of Section 2.6.2 on page 29:

(Note: horned snails were the only marsh invertebrate collected. Chemical analyses of these included the shell).

18. HERD accepts point estimates of ecological hazard (i.e., sample-by-sample) for ERAs of vertebrate species (Section 3.1.2, page 36) which focus on development of RAOs and identification of areas subject to evaluation of remedial action alternatives. In fact, this is the method HERD prefers at this stage of an ecological investigation. This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

No response needed.

19. Lead shot would appear the only source of lead and antimony in soil and sediment above any NAVWPNSTA Seal Beach 'ambient' concentration. HERD agrees with the use of lead in sediment and lead as shot concentrations in the diet-to-liver concentration regression for mallards (Section 3.1.2.2, page 38) given the relatively high mean lead bioaccessibility results of 87 percent in soil and 73 percent in sediment (Section 3.1.2.1, page 34). The ultimate source of the lead and antimony, above ambient concentrations, in the bioaccessibility tests can only have been shot. Ecological hazard associated with lead is, then, the result of Navy release to the environment. This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

No response needed.

20. HERD had some difficulty duplicating the concentrations listed as evaluation criteria (Section 3.2.1.1, pages 39 through 43) for some measurement endpoints. For example, for soil invertebrates an antimony No Observable Effect Concentration (NOEC) of 84 mg/kg is listed with a Lowest Observable Effect Concentration (LOEC) of 115 mg/kg based on the three invertebrate toxicity references listed for the antimony Ecological Soil Screening Level (EcoSSL). These antimony NOEC and LOEC values are described as the geometric mean of the NOEC and LOEC values contained in the original toxicity studies used to determine the antimony EcoSSL. The antimony EcoSSL document at http://www.epa.gov/ecotox/ecossl/pdf/eco-ssl_antimony.pdf lists the Effect Concentration for 20 percent (EC_{20}) of the organisms tested in the three invertebrate toxicity tests as 194 mg/kg, 84 mg/kg and 30 mg/kg (Table 4.1, page 4 of EcoSSL). It would appear mathematically impossible for an antimony invertebrate

NOEC concentration of 84 mg/kg to be calculated from data which includes an EC_{20} of 30 mg/kg for earthworms. The EcoSSL document does not contain the original NOEC and LOEC concentrations for invertebrates to allow duplication of the calculation leading to an antimony invertebrate NOEC of 84 mg/kg. Please provide the complete listing of the NOEC and LOEC concentrations from the original studies from which the antimony NOEC was developed and also supply this data for the development of similar evaluation criteria for other measurement endpoints (i.e., terrestrial and marsh plants). This information can be supplied in an appendix to minimize alteration of the text.

The EC20 is determined from the dose-response curve and represents the concentration at which a 20% decrease in an effect is observed. The NOEC of a study is the highest concentration for which there is no statistically significant difference compared to controls (i.e., no significant effects). The LOEC is the lowest concentration for which a statistically significant difference compared to controls is observed. It is therefore possible that the EC20 value is less than the reported NOEC for a dose-response study. The spreadsheet of the EcoSSL data that we obtained from the USEPA reports the EC10, EC20, EC50, NOEC, LOEC, and MATC (geometric mean of the NOEC and LOEC). For the purposes of the ERA, we calculated the geometric mean of the reported NOECs and of the reported LOECs. As suggested, the values and geometric mean calculations for the plant and invertebrate benchmarks will be provided in an appendix (see attached table). Please note that during the recalculation of the lead TRVs for both plants and soil invertebrates, differences in the prior data retrieval were discovered, resulting in slightly different TRVs than those presented in the original ERA. The change in TRVs did not result in any changes to the risk conclusions; however, it did require the following text revisions:

- Section 3.2.1.1, 2nd bullet under subheading "Terrestrial and Marsh Plants" on page 40 will read:

Lead – NOEC = 100 mg/kg dry weight; LOEC = 278 mg/kg dry weight (EcoSSL)

- Section 3.2.1.1, 2nd bullet under subheading "Soil Invertebrates" on page 41 will read:

Lead – NOEC = 894 mg/kg dry weight; LOEC = 3,162 mg/kg dry weight

- Section 4.1.1, last sentence of 2nd paragraph on page 46 will read:

If the lower literature-based plant LOEC is considered, exceedance frequencies were 25 of 93 (26.9 percent) and 28 of 80 (35 percent) for sediment and soil, respectively.

- Section 4.1.1, last sentence of 4th paragraph on page 46 will read:

Exceedance of at least one plant toxicity value was observed in 35 of 94 (43 percent) of sediment samples and 35 of 81 (43.2 percent) of soil samples from Site 74.

- Section 4.1.3, 2nd and 3rd sentences, 2nd paragraph on page 47 will be revised to read:

Lead and antimony concentrations in soil from Site 74 exceeded literature-derived soil invertebrate NOECs in 19 of 80 samples (23.75 percent) and in 5 of 68 (7.4 percent) samples, respectively. Literature-derived LOECs were exceeded by six samples for lead and five samples for antimony.

- Section 4.1.3, last sentence, 3rd paragraph on page 47 will be revised to read:

These data are presented in Table 4-3. Exceedance of at least one soil toxicity value was observed in 20 of 80 (25 percent) soil samples from Site 74.

21. ***Little emphasis should be applied to the evaluation criteria derived from the site-specific plant bioassays using germination of barley as the critical effect in evaluation of remedial alternatives. This recommendation is due to the apparent influence of salinity, the lack of an incremental dose-response relationship, the lack or small difference when compared with the reference sites and the use of the maximum, rather than some estimate of central tendency, antimony and lead concentration at which germination occurred as the basis for the plant NOEC for lead and antimony (Section 3.2.1.2, page 42 and page 43). This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.***

No response needed.

22. ***The avian lead Toxicity Reference Value (TRV) developed by the joint Navy/EPA Region 9 Biological Technical Assistance Group (BTAG) must be presented in the evaluation of ecological hazard, for consideration of the risk managers, together with the Navy's proposed EcoSSL avian lead TRVs based on the EcoSSL effort (Section 3.2.2.1, page 44). The avian lead TRV for shot of 1.46 mg_{lead}/kg_{bwt}/day should be used solely to assess avian exposure to shot.***

As indicated in the response to comment 14, the avian lead TRVs from the USEPA EcoSSLs were developed using a more extensive literature base, more stringent selection requirements, and less conservative assumptions (as is appropriate for Tier II ERAs). Therefore, the BTAG avian lead TRVs will not be included in the evaluation. Please note that the lead as shot TRV for birds (1.46 mg/kg/day) was only used to assess exposure to lead shot.

23. ***Estimates of hazard to vertebrate species via dietary intake (Tables 4-10 through 4-15) were checked at random and found to be arithmetically correct. Values described in the text as effect or no-effect soil/sediment concentrations are those presented in the relevant tables. However, please explain the calculation and the importance of the column labeled percentile in these tables.***

The exposure model and parameters are presented in Section 3.1.2.1. This model and inputs, as well as an example calculation, will be summarized in an appendix (see attached). The following reference to this appendix will be added after the 2nd sentence under "Model Parameterization" in Section 3.1.2.1 on page 33.

A summary of the model parameters and an example exposure calculation are provided in Appendix B.

The percentile column indicates the percent of observations that exceed (i.e., HQ > 1) the appropriate benchmark (NOAEL for individual-level receptors and LOAEL for population-level receptors). An explanation of the percentile column will be added to the footnotes of Tables 4-10 through 4-15.

24. Please indicate in the text (Section 4.2.1, pages 49 and 50) that the discussion of concentrations exceeding an annualized LD_{50} refer solely to intake of lead shot by avian species.

The text in Section 4.2.1 was reviewed. In this section, each reference to the annualized LD50 is included with the words "lead as shot" in the same sentence. This coupled with the fact that the use of the annualized LD50 as a means to evaluate toxicity of lead to birds from lead shot exposure is described in Section 3.2.2.1, third paragraph under the lead bullet, make clear the application of this TRV.

25. Intake and ecological hazard calculations for Belding's Savannah Sparrow (Table 4-12), the ecological receptor which drives the identification of potential remediation efforts, were checked and found to be arithmetically correct. This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

No response needed.

26. HERD agrees that some consideration must be given to the area potentially impacted by any proposed remedial alternative and RAO as presented (Section 5.0, pages 54 and 55). HERD previously reviewed an ERA for Site 4 at NWS Seal Beach in a HERD memorandum dated June 23, 2003. In that memorandum HERD agreed to a not-to-exceed soil concentration of 600 mg/kg with an arithmetic average lead soil concentration of 100 mg/kg for Site 4, the Perimeter Road, which surrounds the National Wildlife Refuge. These lead concentrations are within the bounds of those presented for Site 74 in this Tier II ERA. This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

No response needed.

CONCLUSIONS

Additional material must be furnished to HERD in order to finalize the site-specific ERA for Site 74 contained in this document. Additional material, in the form of additional hazard estimates reflecting the Navy/BTAG TRVs, should also be included in some of the tables to provide a range of estimates of hazard for the risk managers. Overall, however, the ERA presented conforms to DTSC and EPA guidance, providing an assessment of multiple types of information to develop an estimate of ecological hazard for the critical components of the biological community associated with Site 74.

The ERA also contains a final chapter outlining some constraints which may influence the selection of a preferred remedial alternative as a guide to the risk managers. HERD favors

this simple presentation at the conclusion of a site-specific ERA such as the assessment contained in this document.

As indicated in the response to comments 14 and 22, the avian lead TRVs from the USEPA EcoSSLs were developed using a more extensive literature base, more stringent selection requirements, and less conservative assumptions (as is appropriate for Tier II ERAs). Therefore, the BTAG avian lead TRVs will not be included in the evaluation.

Responses to Comments from Charlie Huang (CDFG)

The California Department of Fish and Game, Office of Spill Prevention and Response (DFG-OSPR) has completed its review of the "Draft Technical Memorandum, Tier II Ecological Risk Assessment (ERA), Site 74, Naval Weapons Station, Seal Beach, Orange County, California" dated October 8, 2004. The document was prepared for the Navy by Naval Facilities Command-Southwest Division and CH2MHill. Per the Federal Facilities Agreement, we reviewed the document. The comments that follow are provided as part of our role as a natural resource trustee for the State of California's fish and wildlife and their habitats. This review includes only my comments on the ecological risk assessment and biological resources. I did not review the document for analytical chemistry data and quality assurance procedures because I assumed that the staff in Department of Toxic Substances Control (DTSC) would evaluate them. I did not review the document for formatting, grammar, and other minor editorial comments.

No response needed.

BACKGROUND

The Naval Weapons Station (NAVWPNSTA) Seal Beach is an open base located approximately 26 miles south of Los Angeles, consisting of about 5000 acres of land along the Pacific Coast within the city of Seal Beach in Orange County, California. NAVWPNSTA Seal Beach is bordered on the southwest by Anaheim Bay. The cities that surround NAVWPNSTA Seal Beach include Long Beach, Seal Beach, Los Alamitos, Westminster, and Huntington Beach. Anaheim Bay and the associated salt marsh were designated as a National Wildlife Refuge (NWR) in 1964. On August 30, 1972, 200 additional upland acres were added to the NWR. Five avian species, classified as endangered by State and/or federal governments, inhabit NAVWPNSTA Seal Beach and associated wetland: the California least tern, the light-footed clapper rail, the peregrine falcon, the California brown pelican, and the Belding's savannah sparrow.

Site 74, Old Skeet Range (OSR), is located east of the NWR and south of the small arms range. The site was once an active skeet and trap range. The range was closed down in the early 1990s. Site 74 is very close to the boundary of the NWR.

In 2000, the Navy conducted a Focused Site Inspection (FSI) Phase II to screen for ecological and human health risks at Site 74. The FSI Phase II Report concluded that the lead and antimony, but not polycyclic aromatic hydrocarbons (PAHs), were chemicals of concern for representative ecological receptors. The overall project objective for this Tier II ERA is to

develop site-specific target cleanup goals for lead and antimony in support of the Site 74 removal action. The Navy expected that the Tier II ERA would be able to develop more realistic yet protective target clean goals resulting in a smaller area of impact.

No response needed.

GENERAL COMMENTS

1. ***Overall the document is clearly written and provides useful illustrations. All major components of the baseline ecological risk assessment are included. The document should include pictures of the representative plant and invertebrate samples collected. Also, a table providing a listing of the types of species collected at each sampling location and their relative abundance would improve the report and assist in the interpretation of data.***

As was indicated in the study Sampling and Analysis Plan (SAP; SWDIV, 2003), photographs of each sampling location were taken during sample collection. It was not part of the SAP to take pictures of individual plant or invertebrate samples, and this was not done during collection. Species names for plants and sediment invertebrates are provided in Table 3-3. The terrestrial invertebrate samples were a composite of species, representing several orders of insects, as well as arachnids. The taxon making up these composites will be noted in the Table 3-3. For birds, liver tissue was only collected from western meadowlarks. The species of small mammals collected (i.e., deer mouse, western harvest mouse, and house mouse) are listed in the text (Section 2.6.4, pg. 29). The specific bird and mammal species names will be added to Table 3-4 for clarity. Consistent with the SAP, the biota sampling conducted at Site 74 was simply to collect samples for chemical analysis. No methods were employed to determine relative abundance of species. Generally speaking, pickleweed and horned snails in the marsh habitat were abundant, whereas, terrestrial plants tended to have a patchy distribution and terrestrial invertebrates were sparse. This information has been included in the ERA as needed (e.g., lack of available terrestrial invertebrates is indicated in Section 1.3.2.1, page 6).

SPECIFIC COMMENTS

2. ***Page 8 and Page 33, Table 3-1: The Navy has completed a credible effort for validating potential COPEC doses to selected receptors by completing soil/sediment and tissue measurement at Site 74. This Tier II ERA was undertaken, in part, to provide site specific concentrations for contaminants in order to check and verify the predictions made for certain receptors and pathways presented in the ERA. It should also have included the other components of the risk equation, namely the life history characteristics of the receptors to fully evaluate the "exposure" part of the risk estimate. The quantity and quality of these life history characteristics, although often provided in the literature, are not site specific. Such factors as plant cover, plant distribution, quantity of available food, overall habitat quality and availability are some of the factors that affect the numbers and distribution of site specific receptors. Site specific conditions may be entirely different as compared to what might be reported in the literature. The Navy should discuss the uncertainty in this part of the exposure estimates that ultimately can have a great effect on the overall risk to site receptors.***

The lack of site-specific information on habitat quality is acknowledged as an uncertainty in the risk estimate. The following discussion of this uncertainty will be added to Section 4.3 (Uncertainties):

The habitat quality and availability, including such factors as plant cover, plant distribution, and quantity of available food, may affect the abundance and distribution of receptors at the site, and thus, exposure of receptors. Site-specific data on habitat quality were not collected at Site 74. Instead (as described above), bird and mammal receptors were assumed to reside and forage exclusively at a given point to yield a point-by-point exposure estimate. Given this assumption, the lack of habitat quality data in this assessment would overestimate risk.

3. ***Page 29, Section 2.6.1: Please clarify if the chemical concentrations in soil are on a wet or a dry weight basis. Dry weight soil concentrations are required for comparison to ecological toxicity benchmarks.***

The following note will be added after the 2nd sentence of the 1st full paragraph on page 29, Section 2.6.1:

(Note: concentrations of COPECs in all soil, sediment, and biota samples are presented in mg/kg dry weight.)

Additionally, it will be indicated in Tables 2-2, 2-3, 3-2, 3-6, 3-7, 3-8, 3-9, 3-11, 4-1, 4-3, 5-1, and 5-3 that units are on a dry weight basis, except those that are already stated to be on a wet weight basis.

4. ***Page 16, Section 2.1.4: Since groundwater in Site 74 is hydrologically connected to surface water in the NWR and is tidally influenced, there is potential for migration of contaminants from Site 74 to the aquatic environment and selected aquatic receptors, either by surface runoff or subsurface flow. Please address this concern in Sections 4.3 Uncertainties or 5.0 Risk Management Options.***

The potential impact of the hydrologic connection between groundwater at Site 74 and surface water in the NWR is discussed in the conceptual site model (Section 2.3). As indicated, "lead from shot is not very mobile and tends to sorb to the soil and sediments (Stansley et al., 1992)"; therefore, offsite transport of contaminants via groundwater was not considered a concern. However, the following uncertainty related to the remote possibility of offsite transport via the hydrologic connection will be added to the uncertainties discussion in Section 4.3.

A hydrologic connection between groundwater in the portion of Site 74 east of Case Road and surface water in the NWR has been described. However, as previously stated, this pathway is not of significance because lead from shot has not been observed to be highly mobile. Instead it tends to sorb to the soil and sediments. Similarly, migration via surface runoff is expected to be low. However, it should be noted that the potential for offsite migration of COPECs via these pathways, though remote, exists, potentially exposing aquatic receptors. Consequently, risk to these aquatic receptors may be underestimated, though dispersion and dilution from tidal flow would likely make this underestimation insignificant.

5. ***Page 35: Please provide citations in this section that refer the reader to how lead and antimony bioaccumulation factors (BAF) for plants, invertebrates, and wildlife are calculated. The section should cite tables and figures. The strengths, weaknesses, and uncertainties associated with the data and the BAF regressions should be provided.***

The equation for calculating site-specific BAFs will be added to the 2nd sentence of the 3rd paragraph on page 35 as follows:

With the exception of one sample (74B41-03; lead from soil to pickelweed; Table 3-3), all site-specific BAFs (concentration of COPEC in plant or invertebrate tissue/concentration of COPEC in soil or sediment) for lead and antimony in plants and invertebrates were less than 1.

All calculated site-specific BAFs are presented in Table 3-3, as indicated in the text. The fourth paragraph explains that regression analyses were also performed. Scatter plots of the relationships between contaminants in soil or sediment and contaminants in plant or invertebrate tissue are described and referenced (e.g., Figure 3-1 lead in soil or sediment versus lead in invertebrate tissue) in the text. As explained in the text, lead bioaccumulation in plants was estimated using the model from Efroymson et al., (2001) because a significant relationship for the site-collected data was not obtained, but the data from Site 74 were within the 95 percent prediction interval in the Efroymson data. The regression equation developed in Efroymson et al. (2001) will be added to Figure 3-2. Because antimony was detected infrequently and because no significant linear association was observed, the maximum antimony concentrations measured in plant (1.5 mg/kg, dry wt) and invertebrate (1.4 mg/kg, dry wt) tissues was used in the exposure calculations. This is described on page 36 of the ERA. All relevant tables and figures are cited.

The following uncertainties associated with the bioaccumulation data used in the exposure model will be added to Section 4.3.

A significant relationship for lead bioaccumulation in plants based on plants and soil/sediment collected at Site 74 was not observed. Because the site-collected data did fall within the 95 percent prediction interval of previously developed bioaccumulation models for lead in plants (i.e., Efroymson et al., 2000), the significant regression obtained for the larger dataset was used to estimate concentrations of lead in plants at Site 74. These estimates were used in the exposure calculations for bird and mammals receptors at the site. Although the Site 74 data were within the limits of the literature-based model, the actual bioaccumulation of lead in plants at Site 74 may be less or greater than estimated. Consequently, risk to birds and mammals may be overestimated or underestimated.

Significant relationships for bioaccumulation of antimony from soil/sediment to plants and invertebrates was not observed from the site-specific data collected at Site 74. Therefore, the maximum measured antimony concentrations in plant and invertebrate tissue collected at the site were used in the exposure calculations for birds and mammals. Although there is the possibility that plants or invertebrates with greater concentrations of antimony exist at the site, use of these maximum values for the point-by-point analysis (i.e., assuming the highest concentration at every point) is a conservative approach that likely overestimates risk.

6. ***Page 36: The sources of the Exposure Point Concentrations (EPCs) for each avian and mammalian receptor should be more clearly traceable in the preliminary sections of the document. For example, I was not sure whether the avian or mammalian EPCs were the actual measured tissue concentrations of prey or whether they were estimated using the field-derived bioaccumulation factors. This issue should be discussed in the uncertainty analysis and additional hazard estimates for each sample location should be prepared, utilizing a more realistic foraging-range specific EPCs.***

The EPCs for the avian and mammalian receptors discussed on page 36 refer to the concentrations of antimony and lead in soil or sediment that will be used in the exposure calculations. The tissue concentrations of prey items used in the exposure calculation were determined as described in the "Site-Specific Bioaccumulation Values" section on pages 35 and 36. Briefly, the regression models for terrestrial invertebrates and horned snails were used to estimate concentrations of lead in these prey items at each sampling location. For lead in plants, a significant regression was not observed in the Site 74 data; however, the data were within in the prediction interval of the lead-plant bioaccumulation model previously developed by Efroymson et al. (2001). Therefore, the Efroymson model was used to estimate lead concentrations in plant tissue at each sampling location. Finally, as described in the ERA and in the response to comment 5 above, the maximum antimony concentrations in plants and invertebrates were used in the exposure calculations. Uncertainties related to these bioaccumulation models that will be added to Section 4.3 are provided in the response to comment 5 above.

Because a point-by-point approach was used in the exposure calculation, the foraging range of the receptor was not included in the exposure calculation. Instead, each receptor was assumed to forage exclusively at each sampling point, and overall weighting of site use was evaluated in the risk characterization by determining the fraction of samples for which exposure estimates exceeded effects thresholds. As indicated in the ERA, this is a conservative approach, but it allows for a development of a detailed map for use in remedial decisions.

7. ***Page 52, Section 4.3: Please balance the discussion of uncertainty for burrowing mammals by reviewing Bench et al. (2001) and qualitatively discussing exposure pathways that are often ignore in ecological assessments***.

Bench et al. (2001) was reviewed. Results of this study indicate that inhalation may be a significant route of exposure for cadmium and manganese; however, inhalation is not considered a significant exposure pathway for lead at Site 74. Namely, solid lead shot is the primary source of antimony and lead contamination at this site, and inhalation of shot, even by burrowing animals, is considered unlikely. Exposure via incidental ingestion of soil or shot is most likely the primary exposure route, followed by food-web transfer. As inhalation at Site 74 is expected to be minimal, lack of data for this exposure pathway contributes little to the overall uncertainty of the risk analysis.

8. ***Page 52, Section 4.3: Please discuss (1) the potential unequal compartmentalization of lead in roots versus stems and leaves, or stems and leaves versus seeds or fruit, (2) the fact that biologically-incorporated lead in plant, invertebrate, small mammal, and bird***

tissue may be much less bioavailable that the lead acetate used in the laboratory toxicity studies used to develop the toxicity reference values (TRVs).

The following two uncertainties related to this comment were added to Section 4.3:

Concentrations of lead and antimony in plants were measured in the edible parts (e.g., leaves, seeds, flowers) of the vegetation. The distribution of lead or antimony in these compartments of the plant my be unequal (i.e., there may be a preference to store the COPEC in one compartment); therefore, a compartment may have a higher or lower concentration of the COPEC than represented in the combined tissue. Because receptors may forage exclusively on one compartment (e.g., seeds only or leaves only), they may be exposed to tissue concentrations greater than or less than those measured in the combined compartments. Consequently, unequal compartmentalization of metals in plant tissues may result in an overestimation or underestimation of risk.

Laboratory toxicity tests often use highly bioavailable forms of metals (e.g., lead acetate). In contrast, metals biologically-incorporated into plant, invertebrate, small mammals, and bird tissue may be much less bioavailable. This may result in lower exposure despite ingestion of concentrations similar to those used in the toxicity test. Therefore, risk may be overestimated.

9. ***Page 53, Section 4.3: Please address uncertainty in the toxicity bench values for plants, invertebrates, and wildlife. Please also address the cumulative risk potential to all receptors based on co-exposure to both antimony and lead.***

In addition to the uncertainty relating to the use of highly bioavailable forms of metals in toxicity testing compared to the bioavailability of biologically-incorporated metals (see comment 8 above), the following uncertainty related to the general use of more bioavailable forms of metals in toxicity testingfor plants and invertebrates will be added to Section 4.3.

TRVs for plants and invertebrates also are often based on laboratory studies using highly bioavailable forms of the metal, whereas forms found at contaminated sites are generally less bioavailable. Therefore, risk to these receptors may be overestimated.

The issue of whether lead and antimony interact was investigated through a review of the literature. The last sentence of the 4th full bullet on page 53 under Section 4.3, was replaced with the following sentence:

Based on a review of the literature, lead and antimony do not have similar modes of action or primary target organs; therefore, interactions between these two metals are uncertain, but are not likely.

10. ***Page 53, Section 4.4: We agree with the Navy that lead and antimony in sediment and soil do not present a risk to plants. This has been demonstrated in the field collected plant samples (Table 3-3) where plant lead and antimony tissue concentrations are far below reported tissue adverse effects levels (i.e., 30 – 300 mg/kg tissue for Pb and 150 mg/kg for Sb, dry wt.) (Kabata-Pendias and Pendias, 1983***).

Comment acknowledged. No response needed.

11. ***~~Page A-27, Tables A-8 and A-9~~Page 55, Table 5-2 (Change requested by the reviewer): After requesting a more detailed calculation for Preliminary Remediation Goals (PRGs), we were able to duplicate the ecologically-based PRG of 139 lead mg/kg for the Belding's savannah sparrow. The PRG for the Belding's savannah sparrow calculation was checked and found to be arithmetically correct. However, we do not agree with using EPA Soil Screen Level (SSL) of 1.63 mg/kg/day to derive PRG for lead in sediment at Site 74 because SSL is soil NOT sediment screening numbers. We strongly recommended that PRGs for the sediment be re-evaluated.***

The benchmark (1.63 mg/kg/d) used to calculate the lead PRG for the Belding's savannah sparrow is the no observed adverse effect level (NOAEL) developed in the USEPA EcoSSL document. This NOAEL is not a value intended for soil screening only, as it has not been converted to mg/kg for direct comparison to a soil concentration. Instead, it is a dietary dose that applies to both terrestrial and aquatic (i.e., soil- and sediment- associated) avian species. Please note that this response only serves to explain that the NOAEL used can be applied to any avian receptor, and does not address whether this TRV (based on the USEPA's EcoSSL development) or the Navy BTAG avian lead TRV should be used in the PRG calculations.

12. ***Figures A.2-1 through A.2-29: These field color photographs were very helpful in reviewing this Tier II ERA. No response is required for this comment.***

Comment acknowledged. No response needed

<u>CONCLUSION</u>

1. ***Antimony and lead in sediment and soil at Site 74 appear to pose significant ecological risks. Because of sodium (salinity) as a confounding factor, the plant bioassay is inconclusive with reference to adverse-effect levels for lead and antimony. To develop lead and antimony cleanup goals that are protective of plants, additional toxicity tests would be required and should focus on serial dilution of soil/sediment samples (e.g. samples 74B02DB0-05, 74B01SB0-07, etc, Table 5 in Page 7) to develop a no-effect level soil/sediment concentration. However, devoting additional time and resources to bioassay is not recommended because birds and mammals appear to be the primary risk driving species at the site and cleanup goals for these species should be protective of plants. The document should include specific rational and justification for this position, and support cleanup goals proposed for birds and mammals as protective of plants and invertebrates.***

The rationale for the conclusion that bird and mammal goals are protective of invertebrates is presented in bullet 1 of Section 5 on page 54 (i.e., all sampling locations that exceeded invertebrate goals also exceeded goals for birds and/or mammals). The following statement for plants will be added to the 2nd to last sentence of the 2nd paragraph of Section 5 on page 54.

Although there is uncertainty associated with this conclusion (due to uncertainty with the plant bioassays), site-specific lead TRVs for plants (>1,000 mg/kg) are greater than lead PRGs for the other receptors and literature-derived plant TRVs for lead are within the range of PRGs for birds. Because

of the lack of conclusive bioassay data and a dearth of TRVs or other benchmarks, similar conclusions for antimony are uncertain.

2. ***The line-of-evidence analysis should be revised based on comments herein. The document should more clearly highlight contradicting or complementary line-of-evidence for each representative species.***

The lines of evidence will be integrated into the risk conclusions. The text in Section 4.4 will be replaced with the following:

The decision rules developed as part of the DQOs (Section 2.5.1) provide a set of criteria for the determination of the presence or absence of risk for each line of evidence for each assessment endpoint. Decision rules and the risk conclusions are summarized in Table 4-16. Based on an integration of the site data with the decision rules, the following risk conclusions can be made:

- *The lines of evidence available for the avian and mammalian receptors varied by receptor. There were three lines of evidence available for small mammals (California vole and ornate shrew) including literature-derived toxicity data for estimated dietary dose, site-specific tissue concentrations, and estimated tissue concentrations. For the western meadowlark literature-derived toxicity data for dietary dose and site-specific tissue concentrations were available. Literature-derived toxicity data for dietary dose and estimated tissue concentrations were available for mallards, and only literature-derived toxicity data for dietary dose were available for the light footed clapper rail and Belding's savannah sparrow. For birds, exposure via lead shot provided an additional line of evidence. The conclusions of each line of evidence are as follows:*

  - *For all bird and mammal receptors, concentrations of lead and antimony exceeded toxicity thresholds for dietary dose in some samples.*

  - *Measured concentrations of lead in livers of meadowlarks and small mammals suggest that exposure, although elevated relative to background, is insufficient to present a risk. Although the low levels observed in these data serve to mitigate the concerns for meadowlarks and small mammals, the limited sample size for these data and the mobility of the receptors limit the ability of these data to support a definitive conclusion of no risk. Additionally, no shorebirds were sampled (i.e., the species planned for collection were not present on-site during several collection attempts) and no year-round residents were sampled. Therefore, definitive conclusions for avian species that feed in wetland portions of the site or are year-round residents (e.g., the clapper rail), cannot be made.*

  - *Estimated concentrations of lead in livers of mallards and small mammals suggest that exposure is sufficient to present risk at some sampling locations. Though lead concentrations in less than ten percent of samples exceeded effects levels for the mallard and California vole, 16 and 20 percent of sediment and soil samples exceeded effects levels for ornate shrews.*

  - *Lead as shot exists in concentrations that present risks to birds.*

  Based on the results of these lines of evidence, the weight of evidence conclusion is that lead and antimony in sediment and soil at Site 74 exist in concentrations that present risks to resident birds and mammals.

- *Two lines of evidence (site-specific bioassays and literature-derived toxicity data) were available to evaluate sediment invertebrates. Given that there were exceedances of the site-specific effects*

concentrations that were developed from the bioassay results, the weight of evidence conclusion is that lead and antimony are at concentrations in sediment that may present risks to sediment invertebrates. Because lead and antimony concentrations explain toxicity better than the other metals considered, other analytes are not considered to contribute significantly to sediment toxicity to invertebrates. However, this is not to say that other analytes and/or sediment conditions (e.g., pH) have no effect.

- *As with sediment invertebrates, two lines of evidence (site-specific bioassays and literature-derived toxicity data) were available to evaluate plants. Though concentrations of lead and antimony exceeded literature-based toxicity values in some samples, these analytes were not associated with effects observed in the plant bioassays. Therefore, the weight of evidence conclusion is that lead and antimony in sediment and soil do not present a risk to plants. However, this conclusion is not definitive. Observed results in the site-specific bioassays were driven by sodium (salinity) toxicity, which may have masked contaminant-related effects. Collection of plant samples in locations with high lead and antimony concentrations (e.g., pickleweed collected in areas with lead as high as 55,200 mg/kg and antimony up to 2,300 mg/kg) support the conclusion that plants are not at risk.*
- *One line of evidence (literature-derived toxicity data) was available for soil invertebrates. Because concentrations of lead and antimony in some samples exceeded toxicity thresholds, the weight of evidence conclusion is that lead and antimony concentrations in soil may present risk to soil invertebrates.*

3. ***While the bioassays addressed the possible additive, synergistic, or antagonist interactions between lead and antimony in soil/sediment, the uncertainty discussion in the document included no discussion of the possible interactions between lead and antimony affecting toxicity to birds and mammals. Please provide this discussion in the uncertainty assessment (Section 4.3).***

The issue of whether lead and antimony interact was investigated through a review of the literature. The last sentence of the 4th full bullet on page 53 under Section 4.3, will be replaced with the following sentence:

Based on a review of the literature, lead and antimony do not have similar modes of action or primary target organs; therefore, interactions between these two metals are uncertain, but are not likely.

4. ***Ecological PRGs for terrestrial organisms should not be finalized until it is verified that these soil concentrations are protective of marine environment (i.e., the suspended sediment/surface water drainage exposure pathway.***

As previously discussed (see specific comment 4 above), lead from shot is not very mobile and tends to sorb to the soil and sediments. Therefore, migration of contaminants from soil to sediment, except by runoff or wind erosion of soil particles, would be minimal.

Responses to Comments from Mario Voce (City of Seal Beach)

The City of Seal Beach has reviewed the report from the Department of the Navy relative to "Draft Technical Memorandum – Tier II Ecological Risk Assessment, Site 74, Naval

Weapons Station, Seal Beach." The document is thorough and explains in detail the "data quality objectives" in a format that is concise and understandable. The Environmental Quality Control Board (EQCB) paid particular attention to Section 4.4, Risk Conclusions, and Section 5.0, Risk Management Options. The EQCB concurs with the risk conclusions set forth in Section 4.4 as being generally supportable with the overall documentation provided in the subject "Draft Technical Memorandum". The EQCB also concurs with the first three conclusions set forth in Section 5.0, Risk Management Options.

The City of Seal Beach is very concerned relative to the fourth conclusion set forth in Section 5.0, Risk Management Options. This conclusion seems to indicate a pre-determined preference to limit the area of remediation to an area that will not address the PRG goals for the Belding's savannah sparrow throughout the identified impact area of 13.5 acres, and instead focus on reduced remediation area of 8.1 acres. Although the EQCB is sensitive to the issue of disruption and destruction of sensitive habitat area that would result if a complete remediation action were to be taken to address the identified impacts to Belding's savannah sparrow, the EQCB will closely review, evaluate, and provide detailed comments on future documents that will be prepared by the Navy to address the comparative analyses of the effects and benefits of different remediation alternatives. These future analyses should include a detailed evaluation that explain and weigh the benefits and adverse impacts of full and partial remediation alternatives against the damage to sensitive habitat that will occur under the identified remediation alternatives.

The City understands that this effort is an intermediate step of many steps that will be necessary to develop an acceptable remediation program for this extremely sensitive site and appreciates the ability to provide input to the process. Due to the sensitive nature of the species found within the National Wildlife Refuge, the City respectfully asks that when the "preliminary remediation goals" are developed, the most stringent cleanup activities be carefully considered and evaluated in light of impacts to sensitive habitat areas, overall costs, and ability to phase the remediation process so as to allow for the restoration of early remediation areas while remediation is being undertaken at the remaining areas identified for remediation. Further, the City wishes to be apprised of the alternatives for the cleanup and remediation of the site and have the opportunity to comment on these alternatives before any action plan is put into place.

The Navy appreciates the comments from the City of Seal Beach, and acknowledges the concerns regarding cleanup of the sensitive habitat at Site 74. At this time, there are no preferences for a specific remedial footprint, rather the analysis presented in the Tier II ERA is intended to show two remedial footprint options are possible and that habitat destruction should be considered by decision makers. As indicated in the 4th conclusion on page 55 in Section 5.0, the purpose of presenting the smaller footprint is "to provide an alternative for informed remedial decisionmaking". This does not imply a predetermined preference, but indicates the Navy's intent to consider habitat destruction due to remediation an important concern for the special status species at the site. Development and evaluation of response action alternatives are planned to be conducted in an EE/CA for Site 74. The City of Seal Beach will be included in the distribution of this report, and comments are welcomed.

Responses to Comments from Patricia Hannon (RWQCB)

We have reviewed the October 8, 2004 Draft Tier II Ecological Risk Assessment, Site 74 and we do not have any comments.

We appreciate the RWQCB's review of the Site 74 risk assessment. No response is needed.

Responses to Comments from Katie Zeeman (USFWS)

I reviewed the October 2004 report titled "Tier II ecological risk assessment Site 74, Naval Weapons Station Seal Beach, Seal Beach, Orange County, California" (ERA) primarily to determine if concerns about ecological risk posed by contaminants were sufficiently addressed to proceed to the selection of management alternatives. Consequently, I have no comments on editorial details. But, I do have a few general comments, one of which involves a revision and a couple with suggestions for how to proceed. My comments are below.

No response needed.

1. ***The analysis used multiple lines of evidence to evaluate risks to numerous receptors. As a result, some parts were hard to follow. Most notably, tracking inputs and assumptions used for exposure estimates in tables for Chapter 4 was difficult. It was not impossible, however, and exposure estimates were found to be consistent with the inputs and assumptions discussed in the text. The point-by-point approach to estimating risks was very helpful for visualizing the spatial extent of contamination and potential for impacts.***

Inputs to the bird and mammal exposure model and an example calculation will be included in an appendix (see attached). The following reference to this appendix will be added after the 2nd sentence under "Model Parameterization" in Section 3.1.2.1 on page 33.

A summary of the model parameters and an example exposure calculation are provided in Appendix B.

2. ***The toxicity reference values (TRVs) used to assess risks posed by lead to avian receptors are much higher than the ones that were anticipated. The values that were used in the ERA are from a USEPA group charged with developing ecological soil screening levels (ECO-SSLs; USEPA 2003), whereas those that were expected are the values developed by the USEPA, Region 9 Biological Technical Assistance Group (BTAG 2002). Both sets of TRVs have undergone peer review. However, the BTAG TRVs were developed specifically for use in ecological risk assessments at military and other facilities in California (DTSC-HERD 2000). Consequently, the BTAG TRVs should be the default values for the Site 74 ERA. The BTAG TRV-Low would be used to assess risks for endangered and threatened species and the BTAG TRV-High would be used to assess risks for the other avian species.***

   Preliminary remediation goals for lead in soil/sediment were calculated in the ERA using the ECO-SSL TRV. The goals obtained with the low TRV for avian receptors are roughly between 100 and 200 mg/kg, depending on the species. The goals would be between 0.9 and 1.8 mg/kg if the BTAG TRV-Low were used. These may be compared

with station wide background concentrations of lead in soils at NWS Seal Beach (range from <0.55 to 91 mg/kg). Consequently, it is recognized that the avian risk-based preliminary remediation goals for lead may be below background for the site.

The Navy considers the avian TRVs for lead used in the ERA to be more defensible than the BTAG TRVs suggested by the reviewer. First, the avian BTAG low-TRV for lead was derived by applying an uncertainty factor to a LOAEL that was itself uncertain. In the U.S. Army review of the proposed BTAG values, the selection of the LOAEL was disputed based on the lack of repeatability by the same authors in a second study. The next dose level up was considered a more appropriate LOAEL because it resulted in reproductive effects that were significantly different than controls in both studies. While sufficient for a screening-level assessment, selection of an effect level that is not significantly different than controls, is overly conservative for a Tier II ERA.

Additionally, the more recently developed USEPA lead EcoSSLs (USEPA, 2003) were derived from an extensive literature review in which over 2,400 studies with avian or mammalian lead toxicity data were identified and evaluated. From these, 54 avian studies containing 106 results for specified endpoints (e.g., reproduction, growth, survival, pathology, physiological) that received a sufficient data evaluation score for inclusion in the TRV development were selected. The avian NOAEL was developed from these 106 results (compared to just 2 studies/results used to develop the BTAG value) and the BTAG NOAEL (0.014 mg/kg/d) was lower than the lowest no effect level (even those based on biochemical responses) in all 106 results. Therefore, use of the avian Navy BTAG low-TRV for lead is not supported by the mass of literature toxicity data.

It is thus recommended that the more defensible USEPA TRVs be used in determining risk and clean up goals.

3. ***Risk was assessed and preliminary remediation goals were calculated for lead shot measured as mg lead/kg soil. The approach used to evaluate lead shot in soil appears to have resulted in a conservative estimate of risk for avian receptors. However, it is difficult to visualize how the remediation goals for lead shot in soil as mg lead/kg soil will relate to pellets per unit area. Presenting goals in terms of pellets per unit area will help alleviate concerns stemming from the more quantal nature of lead exposure via pellet ingestion. In the feasibility study, remediation goals for pellets may be presented as mg lead/kg soil, but should also be presented as number pellets per unit area. In addition, the area used to set remediation goals for pellets needs to be for the top six inches, or as deep as birds on site might probe for food or grit.***

The remediation goals for lead shot in soil will be presented as mg/kg soil and in terms of pellets per unit area as requested. Soil and sediment samples at the site were collected to a depth of 1 foot (see rationale on page 25, number 3 under Section 2.5.2.4). Therefore, remediation goals based on these data would be to a depth of 1 foot as well.

4. ***Results of plant bioassays with barley indicate that if there is any contaminant-related toxicity (by metals or by PAHs, some to very high concentrations), it is masked by the overriding effects of sodium which was associated with zero survival in most exposures. Whether the bioassays fully addressed risk to marsh vegetation, which are salt tolerant species is uncertain. This concern is partly alleviated by data in Table 3-3 which show that samples of pickleweed, a salt marsh plant, were collected from areas***

where soils had lead concentrations as high as 55,200 mg/kg and antimony concentrations as high as 2,300 mg/kg. Consequently, while not as definitive as desired, results of the plant bioassays, combined with field data indicate (with some uncertainty) that contaminants including lead and antimony are not present at toxic levels for vegetation.

Agreed. No response needed.

5. ***The slope and the intercept given in the equation on page 38 are not the same as the values entered into Table 3-6. The values are not greatly different, but they should match to avoid confusion.***

The slope and intercept values presented in the text are correct; therefore, those in the Table 3-6 will be corrected, and Figure 4-10 will be updated with the new values. This change will result in minor changes in the estimated lead concentrations in mallard liver tissue, but will not alter the percentage of samples in each effect category or the risk conclusions. No changes to the text will be required.

6. ***Conclusions about ecological risk are presented on pages 53/54 of the ERA. They are as follows:***

   a) ***"Dietary tissue modeling indicates lead and antimony occur in concentrations in soil and sediment that present risks to resident birds and mammals."***

      Agree.

No response needed.

   b) ***"Measured concentrations of lead in livers of meadowlarks and small mammals suggest that exposure, while elevated relative to background, is insufficient to present risk. Although the low levels observed in these data serve to mitigate the concerns for meadowlarks and small mammals, the limited sample size for these data and the mobility of the receptors limit the ability of the data to support a definitive conclusion."***

      Agree. Note also that the data cannot support a definitive conclusion about avian species that feed in wetland portions of the site (no shorebirds were sampled) or avian species that are year-round residents (e.g., the clapper rails).

The 2nd risk conclusion in Section 4.4 will become the first risk conclusion and will be replaced with the following:

- *The lines of evidence available for the avian and mammalian receptors varied by receptor. There were three lines of evidence available for small mammals (California vole and ornate shrew) including literature-derived toxicity data for estimated dietary dose, site-specific tissue concentrations, and estimated tissue concentrations. For the western meadowlark literature-derived toxicity data for dietary dose and site-specific tissue concentrations were available. Literature-derived toxicity data for dietary dose and estimated tissue concentrations were available for mallards, and only literature-derived toxicity data for dietary dose were available for the light footed clapper rail and Belding's savannah sparrow. For birds, exposure via lead shot provided an additional line of evidence. The conclusions of each line of evidence are as follows:*

- *For all bird and mammal receptors, concentrations of lead and antimony exceeded toxicity thresholds for dietary dose in some samples.*
- *Measured concentrations of lead in livers of meadowlarks and small mammals suggest that exposure, although elevated relative to background, is insufficient to present a risk. Although the low levels observed in these data serve to mitigate the concerns for meadowlarks and small mammals, the limited sample size for these data and the mobility of the receptors limit the ability of these data to support a definitive conclusion of no risk. Additionally, no shorebirds were sampled (i.e., the species planned for collection were not present on-site during several collection attempts) and no year-round residents were sampled. Therefore, definitive conclusions for avian species that feed in wetland portions of the site or are year-round residents (e.g., the clapper rail), cannot be made.*
- *Estimated concentrations of lead in livers of mallards and small mammals suggest that exposure is sufficient to present risk at some sampling locations. Though lead concentrations in less than ten percent of samples exceeded effects levels for the mallard and California vole, 16 and 20 percent of sediment and soil samples exceeded effects levels for ornate shrews.*
- *Lead as shot exists in concentrations that present risks to birds.*

Based on the results of these lines of evidence, the weight of evidence conclusion is that lead and antimony in sediment and soil at Site 74 exist in concentrations that present risks to resident birds and mammals.

c) "Lead as shot exists in concentrations that present risks to birds."

Agree.

No response needed.

d) "Lead and antimony are at concentrations in sediment that may present risks to sediment invertebrates. Other analytes do not contribute significantly to sediment toxicity to invertebrates."

Agree, with a notation. Figures plotting response against contaminant levels in test chambers (Appendix C of the ERA) and calculated correlation coefficients (Table 3-10) indicate that lead and antimony concentrations explain observed toxicity better than any of the other contaminants that were considered (metals). However, this is not to say that other contaminants and/or sediment conditions (e.g., pH) have no effect.

The 4th conclusion in Section 4.4 will become the 2nd conclusion and will be replaced with the following:

Two lines of evidence (site-specific bioassays and literature-derived toxicity data) were available to evaluate sediment invertebrates. Given that there were exceedances of the site-specific effects concentrations that were developed from the bioassay results, the weight of evidence conclusion is that lead and antimony are at concentrations in sediment that may present risks to sediment invertebrates. Because lead and antimony concentrations explain toxicity better than the other metals considered, other analytes are not considered to contribute significantly to sediment toxicity to invertebrates. However, this is not to say that other analytes and/or sediment conditions (e.g., pH) have no effect.

e) "Lead and antimony in sediment and soil do not present a risk to plants. Observed results in site-specific bioassays were driven by sodium (salinity) toxicity."

Agree, with qualification (see comment 4).

The 5th conclusion in Section 4.4 will become the 3rd conclusion, and will be replaced with the following:

As with sediment invertebrates, two lines of evidence (site-specific bioassays and literature-derived toxicity data) were available to evaluate plants. Though concentrations of lead and antimony exceeded literature-based toxicity values in some samples, these analytes were not associated with effects observed in the plant bioassays. Therefore, the weight of evidence conclusion is that lead and antimony in sediment and soil do not present a risk to plants. However, this conclusion is not definitive. Observed results in the site-specific bioassays were driven by sodium (salinity) toxicity, which may have masked contaminant-related effects. Collection of plant samples in locations with high lead and antimony concentrations (e.g., pickleweed collected in areas with lead as high as 55,200 mg/kg and antimony up to 2,300 mg/kg) support the conclusion that plants are not at risk.

7. The ERA section on risk management options (Section 5) involves mapping footprints for removing sediment/soil to risk-based remediation goals for lead and antimony.

a) ***The analysis is based on the premise that lead and antimony are the risk drivers, therefore remediation decisions can be focused on these two analytes. Agree.***

No response needed.

b) The analysis is based on the premise that preliminary remediation goals for vegetation need not be considered because neither lead nor antimony posed any risk to this group of receptors.

Disagree. There is uncertainty about the results of the plant bioassays (comment 4). Rather than completely omitting goals for vegetation, it might be noted that: (1) the goals for lead, if based on bioassays would be above goals for other receptors (i.e., >1,000 mg/kg); and, (2) the goals for lead, if based on literature values would be within the range identified for avian receptors. Whether the same is indicated for antimony is uncertain, due to the lack of bioassay data (no lowest effect concentrations) and dirth of TRVs or other benchmarks. In any case, management decisions based on risks to more sensitive receptors (e.g., the savannah sparrow) should be protective of vegetation as well (next comment).

The following text will be added to the 2nd to last sentence of the 2nd paragraph of Section 5 on page 54.

Although there is uncertainty associated with this conclusion (due to uncertainty with the plant bioassays), site-specific lead TRVs for plants (>1,000 mg/kg) are greater than lead PRGs for the other receptors and literature-derived plant TRVs for lead are within the range of PRGs for birds. Because of the lack of conclusive bioassay data and a dearth of TRVs or other benchmarks, similar conclusions for antimony are uncertain.

c) It is stated that targeting cleanup to reduce risk to the Belding's savannah sparrow in both wetland and upland portions of the site will also reduce risks for all other species. Agree.

No response needed.

d) ***Alternate cleanup goals based on risks to receptors other than the sparrow are considered in Section 5, item 4. The alternate receptors are the federally endangered light-footed clapper rail for the marsh component of the site and the ornate shrew and western meadowlark for terrestrial component of the site. Because the site is located at one edge of the Seal Beach NWR, it is desirable to select cleanup goals that are compatible with the Refuge mission. The Refuge was established to protect federally endangered species such as the light-footed clapper rail, and to provide good quality habitat for other species of special concern including the state endangered Belding's savannah sparrow. Targeting cleanup goals to reduce risk to the savannah sparrow will help serve the Refuge's mission as well as ensure protection for all other species, including but not limited to those that are listed as endangered or threatened. Therefore, the savannah sparrow should remain the focus for selecting strategies to reduce ecological risks posed by site-related contaminants.***

Comment acknowledged. The two remedial footprints were presented as an alternative for evaluation/comparison only (see bullet 4, page 55). As indicated at the end of Section 5, comparative analyses of the effects and benefits of remedial alternatives, particularly as they relate to destruction of habitat, is recommended.

e) ***The preliminary remediation goals based on avian risks need to be recalculated (comment 2). Once recalculated, the preliminary remediation goals for lead will be comparable to background concentrations, which will increase the area requiring remediation. Given the potential project size, it is agreed that a feasibility study should be conducted to weigh the risks of contaminant exposure against impacts of disrupting sensitive habitat. The feasibility study would benefit from residual risk estimates and maps of land use patterns by receptors relative to contaminant levels, the latter of which would include number of pellets per unit area in the top six inches of soil/sediment. I also recommend that the feasibility study consider the multiple management strategies for reducing the potential for exposure and risk to ecological receptors.***

As discussed in the response to comment 2 above, the more recent USEPA benchmarks were developed using a more extensive literature base, more stringent selection requirements, and less conservative assumptions (as is appropriate for Tier II ERAs) and are therefore, more defensible. The reviewers recommendations for the feasibility study will be considered during the evaluation of potential site remedies.

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Agencies' Comments

State of California

Memorandum

To: Ms. Katherine Leibel
Office of Military Facilities
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

Date: November 30, 2004

Received by RT 12-15-04

From: Charlie Huang, Ph.D., Staff Toxicologist
Department of Fish and Game
Office of Spill Prevention and Response
Scientific Division
1700 K Street, Suite 250
Sacramento, CA 95814

Subject: **Comments on Draft Technical Memorandum, Tier II Ecological Risk Assessment, Site 74, Naval Weapons Station, Seal Beach, Orange County, California, dated October 8, 2004**

The California Department of Fish and Game, Office of Spill Prevention and Response (DFG-OSPR) has completed its review of the "**Draft Technical Memorandum, Tier II Ecological Risk Assessment (ERA), Site 74, Naval Weapons Station, Seal Beach, Orange County, California**" dated October 8, 2004. The document was prepared for the Navy by Naval Facilities Command-Southwest Division and CH2MHill. Per the Federal Facilities Agreement, we reviewed the document. The comments that follow are provided as part of our role as a natural resource trustee for the State of California's fish and wildlife and their habitats. This review includes only my comments on the ecological risk assessment and biological resources. I did not review the document for analytical chemistry data and quality assurance procedures because I assumed that the staff in Department of Toxic Substances Control (DTSC) would evaluate them. I did not review the document for formatting, grammar, and other minor editorial comments.

Background

The Naval Weapons Station (NAVWPNSTA) Seal Beach is an open base located approximately 26 miles south of Los Angeles, consisting of about 5000 acres of land along the Pacific Coast within the city of Seal Beach in Orange County, California. NAVWPNSTA Seal Beach is bordered on the southwest by Anaheim Bay. The cities that surround NAVWPNSTA Seal Beach include Long Beach, Seal Beach, Los Alamitos, Westminster, and Huntington Beach. Anaheim Bay and the associated salt marsh were designated as a National Wildlife Refuge (NWR) in 1964. On August 30, 1972, 200 additional upland acres were added to the NWR. Five avian species, classified as endangered by State and/or federal governments, inhabit NAVWPNSTA Seal Beach and associated wetland: the California least tern, the light-footed clapper rail, the peregrine falcon, the California brown pelican, and the Belding's savannah sparrow.

Site 74, Old Skeet Range (OSR), is located east of the NWR and south of the small arms range. The site was once an active skeet and trap range. The range was closed down in the early 1990s. Site 74 is very close to the boundary of the NWR.

In 2000, the Navy conducted a Focused Site Inspection (FSI) Phase II to screen for ecological and human health risks at Site 74. The FSI Phase II Report concluded that the lead and antimony, but not polycyclic aromatic hydrocarbons (PAHs), were chemicals of concern for representative ecological receptors. The overall project objective for this Tier II ERA is to develop site-specific target cleanup goals for lead and antimony in support of the Site 74 removal action. The Navy expected that the Tier II ERA would be able to develop more realistic yet protective target clean goals resulting in a smaller area of impact.

General Comments:

1. Overall the document is clearly written and provides useful illustrations. All major components of the baseline ecological risk assessment are included. The document should include pictures of the representative plant and invertebrate samples collected. Also, a table providing a listing of the types of species collected at each sampling location and their relative abundance would improve the report and assist in the interpretation of data.

Specific Comments:

2. Page 8 and Page 33, Table 3-1: The Navy has completed a credible effort for validating potential COPEC doses to selected receptors by completing soil/sediment and tissue measurement at Site 74. This Tier II ERA was undertaken, in part, to provide site specific concentrations for contaminants in order to check and verify the predictions made for certain receptors and pathways presented in the ERA. It should also have included the other components of the risk equation, namely the life history characteristics of the receptors to fully evaluate the "exposure" part of the risk estimate. The quantity and quality of these life history characteristics, although often provided in the literature, are not site specific. Such factors as plant cover, plant distribution, quantity of available food, overall habitat quality and availability are some of the factors that affect the numbers and distribution of site specific receptors. Site specific conditions may be entirely different as compared to what might be reported in the literature. The Navy should discuss the uncertainty in this part of the exposure estimates that ultimately can have a great effect on the overall risk to site receptors.
3. Page 29, Section 2.6.1: Please clarify if the chemical concentrations in soil are on a wet or a dry weight basis. Dry weight soil concentrations are required for comparison to ecological toxicity benchmarks.
4. Page 16, Section 2.1.4: Since groundwater in Site 74 is hydrologically connected to surface water in the NWR and is tidally influenced, there is potential for migration of contaminants from Site 74 to the aquatic environment and selected aquatic receptors, either by surface runoff or subsurface flow. Please address this concern in Sections 4.3 Uncertainties or 5.0 Risk Management Options.
5. Page 35: Please provide citations in this section that refer the reader to how lead and antimony bioaccumulation factors (BAF) for plants, invertebrates, and wildlife are calculated. The section should cite tables and figures. The strengths, weaknesses, and uncertainties associated with the data and the BAF regressions should be provided.

6. Page 36: The sources of the Exposure Point Concentrations (EPCs) for each avian and mammalian receptor should be more clearly traceable in the preliminary sections of the document. For example, I was not sure whether the avian or mammalian EPCs were the actual measured tissue concentrations of prey or whether they were estimated using the field-derived bioaccumulation factors. This issue should be discussed in the uncertainty analysis and additional hazard estimates for each sample location should be prepared, utilizing a more realistic foraging-range specific EPCs.
7. Page 52, Section 4.3: Please balance the discussion of uncertainty for burrowing mammals by reviewing Bench et al. (2001) and qualitatively discussing exposure pathways that are often ignore in ecological assessments.
8. Page 52, Section 4.3: Please discuss (1) the potential unequal compartmentalization of lead in roots versus stems and leaves, or stems and leaves versus seeds or fruit, (2) the fact that biologically-incorporated lead in plant, invertebrate, small mammal, and bird tissue may be much less bioavailable that the lead acetate used in the laboratory toxicity studies used to develop the toxicity reference values (TRVs).
9. Page 53, Section 4.3: Please address uncertainty in the toxicity bench values for plants, invertebrates, and wildlife. Please also address the cumulative risk potential to all receptors based on co-exposure to both antimony and lead.
10. Page 53, Section 4.4: We agree with the Navy that lead and antimony in sediment and soil do not present a risk to plants. This has been demonstrated in the field collected plant samples (Table 3-3) where plant lead and antimony tissue concentrations are far below reported tissue adverse effects levels (i.e., 30 – 300 mg/kg tissue for Pb and 150 mg/kg for Sb, dry wt.) (Kabata-Pendias and Pendias, 1983).
11. Page A-27, Tables A-8 and A-9: After requesting a more detailed calculation for Preliminary Remediation Goals (PRGs), we were able to duplicate the ecologically-based PRG of 139 lead mg/kg for the Belding's savannah sparrow. The PRG for the Belding's savannah sparrow calculation was checked and found to be arithmetically correct. However, we do not agree with using EPA Soil Screen Level (SSL) of 1.63 mg/kg/day to derive PRG for lead in sediment at Site 74 because SSL is soil NOT sediment screening numbers. We strongly recommended that PRGs for the sediment be re-evaluated.
12. Figures A.2-1 through A.2-29: These field color photographs were very helpful in reviewing this Tier II ERA. No response is required for this comment.

Conclusion

1. Antimony and lead in sediment and soil at Site 74 appear to pose significant ecological risks. Because of sodium (salinity) as a confounding factor, the plant bioassay is inconclusive with reference to adverse-effect levels for lead and antimony. To develop lead and antimony cleanup goals that are protective of plants, additional toxicity tests would be required and should focus on serial dilution of soil/sediment samples (e.g. samples 74B02DB0-05, 74B01SB0-07, etc, Table 5 in Page 7) to develop a no-effect level soil/sediment concentration. However, devoting additional time and resources to bioassay is not recommended because birds and mammals appear to be the primary risk driving species at the site and cleanup goals for these species should be protective of plants. The

document should include specific rational and justification for this position, and support cleanup goals proposed for birds and mammals as protective of plants and invertebrates.

2. The line-of-evidence analysis should be revised based on comments herein. The document should more clearly highlight contradicting or complementary line-of-evidence for each representative species.
3. While the bioassays addressed the possible additive, synergistic, or antagonist interactions between lead and antimony in soil/sediment, the uncertainty discussion in the document included no discussion of the possible interactions between lead and antimony affecting toxicity to birds and mammals. Please provide this discussion in the uncertainty assessment (Section 4.3).
4. Ecological PRGs for terrestrial organisms should no be finalized until it is verified that these soil concentrations are protective of marine environment (i.e., the suspended sediment/surface water drainage exposure pathway.

We would be happy to discuss this review with you or the project technical staff, if further direction or detailed interpretations are needed. Please contact me at (916) 324-9805 or via email:chuang@ospr.dfg.ca.gov, if you have any questions pertaining to this review.

Reviewer: Frank Gray
Environmental Scientist

cc: Pei-Fen Tamashiro
Naval Weapons Station, Seal Beach
800 Seal Beach Blvd
Seal Beach, California 90740

Department of Fish and Game
Office of Spill Prevention and Response
Julie Yamamoto, CDFG/OSPR-Scientific

References:

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Wong, Bryant/SCO

From: Tamashiro, Pei-fen CIV (NWS N45WCW) [pei-fen.tamashiro@navy.mil]
Sent: Thursday, April 21, 2005 7:24 AM
To: Wong, Bryant/SCO
Subject: FW: Review of Site 74 Risk Assessment

Importance: High

For your record.

Pei-Fen
-----Original Message-----
From: Katie_Zeeman@r1.fws.gov [mailto:Katie_Zeeman@r1.fws.gov]
Sent: Wednesday, January 05, 2005 8:54
To: Tamashiro, Pei-fen CIV (NWS N45WCW)
Cc: Scott_Sobiech@r1.fws.gov
Subject: Review of Site 74 Risk Assessment

Pei Fen,

I reviewed the October 2004 report titled "Tier II ecological risk assessment Site 74, Naval Weapons Station Seal Beach, Seal Beach, Orange County, California" (ERA) primarily to determine if concerns about ecological risk posed by contaminants were sufficiently addressed to proceed to the selection of management alternatives. Consequently, I have no comments on editorial details. But, I do have a few general comments, one of which involves a revision and a couple with suggestions for how to proceed. My comments are below.

1. The analysis used multiple lines of evidence to evaluate risks to numerous receptors. As a result, some parts were hard to follow. Most notably, tracking inputs and assumptions used for exposure estimates in tables for Chapter 4 was difficult. It was not impossible, however, and exposure estimates were found to be consistent with the inputs and assumptions discussed in the text. The point-by-point approach to estimating risks was very helpful for visualizing the spatial extent of contamination and potential for impacts.

2. The toxicity reference values (TRVs) used to assess risks posed by lead to avian receptors are much higher than the ones that were anticipated. The values that were used in the ERA are from a USEPA group charged with developing ecological soil screening levels (ECO-SSLs; USEPA 2003), whereas those that were expected are the values developed by the USEPA, Region 9 Biological Technical Assistance Group (BTAG 2002). Both sets of TRVs have undergone peer review. However, the BTAG TRVs were developed specifically for use in ecological risk assessments at military and other facilities in California (DTSC-HERD 2000). Consequently, the BTAG TRVs should be the default values for the Site 74 ERA. The BTAG TRV-Low would be used to assess risks for endangered and threatened species and the BTAG TRV-High would be used to assess risks for the other avian species.

Preliminary remediation goals for lead in soil/sediment were calculated in the ERA using the ECO-SSL TRV. The goals obtained with the low TRV for avian receptors are roughly between 100 and 200 mg/kg, depending on the species. The goals would be between 0.9 and 1.8 mg/kg if the BTAG TRV-Low were used. These may be compared with station wide background concentrations of lead in soils at NWS Seal Beach (range from <0.55 to 91 mg/kg). Consequently, it is recognized that the avian risk-based preliminary remediation goals for lead may be below background for the site.

3. Risk was assessed and preliminary remediation goals were calculated
for lead shot measured as mg lead/kg soil. The approach used to evaluate lead shot in soil appears to have resulted in a conservative estimate of risk for avian receptors. However, it is difficult to visualize how the remediation goals for lead shot in soil as mg lead/kg soil will relate to pellets per unit area. Presenting goals in terms of

pellets per unit area will help alleviate concerns stemming from the more quantal nature of lead exposure via pellet ingestion. In the feasibility study, remediation goals for pellets may be presented as mg lead/kg soil, but should also be presented as number pellets per unit area. In addition, the area used to set remediation goals for pellets needs to be for the top six inches, or as deep as birds on site might probe for food or grit.

4. Results of plant bioassays with barley indicate that if there is any contaminant-related toxicity (by metals or by PAHs, some to very high concentrations), it is masked by the overriding effects of sodium which was associated with zero survival in most exposures. Whether the bioassays fully addressed risk to marsh vegetation, which are salt tolerant species is uncertain. This concern is partly alleviated by data in Table 3-3 which show that samples of pickleweed, a salt marsh plant, were collected from areas where soils had lead concentrations as high as 55,200 mg/kg and antimony concentrations as high as 2,300 mg/kg.
Consequently, while not as definitive as desired, results of the plant bioassays, combined with field data indicate (with some uncertainty) that contaminants including lead and antimony are not present at toxic levels for vegetation.

5. The slope and the intercept given in the equation on page 38 are not the same as the values entered into Table 3-6. The values are not greatly different, but they should match to avoid confusion.

6. Conclusions about ecological risk are presented on pages 53/54 of the ERA. They are as follows:

a) "Dietary tissue modeling indicates lead and antimony occur in concentrations in soil and sediment that present risks to resident birds and mammals."

Agree.

b) "Measured concentrations of lead in livers of meadowlarks and small mammals suggest that exposure, while elevated relative to background, is insufficient to present risk. Although the low levels observed in these data serve to mitigate the concerns for meadowlarks and small mammals, the limited sample size for these data and the mobility of the receptors limit the ability of the data to support a definitive conclusion."

Agree. Note also that the data cannot support a definitive conclusion about avian species that feed in wetland portions of the site (no shorebirds were sampled) or avian species that are year-round residents (e.g., the clapper rails).

c) "Lead as shot exists in concentrations that present risks to birds."

Agree.

d) "Lead and antimony are at concentrations in sediment that may present risks to sediment invertebrates. Other analytes do not contribute significantly to sediment toxicity to invertebrates."

Agree, with a notation. Figures plotting response against contaminant levels in test chambers (Appendix C of the ERA) and calculated correlation coefficients (Table 3-10) indicate that lead and antimony concentrations explain observed toxicity better than any of the other contaminants that were considered (metals). However, this is not to say that other contaminants and/or sediment conditions (e.g., pH) have no effect.

e) "Lead and antimony in sediment and soil do not present a risk to plants. Observed results in site-specific bioassays were driven by sodium (salinity) toxicity."

Agree, with qualification (see comment 4).

7. The ERA section on risk management options (Section 5) involves mapping footprints for removing sediment/soil to risk-based remediation goals for lead and antimony.

a) The analysis is based on the premise that lead and antimony are the risk drivers, therefore remediation decisions can be focused on these two analytes. Agree.

b) The analysis is based on the premise that preliminary remediation goals for vegetation need not be considered because neither lead nor antimony posed any risk to this group of receptors. Disagree.

There is uncertainty about the results of the plant bioassays (comment 4). Rather than completely omitting goals for vegetation, it might be noted that: (1) the goals for lead, if based on bioassays would be above goals for other receptors (i.e., >1,000 mg/kg); and, (2) the goals for lead, if based on literature values would be within the range identified for avian receptors. Whether the same is indicated for antimony is uncertain, due to the lack of bioassay data (no lowest effect concentrations) and dirth of TRVs or other benchmarks. In any case, management decisions based on risks to more sensitive receptors (e.g., the savannah sparrow) should be protective of vegetation as well (next comment).

c) It is stated that targeting cleanup to reduce risk to the Belding's savannah sparrow in both wetland and upland portions of the site will also reduce risks for all other species. Agree.

d) Alternate cleanup goals based on risks to receptors other than the sparrow are considered in Section 5, item 4. The alternate receptors are the federally endangered light-footed clapper rail for the marsh component of the site and the ornate shrew and western meadowlark for terrestrial component of the site. Because the site is located at one edge of the Seal Beach NWR, it is desirable to select cleanup goals that are compatible with the Refuge mission. The Refuge was established to protect federally endangered species such as the light-footed clapper rail, and to provide good quality habitat for other species of special concern including the state endangered Belding's savannah sparrow. Targeting cleanup goals to reduce risk to the savannah sparrow will help serve the Refuge's mission as well as ensure protection for all other species, including but not limited to those that are listed as endangered or threatened. Therefore, the savannah sparrow should remain the focus for selecting strategies to reduce ecological risks posed by site-related contaminants.

e) The preliminary remediation goals based on avian risks need to be recaclulated (comment 2). Once recalculated, the preliminary remediation goals for lead will be comparable to background concentrations, which will increase the area requiring remediation. Given the potential project size, it is agreed that a feasibility study should be conducted to weigh the risks of contaminant exposure against impacts of disrupting sensitive habitat. The feasibility study would benefit from residual risk estimates and maps of land use patterns by receptors relative to contaminant levels, the latter of

which would include number of pellets per unit area in the top six inches of soil/sediment. I also recommend that the feasibility study consider the multiple management strategies for reducing the potential for exposure and risk to ecological receptors.

Feel free to call me if you have any questions. My phone number is below.

Katie

References

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U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, D.C.

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Terry Tamminen
Agency Secretary
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Arnold Schwarzenegger
Governor

TO: Katherine Leibel, DTSC Project Manager
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FROM: James M. Polisini, Ph.D.
Staff Toxicologist, HERD
1011 North Grandview Avenue
Glendale, CA 91201

DATE: November 17, 2004

SUBJECT: DRAFT TIER II ECOLGICAL RISK ASSESSMENT FOR SITE 74, NAVAL WEAPONS STATION (NAVWEPSTA) SEAL BEACH [PCA 18040 SITE 400136-18 H:52]

BACKGROUND

HERD reviewed the document titled *Tier II Ecological Risk Assessment Site 74, Naval Weapons Station, Seal Beach, Seal Beach, Orange County, California* dated October 8, 2004. This second-level Ecological Risk Assessment (ERA) was produced by CH2MHill or Santa Ana, California as a follow-up to the initial screening level ERA for Site 74, the Old Skeet Range (OSR).

Site 74, the OSR, is a former skeet and trap range located at the NAVWPNSTA Seal Beach. The OSR consists of two skeet houses, a trap house, a concrete pad with approximately six shooting stations and a trailer. It was constructed in the late 1960s and was in use for approximately 25 years. Skeet and trap shooting activities have resulted in a wide distribution of lead shot and broken clay targets within Site 74. The Site 74 screening-level ERA indicated potential ecological hazard due to lead and antimony from lead shot and polycylic aromatic hydrocarbons (PAHs) from clay targets. Site 74 is bisected by Case Road. The portion to the west of Case Road is within the National Wildlife Refuge (NWR) while the portion to the east is sandy upland habitat vegetated with tall grass and shrub outside the NWR. The extent of Site 74 to the west and south has not yet been clearly delineated.

NWS Seal Beach is located approximately 26 miles south of the Los Angeles urban center and consists of about 5000 acres of land along the Pacific Ocean within the city of Seal Beach in Orange County, California. Naval Weapons Station (NWS) Seal Beach is bordered on the southwest by Anaheim Bay, to the north, east and west by Long Beach, Seal Beach, Los Alamitos, Westminster and Huntington Beach. Anaheim Bay and the associated salt marsh were designated a National Wildlife Refuge (NWR) in 1964. On August 30, 1972, 200 additional upland acres were added to the NWR.

GENERAL COMMENTS

The Tier II Ecological Risk Assessment (ERA) contained in this document employs an assessment of multiple components of the biological community in and surrounding Site 74, the Old Skeet Range (OSR), to more accurately assess the finding of potential ecological hazard developed in the Tier I ERA for Site 74. These measures of ecological hazard for multiple species and biological community components are then used to develop a range of soil and sediment concentrations of lead and antimony which can be used to assess potential remedial alternatives for Site 74. HERD agrees with the procedures used at this stage of the Site 74 investigation, and indeed, the stepped process follows DTSC and U.S. EPA guidance for the preparation of an ERA.

SPECFIFIC COMMENTS

1. Previous estimates of ecological hazard for birds relied solely on lead as no avian toxicity data were available for antimony (Section 1.2, page 2). As concentrations of lead and antimony covary, any remediation of areas indicated by hazard associated with lead should resolve the hazard associated with antimony. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

2. No shorebirds were present at NAWWPNSTA Seal Beach during collection and observation periods, so no shorebird collection was performed (Section 1.3.1.1, page 4). Lack of shorebird tissue data is a data gap in this ERA, but based on the results for the mallard assessment does not appear critical. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

3. Insufficient decant water was available in the sediment samples (Section 1.3.1.2, page 4 and Section 1.3.2.4, page 7) therefore decant water samples were not taken for determination of lead and antimony concentrations. This is a data gap in interpretation of hazard to aquatic receptors through exposure to water overlying sediments at Site 74. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

4. Eighteen soil samples were collected from east of Case Road (Section 1.3.2.1, page 5) and analyzed for inorganic elements using Inductively Coupled Plasma Atomic Absorption (ICP). The results of the complete ICP analysis are reported only for a subset of three of these samples in Section 2.6.1. This is a data gap, as HERD specifically requested the results of the ICP analyses for all ICP elements. The ICP data for all available elements was furnished by the contractor at HERD's request during review of this document. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

5. Please provide a more detailed description of the sampling methods used in the attempt to obtain additional terrestrial invertebrates during the December 2003 sampling event (Section 1.3.2.1, page 6) due to the insufficient invertebrate collection during the August 2003 collection event.

6. Use of barley, the standard plant test species, due to the low germination of cordgrass in control soil samples (Section 1.3.2.4, page 7) should not affect interpretation of the plant bioassays for Site 74. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

7. The screening-level ERA in the Focused Site Inspection (FSI) Phase II Report concluded that a removal action was required at Site 74 based on the results of a screening level ERA (Section 1.4, page 8). The Upper Limit Background Value (ULBV) of 35.7 mg/kg lead was selected as the Remedial Action Objective (RAO). HERD has reviewed and accepted ecologically-based RAOs for other lead-contaminated sites at NAVWPNSTA Seal Beach. These are outlined below, but generally were accepted as a not-to-exceed concentration coupled with an area-wide average concentration. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

8. While not associated with Site 74, please transmit directly to HERD a description of the oil water separation ponds on Oil Island (Section 2.1.3.1, page 12) which indicates the size of these separation ponds and any lining material (synthetic or natural) included in construction. A telephone message or electronic mail is sufficient response to this request.

9. HERD defers to the DTSC Geological Services Unit (GSU) regarding the adequacy and accuracy of the hydrogeological description (Section 2.3.1.5, page 14 and 15). This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

10. The Sampling and Analysis Plan (SAP) indicated that grain size and total organic carbon (TOC) would be determined for all soil and sediment samples However, the number of samples was reduced to reduce cost (Section 2.6.1, page 28). Please provide a more complete description in the text of the basis for assuming that grain

size and TOC would not vary 'significantly' which was used to delete these measurements.

11. The fact that mammalian samples were not radiographically screened by X-ray for lead shot, as avian samples were screened (Section 2.6. 4, page 30), is a data gap in the assessment of mammalian hazard for Site 74. Given the results of the ERA and the species used as the basis for developing RAOs this does not appear to be a critical data gap.

12. Dermal exposure was considered to be low in this ERA with the presence of protective hair or feathers as one factor limiting exposure (Section 2.3, page 18 and Section 3.1.2.1, page 32). While HERD would agree with this semi-quantitative comparison given the habitat, soil type and receptors included in the Conceptual Site Model (CSM), an alternate view of the importance of feathers or hair to dermal exposure (National Research Council, 2003, page 178) is:

    > "Hair follicles and sweat glands, although offering means for chemicals to circumvent the stratum corneum barrier, have usually been regarded as minor pathways for dermal absorption because they comprise a very small percentage of the surface area of the skin. However, experiments using rat skin where hair follicles and sweat gland pathways have been eliminated suggest that, at least in some circumstances, their contribution to dermal absorption may be substantial (Zatz, 1993)."

    This information is provided to clarify HERD's position that the presence of hair or feathers is not an absolute barrier to dermal exposure and that exclusion of dermal exposure in estimating intake is a site-by-site determination.

13. The complete analytical data base for all samples, listed as presented in Appendix A.3 (on CD) (Section 2.6.1, page 29) was not furnished in the copy submitted for HERD review. CH2MHill staff forwarded a copy of several databases electronically in a response to a HERD request. This comment is meant for the DTSC Project Manager and no response is required by the Navy or Navy contractors.

14. A 20 percent reduction in an attribute is proposed as the 'maximum acceptable adverse effect level' selected for assessment endpoints (Section 2.4.1, page 20). HERD has discussed the interpretation of a twenty percent effect level as the indicator of an adverse population effects in previous reviews for NWS Seal Beach. In a February 5, 2003 telephone discussion with Navy contractors, HERD agreed to the methodology used for Site 4 Areas of Potential Concern (AOPC) as site-specific for Site 4 AOPC. However, HERD does not categorically agree that an adverse effect level of 20 percent, based on a Lowest Observable Adverse Effect Level (LOAEL) on individual adverse effects, is indicative of the threshold at which wildlife populations are adversely affected (Section 2.4.1, page 20). Extrapolation from individual effects to population effects is extremely complex, dependent on many factors such the toxic endpoint measured in the toxicity experiment and whether a species is an r-selected or k-selected species:

a. LOAEL values are usually established based on the adverse effect on the average cohort group response in an exposure (e.g., n>1), not the lowest intake value of an individual which demonstrates an adverse effect. Some of the toxicity experiments on small mammals or avian species may have generated a LOAEL based on a 10 percent, 20 percent or 30 percent adverse effect level in the average response of one of the cohorts. Otherwise, estimated LOAELs can be established by the use of uncertainty factors or modifying factors based on frank effects. Use of a mean body weight, to calculate intake rates based on a regression, or use of a mean intake rate, indicates that the intake rate is the estimated median intake for the species in mg/kg/day. Using a 20 percent reduction in the LOAEL value of mg/kg/day based on growth logically means that there is a 20 percent adverse effect on those individuals with intake rates above the mean body weight intake rate. This level of adverse effect, depending on the toxic effect measured in the laboratory experiment, could have extremely adverse effects on a population of vertebrates. All of these comments are, of course, based on the lack of uncertainty factors or modifying factors in development of the LOAEL. Given this, HERD does not accept a 20 percent or 30 percent adverse effect level based on a LOAEL Toxicity Reference Value (TRV) as appropriate in an ERA as a general approach to ERAs for vertebrate species.

b. Assuming that the 20 percent adverse effect level in the LOAEL exposure would produce population effects is completely dependent on the life history of the representative species being evaluated. A population of a species producing few offspring with a lengthy breeding/hatching or gestation/development period would suffer a much greater adverse effect than a population of a species which produces multiple offspring in multiple breeding seasons over the same period of time (e.g., r-selected versus k-selected species). Most of the vertebrate species evaluated in ERAs produce few offspring with lengthy breeding and developmental stages.

HERD considers the Hazard Quotient (HQ) developed using the Navy/BTAG No Observable Adverse Effect Level (NOAEL) and the HQ developed using the Navy/BTAG LOAEL to be the bounds within which population level ecological hazard may be inferred. These Site 74 HQs should be furnished for consideration of the Risk Managers, but may be furnished as additional columns in the tables presenting the ecological hazard calculations based on the TRVs proposed by the Navy.

15. Please explain how the proposal to utilize toxicity values based on a 20 percent effect, commented on above, is sufficient to assess potential hazard to mallards and meadowlarks, representative species in this analysis, for which ‘no adverse effect’ is a decision point (Section 2.4.1, page 20).

16. Birds collected exhibiting symptoms of lead toxicity were presumed at ecological risk (Section 2.5.2.5, page 26). Please list these symptoms and the count of the number of birds which were classified as 'at ecological risk'.

17. The relationship of lead in invertebrate tissues and horned snail tissue to soil or sediment lead concentrations (Figure 3-1) is interesting. As horned snails are terrestrial invertebrates, please indicate the source and type of 'terrestrial invertebrates' presented in the figure as a group separate from horned snails. If these 'terrestrial invertebrates' are mainly juvenile arthropods, which shed their exoskeleton during growth, it may be that these invertebrates depurate some lead tissue burden with the exoskeleton in high concentration soils or sediments (i.e., a threshold response). Removal of the single 'terrestrial invertebrate' sample at soil concentrations of approximately 50,000 mg/kg lead would result in a 'terrestrial invertebrate' regression much more similar in slope to that presented for horned snails which retain their shells, a potential sequestration reservoir, for life. Please explain whether horned snail shells were removed prior to tissue analysis. No response, except concerning the horned snail tissue preparation, is required from the Navy or Navy contractor regarding this comment.

18. HERD accepts point estimates of ecological hazard (i.e., sample-by-sample) for ERAs of vertebrate species (Section 3.1.2, page 36) which focus on development of RAOs and identification of areas subject to evaluation of remedial action alternatives. In fact, this is the method HERD prefers at this stage of an ecological investigation. This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

19. Lead shot would appear the only source of lead and antimony in soil and sediment above any NAVWPNSTA Seal Beach 'ambient' concentration. HERD agrees with the use of lead in sediment and lead as shot concentrations in the diet-to-liver concentration regression for mallards (Section 3.1.2.2, page 38) given the relatively high mean lead bioaccessibility results of 87 percent in soil and 73 percent in sediment (Section 3.1.2.1, page 34). The ultimate source of the lead and antimony, above ambient concentrations, in the bioaccessibility tests can only have been shot. Ecological hazard associated with lead is, then, the result of Navy release to the environment. This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

20. HERD had some difficulty duplicating the concentrations listed as evaluation criteria (Section 3.2.1.1, pages 39 through 43) for some measurement endpoints. For example, for soil invertebrates an antimony No Observable Effect Concentration (NOEC) of 84 mg/kg is listed with a Lowest Observable Effect Concentration (LOEC) of 115 mg/kg based on the three invertebrate toxicity references listed for the antimony Ecological Soil Screening Level (EcoSSL). These antimony NOEC and LOEC values are described as the geometric mean of the NOEC and LOEC values contained in the original toxicity studies used to determine the antimony EcoSSL. The antimony EcoSSL document at

http://www.epa.gov/ecotox/ecossl/pdf/eco-ssl_antimony.pdf lists the Effect Concentration for 20 percent (EC_{20}) of the organisms tested in the three invertebrate toxicity tests as 194 mg/kg, 84 mg/kg and 30 mg/kg (Table 4.1, page 4 of EcoSSL). It would appear mathematically impossible for an antimony invertebrate NOEC concentration of 84 mg/kg to be calculated from data which includes an EC_{20} of 30 mg/kg for earthworms. The EcoSSL document does not contain the original NOEC and LOEC concentrations for invertebrates to allow duplication of the calculation leading to an antimony invertebrate NOEC of 84 mg/kg. Please provide the complete listing of the NOEC and LOEC concentrations from the original studies from which the antimony NOEC was developed and also supply this data for the development of similar evaluation criteria for other measurement endpoints (i.e., terrestrial and marsh plants). This information can be supplied in an appendix to minimize alteration of the text.

21. Little emphasis should be applied to the evaluation criteria derived from the site-specific plant bioassays using germination of barley as the critical effect in evaluation of remedial alternatives. This recommendation is due to the apparent influence of salinity, the lack of an incremental dose-response relationship, the lack or small difference when compared with the reference sites and the use of the maximum, rather than some estimate of central tendency, antimony and lead concentration at which germination occurred as the basis for the plant NOEC for lead and antimony (Section 3.2.1.2, page 42 and page 43). This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

22. The avian lead Toxicity Reference Value (TRV) developed by the joint Navy/EPA Region 9 Biological Technical Assistance Group (BTAG) must be presented in the evaluation of ecological hazard, for consideration of the risk managers, together with the Navy's proposed EcoSSL avian lead TRVs based on the EcoSSL effort (Section 3.2.2.1, page 44). The avian lead TRV for shot of 1.46 mg_{lead}/kg_{bw}/day should be used solely to assess avian exposure to shot.

23. Estimates of hazard to vertebrate species via dietary intake (Tables 4-10 through 4-15) were checked at random and found to be arithmetically correct. Values described in the text as effect or no-effect soil/sediment concentrations are those presented in the relevant tables. However, please explain the calculation and the importance of the column labeled percentile in these tables.

24. Please indicate in the text (Section 4.2.1, pages 49 and 50) that the discussion of concentrations exceeding an annualized LD_{50} refer solely to intake of lead shot by avian species.

25. Intake and ecological hazard calculations for Belding's Savannah Sparrow (Table 4-12), the ecological receptor which drives the identification of potential remediation efforts, were checked and found to be arithmetically correct. This

comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

26. HERD agrees that some consideration must be given to the area potentially impacted by any proposed remedial alternative and RAO as presented (Section 5.0, pages 54 and 55). HERD previously reviewed an ERA for Site 4 at NWS Seal Beach in a HERD memorandum dated June 23, 2003. In that memorandum HERD agreed to a not-to-exceed soil concentration of 600 mg/kg with an arithmetic average lead soil concentration of 100 mg/kg for Site 4, the Perimeter Road, which surrounds the National Wildlife Refuge. These lead concentrations are within the bounds of those presented for Site 74 in this Tier II ERA. This comment is intended for the DTSC Project Manager and no response is required from the Navy or Navy contractors.

CONCLUSIONS

Additional material must be furnished to HERD in order to finalize the site-specific ERA for Site 74 contained in this document. Additional material, in the form of additional hazard estimates reflecting the Navy/BTAG TRVs, should also be included in some of the tables to provide a range of estimates of hazard for the risk managers. Overall, however, the ERA presented conforms to DTSC and EPA guidance, providing an assessment of multiple types of information to develop an estimate of ecological hazard for the critical components of the biological community associated with Site 74.

The ERA also contains a final chapter outlining some constraints which may influence the selection of a preferred remedial alternative as a guide to the risk managers. HERD favors this simple presentation at the conclusion of a site-specific ERA such as the assessment contained in this document.

REFERENCES

National Research Council, Water Science and Technology Board, 2003. Bioavailability of Contaminants in Soils and Sediments: Processes, Tools, and Applications. National Academy of Sciences Press, 2101 Constitution Avenue, NW, Washington, D.C. 20418.

HERD Internal Reviewer: Michael Anderson, Ph.D.
Staff Toxicologist, HERD

cc: Vicki Lake, BTAG Member
California Department of Fish and Game
1700 K Street, Suite 250
P.O. Box 944209
Sacramento, CA 94244-2090

John Bradley
U.S. Fish and Wildlife Service
Carlsbad Field Office
2730 Loker Avenue
Carlsbad, CA 92008

Laurie Sullivan, BTAG Member
Coastal Resources Coordinator (H-1-2)
c/o U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Denise Klimas, BTAG Member
Human and Ecological Risk Division
8800 Cal Center Drive
Sacramento, California 95826

818-551-2853 Voice
818-551-2841 Facsimile
C:\Risk\SEAL\Site 74 Tier II Draft Final ERA.doc/h:52

Wong, Bryant/SCO

From: Patricia Hannon [phannon@waterboards.ca.gov]
Sent: Monday, December 06, 2004 2:13 PM
To: pei-fen.tamashiro@navy.mil
Cc: Wong, Bryant/SCO; kleibel@dtsc.ca.gov; lest@efdsw.navfac.navy.mil
Subject: NWS Seal Beach, Site 74 Eco Risk Assessment

Pei Fen

We have reviewed the October 8, 2004 Draft Tier II Ecological Risk Assessment, Site 74 and we do not have any comments.

If you have any questions call me or send a e-mail message.

Sincerely,

Patricia Hannon
California Regional Water Quality Control Board Santa Ana Region
3737 Main Street, Suite 500
Riverside CA 92501-3348
Phone: (951) 782-4498
e-mail: phannon@waterboards.ca.gov
Website: http://www.waterboards.ca.gov/santaana/

How is my customer service? If you have any comments that you would like to express please visit the following website and describe your experience:
http://www.arb.ca.gov/calepa/cepacsur.htm

Acceptance of Comments

Wong, Bryant/SCO

From: Wong, Bryant/SCO

Sent: Wednesday, March 16, 2005 2:41 PM

To: 'Lee Whittenberg'

Cc: Si Le/SWDIV (si.t.le@navy.mil); Pei-Fen Tamashiro (pei-fen.tamashiro@navy.mil); Sample, Brad/SAC; Arenal, Christine/SAC

Subject: RE: Response to Comments on the 8 October 2004 Draft Tier II Ecological Risk Assessment for Site 74 NAVWNSTA Seal Beach

Lee,
Thanks for your quick response. Your assumption is correct: The final responses to comments will be included in the final document to be distributed to the City.
Bryant

From: Lee Whittenberg [mailto:LWhittenberg@ci.seal-beach.ca.us]
Sent: Wednesday, March 16, 2005 2:39 PM
To: Wong, Bryant/SCO
Subject: RE: Response to Comments on the 8 October 2004 Draft Tier II Ecological Risk Assessment for Site 74 NAVWNSTA Seal Beach

Bryant: I have reviewed the response to the City's comments and they are fine. I assume the final responses to coments will be included in a future document to be distributed? Thanks, Lee

-----Original Message-----
From: Bryant.Wong@CH2M.com [mailto:Bryant.Wong@CH2M.com]
Sent: Wednesday, March 16, 2005 11:50 AM
To: kleibel@dtsc.ca.gov; riskdoc@dslextreme.com; chuang@ospr.dfg.ca.gov; phannon@waterboards.ca.gov; katie_zeeman@r1.fws.gov; Lee Whittenberg
Cc: si.t.le@navy.mil; pei-fen.tamashiro@navy.mil; Brad.Sample@CH2M.com; Christine.Arenal@CH2M.com
Subject: Response to Comments on the 8 October 2004 Draft Tier II Ecological Risk Assessment for Site 74 NAVWNSTA Seal Beach

All,

On behalf of the Navy, attached are the Responses to Comments by DTSC, CDFG, City of Seal Beach, California RWQCB, and USFWS, for the 8 October 2004 Draft Tier II Ecological Risk Assessment for Site 74 at Naval Weapons Station (NAVWPNSTA), Seal Beach. The main text of the Tier II ERA with changes as a result of the agencies comments (in changes tracking mode), as well as two additions to the appendices are also included. Please note that the Tier II ERA main text is 109 pages, so you may want to open it on your screen and scroll down to see the changes made on the screen, and select only those pages to print hard copies, if needed. To electronically transmit these files in a more managable size, these documents are being transmitted to you as pdf files.

Please review these responses and associated changes to the Tier II ERA. If your comments have been accurately responded to, please communicate your concurrence to Si Le/SWDIV and Pei-Fen Tamashiro/NAVWPNSTA Seal Beach by 23 March 2005. If you have any questions, please call Brad Sample (916/286-0485), or Si Le/SWDIV (619/532-2295), or me.

Lee, please forward this information to Mario Voce, as he authored the comments on the subject document and I do not have his e-mail address.

Thanks,

Bryant Wong, P.E.
CH2M HILL
3 Hutton Centre Dr. Suite 200
Santa Ana, CA 92707
(714)435-6347 telephone
(714)424-2065 fax

Wong, Bryant/SCO

From: Jim Polisini [JPolisin@dtsc.ca.gov]
Sent: Wednesday, March 23, 2005 11:50 AM
To: Wong, Bryant/SCO; Katherine Leibel
Cc: Sample, Brad/SAC; pei-fen.tamashiro@navy.mil
Subject: Site 74 Tier II

I have quickly reviewed the proposed changes to the Draft Tier II ERA for Site 74 and have the following comments:
1. HERD will accept the avian Toxicity Reference Value (TRV) for lead based on the EcoSSL toxicity values given that this is a Tier II evaluation which used the BTAG/NAVY avian TRV-Low and TRV-High for the Tier I evaluation. The Ecological PRG developed for Belding's savannah sparrow should be applied as a not-to-exceed value in the evaluation of remedial alternatives.
2. The introduction to the Risk Management Options (Section 5.0, page 57) should be revised to indicate that the Tier II ERA was conducted to apply more site-specific and detailed criteria to the development of an ecological PRG for site receptors, not to decrease the size of the potentially impacted area.

The response to HERD comments is acceptable, and the changes in the text provided adequately address HERD concerns.

A memorandum will be issued with this comments outlined, and possibly expanded upon.

Jim Polisini
818-551-2853

Wong, Bryant/SCO

From: Patricia Hannon [phannon@waterboards.ca.gov]
Sent: Thursday, March 24, 2005 9:53 AM
To: Wong, Bryant/SCO
Cc: kleibel@dtsc.ca.gov; lest@efdsw.navfac.navy.mil; pei-fen.tamashiro@navy.mil
Subject: Re: RTCs on the 8 October 2004 Draft Tier II Ecological RiskAssessment for Site 74 NAVWNSTA Seal Beach

Bryant

I do not have any comments on the RTCs on the 10/9/04 Draft Tier II Ecological Risk Assessment for Site 74, NWS Seal Beach

Patricia Hannon
California Regional Water Quality Control Board Santa Ana Region
3737 Main Street, Suite 500
Riverside CA 92501-3348
Phone: (951) 782-4498
e-mail: phannon@waterboards.ca.gov
Website: http://www.waterboards.ca.gov/santaana/

How is my customer service? If you have any comments that you would like to express please visit the following website and describe your experience:
http://www.arb.ca.gov/calepa/cepacsur.htm

>>> <Bryant.Wong@CH2M.com> 03/16/05 11:50AM >>>
All,

On behalf of the Navy, attached are the Responses to Comments by DTSC, CDFG, City of Seal Beach, California RWQCB, and USFWS, for the 8 October 2004 Draft Tier II Ecological Risk Assessment for Site 74 at Naval Weapons Station (NAVWPNSTA), Seal Beach. The main text of the Tier II ERA with changes as a result of the agencies comments (in changes tracking mode), as well as two additions to the appendices are also included. Please note that the Tier II ERA main text is 109 pages, so you may want to open it on your screen and scroll down to see the changes made on the screen, and select only those pages to print hard copies, if needed. To electronically transmit these files in a more managable size, these documents are being transmitted to you as pdf files.

Please review these responses and associated changes to the Tier II ERA.
If your comments have been accurately responded to, please communicate your concurrence to Si Le/SWDIV and Pei-Fen Tamashiro/NAVWPNSTA Seal Beach by 23 March 2005. If you have any questions, please call Brad Sample (916/286-0485), or Si Le/SWDIV (619/532-2295), or me.

Lee, please forward this information to Mario Voce, as he authored the comments on the subject document and I do not have his e-mail address.

Thanks,

Bryant Wong, P.E.
CH2M HILL
3 Hutton Centre Dr. Suite 200
Santa Ana, CA 92707
(714)435-6347 telephone
(714)424-2065 fax

Wong, Bryant/SCO

From: Katherine Leibel [KLeibel@dtsc.ca.gov]
Sent: Thursday, March 24, 2005 11:32 AM
To: Wong, Bryant/SCO
Subject: RE: Response to Comments on the 8 October 2004 Draft TierIIEcological Risk Assessment for Site 74 N

Byrant,

Everthing is fine. I just couldn't find Jim's name on the cc list and thought you forgot about him. Apparently, you guys send him the response in a separate email. Anyway, you got his brief note, a detailed memo will come later.
Katherine

>>> <Bryant.Wong@CH2M.com> 3/24/2005 11:19:49 AM >>>
Thanks, Katherine, to your attention on this matter. I received the attached e-mail from Jim Polisini on Wednesday, so it seems he must have seen the draft RTC and draft final report somehow. Would you mind confirming with him?

Bryant

-----Original Message-----
From: Katherine Leibel [mailto:KLeibel@dtsc.ca.gov]
Sent: Thursday, March 24, 2005 10:31 AM
To: Wong, Bryant/SCO
Cc: pei-fen.tamashiro@navy.mil
Subject: Re: Response to Comments on the 8 October 2004 Draft Tier IIEcological Risk Assessment for Site 74 NAVW

Byrant,

You did not send this to Jim Polisini. I was out of the office last week Monday to Thursday. Our server was down from last Thursday till this morning. I just forward the RTC to Jim this morning. So your due date of 3/23 will not happen.

>>> <Bryant.Wong@CH2M.com> 3/16/2005 11:50:03 AM >>>
All,

On behalf of the Navy, attached are the Responses to Comments by DTSC, CDFG, City of Seal Beach, California RWQCB, and USFWS, for the 8 October
2004 Draft Tier II Ecological Risk Assessment for Site 74 at Naval Weapons Station (NAVWPNSTA), Seal Beach. The main text of the Tier II ERA with changes as a result of the agencies comments (in changes tracking mode), as well as two additions to the appendices are also included. Please note that the Tier II ERA main text is 109 pages, so you may want to open it on your screen and scroll down to see the changes made on the screen, and select only those pages to print hard copies, if needed. To electronically transmit these files in a more managable size, these documents are being transmitted to you as pdf files.

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Lee, please forward this information to Mario Voce, as he authored the comments on the subject document and I do not have his e-mail address.

Thanks,

Bryant Wong, P.E.
CH2M HILL
3 Hutton Centre Dr. Suite 200
Santa Ana, CA 92707
(714)435-6347 telephone

Wong, Bryant/SCO

From: Tamashiro, Pei-fen CIV (NWS N45WCW) [pei-fen.tamashiro@navy.mil]
Sent: Monday, April 04, 2005 11:28 AM
To: Le, Si T CIV NFECSW, (EFDSW); Wong, Bryant/SCO; Sample, Brad/SAC
Subject: FW: Responses to Comments on the Site 74 Tier II ERA

fyi

-----Original Message-----
From: Katie_Zeeman@r1.fws.gov [mailto:Katie_Zeeman@r1.fws.gov]
Sent: Thursday, March 31, 2005 8:43
To: Tamashiro, Pei-fen CIV (NWS N45WCW)
Subject: Responses to Comments on the Site 74 Tier II ERA

Pei-Fen,

I have reviewed the March 17, 2005 responses to the U.S. Fish and Wildlife Service comments on the Site 74 Tier II ecological risk assessment. As indicated in my January 1, 2005 email, the risk assessment was generally satisfactory and I had only a couple comments on details. The responses to my comments are satisfactory, with one qualification as follows:

> I had expressed concern about the use of an avian toxicity reference value (TRV) that is higher than the TRV recommended by the USEPA Region 9 Biological Technical Assistance Group (BTAG TRV) for use at Navy sites in California. I reviewed the documents from which the proposed TRV were taken when developing my original comment, and recognized then that both the BTAG TRV and the TRV used in the assessment were developed, with peer review, by USEPA following an extensive review of the primary literature. I also noted that the preliminary remediation goal (PRG) for lead if based on the BTAG TRV would be below background for Site 74. The response to my comment was essentially that the TRV used in the risk assessment is more technically defensible than the BTAG TRV. While such may be the case, I have not had an opportunity to review the critical articles sufficiently to determine if the TRV in question fully adresses concerns for our trust resources, particulalry in screening level assessments. Given that the TRV used in the risk assessment was developed by USEPA with peer review, that the PRG based on the BTAG TRV would be below background (not achievable), and lacking the time to review all the primary literature myself, the TRV that was used is an acceptable benchmark dose for the Tier II assessment at Site 74. At this time, I would consider the TRV that was used for Site 74, and the PRG based on that TRV, to be site-specific. I will continue to recommend the use of the BTAG TRV for screening level assessments, and perhaps for Tier II assessments at other sites.

Catherine T. Zeeman, Ph.D.
U.S. Fish and Wildlife Service
Carlsbad Fish & Wildlife Office
6010 Hidden Valley Road
Carlsbad, CA 92009

Phone: 760-431-9440
Fax: 760-431-9170

Wong, Bryant/SCO

From: Tamashiro, Pei-fen CIV (NWS N45WCW) [pei-fen.tamashiro@navy.mil]
Sent: Friday, April 15, 2005 8:51 AM
To: Charlie Huang; Wong, Bryant/SCO; lwhittenberg@ci.seal-beach.ca.us; riskdoc@dslextreme.com; kleibel@dtsc.ca.gov; katie_zeeman@r1.fws.gov; phannon@waterboards.ca.gov
Cc: Sample, Brad/SAC; Arenal, Christine/SAC; Le, Si T CIV NFECSW, (EFDSW)
Subject: RE: Response to Comments on the 8 October 2004 Draft Tier II Ecological Risk Assessment for Site 74 NAVW

Charlie,
Thanks for your response. We concur with your comment and will address your comment for Page 15-16 in the final report.

Bryant,
Please include this e-mail in the final report and address Charlie's comment in the final report. Thanks.

Pei-Fen

-----Original Message-----
From: Charlie Huang [mailto:chuang@OSPR.DFG.CA.GOV]
Sent: Friday, March 25, 2005 9:49
To: Bryant.Wong@CH2M.com; lwhittenberg@ci.seal-beach.ca.us; riskdoc@dslextreme.com; kleibel@dtsc.ca.gov; katie_zeeman@r1.fws.gov; phannon@waterboards.ca.gov
Cc: Brad.Sample@CH2M.com; Christine.Arenal@CH2M.com; Tamashiro, Pei-fen CIV (NWS N45WCW); Le, Si T CIV NFECSW, (EFDSW)
Subject: Re: Response to Comments on the 8 October 2004 Draft Tier IIEcological Risk Assessment for Site 74 NAVW

Hi Bryant,
As a CDFG representative, I am in general concurrence with the Responses to Comments by CDFG except to Specific Comment 2 (Page 15-16).
The last sentence "..... the lack of habitat quality data in this assessment would be overestimate risk" should be changed to "would result in an overestimation or underestimation of risk."

Charlie Huang, Ph.D.
Staff Toxicologist
California Department of Fish and Game
Office of Spill Prevention and Response
P.O. Box 944209
Sacramento, CA 94244-2090
T: 916-324-9805
F: 916-324-8829
chuang@ospr.dfg.ca.gov

>>> <Bryant.Wong@CH2M.com> 03/16/05 11:50 AM >>>
All,

On behalf of the Navy, attached are the Responses to Comments by DTSC, CDFG, City of Seal Beach, California RWQCB, and USFWS, for the 8 October
2004 Draft Tier II Ecological Risk Assessment for Site 74 at Naval Weapons Station (NAVWPNSTA), Seal Beach. The main text of the Tier II ERA with changes as a result of the agencies comments (in changes tracking mode), as well as two additions to the appendices are also included. Please note that the Tier II ERA main text is 109 pages, so you may want to open it on your screen and scroll down to see the changes made on the screen, and select only those pages to print hard copies, if needed. To electronically transmit these files in a more managable size, these documents are being transmitted to you as pdf files.

Please review these responses and associated changes to the Tier II ERA.

If your comments have been accurately responded to, please communicate your concurrence to Si Le/SWDIV and Pei-Fen Tamashiro/NAVWPNSTA Seal Beach by 23 March 2005. If you have any questions, please call Brad Sample (916/286-0485), or Si Le/SWDIV (619/532-2295), or me.

Lee, please forward this information to Mario Voce, as he authored the comments on the subject document and I do not have his e-mail address.

Thanks,

Bryant Wong, P.E.
CH2M HILL
3 Hutton Centre Dr. Suite 200
Santa Ana, CA 92707
(714)435-6347 telephone
(714)424-2065 fax