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# RFI/RI Work Plan for the Early Construction and Operational Disposal Site L-3 (NBN), L-Area Rubble Pit (131-1L), and L-Area Rubble Pit (131-4L) Operable Unit (U)

**SEMS Number: 91**

**SRNS-RP-2021-05602**

**Revision 1**

**July 2022**

SAVANNAH RIVER SITE • AIKEN, SOUTH CAROLINA

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**Savannah River Site Nuclear Solutions, LLC**
**Aiken, South Carolina**

## CERTIFICATION

RFI/RI Work Plan for the Early Construction and Operational Disposal Site L-3 (NBN), L-Area Rubble Pit (131-1L), and L-Area Rubble Pit (131-4L) Operable Unit (U), SEMS Number: 91

SRNS-RP-2021-05602, Revision 1, July 2022

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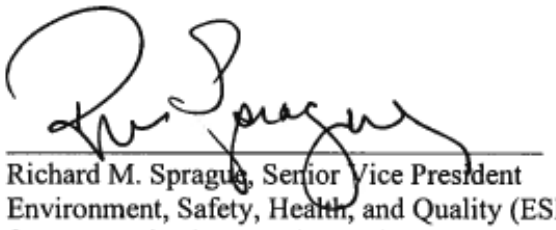

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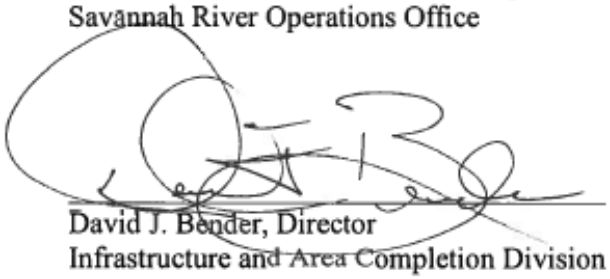

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# EXECUTIVE SUMMARY

This Resource Conservation and Recovery Act Facility Investigation/Remedial Investigation Report work plan has been prepared for the Early Construction and Operational Disposal Site L-3 (no building number), L-Area Rubble Pit (131-1L), and L-Area Rubble Pit (131-4L) operable unit. The operable unit is located near L Area at the Savannah River Site in Aiken, South Carolina (Figure ES-1). This document presents previous characterization data for the operable unit, defines the data quality objectives, determines the data needs for characterization, and provides a plan for the collection of additional data.

The operable unit consists of the three subunits: Early Construction and Operational Disposal Site L-3, L-Area Rubble Pit (131-1L), and L-Area Rubble Pit (131-4L) (Figure ES-1).

Early Construction and Operational Disposal Site L-3

The Early Construction and Operational Disposal Site L-3 subunit is one of twenty-five similar sites at Savannah River Site, which were identified during a review of early 1950s aerial photographs. These sites were used during the construction and early operation of Savannah River Site for disposal of construction debris and other non-radioactive waste materials such as rubble and concrete. The subunit is estimated to have been in use from November 1953 to June 1954 and there are no records of hazardous or radioactive waste disposal at the subunit. Sections of the trenches may have been used as a burn pit for disposal of combustible waste.

A site evaluation of the subunit was conducted in 2002 and results were reported in the *Site Evaluation Report for the Early Construction and Operational Disposal Site (ECODS) L-3 (NBN) (U)* (WSRC 2003). Based on the site evaluation report, in accordance with 300.420(b)(1)(I) of the National Oil and Hazardous Substances Pollution Contingency Plan, the Early Construction and Operational Disposal Site L-3 was removed from the Federal Facility Agreement Appendix G.1, *Areas to Be Investigated*, and placed in Appendix C, *RCRA/CERCLA Units*, for further action (FFA 1993). The characterization data for the subunit meets the Savannah River Site requirements for definitive level data that is of sufficient quality and quantity to conduct a baseline risk assessment to support remedial decision making.

L-Area Rubble Pit (131-1L)

The L-Area Rubble Pit (131-1L) subunit is a former waste disposal area reportedly used for various construction debris. Plant records indicate that metal, lumber, poles, and concrete were disposed of in the subunit. There are no records of hazardous or radioactive material disposed of at the pit. No characterization has been performed at the subunit. The L-Area Rubble Pit (131-1L) is in Appendix C of the Federal Facility Agreement, *RCRA/CERCLA Units*, for further assessment (FFA 1993). A soil-gas survey indicated volatile hydrocarbons consistent with typical landfill degradation exist.

L-Area Rubble Pit (131-4L)

The L-Area Rubble Pit (131-4L) subunit is an unlined pit, reported to have operated from 1973 to 1983, before it was filled and seeded in 1983. The subunit received inert rubble from the L-Area Powerhouse Stack and Silo demolition. The rubble consisted primarily of concrete and asphalt material with some metal. Operating procedures indicate it was to receive inert, non-hazardous materials and there are no records indicating any disposal of hazardous or radioactive materials.

A site evaluation of the subunit was conducted from 1992 to 1994 and results were reported in the *Site Evaluation Report for the L-Area Rubble Pit (131-4L) (U)* (WSRC 1994). Based on the site evaluation report, in accordance with 300.420(b)(1)(I) of the National Oil and Hazardous Substances Pollution Contingency Plan, the L-Area Rubble Pit (131-4L) was removed from Federal Facility Agreement Appendix G.1, *Areas to Be Investigated*, and placed in Appendix C, *RCRA/CERCLA Units*, for further assessment (FFA 1993). The quality of the characterization data set does not allow for it to be used in a baseline risk assessment.

## Conclusions and Objectives

An adequate data set exists for the Early Construction and Operational Disposal Site L-3 subunit from the 2002 site evaluation characterization. However, full characterization of the L-Area Rubble Pits (131-1L and 131-4L) is needed in order to define the nature and extent of contamination for risk screening and problem definition, and determination of likely response

actions. Based on the conceptual site model and data quality objectives, the conclusions and/or data needs for the three subunits are as follows:

Early Construction and Operational Disposal Site L-3

- No additional characterization is needed for the Early Construction and Operational Disposal Site L-3 subunit.

L-Area Rubble Pit (131-1L)

- There is no unit-specific data available. Therefore, sampling is proposed to define the nature and extent of contamination in surface and subsurface soils. These data are needed to support the principal threat source material evaluation, human health and ecological risk assessments, and a contaminant migration analysis.

- Due to the type of material that was disposed of in the pit, there is a possibility for the unit to contain asbestos-containing material. Therefore, material will be evaluated visually to determine the presence of asbestos-containing material during sampling.

L-Area Rubble Pit (131-4L)

- Due to insufficient definitive level data, inconsistent sampling depths, and lack of sampling location spatial reference information, previous sampling at the L-Area Rubble Pit (131-4L) subunit is inadequate for principal threat source material evaluation, human health and ecological risk assessments, and contaminant migration analysis. Therefore, sampling is proposed to define the nature and extent of contamination in surface and subsurface soils consistent with current protocols. These data are needed to support the principal threat source material evaluation, human health and ecological risk assessments, and the contaminant migration analysis for the subunit.

- Due to the type of material that was disposed of in the pit, there is a possibility for the unit to contain asbestos-containing material. Therefore, material will be evaluated visually to determine the presence of asbestos-containing material during sampling.

To accomplish these objectives, a sampling and analysis plan for the additional data needs at L-Area Rubble Pit 131-1L and 131-4L are included in this work plan. The proposed strategy for characterizing each subunit is summarized below.

L-Area Rubble Pit (131-1L)

- A ground penetrating radar survey is proposed to verify the subunit boundaries and depth.
- Sampling is proposed at 21 locations and at five depth intervals (Figure ES-2). Depth intervals include surface soil (0.0- to 0.3-meters [0- to 1-foot]) and subsurface soil (0.3- to 1.2-meters, 1.2- to 2.4-meters, 2.4- to 3.6-meters, and 3.6- to 4.9-meters [1- to 4-feet, 4- to 8-feet, 8- to 12-feet, and 12- to 16-feet]). A tentative subsurface soil depth is proposed at 4.9- to 6.1-meters (16- to 20-feet) depth.
- 21 locations have been identified in and around the subunit to aid in extent determination.
- All samples will be analyzed for all constituents on the Target Analyte List and Target Compound List, to include all volatiles, semi-volatiles, pesticides, and polychlorinated biphenyls, as well as radiological indicators (gross alpha and nonvolatile beta). Additionally, visual inspections for asbestos-containing material will be conducted during drilling operations.

L-Area Rubble Pit (131-4L)

- The L-Area Rubble Pit (131-4L) subunit is estimated to be approximately 36.6-meters by 30.5-meters (120- feet by 100-feet) based on the current orange ball marker locations and descriptions of the area in the site evaluation report (Figure ES-3).
- Sampling is proposed at 37 locations and four step-out locations at four depth intervals (Figure ES-3). The step-out sampling locations are proposed in the event the presence of buried debris is noted at sampling locations along the periphery of the northwestern side. Depth intervals include surface soil (0.0- to 0.3-meters [0- to 1-foot]) and subsurface soil (0.3- to 1.2-meters, 1.2- to 2.4-meters, and 2.4- to 3.6-meters [1- to 4-feet, 4- to 8-feet, and

8- to 12-feet]). A tentative subsurface soil depth is proposed at 3.6- to 4.9-meters (12- to 16-feet) depth.

- 37 locations have been identified in and around the subunit to aid in extent determination.

- All samples will be analyzed for all constituents on the Target Analyte List and Target Compound List, to include all volatiles, semi-volatiles, pesticides, and polychlorinated biphenyls, as well as radiological indicators (gross alpha and nonvolatile beta). Additionally, visual inspections for asbestos-containing material will be conducted during drilling operations.

The data obtained under this work plan will be used to support the baseline risk assessments, contaminant fate and transport analyses, and remedial assessment process for the Early Construction and Operational Disposal Site L-3, L-Area Rubble Pit (131-1L), and L-Area Rubble Pit (131-4L) operable unit. The work plan implementation is scheduled for a September 30, 2022, field start. The combined Resource Conservation and Recovery Act Facility Investigation/Remedial Investigation/Baseline Risk Assessment/Corrective Measures Study/Feasibility Study is scheduled for submittal in March 2024.

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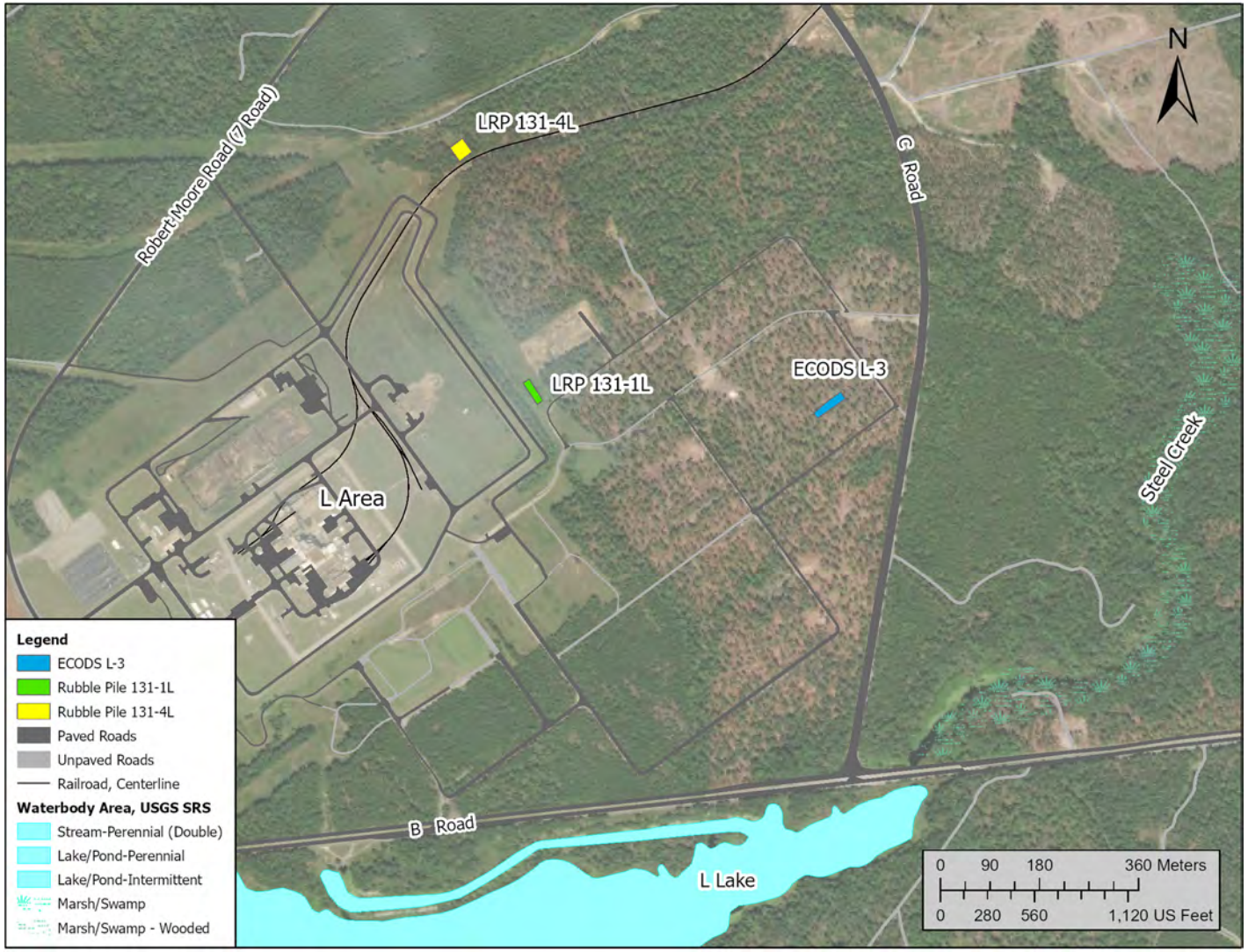



**Figure ES-1. Location of ECODS L-3, LRP 131-1L, and LRP 131-4L OU**

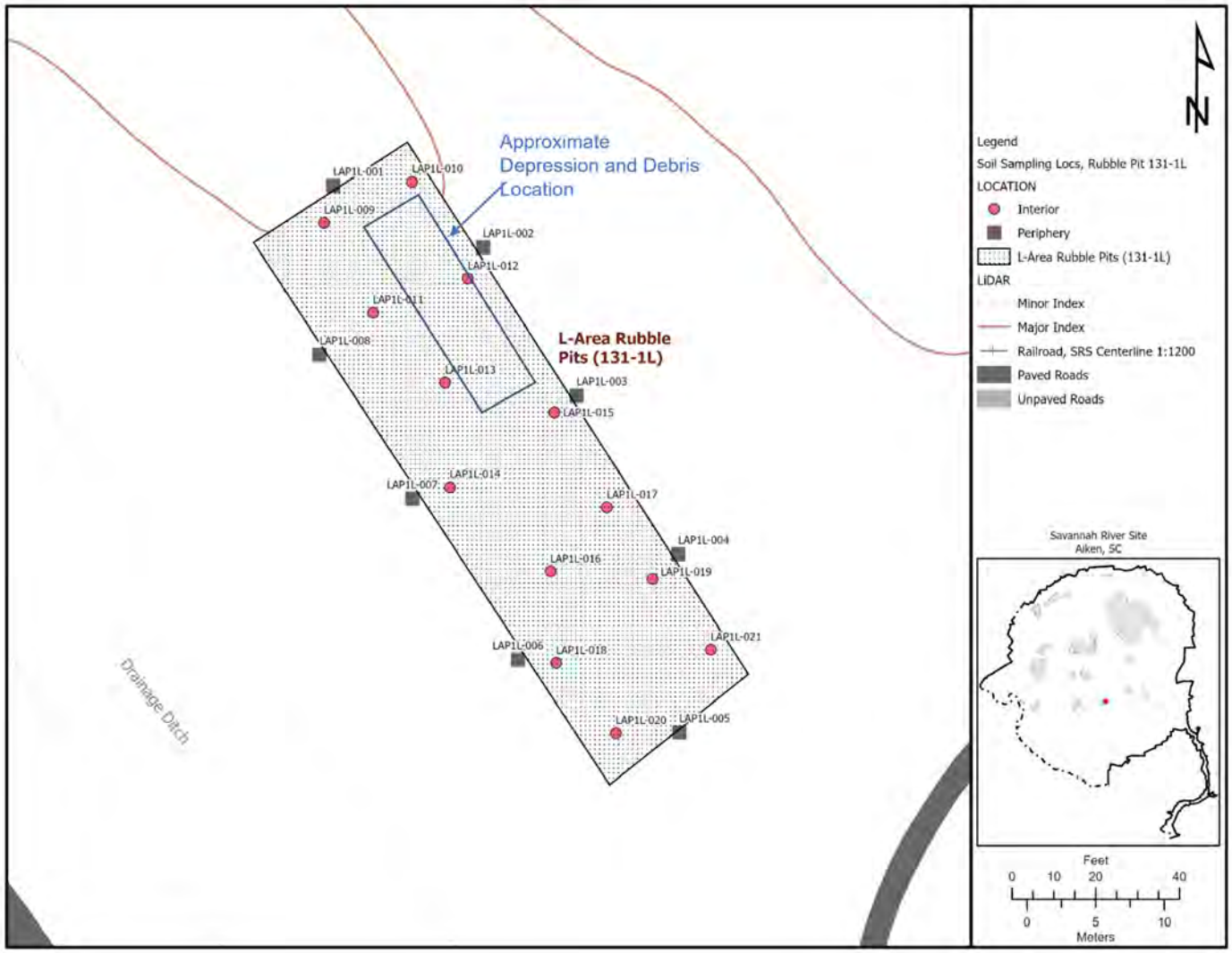
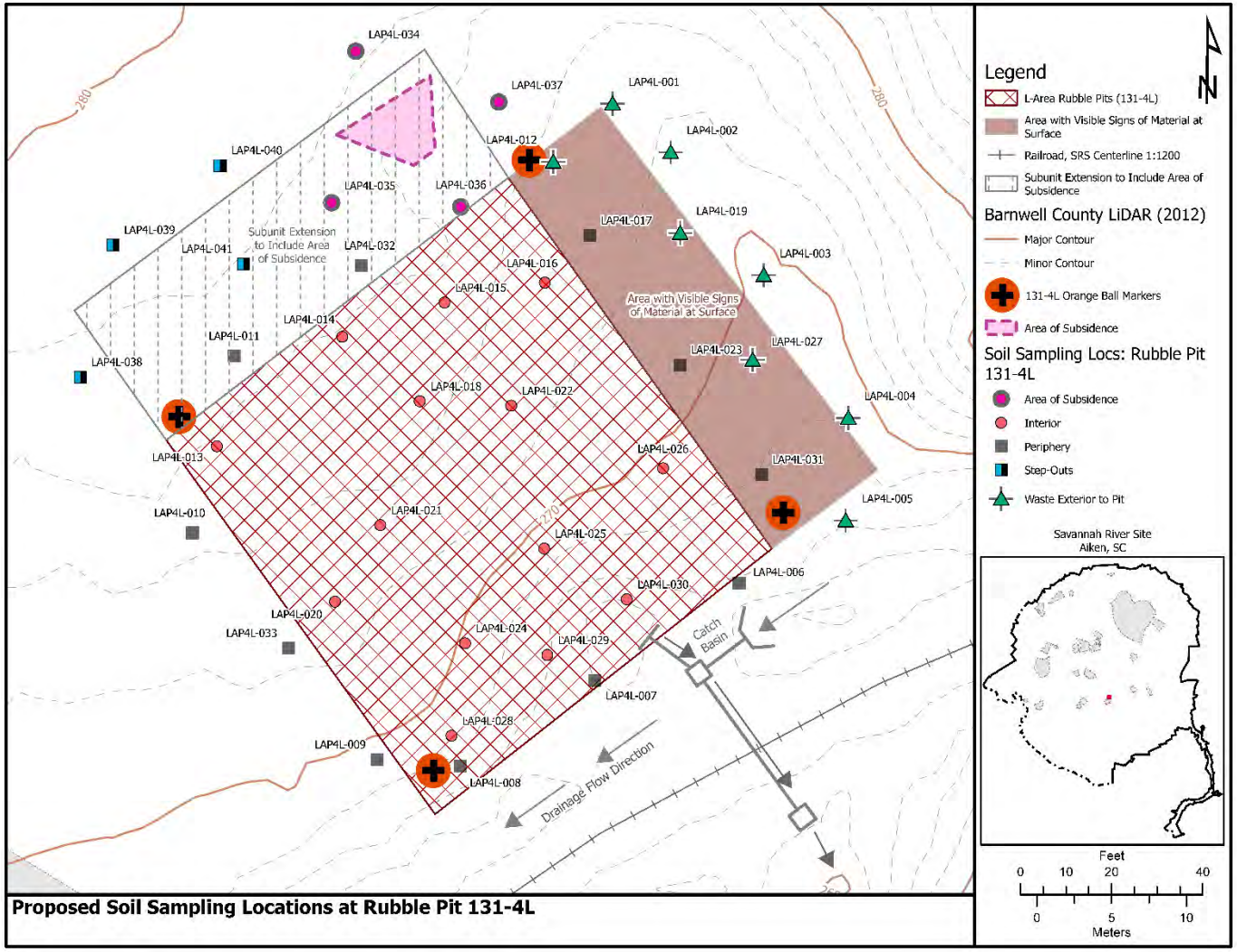



**Figure ES-2. Proposed RFI/RI Work Plan Sample Locations for the L-Area Rubble Pit 131-1L Subunit**

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## LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| ~ | approximate, approximately |
| < | less than |
| ≥ | greater than or equal to |
| °C | degrees Celsius |
| ACP | Area Completion Projects |
| amsl | above mean sea level |
| ARAR | applicable and/or relevant and appropriate requirement |
| As | arsenic |
| BaP | benzo(a)pyrene |
| BRA | baseline risk assessment |
| bgs | below ground surface |
| Cd | cadmium |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CFR | Code of Federal Regulations |
| CM | contaminant migration |
| CMCOC | contaminant migration constituent of concern |
| CMS | corrective measures study |
| COPC | constituent of potential concern |
| COPEC | constituent of potential ecological concern |
| Cr | chromium |
| $Cr^{+6}$ | hexavalent chromium |
| CRDL | contract required detection limit |
| CSM | conceptual site model |
| Cu | copper |
| CWM | clear wide-mouth glass jar |
| D | definitive |
| DEHP | bis(2-ethylhexyl)phthalate |
| DQD | decision quality data |
| DQO | data quality objective |
| ECO | ecological |
| ECODS | Early Construction and Operational Disposal Site |
| EN | essential nutrient |
| ERDMS | environmental restoration data management system |
| ESV | ecological screening value |
| FD | field duplicate |
| FFA | Federal Facility Agreement |
| FS | Feasibility Study |
| ft | feet |
| $ft^2$ | square feet |
| FY | fiscal year |
| g | gram |
| GPR | ground penetrating radar |

## LIST OF ABBREVIATIONS AND ACRONYMS *(Continued)*

| | |
|---|---|
| $H_2SO_4$ | sulfuric acid |
| HASP | Health and Safety Plan |
| HCL | hydrochloric acid |
| HDPE | high-density polyethylene plastic bottle |
| Hg | mercury |
| HH | human health |
| HI | Hazard Index |
| $HNO_3$ | nitric acid |
| HQ | hazard quotient |
| IDW | investigation derived waste |
| km | kilometer |
| L | liter |
| LANL | Los Alamos National Laboratory |
| LASG | L-Area Southern Groundwater |
| LOAEL | lowest observed adverse effect level |
| LRP | L-Area Rubble Pit |
| m | meter |
| $m^2$ | square meter |
| MCL | maximum contaminant level |
| MDA | minimum detectable activity |
| MDL | method detection limit |
| µg/kg | microgram per kilogram |
| mg/kg | milligram per kilogram |
| mi | mile |
| mL | milliliter |
| MS | matrix spike |
| MTBE | methyl tertiary butyl ether |
| $NaHSO_4$ | sodium bisulfate |
| NBN | no building number |
| Ni | nickel |
| NNS | no national standard |
| NPDES | National Pollutant Discharge Elimination System |
| OU | operable unit |
| PAH | polycyclic aromatic hydrocarbons |
| Pb | lead |
| PCB | polychlorinated biphenyl |
| PCE | tetrachloroethylene |
| pCi/g | picocuries per gram |
| PQO | project quality objectives |
| PRG | preliminary remediation goal |
| PTFE | teflon lined seals |
| PTSM | principal threat source material |
| QA | quality assurance |

## LIST OF ABBREVIATIONS AND ACRONYMS *(Continued/End)*

| | |
|---|---|
| QAPP | Quality Assurance Program Plan |
| QC | quality control |
| RB | equipment/rinsate blank |
| RCRA | Resource Conservation and Recovery Act |
| RFI | RCRA Facility Investigation |
| RI | Remedial Investigation |
| RPD | relative percent difference |
| RSL | regional screening level |
| RSV | refinement screening value |
| ROD | record of decision |
| SAP | sampling and analysis plan |
| SARA | Superfund Amendments Reauthorization Act |
| Sb | antimony |
| SCDHEC | South Carolina Department of Health and Environmental Control |
| SD | screening data |
| SE | site evaluation |
| SEMS | Superfund Enterprise Management System |
| SER | site evaluation report |
| SME | subject matter expert |
| SPL | split sample |
| SRNS | Savannah River Nuclear Solutions, LLC |
| SRS | Savannah River Site |
| ssEQL | sample specific estimated quantification limit |
| TAL | Target Analyte List |
| TB | trip blank |
| TBC | to-be-considered |
| TCE | trichloroethylene |
| TCL | Target Compound List |
| TO | Technical Oversight |
| UAZ | Upper Aquifer Zone |
| USC | unit-specific constituents |
| USDOE | United States Department of Energy |
| USEPA | United States Environmental Protection Agency |
| UU | Unverified and Unvalidated |
| V | vanadium |
| VOA | volatile organic analysis |
| VOC | volatile organic compound |
| VU | Verified and Unvalidated |
| VV | Verified and Validated |
| VZCOMML | Vadose Zone Contaminant Migration Model-Multi-Layered software V.4.0 |
| WSRC | Washington Savannah River Company, LLC |
| WSRC | Westinghouse Savannah River Company, LLC |
| Zn | zinc |

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# 1.0 INTRODUCTION

This Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Remedial Investigation (RI) work plan has been prepared for the Early Construction and Operational Disposal Site (ECODS) L-3 (no building number [NBN]), L-Area Rubble Pit (LRP) (131-1L), and LRP (131-4L) operable unit (OU). The ECODS L-3, LRP 131-1L, and LRP 131-4L OU is located near L Area at the Savannah River Site (SRS).

Varying levels of previous characterization data exist for each of the three OU subunits. Site evaluation (SE) data reported in 2003 for the ECODS L-3 subunit and in 1994 for the LRP 131-4L subunit will be discussed in this RFI/RI work plan. There is no subunit-specific characterization data for the LRP 131-1L subunit; however, a soil-gas prescreen was performed at the subunit. SE data provides an opportunity to proactively consider data uncertainties, problems warranting action, remedial action objectives, and likely response actions. However, the primary objectives of the RFI/RI work plan are to summarize existing data for the three subunits and identify additional data needs. Within this RFI/RI work plan, a sampling and analysis plan (SAP) will be included to present the scope and objectives of characterization efforts for the subunits.

## 1.1 RFI/RI Work Plan Organization

Section 1.0 discusses the purpose and organization of the report, regulatory background, unit description, and process history, geology and hydrogeology for the ECODS L-3, LRP 131-1L, and LRP 131-4L OU subunits. Section 2.0 presents analytical data and comparisons to screening levels from previous investigations, including the 2003 and 1994 SE reports (SERs) for the ECODS L-3 and LRP 131-4L subunits, respectively. Section 3.0 formulates data quality objectives (DQOs) as a basis for planning additional work. Section 4.0 describes how each subunit source will be evaluated and the data collection to be performed in fiscal year (FY) 2023. The SAP for additional data collection is incorporated into Sections 5.0 through 7.0 of the report rather than submitted as a separate SAP report. Section 5.0 describes the design and rationale of the unit characterization work proposed for FY2023. Section 6.0 provides the analytical plan and data quality levels for each type of data to be collected. Section 7.0 describes the field collection procedures for the planned samples.

Finally, Section 8.0 presents the unit-specific safety, health, and emergency response plan, and Section 9.0 presents the project schedule following the RFI/RI work plan submittal.

## 1.2 Regulatory Background

On December 21, 1989, SRS was included on the National Priorities List. The inclusion created a need to integrate the established RCRA program with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements to provide for a focused environmental program. In accordance with Section 120 of CERCLA 42 United States Code Section 9620, the United States Department of Energy (USDOE) negotiated a Federal Facility Agreement (FFA) with United States Environmental Protection Agency (USEPA) and South Carolina Department of Health and Environmental Control (SCDHEC) to coordinate remedial activities at SRS into one comprehensive program which fulfills these dual regulatory requirements (FFA 1993). The FFA is a legally binding agreement between regulatory agencies and USDOE that establishes the responsibilities and schedules for the comprehensive remediation of SRS. The ECODS L-3, LRP 131-1L, and LRP 131-4L OU is listed in Appendix C of the FFA (FFA 1993).

### *1.2.1 ECODS L-3 Subunit*

The ECODS L-3 is one of twenty-five ECODS at SRS which were identified during a review of early 1950s aerial photographs. These sites were used during the construction and early operation of SRS for disposal of construction debris and other non-radioactive waste materials, such as rubble and concrete. ECODS L-3 is estimated to have been in use from November 1953 to June 1954 and there are no records of hazardous or radioactive waste disposal at the subunit. Prior to use as a disposal site, the area was farmland. Sections of the disposal trenches may have been used as a burn pit for disposal of combustible waste.

A SE of the ECODS L-3 subunit was conducted in 2002 and results were reported in the *Site Evaluation Report for the Early Construction and Operational Disposal Site (ECODS) L-3 (NBN) (U)* (Westinghouse Savannah River Company, LLC [WSRC] 2003). Based on the site evaluation report (SER), in accordance with 300.420(b)(1)(I) of the National Oil and Hazardous Substances Pollution Contingency Plan, the ECODS L-3 was removed from FFA Appendix G.1, *Areas to Be*

*Investigated*, and placed in Appendix C, *RCRA/CERCLA Units*, for further assessment (FFA 1993).

### *1.2.2 LRP 131-1L Subunit*

The LRP 131-1L subunit is a former waste disposal area reportedly used for various construction debris. There is no documentation for the subunit dates of operation. Based on the presence of construction debris, it is likely the LRP 131-1L subunit was active at the same time as the ECODS L-3 subunit in the early 1950s. SRS records indicate that metal, lumber, poles, and concrete were disposed of in the LRP 131-1L subunit. There are no records of hazardous or radioactive material disposed of at the pit. An initial soil-gas survey of the LRP 131-1L subunit was performed which indicated the presence of volatile hydrocarbons consistent with typical landfill degradation. No other characterization has been performed at the LRP 131-1L subunit. The LRP 131-1L is in Appendix C of the FFA, *RCRA/CERCLA Units*, for further assessment (FFA 1993).

### *1.2.3 LRP 131-4L Subunit*

The LRP 131-4L subunit is an unlined pit, reported to have operated from 1973 to 1983, before it was filled and seeded in 1983. The LRP 131-4L subunit received inert rubble from the L-Area Powerhouse Stack and Silo demolition. The rubble consisted primarily of concrete and asphalt material with some metal. Operating procedures indicate it was to receive inert, non-hazardous materials and there are no records indicating any disposal of hazardous or radioactive materials.

A SE of the LRP 131-4L subunit was conducted from 1992 to 1994 and results were reported in the *Site Evaluation Report for the L-Area Rubble Pit (131-4L) (U)* (WSRC 1994). Based on the SER, in accordance with 300.420(b)(1)(I) of the National Oil and Hazardous Substances Pollution Contingency Plan, the LRP 131-4L was removed from FFA Appendix G.1, *Areas to Be Investigated*, and placed in Appendix C, *RCRA/CERCLA Units*, for further assessment (FFA 1993).

## 1.3 Land Use

The ECODS L-3, LRP 131-1L, and LRP 131-4L OU is located in an area designated for industrial use as defined by the *Land Use Control Assurance Plan for the Savannah River Site* (WSRC 1999).

No current or future development of the OU is planned. Land use controls will be part of any remedial action to ensure prevention of unrestricted use (e.g., residential), unless unrestricted use is supported by the RFI/RI baseline risk assessment (BRA) results. Groundwater is not part of the OU and is addressed in the L-Area Southern Groundwater (LASG) OU monitored natural attenuation final remedy. There is no current or projected future use of the groundwater as a drinking water source.

## 1.4 Summary of Unit Description

L Area is located in the southern portion of the SRS (Figure 1). Prior to construction of L Area, the land was farmland. The ECODS L-3, LRP 131-1L, and LRP 131-4L OU is within the Steel Creek Watershed. L Area is an industrialized area of SRS, consisting primarily of a nuclear reactor and support facilities that operated from August 1954 to 1968 and 1984 to 1988. Between 1968 and 1984, the reactor facility was in warm standby (WSRC 2005). Facilities in L Area are still active, with the primary mission of receiving, stabilizing and dispositioning spent nuclear fuel.

### *1.4.1 ECODS L-3 Subunit*

The ECODS L-3 subunit is located in the southern portion of SRS and is one of twenty-five ECODS that were identified during a review of early 1950s aerial photographs (Figure 2). ECODS were used during the construction and early operation of SRS for disposal of construction debris and other waste material. Based on experience at SRS with ECODS units and the dates of operation for the ECODS L-3, it is assumed that asbestos-containing material is potentially present at the ECODS L-3 subunit. The waste at ECODS L-3 was buried in two trenches estimated to be approximately (~) 18-meters (m) (60-feet [ft]) wide by 30 m (100 ft) long for a total subunit size of ~18 m (60 ft) wide by 60 m (200 ft) long (Figure 3). A 2002 SE effort determined the trench dimensions were actually ~15 m (50 ft) wide by 27 m (90 ft) long and 4.6 m (15 ft) wide by 27 m (90 ft) long. Sections of the trenches may have been used as a burn pit for combustible waste disposal.

The ECODS L-3 subunit is located in the southern portion of the SRS, immediately southeast of L Area (Figure 2). The subunit is ~9.7-kilometers (km) (6.0-miles [mi]) north of the nearest SRS

boundary and is within the Steel Creek Watershed. The ECODS L-3 subunit is located ~518 m (1,700 ft) southeast of the southeastern corner of the L Area perimeter fence.

The ECODS L-3 subunit is in a relatively flat area that slopes gradually to the southwest and is covered in mature pine trees with a moderately dense understory (Figures 3 and 4). There is no evidence of stained soil or stressed vegetation within the ECODS L-3 subunit. The depth to groundwater at the ECODS L-3 subunit is ~10.7 m (35 ft) below ground surface (bgs). The nearest wetland to the ECODS L-3 subunit is the extensive wetland areas associated with L Lake, ~0.6 km (0.4 mi) to the south. The nearest RCRA/CERCLA unit is the LRP 131-1L, which is ~488 m (1,600 ft) northwest of the ECODS L-3 subunit.

Elevation at the ECODS L-3 subunit is ~76 m (250 ft) above mean sea level (amsl) (Figure 3). Surface drainage flows overland for ~0.6 km (0.4 mi) to the southwest until reaching a ponded area of Steel Creek at the northwest intersection of SRS Roads B and C (Figure 5). This area flows through a culvert, under Road B, and into L Lake. From this point, L Lake flows southwest and south for 5.6 km (3.5 mi) before discharging into lower Steel Creek. Steel Creek flows south and west for an additional 12 km (7.5 mi) before discharging into the Savannah River. Drainage from the ECODS L-3 subunit does not discharge to a National Pollutant Discharge Elimination System (NPDES)-permitted storm water outfall, as it is in an area not served by storm sewers.

According to the U.S. Soil Conservation Service Soil Survey, soils at the subunit consist of Wagram Sand. This well-drained soil type consists of a surface layer of pale brown sand, with a subsurface layer of pale yellow sand, and a subsoil of yellowish brown fine sandy loam. The soil is moderately to very strongly acidic, with moderate permeability and low water capacity (USDA 1990).

In general, the geology in the area is typical coastal plain sediments consisting of alternating beds of sands, silts, and clays. More specifically based on a nearby soil boring (LSW020), the geology at shallow depths where the OU is constructed mainly consist of clayey sands with increasing clay zones in subsurface sediments with low permeability at greater depths. A copy of the boring log is provided in Attachment A.

A regional potentiometric surface of the Upper Aquifer Zone (UAZ) was developed in 2003 using water levels and stream measurements from wells and surface water bodies in the area. The constructed surface indicates that shallow groundwater flow in the vicinity of the ECODS L-3 subunit is southeasterly towards Steel Creek and ultimately to L Lake (Figure 6). The regional direction of groundwater flow matches recent LASG OU specific groundwater flow and potentiometric surface. The regional potentiometric surface was used to depict the general groundwater surface and flow direction because the unit-specific potentiometric surface does not include the three subunits.

### *1.4.2 LRP 131-1L Subunit*

The LRP 131-1L subunit is located to the east of L Area, ~46 m (150 ft) outside of the facility boundary fence (Figure 2). The subunit is a rectangular area ~12 m (40 ft) by 46 m (150 ft) (Figure 7). Although there is not reliable information on the pit depth, typical disposal trenches used at SRS are ~3.0 m (10 ft) deep. Based on nearby groundwater monitoring well cluster LAW 3, groundwater depth at this location is ~4.6 m (15 ft) bgs.

The subunit area is covered in heavy brush and scattered, mature pine trees with no sign of stress (Figure 8). During site visits in 1991, there was no evidence of buried materials, surface disturbance, or visible protrusions (WSRC 1991). However, during a site visit on December 7, 2021, asphalt debris on the surface was observed (Figure 9) and an obvious depression was observed within the subunit (Figure 10).

The surface elevation at the LRP 131-1L is ~75 m (246 ft) amsl and is relatively flat across the subunit. The subunit gently slopes to the southeast (Figures 5 and 7). Running adjacent to the LRP 131-1L subunit is a man-made ditch with a depth of ~3.0 m (10 ft) and width ranging from 15 to 21 m (50 to 70 ft) (Figures 7 and 11). The ditch receives rainfall runoff and runs to the south, following the L Area facility fenceline. The LRP 131-1L subunit is within the Steel Creek Watershed; runoff from the subunit eventually discharges to Steel Creek, located ~1,280 m (4,200 ft) southeast of the pit. Steel Creek flows ~400 m (1,300 ft) before discharging to L Lake. From this point, L Lake flows southwest and south for 5.6 km (3.5 mi) before discharging into Steel Creek again. Steel Creek flows south and west for an additional 12 km (7.5 mi) before

discharging into the Savannah River. Drainage from the LRP 131-1L does not discharge to a NPDES-permitted storm water outfall, as it is in an area not served by storm sewers.

The elevation of the LRP 131-lL is ~75 m (246 ft) amsl and the topography is relatively flat. The water table beneath the rubble pit is ~4.6 m (15 ft) bgs and occurs in the Barnwell Group formations.

In general, the geology in the area is typical coastal plain sediments consisting of alternating beds of sands, silts, and clays. More specifically, description of subsurface sediments from a nearby boring (LSW 4C) indicates the geology at shallow depths where the OU is constructed mainly consists of clayey to silty sands. The first competent unit with increased clay content, or continuous soil layer that is resistant to vertical groundwater flow, is observed at a depth of ~35.1 m (115 ft) bgs. A copy of the boring log is provided in Attachment B.

A regional potentiometric surface of the UAZ was developed in 2003 using water levels and stream measurements from wells and surface water bodies in the area. The constructed surface indicates that shallow groundwater flow in the vicinity of the LRP 131-1L subunit is to the south towards L Lake (Figure 6). The regional direction of groundwater flow matches recent LASG OU specific groundwater flow and potentiometric surface. The regional potentiometric surface was used to depict the general groundwater surface and flow direction because the unit-specific potentiometric surface does not include the three subunits.

### *1.4.3 LRP 131-4L Subunit*

The LRP 131-4L subunit is located north of the L-Area fence and east of Road 7. The area slopes to the southeast toward railroad tracks which continue into L Area (Figures 5 and 12). Just before the railroad tracks on the southeastern end of the subunit, there is a depression and drainpipe which collects runoff and carries it through a culvert under the railroad tracks. Orange ball markers were placed to designate the subunit boundaries, an area ~30.5 m by 30.5 m (100 ft by 100 ft). However, during the 1994 SE evaluation, the subunit size was questioned due to land disturbance on the northwestern side of the subunit, outside of the orange ball markers. This was confirmed in a recent walkdown of the area. Based on survey of the area, the subsidence area is ~12.2 m (40 ft)

from the original pit boundary. Within the subsidence area, three depressed areas were noted. One of the depressed areas represents the largest surface expression with a depth greater than 1.2 m (4 ft). Debris was noted in and around this depression. Therefore, the size of the subunit is considered to be ~42.7 m by 30.5 m (140 ft by 100 ft) to include the disturbed land. Observations of debris on the northeastern side of the subunit, outside of the orange ball markers, were made during multiple site visits in 2022. The nearest RCRA/CERCLA unit is the L-Area Bingham Pump Outage Pits (643-2G and 643-3G), located ~305 m (1,000 ft) to the northwest. This unit is located side-gradient of the LRP 131-4L subunit and related effects are not expected.

The LRP 131-4L subunit area is covered in dense vegetation and is surrounded by mature pine trees. There is no evidence of stressed vegetation at the subunit. During the SE, fragments of blacktop and asphalt were observed on the surface. This observation was confirmed during a subunit walkdown on December 7, 2021 (Figure 14). The subunit surface elevation ranges from ~81 to 84 m (265 to 275 ft) amsl (Figure 12). The water table in this area is ~7.6 m (25 ft) bgs. Surface runoff flows across the subunit to the southeast and collects at the culvert, which then travels under the nearby railroad tracks. This culvert and drainage system discharges to L Lake, ~1,300 m (4,300 ft) away. From this point, L Lake flows southwest and south for 5.6 km (3.5 mi) before discharging into Steel Creek. Steel Creek flows south and west for an additional 12 km (7.5 mi) before discharging into the Savannah River. Drainage from the LRP 131-4L does not discharge to a NPDES-permitted storm water outfall, as it is in an area not served by storm sewers.

There is limited information close to the LRP 131-4L subunit in providing details relative to the local geology at the unit. In general, the geology in the area is typically coastal plain sediments consisting of alternating beds of sands, silts, and clays. More specifically, it was noted in the LRP 131-4L SER that the backfill soils in this area contained a significant amount of clay and at one deeper sample point, a fairly “pure” layer of kaolin clay was encountered. There are no nearby borings to provide additional details on the geological setting of the OU. However, the nearest boring (LSW 4C) is located at the LRP 131-1L subunit. Description of subsurface sediments mainly consists of clayey to silty sands. The first competent unit with increased clay content is observed at a depth of ~35.1 m (115 ft) bgs. For reference, a copy of the boring log is provided in Attachment B.

A regional potentiometric surface of the UAZ was developed in 2003 using water levels and stream measurements from wells and surface water bodies in the area. The constructed surface indicates that shallow groundwater flow in the vicinity of the LRP 131-4L subunit is south-southwesterly towards L Lake (Figure 6). The regional direction of groundwater flow matches recent LASG OU specific groundwater flow and potentiometric surface. The regional potentiometric surface was used to depict the general groundwater surface and flow direction because the unit-specific potentiometric surface does not include the three subunits.

# 2.0 PRELIMINARY UNIT EVALUATION

The purpose of this section is to describe and summarize the existing information available for the ECODS L-3, LRP 131-1L, and LRP 131-4L OU. The results above respective method detection limits (MDLs) from the ECODS L-3 subunit SER and the LRP 131-4L subunit SER are provided in Appendix A and Appendix B, respectively. When applicable, this data was compared to risk-based and contaminant migration (CM) thresholds and used to identify potential problems warranting action and additional data gaps for nature and extent of contamination determinations. A summary of the unit evaluations for the three subunits is discussed in more detail below.

## 2.1 Previous Investigations

### *2.1.1 ECODS L-3 Subunit*

SE characterization efforts in 2002 included a radiological control survey, a ground penetrating radar (GPR) survey, and soil sampling. The radiological control survey designated the area as a "Clean Area." Two confirmation samples were sent for laboratory analyses of gross alpha and nonvolatile beta. Sample results confirmed both samples were below the screening level of 20-picocuries per gram (pCi/g) for gross alpha and 50 pCi/g for nonvolatile beta.

Based on historical photographs, it is estimated that waste disposed of in the ECODS L-3 subunit was buried in two trenches located end-to-end and each ~18 m (60 ft) wide by 30 m (100 ft) long. The boundaries of the trenches were estimated by the 2002 GPR survey completed, with the size of each trench determined to be ~15 m (50 ft) wide by 27 m (90 ft) long and 4.6 m

(15 ft) wide by 27 m (90 ft) long (Figure 3). The GPR survey estimated the depth as ~7.3 m (24 ft). However, during soil sampling, the bottom of the two trenches within the subunit were confirmed at depths of 3.4 m (11 ft) or less. Depth to groundwater at the subunit is ~10.7 m (35 ft) bgs (WSRC 2003).

The 2002 SE composite soil sampling was performed at 23 locations, including 5 background locations, using direct push technology (Figure 3). Eighteen of the locations (EL3-01 through EL3-18) were distributed systematically throughout the area using a grid pattern. Sample locations EL3-01 through EL3-16 were within the trenches; sample location EL3-17 was adjacent to the east end of the eastern trench; and sample location EL3-18 was between the two trenches. The remaining five sampling locations were selected based on the groundwater flow path (one side-gradient location, EL3-l 9; one down-gradient location, EL3-20; and three up-gradient background locations, EL3-21 through EL3-23). According to the protocol used at the time, the samples were collected, the three up-gradient samples were used to calculate the site-specific background mean. Following the USEPA and SCDHEC guidance for assessing the site worker and the resident exposure scenarios, sample depth intervals included 0.0 to 0.3 m (0 to 1 ft) and 0.3 to 1.2 m (1 to 4 ft) for the site worker and resident scenarios, respectively.

Examination of the direct push soil cores within the ECODS L-3 subunit revealed that undisturbed soil was present at all sample locations at depths of 3.4 m (11 ft) or less. Therefore, additional samples were collected at various depths ranging from 1.2 to 3.7 m (4 to 12 ft). Based on the depths where native soil was encountered, samples were collected ~0.6 m (2 ft) below the depth of the trenches as indicated by examination of the soil samples. The depths of these intervals are displayed in Table 1. Additional samples were collected from a depth of up to 4.9 m (16 ft) at the first two sample locations (EL3-01 and EL3-02) to confirm the presence of undisturbed soil at these locations. All background locations were also sampled up to 4.9 m (16 ft) for twice the background mean calculations. Field duplicate (FD) samples were identified with an "FD" flag (Table 1). Five equipment/rinsate blanks (RB) and six trip blanks (TB) also were collected for quality assurance. SE soil sampling results above MDLs are presented in Appendix A.

Sampling personnel noted the presence of waste materials (including glass, metal, and rubber) at sample locations EL3-0l, EL3-06, EL3-07, EL3-08, EL3-10, EL3-14, and EL3-15 at depths ranging from 0 to 2.4 m (0 to 8 ft).

The definitive level data from the SER is considered usable for the purposes of performing a BRA to support remedial decision making. SER data and estimates of subsurface lithology from nearby cone penetrometer technology borehole logs were used to perform a preliminary CM screening using Vadose Zone Contaminant Migration Model-Multi-Layered software (V.4.0) (VZCOMML©).

### *2.1.2 LRP 131-1L Subunit*

The only previous investigation performed at the LRP 131-1L subunit was a soil-gas survey performed in 1991 to determine if hazardous waste may be present in the subsurface soils and to identify potential areas of contamination within the unit. A total of ten soil-gas samples were collected along the centerline of the longer subunit dimension, with ~4.6 m (15 ft) spacing. Quality control (QC) samples were also collected and analyzed, following two standards and two blanks for each 20 samples. Samples were analyzed for hydrocarbons and chlorinated hydrocarbons.

### *2.1.3 LRP 131-4L Subunit*

As part of the SE effort, a soil-gas survey, a radiological control survey, a GPR survey, and soil sampling was performed at the LRP 131-4L subunit (WSRC 1994). The soil-gas survey of the LRP 131-4L subunit was performed in 1992 and very low levels of tetrachloroethylene (PCE) and mercury (Hg) were detected. The radiological control survey, completed in 1992, determined that the subunit was a “Clean Area” due to no radioactive contamination detected.

The GPR survey was performed in July 1994 in order to define the boundaries of the subunit and to determine the depth for soil sampling. GPR data indicated that the pit ranged between 1.2 to 2.1 m (4 to 7 ft) in depth and slopes toward the southeast, following the subunit topography. The subunit boundaries were not able to be definitively determined from the GPR survey. Recent site visits noted the location of the area of subsidence northwest of the pit boundary along with the presence of debris on the surface and within the area of subsidence. Additionally, debris was noted

on the surface to an area northeast of the subunit, outside of the orange ball markers. Therefore, the size of the subunit may be larger than the original subunit boundaries and will be expanded for sampling. Orange ball markers indicate the original subunit boundary corners (Figure 12 and 13).

In September 1994, soil sampling was performed to confirm and investigate the presence of PCE and Hg at the LRP 131-4L, as well as identify nature and extent of any other contaminants present. Eleven subunit locations and one background location were identified for the SE soil sampling (Figure 13). At three sample locations on the downgradient side of the subunit, samples were taken from 1.5 to 2.1 m (5 to 7 ft) bgs to investigate potential migration of contaminants from the subunit. Over 20 attempts were made to collect a deep sample (1.5 to 2.1 m [5 to 7 ft] bgs) from the middle of the subunit area, but a homogenous layer of asphalt and concrete was encountered at ~0.3 to 0.6 m (1 to 2 ft) throughout the area. A deep sample (1.5 to 2.1 m [5 to 7 ft] bgs) was taken at the background location. A total of eleven surface samples (depths shallower than 0.9 m [3 ft] bgs) and three subsurface samples (deeper than 0.9 m [3 ft] bgs) were taken from the subunit.

## 2.2 Unit Evaluation Conclusions

### *2.2.1 ECODS L-3 Subunit*

Preliminary screening of the 2003 SER data was performed in 2022 for the ECODS L-3 subunit by comparing the soil data to USEPA regional screening levels (RSLs) and SRS soils background data. A more detailed screening at this early stage of the RI/Feasibility Study (FS) process allows for better identification of problems that may warrant action and potential data gaps. Preliminary data screening tables are presented in Appendix C.

Preliminary human health (HH) risk screening on the ECODS L-3 subunit data was performed using the maximum detected concentration from the 0.0 to 0.3 m (0 to 1 ft) soil depth interval. The USEPA RSL table was used to obtain the thresholds for the default residential scenario used in the evaluation (USEPA 2021). Aluminum, antimony (Sb), cadmium (Cd), chromium (Cr), iron, lead (Pb), benzo(a)pyrene (BaP), polychlorinated biphenyl (PCB) 1254 and PCB 1260 were identified as HH constituents of potential concern (COPCs) in surface soil. From the list of COPCs, maximum detected concentrations of Cr (assume hexavalent chromium [$Cr^{+6}$]), Pb, PCB

1254 and PCB 1260 were greater than the industrial worker RSLs at the ECODS L-3 subunit (Figures 15-18).

Preliminary principal threat source material (PTSM) screening was performed using the maximum detected concentration from the all-depth soil intervals (0.0 to 0.3 m, 0.3 to 1.2 m, 1.2 to 2.4 m, 2.4 to 3.7 m, and 3.7 to 4.9 m [0 to 1 ft, 1 to 4 ft, 4 to 8 ft, 8 to 12 ft, and 12 to 16 ft]). In general, principal threat wastes are those source materials considered to be highly toxic or highly mobile which generally cannot be contained in a reliable manner or would present a significant risk to HH or the environment should exposure occur. The source material (i.e., soil) is preliminarily considered to be PTSM if the cumulative industrial worker risk exceeds 1E-03 for carcinogens and/or Hazard Index (HI) greater than 10 for noncarcinogens. The USEPA RSL table was used to obtain the thresholds for the default industrial worker scenario used in the evaluation (USEPA 2021). The data screening indicated that there is no PTSM (HI = 2.1, risk = 4.0E-05) at the ECODS L-3 subunit.

Preliminary ecological (ECO) risk screening was performed using the maximum detected concentration from the 0.0 to 0.3 m (0 to 1 ft) and 0.3 to 1.2 m (1 to 4 ft) depth intervals. The USEPA Region 4 Ecological Risk Assessment Supplemental Guidance (USEPA 2018) and the Los Alamos National Laboratory (LANL) EcoRisk Database (LANL 2017) were used to obtain the no-effect screening levels used in data screening. Sb, Cd, Cr, copper (Cu), Pb, Hg, nickel (Ni), zinc (Zn), bis(2-ethylhexyl)phthalate (DEHP), cyanide, PCB 1254, and PCB 1260 were identified as ECO COPCs for terrestrial receptors in the 0.0 to 0.3 m (0 to 1 ft) interval (Cu had the highest risk [Figure 19]). Maximum detected concentrations of the COPCs (except Sb and PCB 1260) are greater than lowest observed adverse effects level (LOAEL) – based refinement screening values (RSVs) for ECO receptors.

Preliminary ECO COPCs in the 0.3 to 1.2 m (1 to 4 ft) interval include: Sb, Cd, Cr, Cu, Pb, manganese, Hg, Ni, vanadium (V), Zn, 1,1-biphenyl, polycyclic aromatic hydrocarbons (PAHs) (13 total, including: benzo[g,h,i]perylene, benzo[a]anthracene, BaP, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, pyrene), DEHP, carbazole, and PCB 1254

(benzo[a]anthracene had the highest risk of the PAHs [Figure 20]). From the list of COPCs, maximum detected concentrations of Sb, Cd, Cr, Cu, Pb, Hg, Ni, V, Zn, benzo(a)anthracene, fluoranthene, pyrene, DEHP, and PCB 1254 are greater than LOAEL – based RSVs for ECO receptors.

The preliminary contaminant migration constituent of concern (CMCOC) screen by VZCOMML© did not identify any potential CMCOCs for the ECODS L-3 subunit.

### *2.2.2 LRP 131-1L Subunit*

There is no characterization data for the LRP 131-1L subunit that is usable for a preliminary data screening. Results of the soil-gas survey indicate volatile hydrocarbon compounds from methane through hexane are likely to be present in subunit soils. The concentration of methane exceeds the cumulative concentrations of the other compounds detected. The results are consistent with degradation of typical landfill contents (i.e., lumber, construction debris, etc.). However, contamination within the subunit cannot be ruled out and further investigation is warranted.

### *2.2.3 LRP 131-4L Subunit*

The data set from the 1994 SER was used to perform preliminary data screening for LRP 131-4L subunit by comparing the soil data to USEPA RSLs and SRS soils background data. All soil samples were analyzed for constituents on the Target Compound List (TCL) with Tentatively Identified Compounds and for constituents on the Target Analyte List (TAL). Results above MDLs are presented in Appendix B. Elevated levels of semivolatile compounds were detected in surface samples at nine locations. The maximally detected constituent was BaP, with levels as high as 2,200-micrograms per kilogram (µg/kg). Other PAHs were detected in the area but were below action levels. No volatile compounds were detected. Metal values were either similar to the background results or were well below respective action levels. Neither PCE nor Hg were detected in any soil samples.

This screening-level data is not considered usable for the purposes of performing a BRA to support remedial decision. However, the screening was performed to provide a preliminary indication of nature and extent of contamination and potential problems warranting action based on the available

data. Sample results corresponding to specific depth intervals and location are not available. Preliminary data screening tables are presented in Appendix D.

Preliminary HH risk screening was not performed since the SE sample results cannot be definitively related to the surface interval. Per SRS protocols, the HH risk assessment is performed on the 0.0 to 0.3 m (0 to 1 ft) interval for soil. Considering all depth intervals, maximum detected concentrations of arsenic, Cr and BaP exceeded the industrial worker RSLs at the LRP 131-4L subunit.

Preliminary PTSM screening was performed using the maximum detected concentration from all depth soil intervals: 0.0 to 0.6 m, 0.3 to 0.6 m, 0.3 to 0.9 m, 0.9 to 1.2 m, 1.2 to 1.5 m, and 1.5 to 2.1 m (0 to 2 ft, 1 to 2 ft, 1 to 3 ft, 3 to 4 ft, 4 to 5 ft, and 5 to 7 ft). The USEPA RSL table was used to obtain the thresholds for the default industrial worker scenario used in the evaluation (USEPA 2021). The data screening indicated that there is no PTSM (HI = 0.09, risk = 8.9E-06) at the LRP 131-4L subunit.

A preliminary CM analysis for the LRP 131-4L subunit soil was performed using the SE soils data. The preliminary CM screen by VZCOMML did not identify any potential CMCOCs for the LRP 131-4L subunit.

## 2.3 Operable Unit Strategy

Various amounts and types of data exist for the ECODS L-3, LRP 131-1L, and LRP 131-4L OU subunits from previous investigations. However, the results of the previous investigations identified the need for additional data to fully characterize the nature and extent of contamination at two of the three subunits. The additional data needs are summarized below for each subunit.

**ECODS L-3 Subunit**

The existing data from the 2003 SER of the ECODS L-3 subunit is adequate to define the nature and extent of contamination in the subunit as agreed to on December 13, 2021, by the USEPA, SCDHEC, and USDOE (Savannah River Nuclear Solutions, LLC [SRNS] 2021). Uncertainties in the data exist and additional sampling may allow for refinement of the problem(s) warranting action, but it is not expected to affect the scope of problem(s) or the likely response actions for the

ECODS L-3. At other SRS ECODS, an asbestos investigation is commonly completed in conjunction with other planned activities to support the final risk management decision. In the case of the ECODS L-3, likely response actions related to the presence of Pb and PCBs would also address the presence of asbestos-containing material. Therefore, SRS will work under the assumption that asbestos-containing material is potentially present and will determine likely response actions accordingly.

Additionally, there is uncertainty in the Cr speciation in the subunit because samples collected to support the SER were not analyzed for $Cr^{+6}$. However, likely response actions for $Cr^{+6}$ in the subunit would be consistent with other HH problems warranting action. Therefore, there are no additional data needs that would affect the likely response actions for the ECODS L-3 subunit, and no additional sampling is proposed in this RFI/RI work plan.

**LRP 131-1L Subunit**

The only previous investigation conducted at the LRP 131-1L subunit was a soil-gas survey completed in 1991. This survey indicated the presence of various volatile hydrocarbons (i.e., methane, ethane, propane, butane, pentane, and hexane). There was no additional characterization of the subunit; therefore, investigation of the subunit is warranted.

The RFI/RI work plan proposes a GPR survey of the LRP 131-1L subunit to verify the subunit boundaries and depth. The boundaries of the subunit will then be used to verify and modify the proposed sampling approach, if required. Following GPR determination of the subunit boundaries and depth, soil sampling is proposed in a random, unbiased sampling pattern with locations spaced 6.1 m (20 ft) apart within the subunit. A total of 21 locations have been identified for sampling at five depth intervals each, for a total of 105 samples. The design and analysis details of the sampling strategy are discussed in Section 5.2.

In addition to soil sampling, visual inspections for potential asbestos-containing material will be conducted during drilling operations. If potential asbestos-containing material is found, sampling will be suspended pending the outcome of an evaluation performed by SRNS asbestos subject matter experts (SMEs). If asbestos-containing material is confirmed, further sampling will be reevaluated based on data needs for additional problems warranting action and response actions.

Groundwater sampling and surface water sampling are not proposed in this RFI/RI work plan. As part of the LASG OU investigation of potential source areas in L Area, the LRP 131-1L subunit was not identified as a potential source to groundwater in the LASG OU record of decision (ROD) (Washington Savannah River Company, LLC [WSRC] 2007). Based on results at nearby LSW 4 monitoring well cluster, there is nothing that indicates an impact related to the LRP 131-1L subunit. However, groundwater analyses at this location did not include all potential contaminants related to the subunit. Therefore, potential impact from the subunit will be evaluated through VZCOMML© modeling with data collected to support this RFI/RI work plan.

**LRP 131-4L Subunit**

The 1994 SE data for the LRP 131-4L does not include definitive level data that can be used for risk level determinations and/or remedial action objectives. Therefore, a full characterization of the subunit that allows for determinations based on SCDHEC and USEPA exposure scenarios and contaminant action levels is required.

Soil sampling of the subunit is proposed to be done in a random, unbiased sampling pattern spaced 6.1 m (20 ft) apart within the subunit. A total of 37 locations with four step-out locations have been identified for sampling at four depth intervals each, for a total of 164 samples. Additionally, one of the peripheral locations will be continuously cored to a minimum depth of 15 m (50 ft) bgs and lithologic descriptions recorded. The design and analysis details of the sampling strategy are discussed in Section 5.3.

In addition to soil sampling, visual inspections for potential asbestos-containing material will be conducted during drilling operations. If potential asbestos-containing material is found, sampling will be suspended pending the outcome of an evaluation performed by SRNS asbestos SMEs. If asbestos-containing material is confirmed, further sampling will be reevaluated based on data needs for additional problems warranting action and response actions.

Groundwater sampling and surface water sampling are not proposed in this RFI/RI work plan. As part of the LASG OU investigation of potential source areas in L Area, the LRP 131-4L subunit was not identified as a potential source to groundwater in the LASG OU ROD (WSRC 2007a). Based on results at nearby LSW 4 monitoring well cluster, there is nothing that indicates an impact

related to the LRP 131-4L subunit. However, groundwater analyses at this location did not include all potential contaminants related to the subunit. Therefore, potential impact from the subunit will be evaluated through VZCOMML modeling with data collected to support this RFI/RI work plan.

## 2.4 Potential ARARs and TBC Criteria

Section 121(d) of the CERCLA, as amended by the Superfund Amendments Reauthorization Act (SARA), requires that remedial actions comply with requirements and standards set forth under Federal and State environmental laws. SARA requires that the remedial action for a site meet all applicable and/or relevant and appropriate requirements (ARARs) unless a waiver is invoked. Development of ARARs and to-be-considered (TBC) criteria is an iterative process performed through the assessment and corrective action of the unit. ARARs may be location-, chemical- or action-specific.

Analytical data are compared to the chemical-specific ARARs. Chemical-specific ARARs or TBC requirements exist under federal and state regulations for Pb and PCBs.

For Pb in soil, the CERCLA value of 400 milligram per kilogram (mg/kg) was set by the USEPA Office of Solid Waste Emergency Response and adopted as a TBC for the screening process. The ARAR TBC screening threshold corresponds to the residential RSL of 400 mg/kg. At the ECODS L-3 subunit, one soil sample is above this concentration. The maximum detected concentration of Pb is 1,300 mg/kg from location EL3-06 (0 to 0.3 m [0 to 1 ft]) depth interval.

PCBs are governed by the Toxic Substances Control Act (40 Code of Federal Regulations [CFR] Part 761). The final rule for PCB disposal was established on August 20, 1998, as amended. It addresses residual levels of PCB remediation waste that can be left in place. Action levels are based on site-specific conditions; soil containing less than 1 mg/kg is considered acceptable for free release. At the ECODS L-3 subunit, the concentrations are above the free-release ARAR of 1 mg/kg at four locations for PCB 1254 (maximum detect = 5.63 mg/kg, sample location EL3-16 in the 0.0 to 0.3 m [0 to 1 ft] interval) and two locations for PCB 1260 (maximum detect = 2.17 mg/kg, sample location EL3-16 in the 0.0 to 0.3 m [0 to 1 ft] interval).

The soil characterization samples proposed in this workplan for the LRP 131-1L and LRP 131-4L subunits will be compared to the Pb and PCB chemical-specific ARAR concentrations.

Additional investigation is required to fully characterize the nature and extent of contamination for two of the three subunits in the ECODS L-3, LRP 131-1L, and LRP 131-4L OU. The list of potential ARARs and TBC criteria (chemical-specific, action-specific, and location-specific) is expected to be modified and refined as more data are obtained as a result of this work plan.

## 2.5 Potential Corrective Measures Study/Feasibility Study Options

Based on known and available information and data, please refer to Tables 2 through 4 for potential corrective measures study (CMS)/FS options at each subunit. However, this list of potential CMS/FS options could change pending the outcome and discussion related to the planned sampling activities.

## 2.6 Potential Early and/or Interim Remedial Action

There is no PTSM identified at the ECODS L-3 subunit that would require consideration of an early or interim action based on previous investigations. In addition, previous investigation data does not indicate that contaminant levels are high enough to warrant an early or interim action for the ECODS L-3 subunit. The LRP 131-1L and LRP 131-4L subunits do not have adequate characterization data from previous investigations to determine the need for an early or interim action. Following characterization activities to support this RFI/RI work plan, the need for an early or interim action will be re-evaluated.

# 3.0 DATA QUALITY OBJECTIVES (DQO)

The purpose of this section is to provide a discussion of DQOs. DQOs are quantitative and qualitative descriptions of the information required to achieve project goals. They apply to all unit remediation activities, including, but not limited to, scoping for potential contamination, verifying contamination, characterizing the extent and concentration of contamination, risk assessment, evaluation and design of alternative cleanup remedies, and monitoring cleanup. The focus of the DQO development process is effective and efficient planning for data collection. The DQO

process is participatory, encouraging input and consensus for all data users. The process is intended to encourage effective, efficient thinking about key data planning issues, thus bringing increased understanding and acceptance of project goals. The DQO process is a series of planning steps based on the scientific method (see 3.1.1 to 3.1.8 below) and are detailed in EPA540-R-93-071, *Data Quality Objectives Process for Superfund* (USEPA 1993). The DQO process provides a systematic, flexible approach to decision-making. The steps are portrayed sequentially, but the DQO process is iterative. The DQOs for each subunit are found in Tables 2 through 4.

## 3.1 DQO Evaluation

The DQO process includes the following steps, each of which comprises a sub-section within Chapter 3:

- Conceptual Site Model (CSM)
- State the Problem
- Identify the Decisions
- Identify the Inputs to the Decisions
- Define the Boundaries of the Study
- Develop Decision Rules
- Specify Limits for Decision Errors
- Optimize Design for Obtaining Data

### *3.1.1 Conceptual Site Model (CSM)*

The CSM is an objective framework for assessing data pertinent to the investigation. The preliminary CSMs for the three subunits of the ECODS L-3, LRP 131-1L, and LRP 131-4L OU (Figures 21 through 23) identify and evaluate suspected sources of contamination, contaminant release mechanisms, potentially affected media (secondary sources of contamination), potential exposure pathways, and potential HH and ECO receptors.

Exposure pathways describe the course a chemical or physical agent takes from the source to the exposed receptor. The following seven components constitute an exposure pathway:

- Primary Sources
- Primary Sources Environmental Release Mechanisms
- Secondary Sources
- Secondary Sources Environmental Release Mechanisms
- Exposure media (sediment, soil, surface water, etc.)

- Exposure route (ingestion, dermal contact, inhalation, external radiation, etc.)
- Receptor (resident, worker, wildlife, etc.)

If any of these elements are missing, the pathway is incomplete and is not considered further in the quantitative risk assessment. A pathway is complete when all seven components are present to permit potential exposure of a receptor to a source of contamination. Exposure analysis is important in terms of identifying all potentially complete exposure routes, understanding the nature and extent (as well as fate and transport) of contamination, and developing preliminary remedial alternatives. In a complete pathway, exposure occurs at exposure points that may represent only a small portion of the entire exposure route. If there is no exposure point, then there is no exposure, and the pathway is considered incomplete.

#### 3.1.1.1 ECODS L-3 Subunit

Primary Sources of Contamination

The ECODS L-3 subunit was in use from ~November 1953 to June 1954. ECODS were used during the construction and early operation of SRS for disposal of construction debris and other waste materials. Some sections of these sites may have also been used as burn pits for disposal of combustible waste. The ECODS L-3 subunit was used to dispose of materials, potentially containing asbestos, associated with the construction and operation of L Area.

Primary Sources Environmental Release Mechanisms

Environmental mechanisms evaluated as primary sources of contamination to the ECODS L-3 subunit were releases and deposition of the buried wastes disposed of in the trenches during L Area construction activities in the 1950s.

Secondary Sources of Contamination

As a primary source contacts other media, secondary sources of contamination can potentially be created. At the ECODS L-3 subunit, construction debris disposed of during the construction of the L Area had the potential to create secondary sources in surface soil, subsurface soil and deep soil.

Secondary Sources Environmental Release Mechanisms

At the ECODS L-3 subunit, potential secondary release mechanisms include water infiltration/leaching, volatilization, biotic uptake, fugitive dust by wind or other surface soil disturbances, and excavation of deep soil.

Exposure media

The ECODS L-3 subunit exposure media includes air vapor, air particulates, biota, surface soil, subsurface soil, and deep soil.

Exposure route

The ECODS L-3 subunit exposure routes include inhalation, ingestion, dermal contact and external exposure.

Receptor

Potential HH receptors identified at the ECODS L-3 subunit were the industrial worker and resident receptors. Potential ECO receptors only include terrestrial receptors.

#### 3.1.1.2 LRP 131-1L Subunit

Primary Sources of Contamination

The LRP 131-1L subunit was a former waste disposal area reportedly used for various construction debris. Plant records indicate that metal, lumber, poles, and concrete were disposed of in the LRP 131-1L subunit. There are no records of hazardous or radioactive material disposed of at the pit.

Primary Sources Environmental Release Mechanisms

Environmental mechanisms evaluated as primary sources of contamination to the LRP 131-1L subunit were deposition and releases of wastes contained within the pit.

Secondary Sources of Contamination

As a primary source contacts other media, secondary sources of contamination can potentially be created. At the LRP 131-1L subunit, disposed waste contained within the subunit had the potential to create secondary sources in the surface soil, subsurface soil, and deep soil.

Secondary Sources Environmental Release Mechanisms

At the LRP 131-1L subunit, potential secondary release mechanisms include water infiltration/leaching, volatilization, biotic uptake, fugitive dust by wind or other surface soil disturbances, and excavation.

Exposure media

The LRP 131-1L subunit exposure media includes air vapor, air particulates, biota, surface soil, subsurface soil, and deep soil.

Exposure route

The LRP 131-1L subunit exposure routes include inhalation, ingestion, dermal contact and external exposure.

Receptor

Potential HH receptors identified at the LRP 131-1L subunit were the industrial worker and resident receptors. Potential ECO receptors only include terrestrial receptors.

#### 3.1.1.3 LRP 131-4L Subunit

Primary Sources of Contamination

The LRP 131-4L subunit was reported to have operated from 1973 to 1983. The pit received inert rubble from the L-Area Powerhouse Stack and Silo demolition. The rubble consisted primarily of concrete and asphalt material with some metal. According to operating procedures, the LRP 131-4L subunit did not receive any hazardous or radioactive wastes.

Primary Sources Environmental Release Mechanisms

Environmental mechanisms evaluated as primary sources of contamination to the LRP 131-4L subunit were releases and deposition of the contaminated wastes disposed of within the subunit.

Secondary Sources of Contamination

As a primary source contacts other media, secondary sources of contamination can potentially be created. At the LRP 131-4L subunit, contaminated waste disposed of within the pit had the potential to create secondary sources in surface soil, subsurface soil and deep soil.

Secondary Sources Environmental Release Mechanisms

The LRP 131-4L subunit, potential secondary release mechanisms include water infiltration/leaching, volatilization, biotic uptake, fugitive dust by wind or other surface soil disturbances, and excavation.

Exposure media

The LRP 131-4L subunit exposure media includes air vapor, air particulates, biota, surface soil, subsurface soil and deep soil.

Exposure route

The LRP 131-4L subunit exposure routes include inhalation, ingestion, dermal contact and external exposure.

Receptor

Potential HH receptors identified at the LRP 131-4L subunit were the industrial worker and resident receptors. Potential ECO receptors only included terrestrial receptors.

### *3.1.2 State the Problem*

#### 3.1.2.1 ECODS L-3 Subunit

There are no additional data needs for the ECODS L-3 subunit.

#### 3.1.2.2 LRP 131-1L Subunit

An initial soil-gas survey of the LRP 131-1L subunit was performed which indicated the presence of volatile hydrocarbons consistent with typical landfill degradation. No other characterization of the LRP 131-1L subunit has been performed. Full characterization of the entire subunit is required to determine unit-related contamination and problems warranting action. Sampling will be conducted in an unbiased, random manner. Samples will be analyzed for the full list of TAL and TCL constituents (Table 5) and radiological indicator parameters (Table 6). Additionally, visual inspections for potential asbestos-containing material will be conducted during drilling activities.

#### 3.1.2.3 LRP 131-4L Subunit

The 1994 SE for the LRP 131-4L subunit did not provide data that meets the quality level necessary for performing a baseline risk assessment to support remedial decisions. Additionally, there is not spatial reference data for the locations of the 1994 SER sample points. Therefore, full characterization of the entire subunit is required to determine unit-related contamination and problems warranting action. Sampling will be conducted in an unbiased, random manner. Samples will be analyzed for the full list of TAL and TCL constituents (Table 5) and radiological indicator parameters (Table 6). Additionally, visual inspections for potential asbestos-containing material will be conducted during drilling activities.

### *3.1.3 Identify the Decisions*

The following decisions are to be addressed during characterization within each of the subunits:

#### 3.1.3.1 ECODS L-3 Subunit

No additional characterization is needed for the ECODS L-3 subunit.

#### 3.1.3.2 LRP 131-1L Subunit

There is no unit-specific data available. Therefore, sampling is proposed to define the nature and extent of contamination in surface and subsurface soils. These data are needed to support the PTSM evaluation, HH and ECO risk assessments, and the CM analysis.

Due to the type of material that was disposed of in the pit, there is a possibility for the unit to contain asbestos-containing material. Therefore, during sampling, material will be observed for potential asbestos-containing material. If potential asbestos-containing material is observed, an evaluation will be performed by SRNS asbestos SMEs for confirmation.

#### 3.1.3.3 LRP 131-4L Subunit

Due to insufficient definitive level data and discrepancies in the sampling data, previous sampling at the LRP 131-4L subunit is inadequate for PTSM evaluation, HH and ECO risk assessment, and a CM analysis. Therefore, sampling is proposed to define the nature and extent of contamination in surface and subsurface soils. These data are needed to support the PTSM evaluation, HH and ECO risk assessments, and the CM analysis for the subunit.

Due to the type of material that was disposed of in the pit, there is a possibility for the unit to contain asbestos-containing material. Therefore, during sampling, material will be observed for potential asbestos-containing material. If potential asbestos-containing material is observed, an evaluation will be performed by SRNS asbestos SMEs for confirmation.

### *3.1.4 Identify the Inputs to the Decisions*

All relevant data collected for the ECODS L-3, LRP 131-1L, and LRP 131-4L OU have been reviewed and summarized in Section 2.3 of this document. The data from previous investigations for the ECODS L-3 subunit is adequate to perform a BRA and make remedial decisions. However, there is not sufficient data to make remedial decisions for the other two subunits and additional data is required. Therefore, a data collection event is necessary.

The most recent USEPA RSLs/preliminary remediation goals (PRGs), ecological screening values (ESVs), and maximum contaminant levels (MCLs) will be used as basis for acceptance/performance criteria to determine if contaminated media poses a risk to HH or the environment. RSLs and radiological PRGs, ESVs, and MCLs will be used as the basis to guide remedial decisions concerning HH risk, ECO risk, and CM, respectively. Additionally, radionuclide and metals data for naturally occurring constituents detected in all sample depths will be compared against SRS background soil values (WSRC 2006) to identify unit-specific

constituents (USCs). A CM analysis will be conducted on any resulting USCs to determine the potential for groundwater impacts.

### *3.1.5 Define the Boundaries of the Study*

#### 3.1.5.1 ECODS L-3 Subunit

The ECODS L-3 subunit consists of the boundary area around the outer perimeter of the disposal trenches indicated in Figure 3. The surface area of the subunit is ~406 square meters ($m^2$) (4,370 square feet [$ft^2$]).

#### 3.1.5.2 LRP 131-1L Subunit

The LRP 131-1L subunit is a rectangular subunit ~12.2 m by 45.7 m (40 ft by 150 ft) used for waste disposal. The total surface area of the subunit is ~557 $m^2$ (6,000 $ft^2$). The boundary of the subunit is shown in Figure 7.

#### 3.1.5.3 LRP 131-4L Subunit

The LRP 131-4L subunit is a 36.6 m by 30.5 m (120 ft by 100 ft) waste disposal pit. The total surface area of the subunit is ~1,110 $m^2$ (12,000 $ft^2$). The boundary of the unit is shown in Figure 12.

### *3.1.6 Develop Decision Rules*

#### 3.1.6.1 ECODS L-3 Subunit

There are no data needs for the ECODS L-3 subunit to support decisions.

#### 3.1.6.2 LRP 131-1L Subunit

The purpose of data collection in the LRP 131-1L subunit is to determine the nature and extent of contamination at the LRP 131-1L subunit and determine presence of asbestos-containing material. No previous investigation data exists for the LRP 131-1L subunit. All samples collected at the subunit will be analyzed for the full suite of TAL and TCL constituents (Table 5), radiological

indicators (Table 6), and evaluated for the presence of asbestos-containing material. These data are required for BRA and determination of problems warranting action.

#### 3.1.6.3 LRP 131-4L Subunit

The purpose of data collection at the LRP 131-4L subunit is to determine the nature and extent of contamination at the LRP 131-4L subunit and determine presence of asbestos-containing material. The subunit will be sampled extensively, and all samples will be analyzed for the full suite of TAL and TCL constituents (Table 5), radiological indicators (Table 6), and evaluated for the presence of asbestos-containing material. These data are required for BRA and determination of problems warranting action.

### *3.1.7 Specify the Limits on Decision Errors*

RFI/RI work plan characterization sample locations were chosen using an unbiased, random sampling strategy for the LRP 131-1L and LRP 131-4L subunits.

Total study error is the additive impact of two main sources of error: 1) sampling error, and 2) measurement error, with sampling error being responsible for the vast majority of the total error. "As much as 90% or more of the uncertainty in environmental data sets is due to sampling variability as a direct consequence of the heterogeneity of the environmental matrices" (Crumbling et al. 2001). The method best suited to reduce sampling error is to gather representative samples (Crumbling et al. 2001).

It is incorrect to assume that randomly collected, non-representative samples, plus perfect analytical chemistry will always lead risk managers to correct risk management decisions. In order to avoid incorrect risk management decisions, it is more important to develop decision quality data (DQD). DQD is defined as "Data of known quality that can logically be demonstrated to be effective for making the specified decision because both the sampling and analytical uncertainties are managed to the degree necessary to meet clearly defined and stated data needs" (Crumbling et al. 2001). Therefore, it is more important for the risk managers to use DQD, emphasizing representative sampling with a specified percentage of definitive data in order to

make a correct decision, and should not be confused by emphasizing analytical data quality which does not necessarily equate to a correct risk management decision.

Because the SRS possesses significant process and historical knowledge and in most instances has preliminary or survey data results for the majority of its waste units, this sampling plan will largely control sampling error (the cause of greatest total error) and set tolerable limits on decision errors by gathering data by judgmental, judgmental-stratified, and systematic sampling designs based on process knowledge, existing data, historical information/data, survey data, and institutional knowledge to generate DQD. This is the method SRS will use to control decision errors, since sample collection will be focused in areas of known contamination rather than using a sampling design intended to randomly search for contamination. Judgment-based sampling provides a very conservative and certain method for collecting data with a high likelihood for detecting worst-case contaminant concentrations while reducing total study error. Project quality objectives (PQOs) are qualitative and quantitative statements derived from the DQO process that clarify study objectives for the measurement performance criteria which define the appropriate types of data and acceptance limits for data. PQOs are used as the basis for establishing the quality and quantity of data needed to support decisions. The PQOs for the ECODS L-3, LRP 131-1L, and LRP 131-4L OU include the following:

- Relative percent difference (RPD) less than (<) 50% between regular soil sample and FD when result greater than or equal to ($\geq$) sample-specific estimated quantification limit (ssEQL) for precision data quality indicator.
- RPD <200% when soil sample result $\geq$ MDL but < ssEQL for accuracy/bias for precision data quality indicator.
- Percent Recovery from matrix spike (MS) and matrix spike duplicates are generally between 30% and 135% for accuracy/bias data quality indicator. MS recovery windows may be tighter than those listed. Refer to the Measurement Performance Criteria Tables in the Quality Assurance Program Plan (QAPP) (SRNS 2012a) for analyte and media-specific recovery percentages.

- No target compound ≥ ssEQL for equipment blank, field blanks, method blanks, or instrument blanks for accuracy data quality indicator.
- ssEQL < MCL, RSL, or PRG as achievable per approved methods for sensitivity data quality indicator.
- Split sample (SPL) result will have an RPD <200% for soil samples.
- 5% of the samples will be SPLs for the comparability data quality indicator.
- 95% of samples sent to laboratory have useable (non-rejected) results for completeness data quality indicator.
- 90% of planned samples are collected and their data are useable for completeness data quality indicator.

The objective for the representativeness data quality indicator is qualitative and will be met by properly documenting field and analytical protocols. In the event these procedures and methods are not able to be implemented, the appropriate corrective action documentation should encompass the impact on the representativeness of the information. When review of the data and documentation determines the data to be nonrepresentative, the information is qualified for use or is not used by the project.

### *3.1.8 Optimize Design for Obtaining Data*

In general, shallow soil samples will be collected by hand auger, while deeper soil samples will be collected using Rotosonic coring methods, or equivalent drilling method. Soil samples will be analyzed for the TAL and TCL constituents (Table 5) as well as radiological indicator analyses (Table 6). Those samples with radiological indictor analyses exceeding the trigger limits will receive the appropriate radionuclide-specific analyses for alpha- or beta-emitting radionuclides. SAP content is provided in Sections 5.0 through 7.0.

## 3.2 Summary of DQO Evaluation

The ECODS L-3, LRP 131-1L, and LRP 131-4L OU is divided into three subunits. No additional characterization is needed for the ECODS L-3 subunit. Full characterization of the LRP 131-1L

and LRP 131-4L subunits is needed for BRA and determination of problems warranting action. Additionally, asbestos-containing material may be present in soil in the LRP 131-1L and LRP 131-4L subunits.

The nature and extent of contamination will be determined by soil sampling. Decision rules have been formulated for determining extent of contamination.

# 4.0 UNIT ASSESSMENT

## 4.1 Objectives

The unit assessment described in this chapter describes data collection activities. Data will be used to characterize the nature and extent of contamination, support HH and ECO risk assessments, and CM analysis, and support the decision-making process for remediation.

## 4.2 Primary Source Characterization

The primary sources at the ECODS L-3, LRP 131-1L, and LRP 131-4L OU include buried waste within the subunits. The subunits that will undergo characterization of the primary source are the LRP 131-1L and LRP 131-4L subunits.

There are no additional characterization needs for the ECODS L-3 subunit.

## 4.3 Secondary Source Characterization

At the ECODS L-3, LRP 131-1L, and LRP 131-4L OU, secondary contaminant sources are considered to be buried wastes and releases from contaminated waste disposed within the subunits which have released contaminants into soil.

## 4.4 Exposure Media Characterization

### *4.4.1 ECODS L-3 Subunit*

No additional characterization is required at the ECODS L-3 subunit.

### *4.4.2 LRP 131-1L Subunit*

Surface soils (0.0 to 0.3 m [0 to 1 ft]) will be sampled at the LRP 131-1L subunit and evaluated through HH and ECO risk assessment screening. Shallow subsurface soils (0.3 to 1.2 m [1 to 4 ft]) will be sampled and evaluated through ECO risk assessment screening. All soil intervals, including the deep subsurface soils (1.2 to 2.4 m, 2.4 to 3.6 m, and 3.6 to 4.9 m [4 to 8 ft, 8 to 12 ft, and 12 to 16 ft]), will be sampled and evaluated through CM and PTSM screening.

### *4.4.3 LRP 131-4L Subunit*

Surface soils (0.0 to 0.3 m [0 to 1 ft]) will be sampled at the LRP 131-4L subunit and evaluated through HH and ECO risk assessment screening. Shallow subsurface soils (0.3 to 1.2 m [1 to 4 ft]) will be sampled and evaluated through ECO risk assessment screening. All soil intervals, including the deep subsurface soils (1.2 to 2.4 m and 2.4 to 3.6 m [4 to 8 ft and 8 to 12 ft]), will be sampled and evaluated through CM and PTSM screening.

## 5.0 SAMPLE DESIGN AND RATIONALE

The following section describes how the plan is implemented to collect the physical data to meet the criteria developed during the DQO process.

### 5.1 ECODS L-3 Subunit

The ECODS L-3 subunit was one of the disposal sites for the early construction of L Area. The ECODS L-3 subunit has been investigated by the site evaluation program (WSRC 2003). It appears that the nature and extent of contamination has been well bounded for the ECODS L-3 subunit, although it is uncertain if metals, including $Cr^{+6}$, are present due to native soil conditions or related to unit operations. The presence/absence of asbestos-containing material at the subunit is also unknown. However, these uncertainties do not impact the scope of the problem and/or the likely response actions. Therefore, no additional characterization of the subunit is proposed. Potential remedial actions for the ECODS L-3 subunit are summarized in Table 2.

## 5.2 LRP 131-1L Subunit

Characterization through soil sampling of the LRP 131-1L subunit is warranted in this RFI/RI work plan. Prior to soil sampling at the LRP 131-1L subunit, a GPR survey is proposed in an attempt to verify the subunit boundaries and depth. Once confirmed, the proposed sampling approach will be evaluated to ensure location and depth of samples are adequately located to investigate the unit. Any changes to the proposed plan will result in revision to the sampling strategy. Soil sampling is proposed in a random, unbiased sampling pattern with locations spaced 6.1 m (20 ft) apart within the subunit. A total of 21 locations have been identified for sampling at five depth intervals each, for a total of 105 samples (Figure 24). Depth intervals include surface soil (0.0 to 0.3 m [0 to 1 ft]) and subsurface soil (0.3 to 1.2 m, 1.2 to 2.4 m, 2.4 to 3.6 m, and 3.6 to 4.9 m [1 to 4 ft, 4 to 8 ft, 8 to 12 ft, and 12 to 16 ft]). A tentative subsurface soil depth is proposed at 4.9 to 6.1 m (16 to 20 ft) depth. The tentative interval will only be sampled if the pit bottom is not encountered at shallower depth intervals either through GPR or drilling. Shallow depth intervals (0.0 to 0.3 m and 0.3 to 1.2 m [0 to 1 ft and 1 to 4 ft]) will be collected using a hand-auger. Rotosonic sample collection, or equivalent drilling method, will be used for all other depths. The locations identified include 13 locations within the subunit boundary and 8 locations at the subunit boundary to aid in extent determination.

All samples will be analyzed for all TAL and TCL constituents (Table 5). Additionally, samples will be analyzed for gross alpha and nonvolatile beta. If gross alpha or nonvolatile beta results exceed the respective action levels, a full speciation analysis will be performed on exceeding samples. If the total Cr results indicate concentrations above SRS background concentrations and the likely response actions are dependent on a $Cr^{+6}$ evaluation, then an amended SAP will be submitted to collect $Cr^{+6}$ samples from the subunit.

In addition to soil sampling, visual inspections for potential asbestos-containing material will be conducted during drilling operations. If potential asbestos-containing material is found, sampling will be suspended pending the outcome of an evaluation performed by SRNS asbestos SMEs. If asbestos-containing material is confirmed, further sampling will be reevaluated based on data needs for additional problems warranting action and response actions.

The proposed sampling to support the RFI/RI work plan for the LRP 131-1L subunit is summarized in Table 3.

## 5.3 LRP 131-4L Subunit

Characterization through soil sampling of the LRP 131-4L subunit is warranted in this RFI/RI work plan. Soil sampling of the subunit is proposed to be done in a random, unbiased sampling pattern spaced 6.1 m (20 ft) apart within the subunit. A total of 37 locations and four step-out locations have been identified for sampling at four depth intervals each, for a total of up to 164 samples (Figure 25). Sampling at the step-out locations will be conducted if buried debris is noted at locations LAP4L-011 and -032. Due to possible safety concerns with soil stability in proximity to the subsidence area, sampling with a drill rig may not be appropriate. However, an attempt to collect samples with a hand auger will be made at the four locations around the subsidence area to include, at a minimum, surface soil (0.0 to 0.3 m [0 to 1 ft]) and shallow subsurface soil (0.3 to 1.2 m [1 to 4 ft]). Depth intervals for all other locations include surface soil (0.0 to 0.3 m [0 to 1 ft]) and subsurface soil (0.3 to 1.2 m, 1.2 to 2.4 m, and 2.4 to 3.6 m [1 to 4 ft, 4 to 8 ft, and 8 to 12 ft]). A tentative subsurface soil depth is proposed at 3.6 to 4.9 m (12 to 16 ft) depth. The tentative interval will only be sampled if the pit bottom is not encountered at shallower depth intervals. Soil cores will be recorded in the field for lithologic descriptions at all sample locations. Additionally, one of the peripheral locations (LAP4L-007 [Figure 25]) will be continuously cored to a minimum depth of 15 m (50 ft) bgs and lithologic descriptions recorded.

Shallow depth intervals (0.0 to 0.3 m and 0.3 to 1.2 m [0 to 1 ft and 1 to 4 ft]) will be collected using a hand-auger. Rotosonic sample collection, or equivalent drilling method, will be used for all other depths. 37 locations have been identified in and around the subunit boundary to aid in extent determination. All samples will be analyzed for all TAL and TCL constituents (Table 5). Additionally, samples will be analyzed for gross alpha and nonvolatile beta. If gross alpha or nonvolatile beta results exceed the respective action levels, a full speciation analysis will be performed on exceeding samples. If the total Cr results indicate concentrations above SRS background concentrations and the likely response actions are dependent on a $Cr^{+6}$ evaluation, then an amended SAP will be submitted to collect $Cr^{+6}$ samples from the subunit.

In addition to soil sampling, visual inspections for potential asbestos-containing material will be conducted during drilling operations. If potential asbestos-containing material is found, sampling will be suspended pending the outcome of an evaluation performed by SRNS asbestos SMEs. If asbestos-containing material is confirmed, further sampling will be reevaluated based on data needs for additional problems warranting action and response actions.

The proposed sampling for the LRP 131-4L subunit to support the RFI/RI work plan is summarized in Table 4.

## 6.0 ANALYTICAL PLAN

This section describes the data quality levels for each type of data being collected. All data collected under this work plan will follow the Area Completion Projects (ACP) QAPP for Environmental Data Collection and Management (SRNS 2012a). The data quality level is determined by the intended use of the data.

### 6.1 Subunit Analytical Plans

The specific analytes and analytical methods and detection limits for the sampling project are listed in Tables 5 and 6. The list of TAL/TCL constituents for soil samples are listed in Table 5. The radiological constituents for soil samples are listed in Table 6. Table 7 presents the minimum field quality control/quality assurance sampling requirements. Table 8 lists hold times, preservatives, and sample containers for all analyses. A summary of the samples to be collected for each subunit is presented in the sample matrix, Table 9.

### 6.2 Indicator Analyses

At SRS, radiological indicators (gross alpha and nonvolatile beta) area commonly used to identify soils and groundwater with concentrations of alpha- and beta-emitting radionuclides that may not be within the range of values expected in nature. If soil sample analytical results exceed predetermined trigger levels for gross alpha emitters (20 pCi/g) or nonvolatile beta emitters (50 pCi/g), radionuclide-specific analysis will be performed on the sample exceeding the trigger level. For example, if the sample exceeds the trigger for the 20 pCi/g alpha radiation screen level,

the sample will undergo radionuclide-specific analyses for alpha emitters. Use of gross alpha and nonvolatile beta trigger level is consistent with the known occurrence of natural isotopes as well as recognized characterization and investigation derived waste (IDW) management methods at SRS. The trigger levels for soil samples are based upon the maximum activities of naturally occurring isotopes in unimpacted SRS soils (WSRC 2006).

## 6.3 Field Analytical Sampling Quality Assurance/ Quality Control

QC samples will consist of FD, RB, TB and SPL samples. Field quality assurance (QA)/QC will be maintained through the use of QA/QC samples and methods as described below.

1. Field Duplicate (co-located) Samples: Two or more independent samples collected from side-by-side locations at the same point in time and space so as to be considered identical. These separate samples are intended to represent the same population and are carried through all steps of the sampling and analytical procedures in an identical manner. These samples are used to assess precision of the total method, including sampling, analysis, and site heterogeneity. FD samples are planned at a combined minimum rate of 5% according to Manual C3, Volume 10, ER-SOP-043, standard operating procedure for *Obtaining and Managing Environmental Data for Environmental Compliance & Area Completion Projects*, or typically 1 per 20 samples and analyzed for the same parameters as the associated samples.

2. Equipment/Rinsate Blank: A sample of water free of measurable contaminants poured over or through decontaminated field sampling equipment that is considered ready to collect or process an additional sample. The purpose of the RB is to assess the adequacy of the decontamination process. RBs are typically planned at a rate of 1 blank per 40 samples.

3. Trip Blank: A clean sample of water free of measurable contaminants that is taken to the sampling site and transported to the laboratory for analysis without having been exposed to sampling procedures. TBs are analyzed to assess whether contamination was introduced during sample shipment (typically analyzed for volatile organic compounds [VOCs] only). A blank consists of distilled-deionized water provided by the laboratory to be placed in every cooler with VOC samples typically at the rate of 1 blank per cooler.

4. Split Samples: Two or more representative portions from a sample in the field, analyzed by at least two different laboratories and/or methods. Prior to splitting, a sample is mixed (except volatiles, oil and grease, or when otherwise determined) to minimize sample heterogeneity. These are quality control samples used to assess precision, variability, and data comparability between laboratories. SPLs are planned at a combined minimum rate of 5% or typically 1 per 20 samples and analyzed for the same parameters as the associated samples.

## 6.4 Data Quality Levels for the ECODS L-3, LRP 131-1L, and LRP 131-4L OU

The characterization data will have an SRS validation level of screening data (SD), which is data that is electronically Verified and Validated (VV) data, with 10% of the data receiving additional manual validation to the SRS Definitive (D) level (SRNS 2012b; SRNS 2012c). SD data is VV data which meet the following selected aspects of USEPA Functional Guideline criteria: Quantitation Limits, Surrogate or Tracer Recoveries, Blanks (Method/Lab/Prep, Trip, Field, Equipment/Rinsate), Laboratory Control Spike Recoveries, MS Recoveries/Duplicates, Lab Replicates, Field Replicates, Cooler Temps, Chemical Preservation, Holding Times. Requirements for SD data are listed in Table 7.

## 6.5 Sample Matrix Table

Table 9 is a Sampling Matrix table that includes all the detailed information for all samples planned to be collected. FDs, RBs, SPLs, and TBs are not shown on the table but will be produced during the work planning stage. The exact number of samples may change based on field conditions.

## 6.6 Sample Location Map

Figures 24 and 25 illustrate the proposed locations of samples to be collected.

# 7.0 FIELD IMPLEMENTATION

The following sections outline the field implementation procedures and processes for the ECODS L-3, LRP 131-1L, and LRP 131-4L OU work plan characterization effort. Additional implementing documents such as the environmental evaluation checklist, automated hazard

analysis, radiological work instructions, and site-specific health and safety plans and IDW plans are internal to SRS, and detail day-to-day sampling operations and safety requirements.

## 7.1 Sample Collection Procedures and Processes

The ECODS L-3, LRP 131-1L, and LRP 131-4L OU work plan characterization effort includes soil sampling only. The following specific procedures will be followed:

- Sampling Surface and Sub-Surface Soils for Analytical Purposes, SRNS Manual 3Q1, Section 9016
- Soil and Sediment Sampling, SRNS Manual 3Q1, Section 3005
- Soil Boring Investigations, SRNS Manual 3Q1, Section 9006
- Technical Oversight (TO) Requirements for Groundwater Monitoring Wells and Soil Borings, SRNS Manual 3Q1, Section 9004

These procedures are consistent with the *USEPA Region 4 Field Branches Quality System and Technical Procedures* sampling procedures. Prior to beginning all field activities, all field crews will be required to read the procedures listed above and the TO will have had experience with that activity.

## 7.2 Equipment and Decontamination Procedures

In addition to the drilling rigs the following sampling equipment will be required:

- Camera for photo documentation;
- Field Logbook and/or Field Data Recorder with backup batteries;
- Global positioning system unit and backup batteries;
- Personal Protective Equipment;
- Hand auger system with bucket and extension rods;
- Stainless steel scoops, stainless steel mixing bowls, and VOC syringes;
- Balance capable of weighing to 0.01 grams;
- KIJ5 radio, Cell phone, and pager;

- All sample bottles with preservatives; and
- Cooler and frozen blue ice or equivalent for packing samples in the field.

Equipment needs will vary from day to day based on sampling requirements, field conditions, and drilling methods. Specific needs will be addressed at plan-of-the-day meetings by the TO, industrial hygiene personnel, radiological controls inspector, and safety personnel. Decontamination of field sampling equipment will be done in accordance to the 3Q1 Manual Procedure 9016, Section 5.4. Disposal of IDW will follow the job-specific waste management plan developed in accordance with the *Savannah River Site Investigation-Derived Waste Management Plan* (WSRC 2007b).

## 7.3 Sample Documentation

Overall documentation will be done in accordance with *Area Completion Projects Quality Assurance Project Plan for Environmental Data Collection and Management* (SRNS 2012a). Sample documentation will be conducted according to Manual C3, ER-SOP-043, standard operating procedure for *Obtaining and Managing Environmental Data for Environmental Compliance & Area Completion Projects*, which provides the general requirements and guidelines that are necessary for the documentation, record keeping, mobilization, collection, processing, reporting and storage of environmental data. Data Management Plan Q-DMP-B-00001, Environmental Restoration Data Management System, requires sampling information, such as bar-coded dates, times, sample identifications, weather, etc., to be recorded and maintained in logbooks and Chain-of-Custody documents included in the sampling package delivered to the project. Sampling documentation is tracked through a series of documents including:

- Mobilization Report;
- Chain-of-Custody Forms;
- Field Log Books;
- Analytical Data Packages; and
- SCDHEC and SRS required logs and forms.

A logbook for recording sample collection activities will be kept for this project. The subcontractor will ensure the logbook is correctly filled out and returned within two weeks after completion of sampling. Essential field information is the following: sample name, date of

collection, time of collection, depth of sample and sampler's name. Space should be provided for any field observations or comments relating to the quality or representativeness of the sample. If the actual sample location differs from the planned sample location specified by the Chain-of-Custody, the revised sample location should be indicated in the sample logbook. Information on the parent sample of each FD should be recorded.

## 7.4 Chain-of-Custody

Chain-of-Custody procedures establish requirements for sample custody and documenting custody from the time of collection through laboratory analysis. Chain-of-Custody demonstrates that samples obtained in the field have been securely collected and transported and have reached the analytical laboratory without alteration. Chain-of-Custody requirements are established by SRNS Manual 3Q1, Procedure 1001, *Chain-of-Custody Procedure*. At a minimum, Chain-of-Custody documents will include the following information which is compliant with USEPA requirements:

- Project name – i.e., monitoring well name, stream name, RFI/RI project name, etc.;
- Sample identification;
- Number of sample containers/bottles
- Sampler's signature for each sample, the sampler indicates;
- Date of sample collection;
- Time of sample collection;
- Sample identifiers (bar-coded labels);
- Sample description;
- Whether a sample is persevered or unpreserved;
- Whether a sample is filtered or unfiltered; and
- Analyses to be performed.

A Chain-of-Custody record is used as physical and legal evidence of sample custody to trace the sample from collection through delivery to the analyzing laboratory and where the samples were stored. The Chain-of-Custody record must originate with the responsible organization or the person collecting the sample. Every sample is assigned a unique identification number that is entered on the Chain-of-Custody document. The Chain-of-Custody records each transfer of custody of the samples by a relinquishing party to a receiving organization whose name and identifying contact information is located on the form.

## 7.5 Sample Management and Shipping

Soil samples will be collected in accordance with SRNS Manual 3Q1, Section 9000, *Hydrogeologic Data Collection Procedures and Specifications* (SRNS 2010). Sample management for analytical laboratories and intra-SRS facilities is primarily controlled by SRNS Quality Assurance Manual 1Q, Procedure 13-1, *Packaging, Handling, Shipping, Storage and Receiving*. The purpose of this procedure is to define the requirements and specify the responsible parties and their roles for the packaging, handling, shipping, storage, and receiving of items to ensure that they are properly controlled to prevent damage or loss and to minimize their deterioration. Sample shipment is also regulated by SRNS Manual 19Q, Procedure 1.02, *General Transportation Requirements for Radioactive and Non-Radioactive Hazardous Materials*. These manuals provide specific requirements to sampler personnel for the safe offsite shipment or onsite transfer of radioactive and non-radioactive hazardous materials and hazardous substances, mixed waste (radiological/nonradiological hazardous materials) and empty packaging that have previously contained mixed waste. It specifies the required packaging, labeling, record-keeping, selection of appropriate transportation carrier, and appropriate transport container based on the analytically pre-tested nature of a sample. Radiological samples must meet United States Department of Transportation shipping regulations as well. Samples associated with this work plan are expected to be non-hazardous and non-radiological as they represent environmental media rather that waste materials.

Samples will be stored in coolers with blue ice, if applicable, in the custody of the sampler, or designee, until delivered to the ACP Sample Packaging personnel in B-Area. If samples need to be stored over-night prior to delivery to the B Area sample-packaging group, then they will be stored in a locked facility with the Chain-of-Custody, and in a refrigerator (4°C ± 2°C) if required for sample preservation. ACP Sample Packaging personnel in B Area will manage, package, and ship samples to the laboratories in accordance with Manual C3, Volume IX, Procedure ER-SOP-803B, *Packaging of Non-Department of Transportation (DOT) Samples for On-Site Transfers/Off-Site Shipments*. Table 8 lists proper preservatives, holding times, and sample containers for samples collected in the field, stored, and transported to the analytical laboratories.

## 7.6 Data Validation and Data Management

Requirements for data validation/verification and data management procedures are found in SRNS Procedures and Standard Operating Procedures, the USEPA Functional Guidelines, and two USDOE National Policies and Procedures:

- SRNS Manual C1, ER-AP-305 – Use of Field-Generated Blanks;
- SRNS Manual C1, ER-AP-306 – Laboratory Data Records Review;
- SRNS Manual C3, Volume X, ER-SOP-033 – Analytical Data Qualification;
- SRNS Manual C3, Volume X, ER-SOP-043 – Obtaining and Managing Environmental Data for Environmental Compliance & Area Completion Projects;
- Data Management Plan, Q-DMP-B-00001, Environmental Restoration Data Management System;
- Department of Energy Consolidated Audit Program, Policies and Practices, Procedure AD-1, Revision 2, November 10, 2009; and
- Quality Systems for Analytical Services, Revision 2.5, Department of Energy, November 9, 2009.

In addition, SRS procedures incorporate the criteria found in the USEPA National Functional Guidelines to verify, validate, and qualify analytical data to assess its usability for risk and remedial management decisions. Adherence to this complex list of procedures and guidelines establishes: (a) if data meets the specific technical and QC criteria established by the DQOs and laboratory QAPPs; and (b) the usability of any data not meeting the specific technical and QC criteria. All data is qualified for usability using USEPA Functional Guidelines. Adherence to the guideline requirements and the USDOE Audit Program for analytical laboratories allows the data to be qualified based upon a set of nationally established functional guideline qualifiers for uniformity.

Depending upon the PQOs, data will be verified and/or validated according to the following criteria:

- Verification – Confirmation by examination and provision of objective evidence that the specified analytical requirements have been met. This is to be an electronic data deliverable completeness check for all required fields. Data verification consists of a completeness check to confirm that all sampling data and data fields requested from the laboratory have been received and comply with specified requirements.
- Validation – Confirmation by manual examination and provision of objective evidence that the particular requirements for a specific intended use are fulfilled. Data validation consists of any analyte- and sample-specific process for evaluating compliance of the laboratory data received with methods, procedures, or contract requirements.

The ACP Data Management group will enter sample collection and laboratory data into the Environment Restoration Data Management System (ERDMS) in accordance with Procedure ER-SOP-43. Properly completed and qualified data is entered into the ERDMS Database. Data records are updated, re-qualified, and continuously corrected for usability based on the results of electronic verification and manual validation evaluations as corrective actions are resolved with the analytical laboratories. A data usability report will be prepared that will accompany the RFI/RI/BRA/CMS/FS report.

### 7.7 Investigation Derived Waste

Per the *Savannah River Site Investigation-Derived Waste Management Plan* (WSRC 2007b), IDW will be managed according to the site-specific IDW management plan developed for the project.

## 8.0 SAFETY, HEALTH, AND EMERGENCY RESPONSE PLAN

A unit-specific Health and Safety Plan (HASP) will be prepared in accordance with 29 CFR 1910.120 and approved prior to field investigations. This plan will meet Occupational Safety and Health Administration requirements and follow SRNS safety, health, and emergency response plan guidance (WSRC 1996). All personnel involved in the performance of the work shall be familiar with the provisions of the HASP.

## 9.0 SCHEDULE

Regulatory approval of the RFI/RI work plan is expected in August 2022. Implementation of the work contained herein is scheduled to begin in September 2022. The current schedule identifies that the combined RFI/RI/BRA/CMS/FS report will be submitted in March 2024, followed by a Statement of Basis/Proposed Plan. Should a second phase of characterization for $Cr^{+6}$, asbestos-containing material, or further nature and extent of contamination be required, then the submittal date for the RFI/RI/BRA/CMS/FS report and subsequent deliverables will be adjusted accordingly. Table 10 illustrates the current project implementation schedule.

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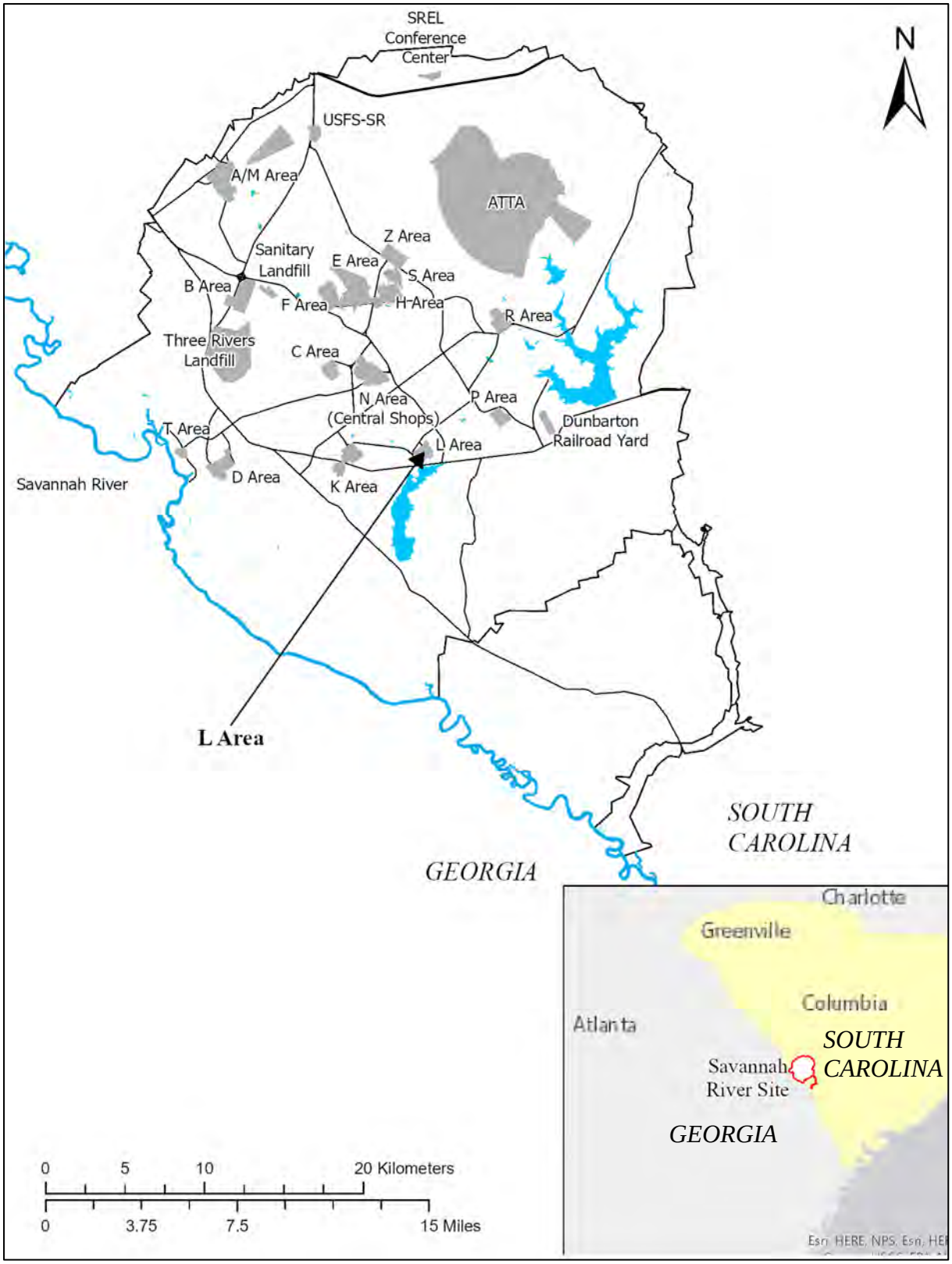


**Figure 1. Location of L Area at the SRS**

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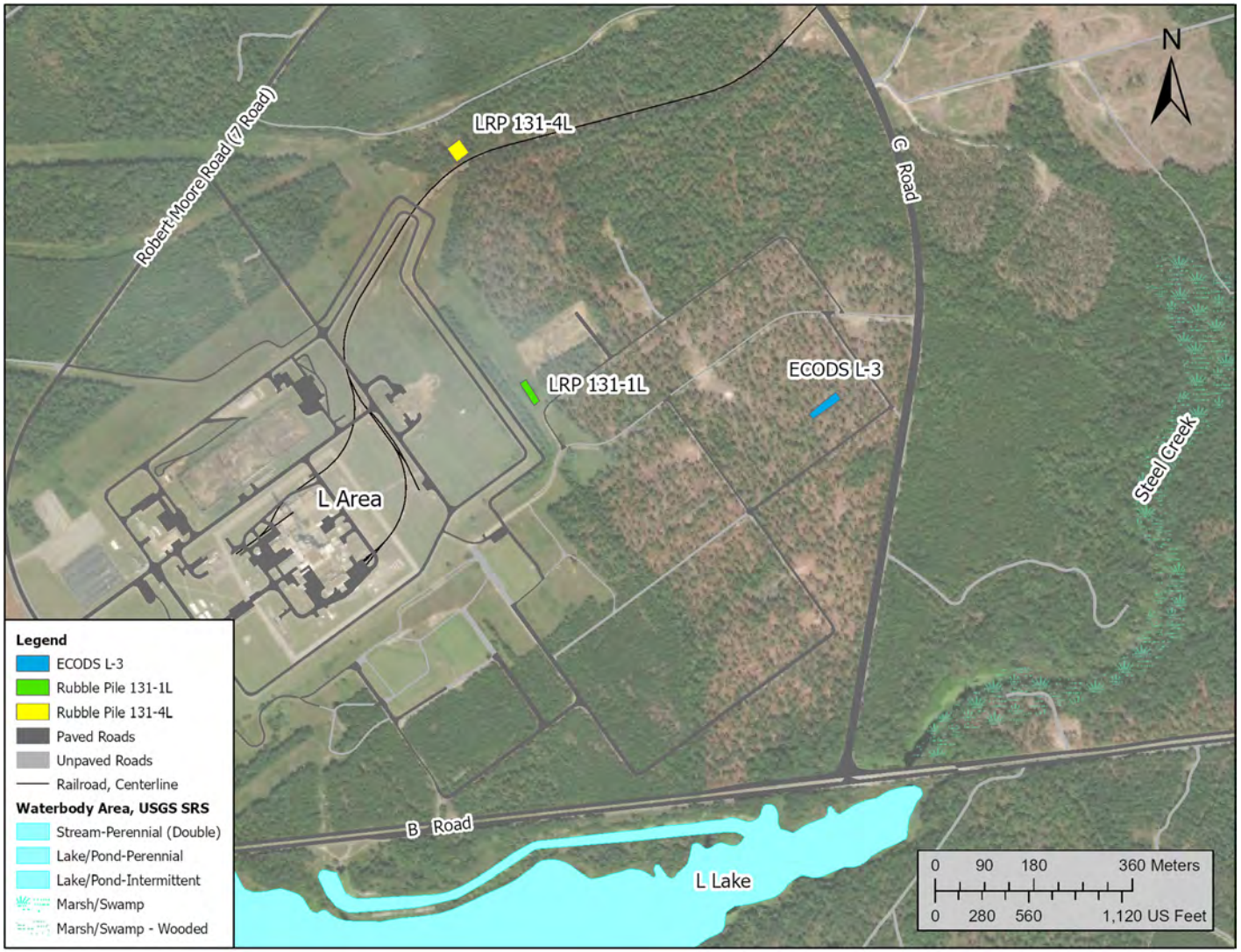


**Figure 2. Location of ECODS L-3, LRP 131-1L, and LRP 131-4L OU**

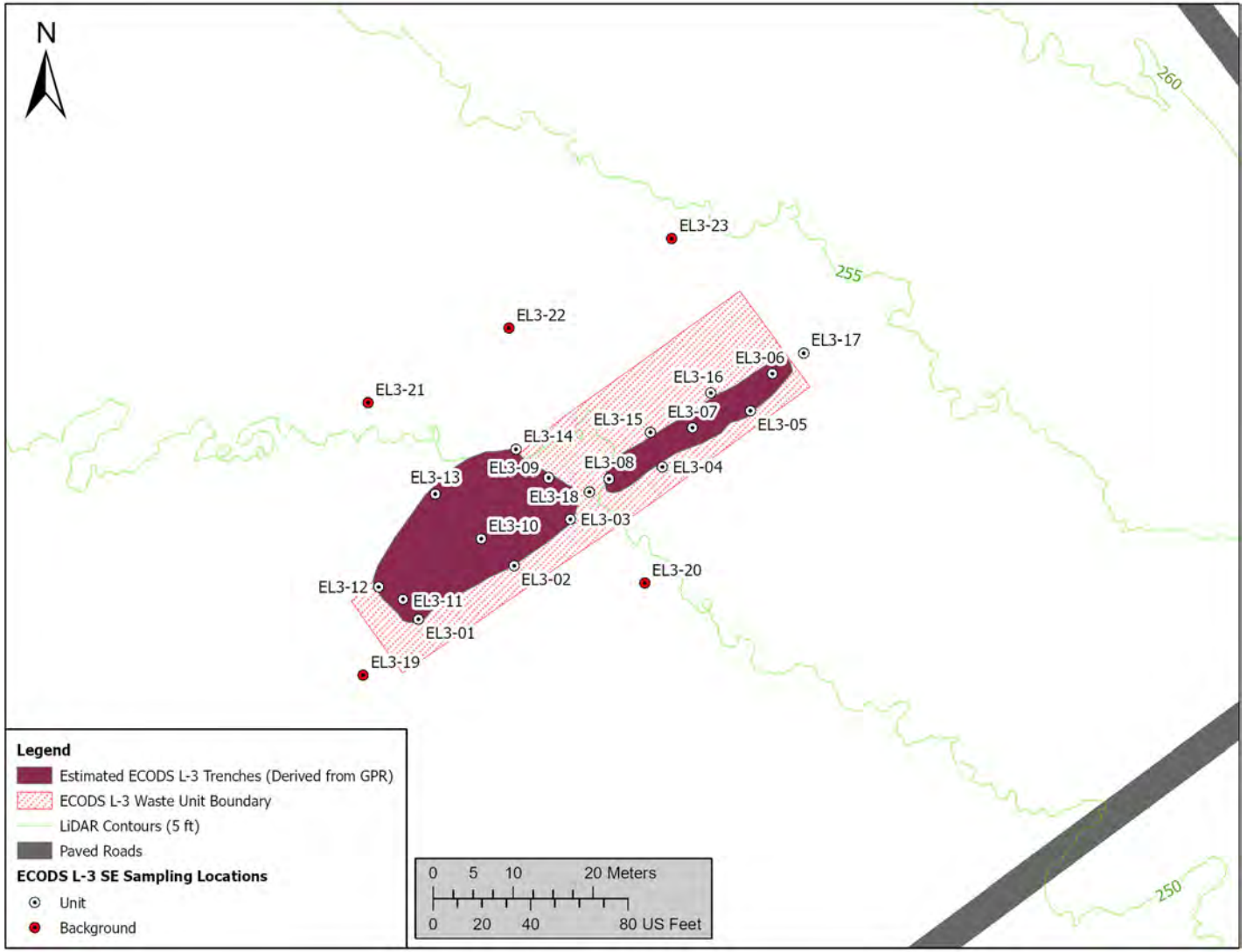


**Figure 3. ECODS L-3 Subunit Boundaries and Site Evaluation Sampling Locations**


**Figure 4. Photograph of the ECODS L-3 Subunit During December 2021 Walkdown**

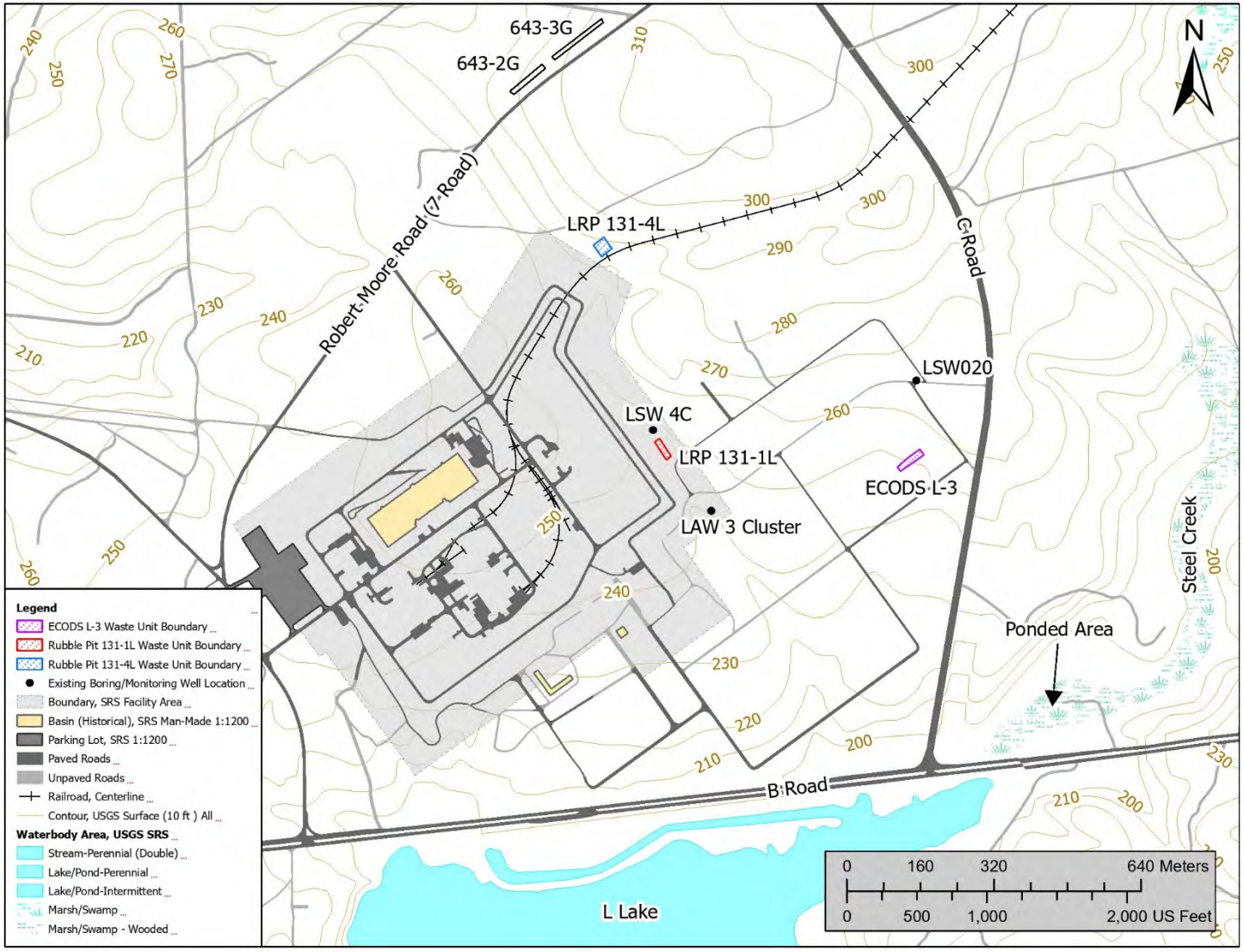


**Figure 5. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Surface Drainage for Each Subunit**

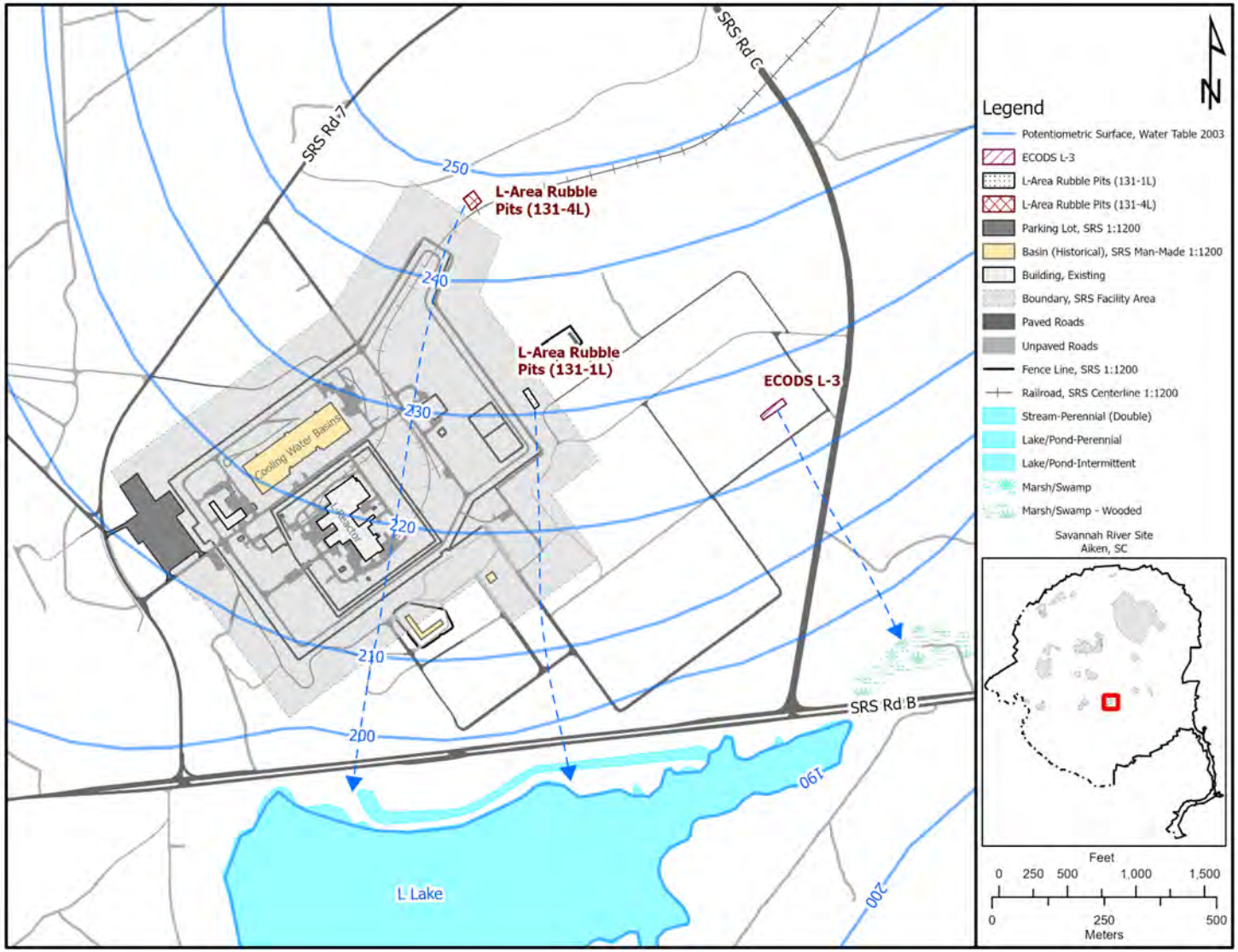


**Figure 6. Regional Potentiometric Surface of the Upper Aquifer Zone (2003 Data)**

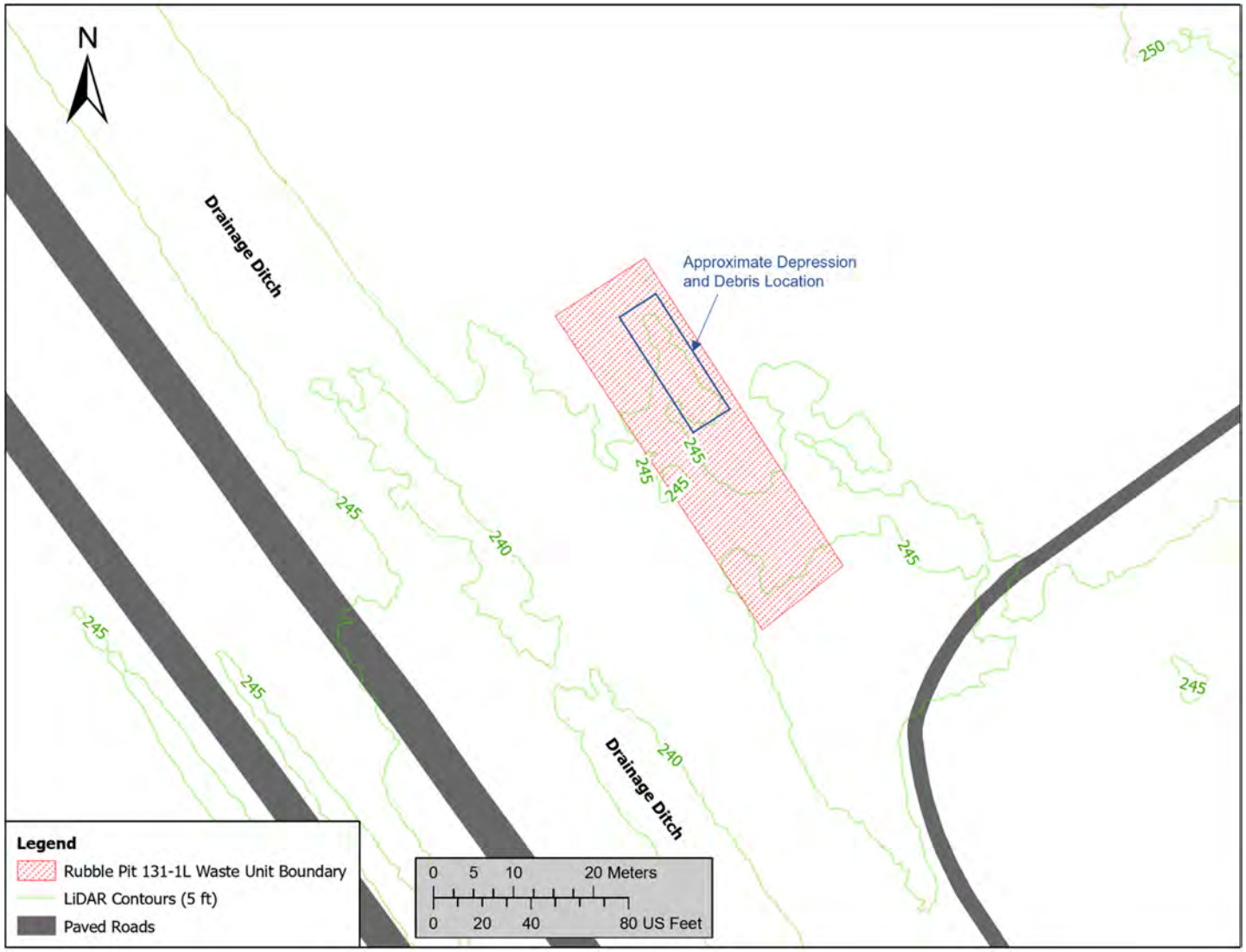


**Figure 7. LRP 131-1L Subunit Boundaries and Topography**


**Figure 8. Photograph of LRP 131-1L Subunit During December 2021 Walkdown**

**Figure 9. Asphalt Debris Observed at LRP 131-1L During December 2021 Walkdown**


**Figure 10. Depression Observed at LRP 131-1L During December 2021 Walkdown**

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**Figure 11. Photograph of Drainage Ditch Adjacent to LRP 131-1L (Located to the Right) During December 2021 Walkdown**

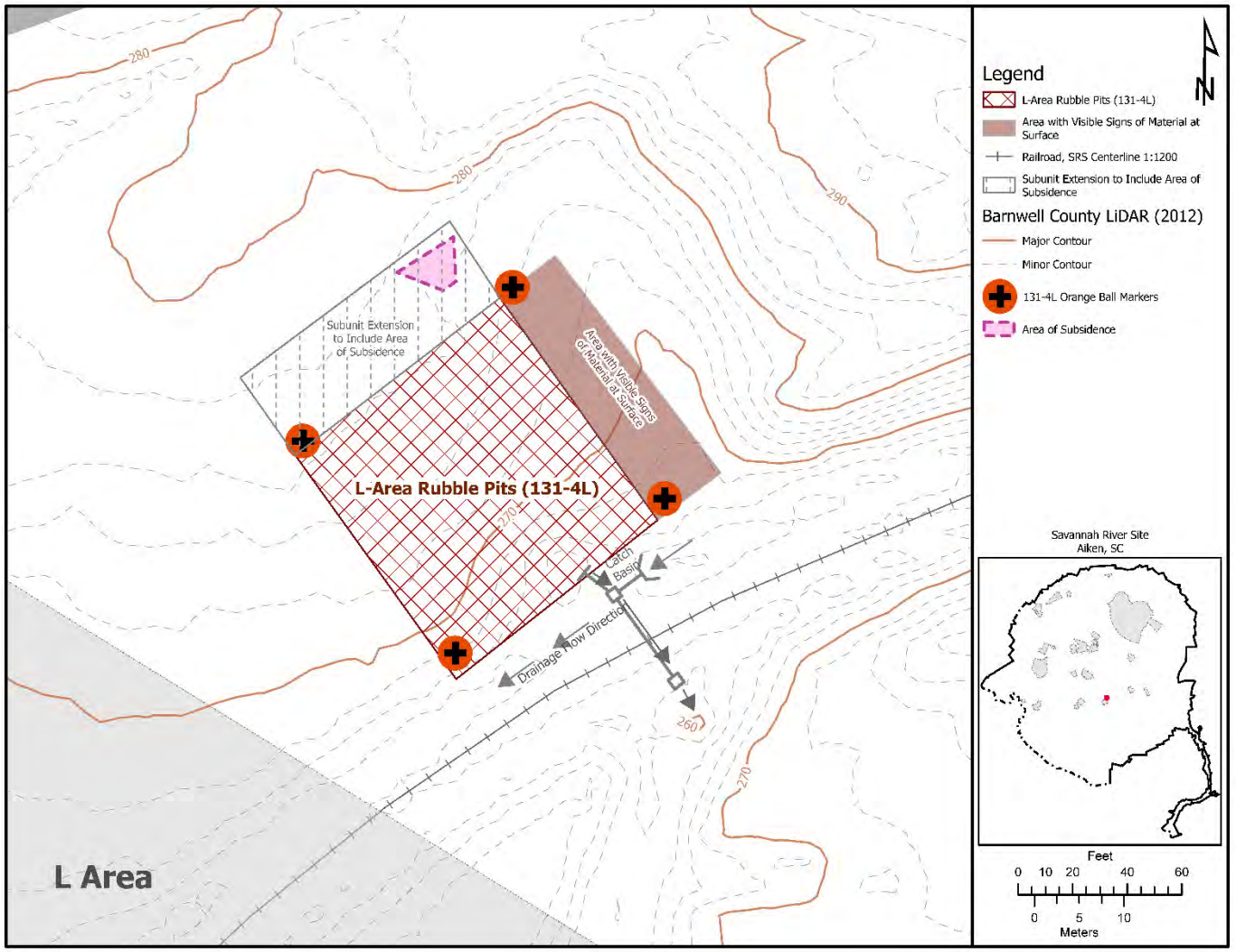


**Figure 12. LRP 131-4L Subunit Boundaries and Topography**

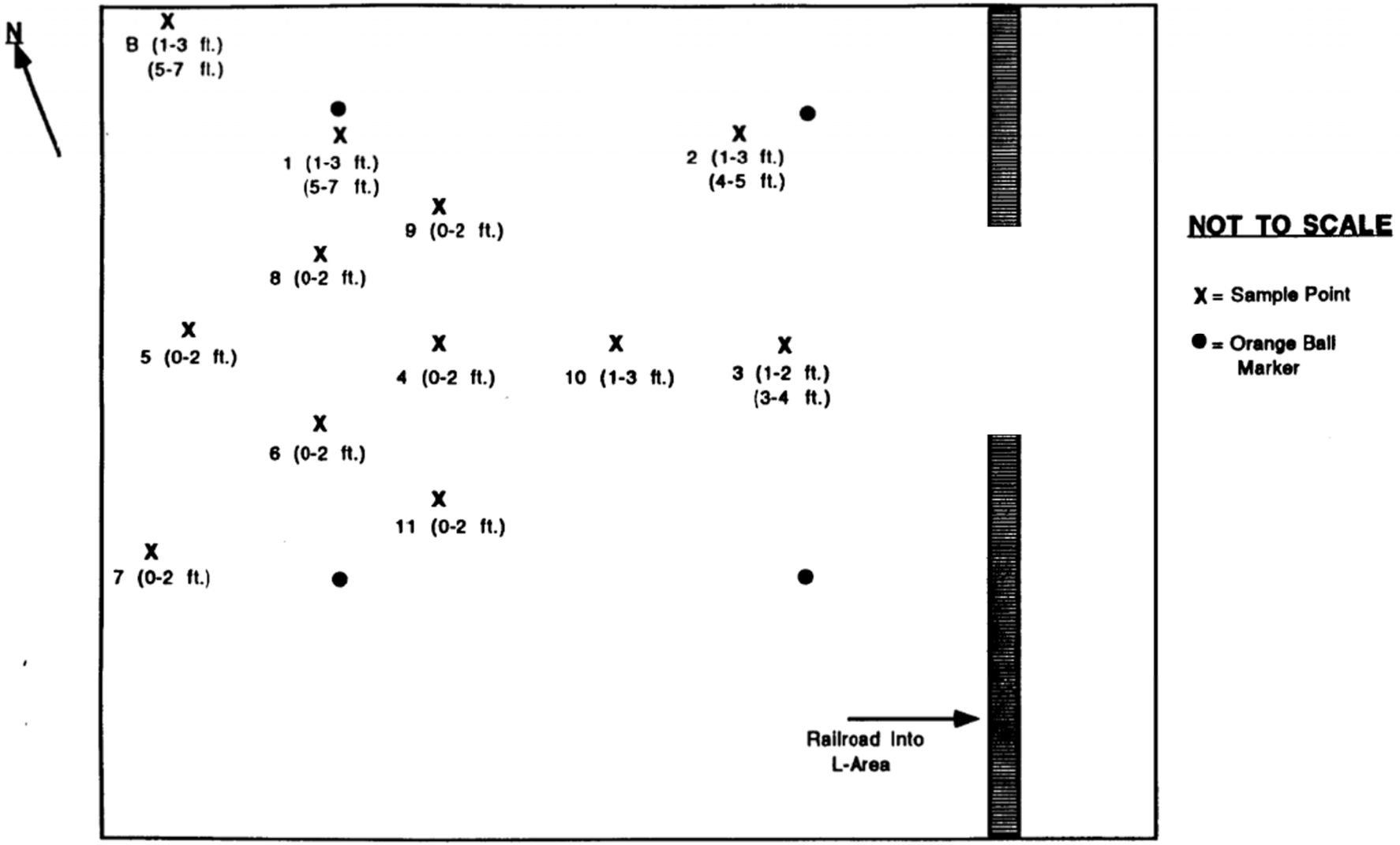


**Figure 13. 1994 Site Evaluation Sampling Locations for the LRP 131-4L**

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**Figure 14. Debris Observed at the LRP 131-4L Subunit During December 2021 Walkdown**

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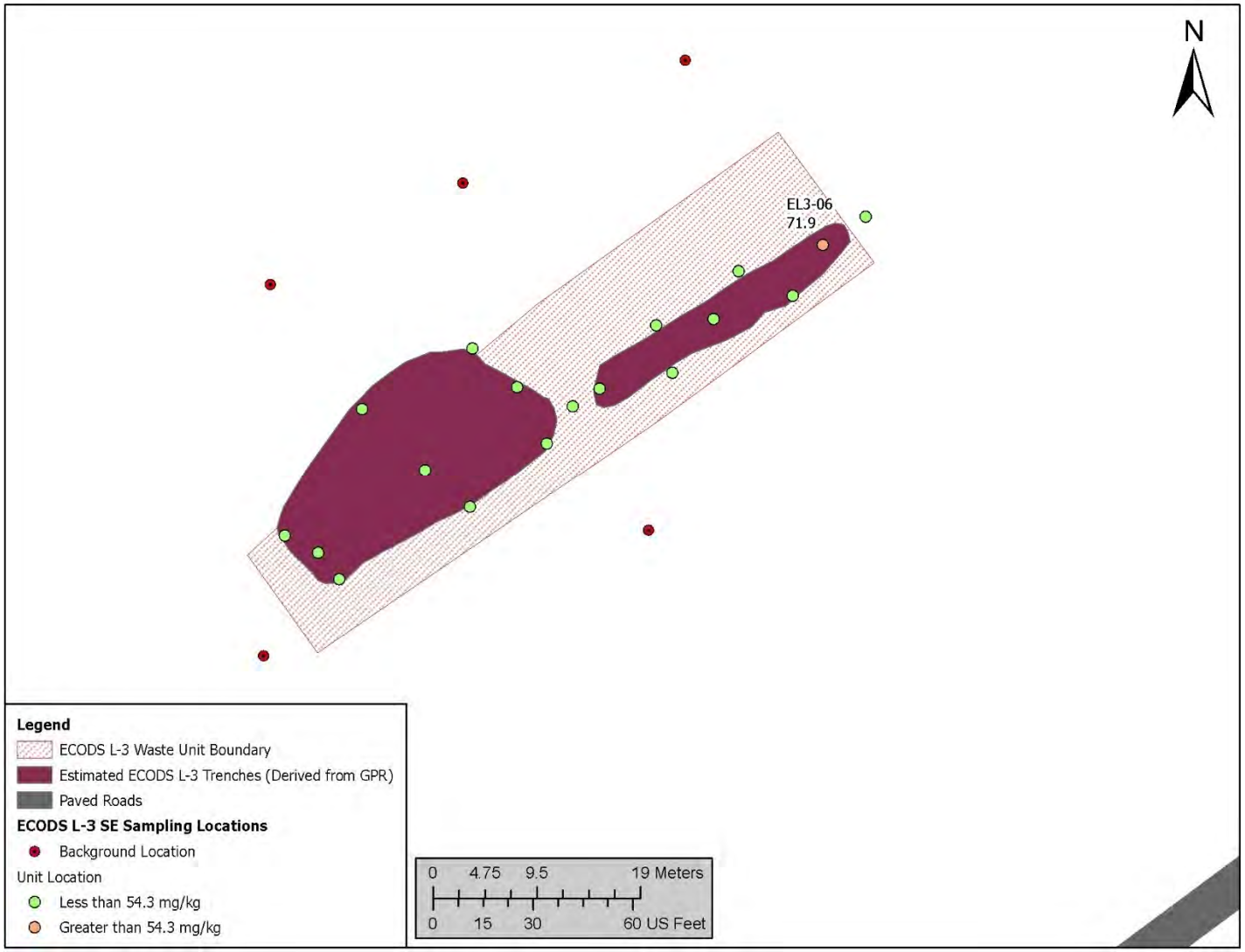


**Figure 15. ECODS L-3 SE Chromium Surface Soil (0 to 1 ft) Result [mg/kg] Above SRS Maximum Background (54.3 mg/kg)**

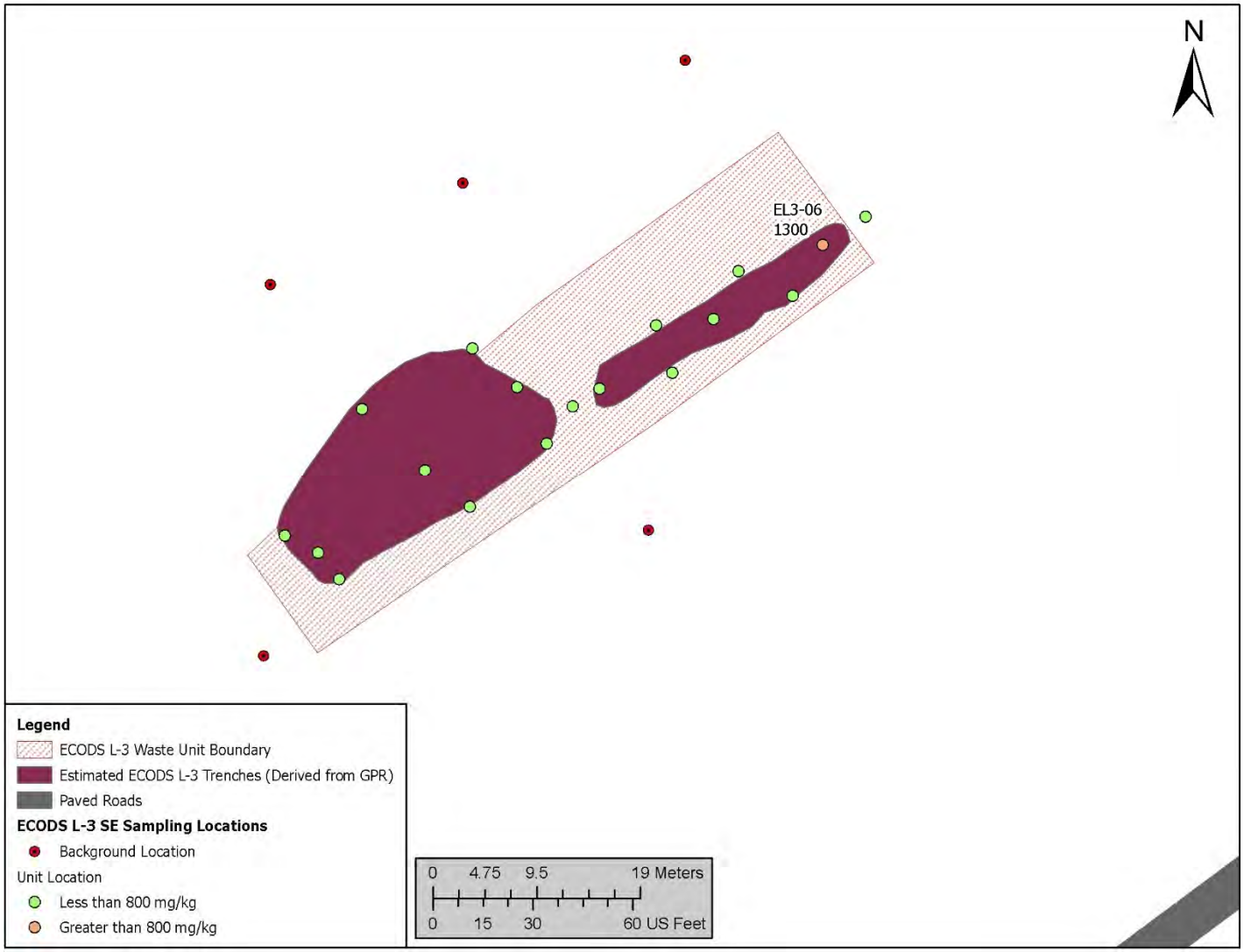


**Figure 16. ECODS L-3 SE Lead Surface Soil (0 to 1 ft) Result [mg/kg] Above Industrial Worker RSL (800 mg/kg)**

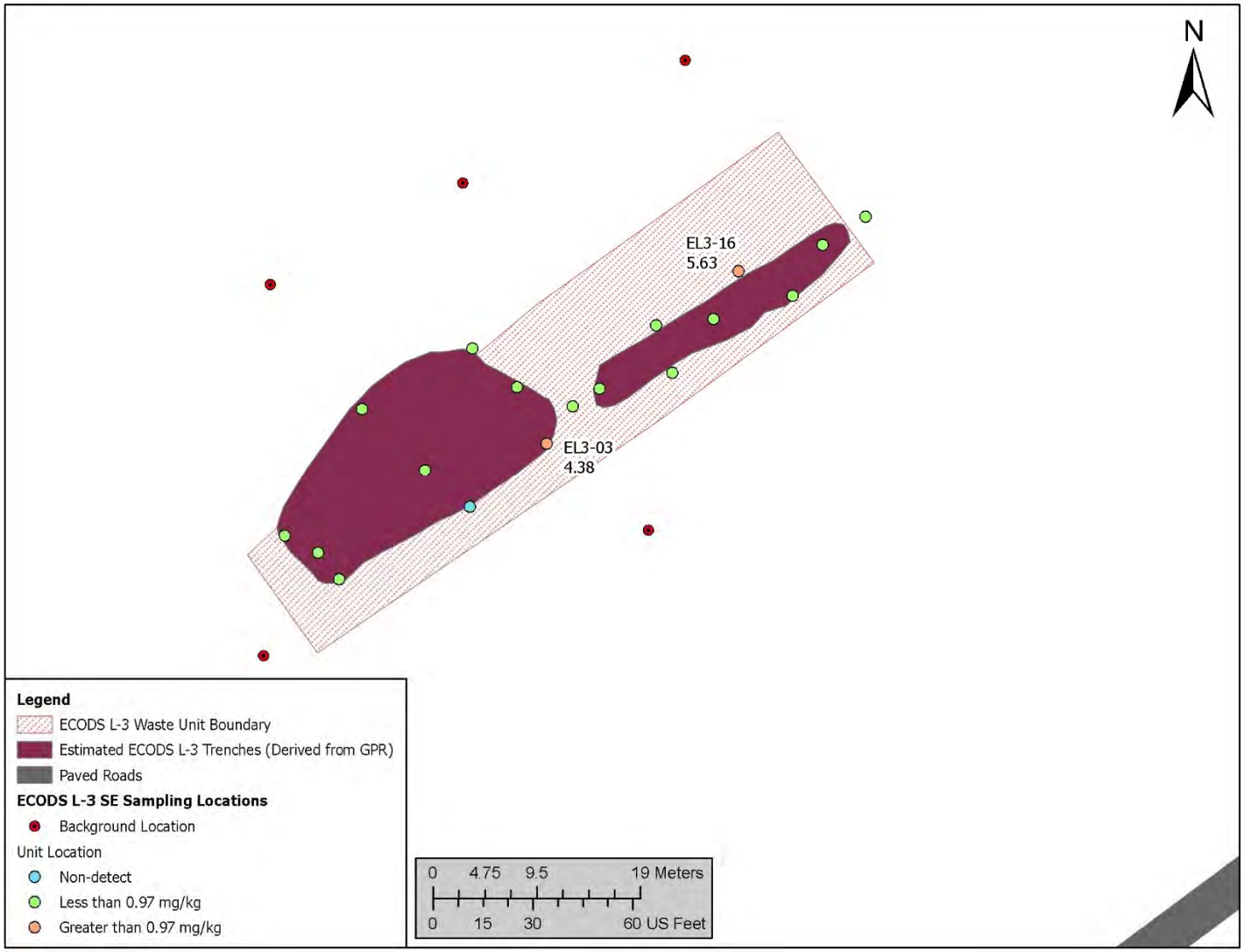


**Figure 17. ECODS L-3 SE PCB 1254 Surface Soil (0 to 1 ft) Results [mg/kg] Above Industrial Worker RSL (0.97 mg/kg)**

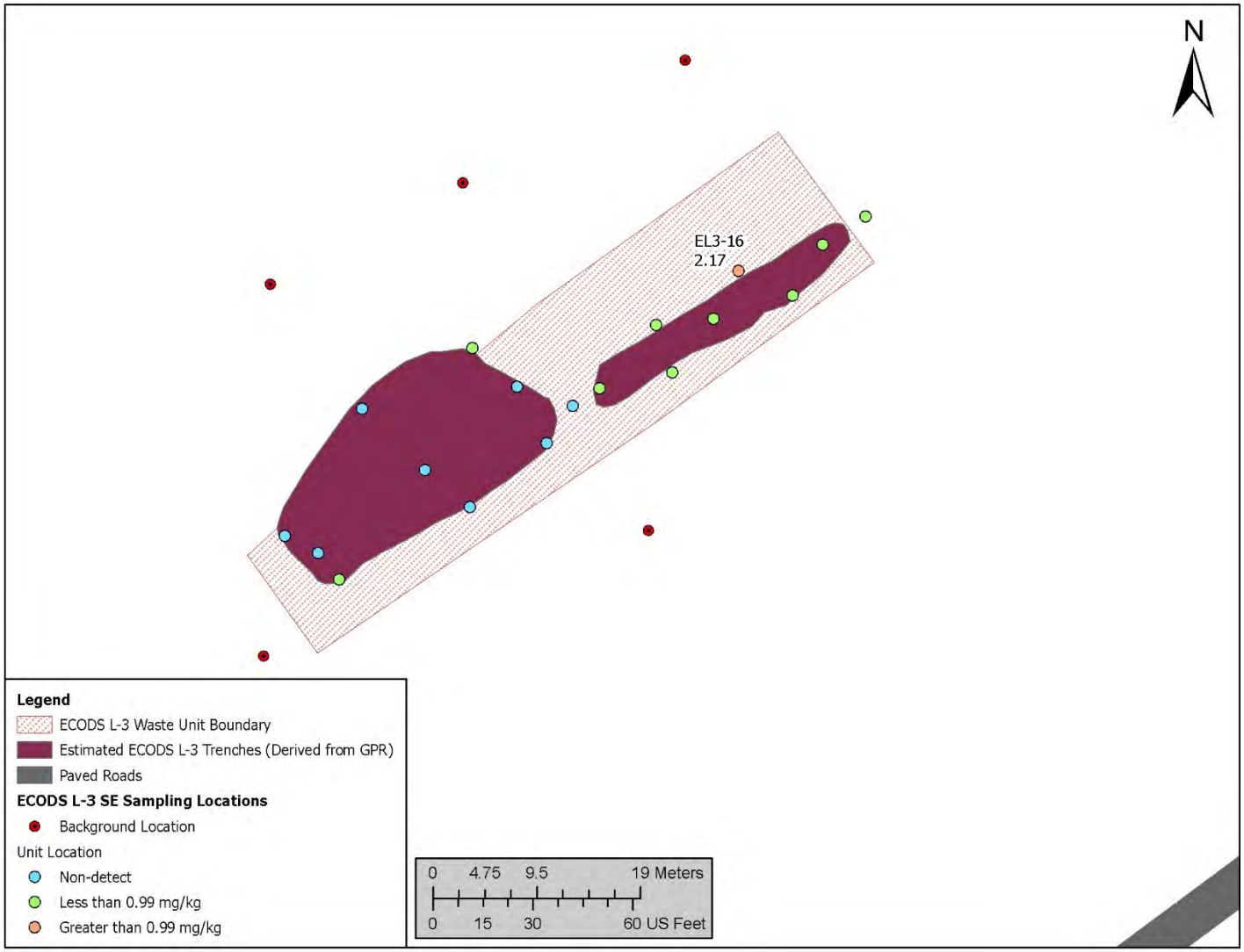


**Figure 18. ECODS L-3 SE PCB 1260 Surface Soil (0 to 1 ft) Results [mg/kg] Above Industrial Worker RSL (0.99 mg/kg)**

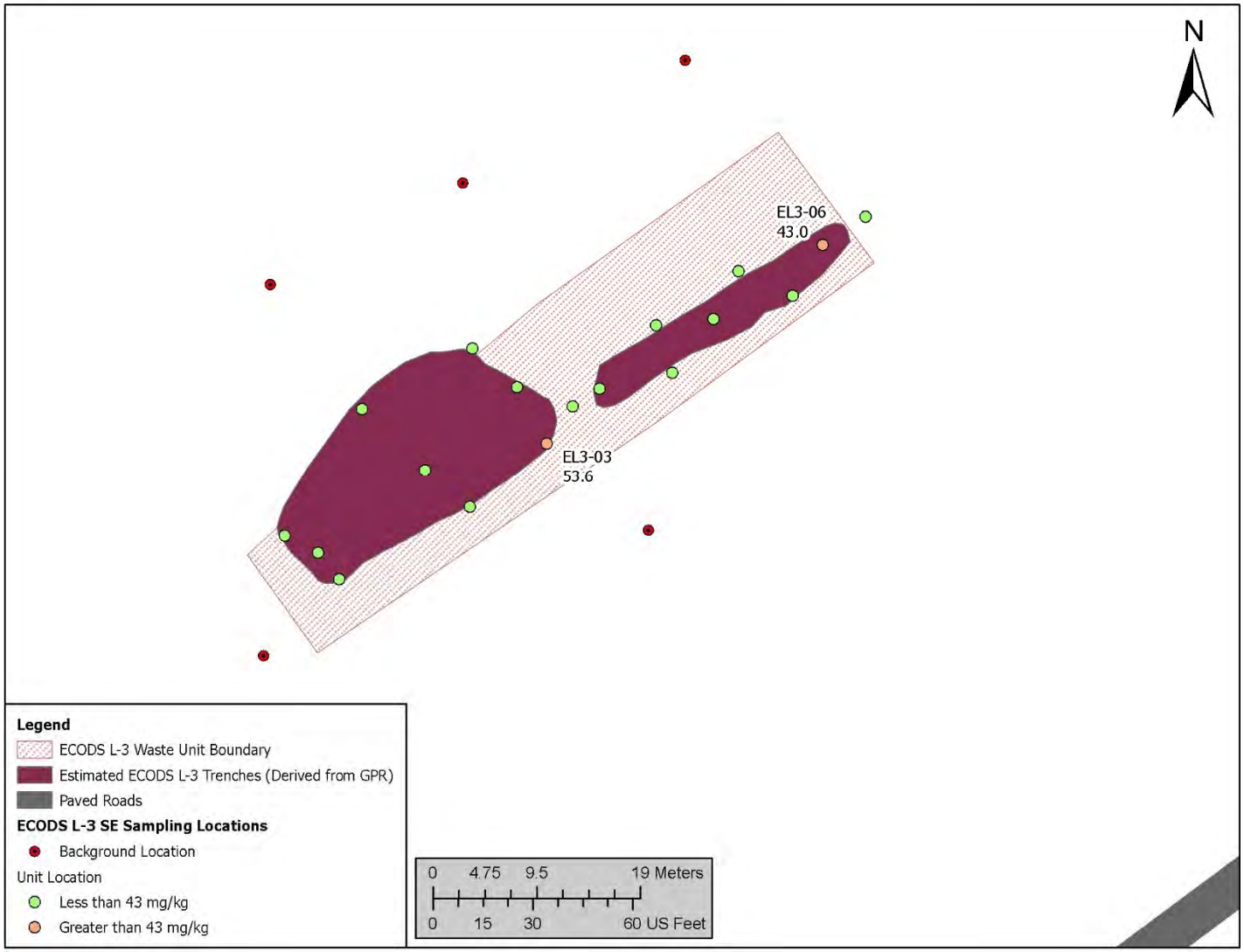


**Figure 19. ECODS L-3 SE Copper Surface Soil (0 to 1 ft) Results [mg/kg] Above Ecological RSV (43 mg/kg)**

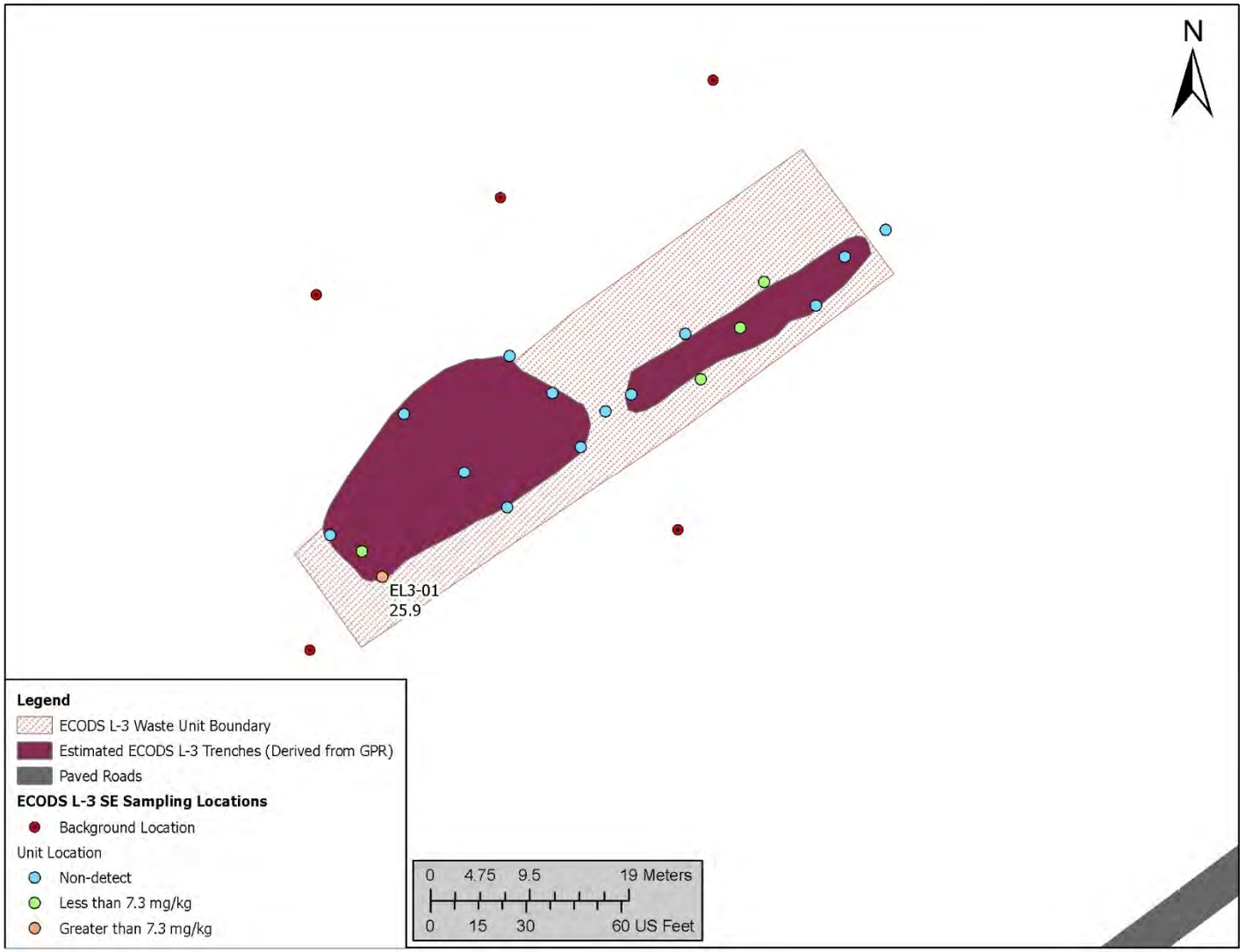


**Figure 20. ECODS L-3 SE Benzo(a)anthracene Subsurface Soil (1 to 4 ft) Result [mg/kg] Above Ecological RSV (7.3 mg/kg)**

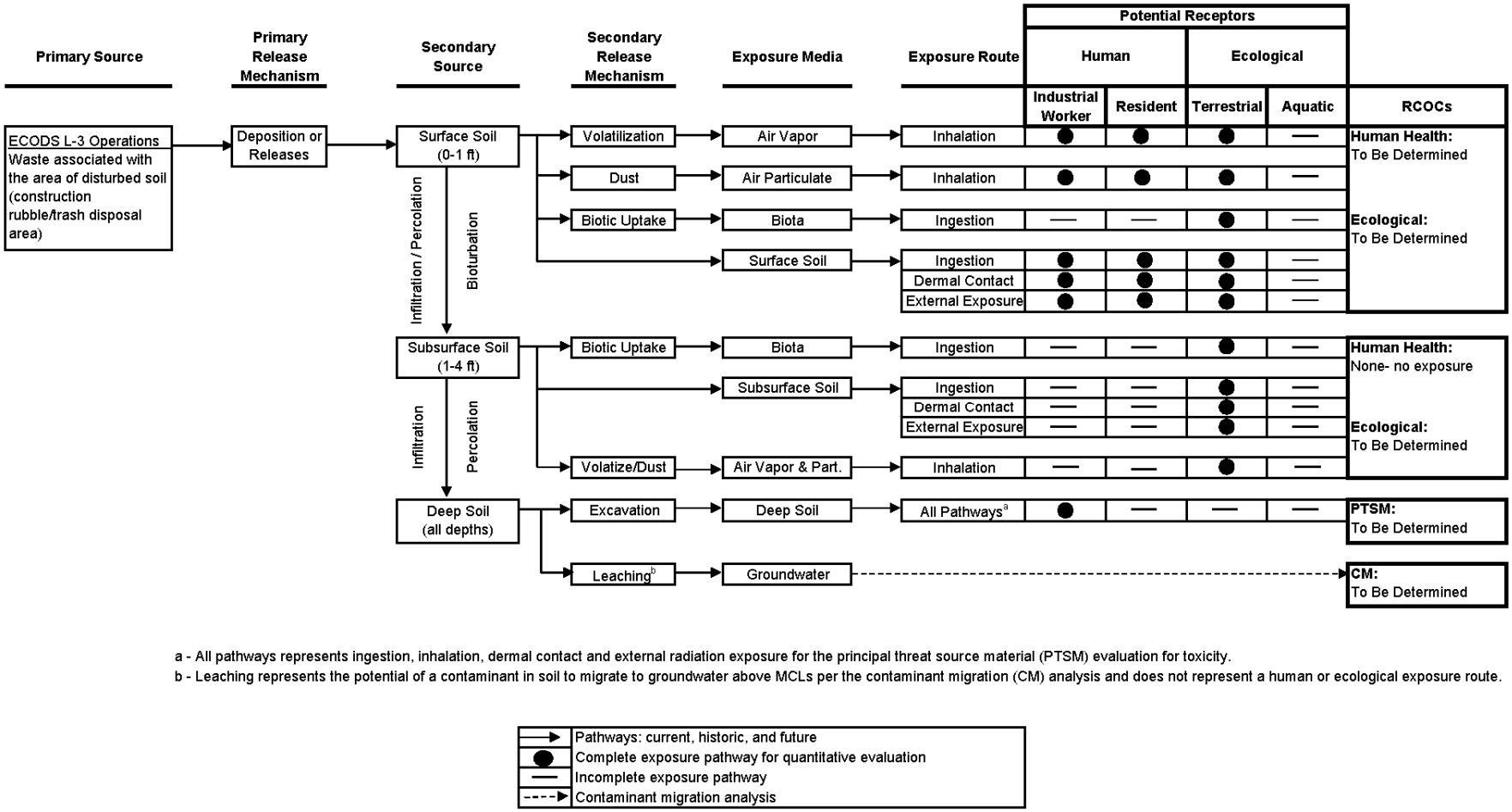


**Figure 21. Preliminary Conceptual Site Model for ECODS L-3 Subunit**

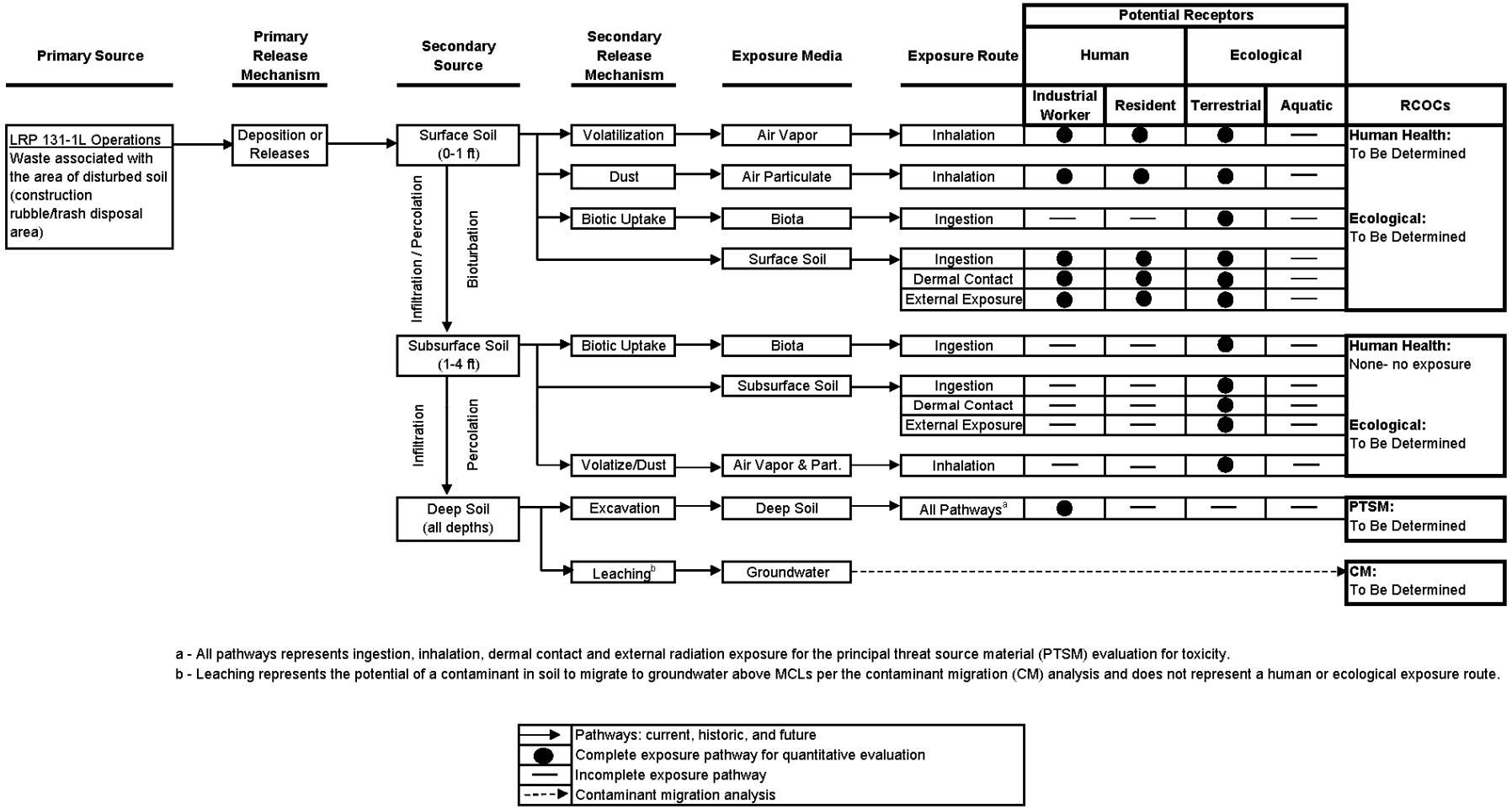


**Figure 22. Preliminary Conceptual Site Model for L-Area Rubble Pit (131-1L) Subunit**

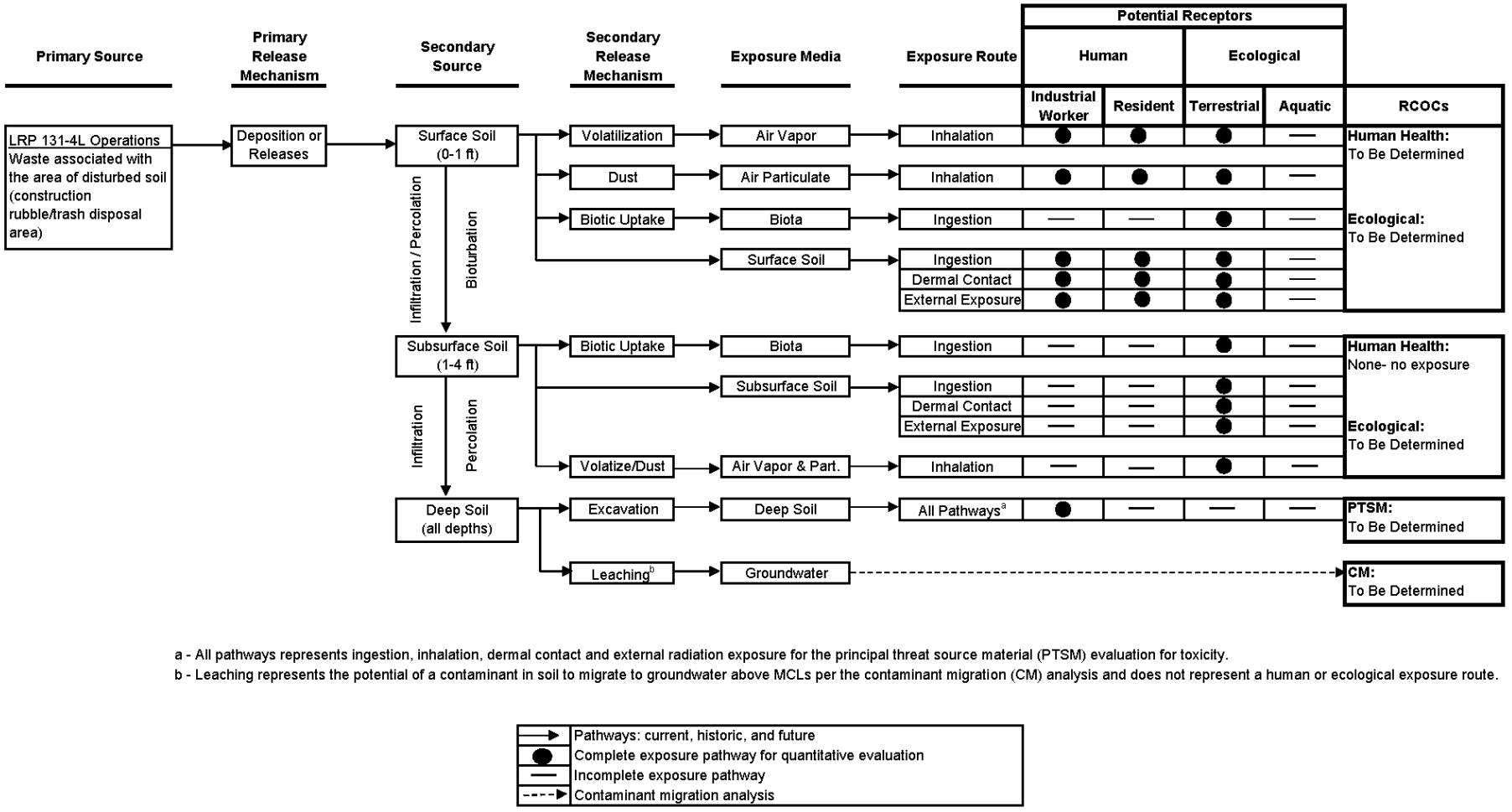


**Figure 23. Preliminary Conceptual Site Model for L-Area Rubble Pit (131-4L) Subunit**

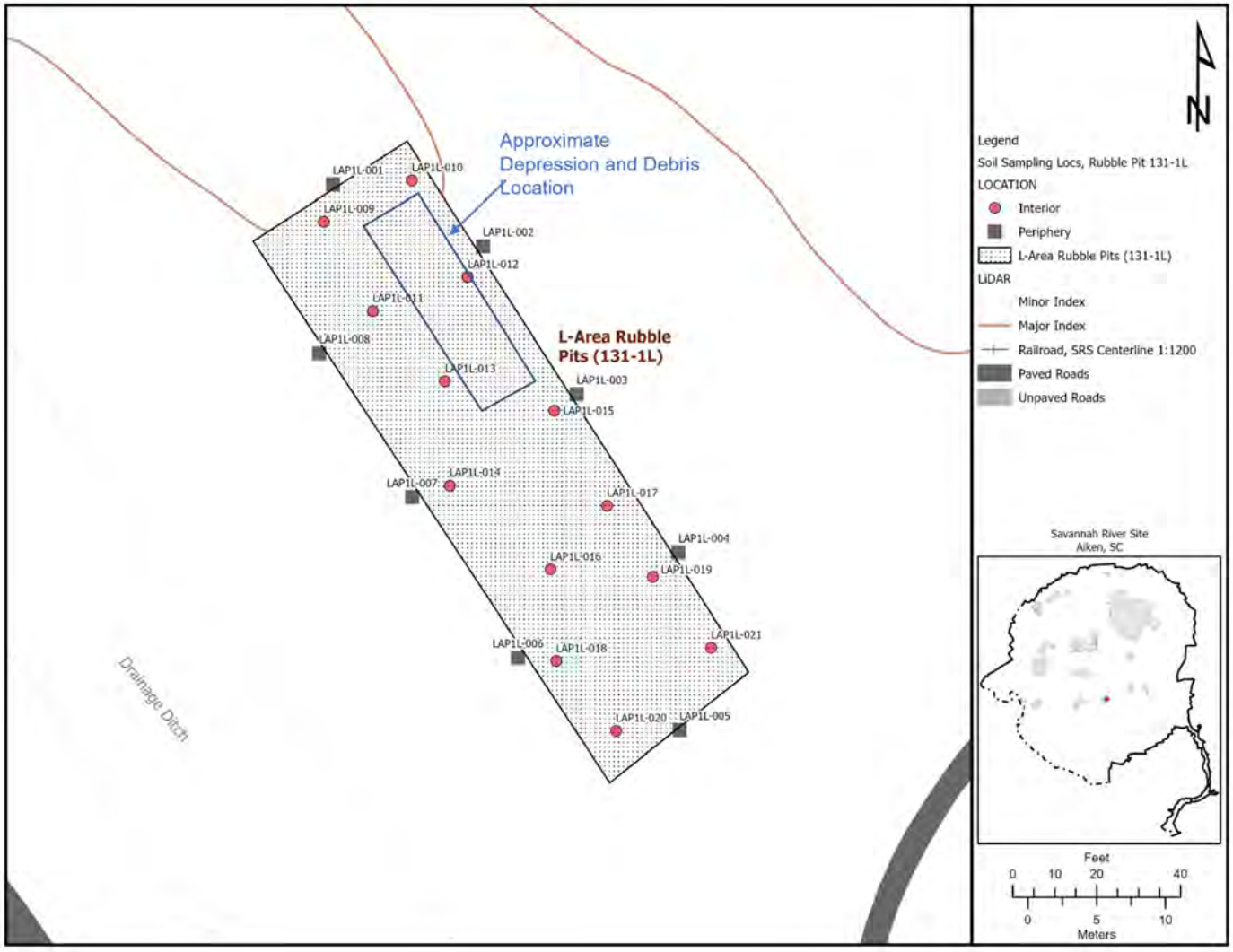


**Figure 24. Proposed RFI/RI Work Plan Sample Locations for the LRP 131-1L Subunit**

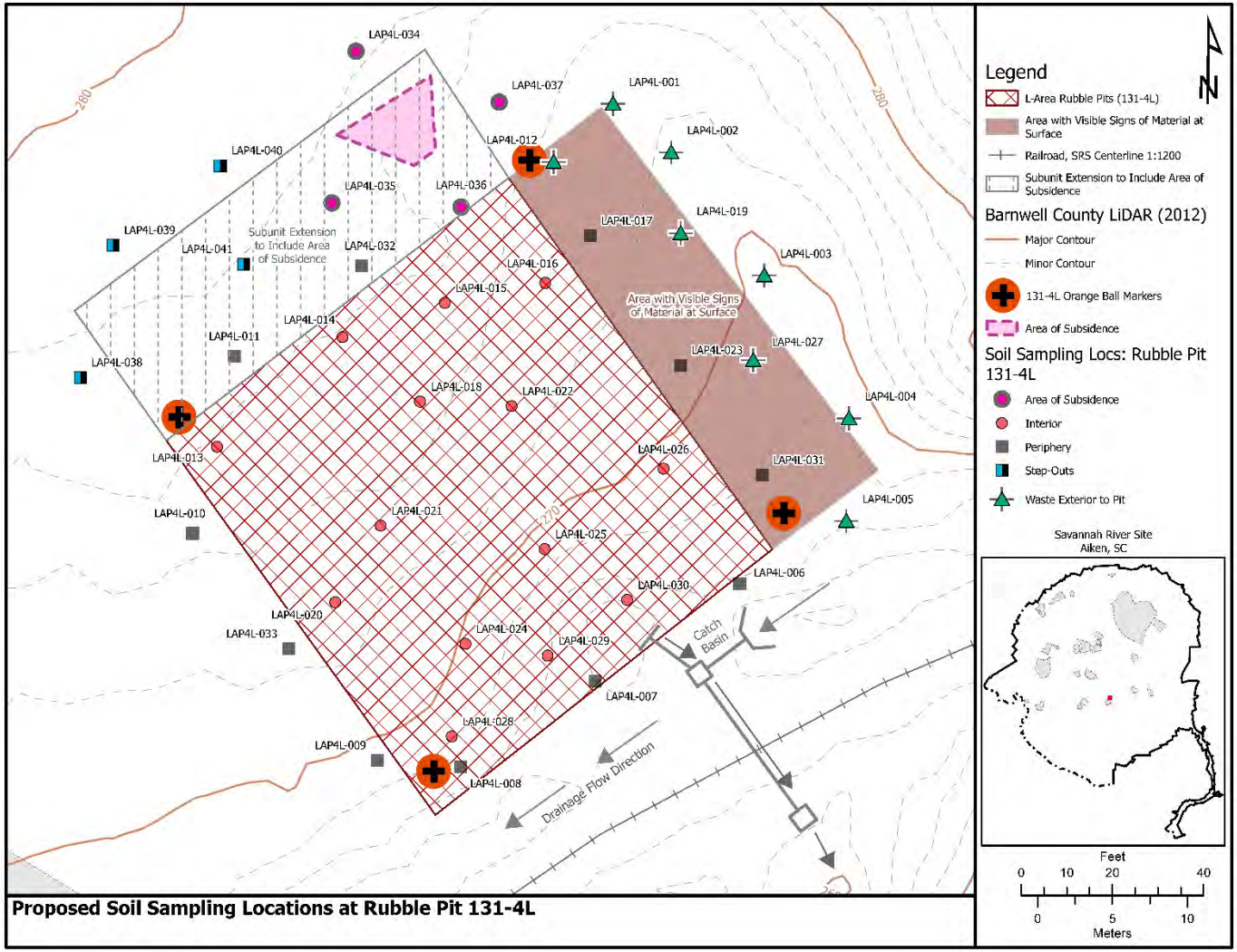


**Figure 25. Proposed RFI/RI Work Plan Sampling Locations for the LRP 131-4L Subunit**

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## Table 1. ECODS L-3 Subunit Site Evaluation Sampling Depth Intervals

| Station ID | Sample Type | Depth Intervals [ft bgs] |
|---|---|---|
| EL3-01 | REG | 0 to 1, 1 to 4, 4 to 8, 8 to 12, 12 to 16 |
| EL3-02 | REG | 0 to 1, 1 to 4, 4 to 8, 8 to 12, 12 to 16 |
| EL3-02 | FD | 8 to 12 |
| EL3-03 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-04 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-04 | FD | 1 to 4 |
| EL3-05 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-06 | REG | 0 to 1, 1 to 4, 4 to 8, 8 to 12 |
| EL3-06 | FD | 0 to 1 |
| EL3-07 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-08 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-09 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-10 | REG | 0 to 1, 1 to 4, 4 to 8, 8 to 12 |
| EL3-11 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-12 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-12 | FD | 0 to 1 |
| EL3-13 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-14 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-14 | FD | 4 to 8 |
| EL3-15 | REG | 0 to 1, 1 to 4, 4 to 8 |
| EL3-16 | REG | 0 to 1, 1 to 4, 4 to 8, 8 to 12 |
| EL3-16 | FD | 1 to 4 |
| EL3-17 | Composite | 0 to 1, 1 to 4, 4 to 8 |
| EL3-18 | Composite | 0 to 1, 1 to 4, 4 to 8 |
| EL3-18 | FD | 4 to 8 |
| EL3-19 | Background | 0 to 1, 1 to 4, 8 to 12, 12 to 16 |
| EL3-20 | Background | 0 to 1, 1 to 4, 8 to 12, 12 to 16 |
| EL3-20 | FD | 8 to 12 |
| EL3-21 | Background | 0 to 1, 1 to 4, 8 to 12, 12 to 16 |
| EL3-22 | Background | 0 to 1, 1 to 4, 8 to 12, 12 to 16 |
| EL3-22 | FD | 1 to 4 |
| EL3-23 | Background | 0 to 1, 1 to 4, 8 to 12, 12 to 16 |

ft bgs - feet below ground surface
FD - field duplicate
REG - regular

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## Table 2. Data Quality Objectives for the ECODS L-3 Subunit

| Pathway (Media) | Probable Conditions | Exposure Pathway and/or Release Mechanisms | Data Needs and DQOs Including Engineering / Physical Processes | Field Activities Including Removal and Characterization | Parameters | Potential Remedial Action Alternatives |
|---|---|---|---|---|---|---|
| Surface soil, subsurface soil, deep soil | Contamination of surface soil from construction material and burning from deposition of waste material on ground surface and in trenches<br><br>Infiltration/percolation of contamination through surface soils into subsurface soils | Ingestion, inhalation, absorption, and/or direct exposure with soils and/or debris presently buried in the subunit | No data needs and therefore no DQOs. | No field activities. | N/A | No Action<br><br>Land Use Controls<br><br>Excavation of contaminated soils<br><br>Cover System with Land Use Controls |

## Table 3. Data Quality Objectives for the LRP 131-1L Subunit

| Pathway (Media) | Probable Conditions | Exposure Pathway and/or Release Mechanisms | Data Needs and DQOs Including Engineering / Physical Processes | Field Activities Including Removal and Characterization | Parameters | Potential Remedial Action Alternatives |
|---|---|---|---|---|---|---|
| Surface soil, subsurface soil, deep soil | Contamination of surface soil from construction material and burning from deposition of waste material on ground surface and pits<br><br>Infiltration/ percolation of contamination through surface soils into subsurface soils | Ingestion, inhalation, absorption, and/or direct exposure with soils and/or debris presently buried in the subunit | Define the nature and extent of contamination of the subunit.<br><br>Full characterization of the subunit. | Collection of surface soils, subsurface, and deep soils from<br>0 to 1 ft,<br>1 to 4 ft,<br>4 to 8 ft,<br>8 to 12 ft,<br>and 12 to 16 ft<br>(tentatively 16 to 20 ft)<br><br>21 Locations: 13 inside the subunit and 8 at subunit boundary | Data validated to SRS electronic VV level, with 10% of the sampling batches validated to the SRS definitive level.<br><br>Full TCL and TAL suite of analytes; gross alpha and nonvolatile beta.<br><br>$Cr^{+6}$ analysis if required by elevated Total Cr.<br><br>Asbestos-containing material visual inspection during field activities. | No Action<br><br>Land Use Controls<br><br>Excavation of contaminated soils<br><br>Cover System with Land Use Controls |

## Table 4. Data Quality Objectives for the LRP 131-4L Subunit

| Pathway (Media) | Probable Conditions | Exposure Pathway and/or Release Mechanisms | Data Needs and DQOs Including Engineering / Physical Processes | Field Activities Including Removal and Characterization | Parameters | Potential Remedial Action Alternatives |
|---|---|---|---|---|---|---|
| Surface soil, subsurface soil, deep soil | Contamination of surface soil from construction material and burning from deposition of waste material on ground surface and pits<br>Infiltration/ percolation of contamination through surface soils into subsurface soils | Ingestion, inhalation, absorption, and/or direct exposure with soils and/or debris presently buried in the subunit | Define the nature and extent of contamination of the subunit.<br>Full characterization of the subunit. | Collection of surface soils, subsurface, and deep soils from 0 to 1 ft, 1 to 4 ft, 4 to 8 ft, and 8 to 12 ft (tentatively 12 to 16 ft)<br>37 Locations and 4 Step-outs | Data validated to SRS electronic VV level, with 10% of the sampling batches validated to the SRS definitive level.<br>Full TCL and TAL suite of analytes; gross alpha and nonvolatile beta.<br>$Cr^{+6}$ analysis if required by elevated Total Cr.<br>Asbestos-containing material visual inspection during field activities. | No Action<br>Land Use Controls<br>Excavation of contaminated soils<br>Cover System with Land Use Controls |

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## Table 5. Laboratory Analytical Specifications Table TAL/TCL Analytes for Soil Media

| Analyte | Analyte ID | Preparation[A] Method | USEPA[A] Method | CRDL[B] *(µg/kg)* |
|---|---|---|---|---|
| **Target Analyte List** | | | | |
| **Metals** | | | | |
| Aluminum | 7429-90-5 | 3051A,3052 | EPA6010C | 1,900 |
| Antimony | 7440-36-0 | 3051A,3052 | EPA6010C | 350 |
| Arsenic | 7440-38-2 | 3051A,3052 | EPA6010C | 312 |
| Barium | 7440-39-3 | 3051A,3052 | EPA6010C | 21 |
| Beryllium | 7440-41-7 | 3051A,3052 | EPA6010C | 31.1 |
| Cadmium | 7440-43-9 | 3051A,3052 | EPA6010C | 40 |
| Calcium | 7440-70-2 | 3051A,3052 | EPA6010C | 69 |
| Chromium | 7440-47-3 | 3051A,3052 | EPA6010C | 90 |
| Cobalt | 7440-48-4 | 3051A,3052 | EPA6010C | 80 |
| Copper | 7440-50-8 | 3051A,3052 | EPA6010C | 100 |
| Iron | 7439-89-6 | 3051A,3052 | EPA6010C | 2,190 |
| Lead | 7439-92-1 | 3051A,3052 | EPA6010C | 590 |
| Magnesium | 7439-95-4 | 3051A,3052 | EPA6010C | 14.1 |
| Manganese | 7439-96-5 | 3051A,3052 | EPA6010C | 88.5 |
| Mercury | 7439-97-6 | 3051A,3052 | EPA7471B | 15.2 |
| Nickel | 7440-02-0 | 3051A,3052 | EPA6010C | 88 |
| Potassium | 7440-09-7 | 3051A,3052 | EPA6010C | 80 |
| Selenium | 7782-49-2 | 3051A,3052 | EPA6010C | 5.7 |
| Silver | 7440-22-4 | 3051A,3052 | EPA6010C | 101 |
| Sodium | 7440-23-5 | 3051A,3052 | EPA6010C | 298 |
| Thallium | 7440-28-0 | 3051A,3052 | EPA6010C | 160 |
| Vanadium | 7440-62-2 | 3051A,3052 | EPA6010C | 74 |
| Zinc | 7440-66-6 | 3051A,3052 | EPA6010C | 4.3 |
| **Specific Analysis** | | | | |
| Hexavalent chromium ($Cr_{+6}$) | 18540-29-9 | 3060A | EPA7196A/7199 | TBD |
| Cyanide | 57-12-5 | N/A | EPA9012B | 3,000 |
| **Target Compound List** | | | | |
| PCBs | | | | |
| AROCLOR 1016 | 12674-11-2 | 3540C,3541,3545A | EPA8082A | 3.2 |
| AROCLOR 1221 | 11104-28-2 | 3540C,3541,3545A | EPA8082A | 0.22 |
| AROCLOR 1232 | 11141-16-5 | 3540C,3541,3545A | EPA8082A | 0.22 |
| AROCLOR 1242 | 53469-21-9 | 3540C,3541,3545A | EPA8082A | 0.22 |
| AROCLOR 1248 | 12672-29-6 | 3540C,3541,3545A | EPA8082A | 0.22 |
| AROCLOR 1254 | 11097-69-1 | 3540C,3541,3545A | EPA8082A | 0.22 |
| AROCLOR 1260 | 11096-82-5 | 3540C,3541,3545A | EPA8082A | 0.22 |
| **Pesticides** | | | | |
| Aldrin | 309-00-2 | 3540C,3541,3545A,3550C | EPA8081B | 0.029 |
| alpha-Benzene hexachloride | 319-84-6 | 3540C,3541,3545A,3550C | EPA8081B | 0.066 |
| alpha-Chlordane | 5103-71-9 | 3540C,3541,3545A,3550C | EPA8081B | 0.021 |
| beta-Benzene hexachloride | 319-85-7 | 3540C,3541,3545A,3550C | EPA8081B | 0.32 |
| DDD | 72-54-8 | 3540C,3541,3545A,3550C | EPA8081B | 2.4 |
| DDE | 72-55-9 | 3540C,3541,3545A,3550C | EPA8081B | 1.7 |
| DDT | 50-29-3 | 3540C,3541,3545A,3550C | EPA8081B | 1.01 |
| delta-Benzene hexachloride | 319-86-8 | 3540C,3541,3545A,3550C | EPA8081B | 0.066 |
| Dieldrin | 60-57-1 | 3540C,3541,3545A,3550C | EPA8081B | 0.03 |
| Endosulfan I | 959-98-8 | 3540C,3541,3545A,3550C | EPA8081B | 0.066 |
| Endosulfan II | 33213-65-9 | 3540C,3541,3545A,3550C | EPA8081B | 0.13 |

**Table 5. Laboratory Analytical Specifications Table TAL/TCL Analytes for Soil Media** *(Continued)*

| Analyte | Analyte ID | Preparation[A] Method | USEPA[A] Method | CRDL[B] *(µg/kg)* |
|---|---|---|---|---|
| **Target Compound List** *(continued)* | | | | |
| **Pesticides** *(continued)* | | | | |
| Endosulfan sulfate | 1031-07-8 | 3540C,3541,3545A,3550C | EPA8081B | 0.13 |
| Endrin | 72-20-8 | 3540C,3541,3545A,3550C | EPA8081B | 0.13 |
| Endrin aldehyde | 7421-93-4 | 3540C,3541,3545A,3550C | EPA8081B | 0.13 |
| Endrin ketone | 53494-70-5 | 3540C,3541,3545A,3550C | EPA8081B | 0.34 |
| gamma-Chlordane | 5103-74-2 | 3540C,3541,3545A,3550C | EPA8081B | C |
| Heptachlor | 76-44-8 | 3540C,3541,3545A,3550C | EPA8081B | 0.44 |
| Heptachlor epoxide | 1024-57-3 | 3540C,3541,3545A,3550C | EPA8081B | 0.59 |
| Lindane | 58-89-9 | 3540C,3541,3545A,3550C | EPA8081B | 0.066 |
| Methoxychlor | 72-43-5 | 3540C,3541,3545A,3550C | EPA8081B | 1.13 |
| Toxaphene | 8001-35-2 | 3540C,3541,3545A,3550C | EPA8081B | 18.7 |
| **Semi-volatiles** | | | | |
| 2,4,5-Trichlorophenol | 95-95-4 | 3540C,3541,3545A,3550C | EPA8270D | 7.4 |
| 2,4,6-Trichlorophenol | 88-06-2 | 3540C,3541,3545A,3550C | EPA8270D | 7.4 |
| 2,4-Dichlorophenol | 120-83-2 | 3540C,3541,3545A,3550C | EPA8270D | 14 |
| 2,4-Dimethylphenol | 105-67-9 | 3540C,3541,3545A,3550C | EPA8270D | 14 |
| 2,4-Dinitrophenol | 51-28-5 | 3540C,3541,3545A,3550C | EPA8270D | 120 |
| 2-Chlorophenol | 95-57-8 | 3540C,3541,3545A,3550C | EPA8270D | 5.7 |
| 2-Methyl-4,6-dinitrophenol | 534-52-1 | 3540C,3541,3545A,3550C | EPA8270D | 7.8 |
| 2-Nitrophenol | 88-75-5 | 3540C,3541,3545A,3550C | EPA8270D | 13 |
| 4-Chloro-m-cresol | 59-50-7 | 3540C,3541,3545A,3550C | EPA8270D | 55.5 |
| 4-Nitrophenol | 100-02-7 | 3540C,3541,3545A,3550C | EPA8270D | 156 |
| m/p-Cresol | 1319-77-3 | 3540C,3541,3545A,3550C | EPA8270D | 96 |
| o-Cresol (2-Methylphenol) | 95-48-7 | 3540C,3541,3545A,3550C | EPA8270D | 5.6 |
| Pentachlorophenol | 87-86-5 | 3540C,3541,3545A,3550C | EPA8270D | 3 |
| Phenol | 108-95-2 | 3540C,3541,3545A,3550C | EPA8270D | 6.2 |
| 1,2,4,5-Tetrachlorobenzene | 95-94-3 | 3540C,3541,3545A,3550C | EPA8270D | 170 |
| 2,3,4,6-Tetrachlorophenol | 58-90-2 | 3540C,3541,3545A,3550C | EPA8270D | 170 |
| 1,1'-Biphenyl | 92-52-4 | 3540C,3541,3545A,3550C | EPA8270D | 350 |
| 2,4-Dinitrotoluene | 121-14-2 | 3540C,3541,3545A,3550C | EPA8270D | 44.6 |
| 2,6-Dinitrotoluene | 606-20-2 | 3540C,3541,3545A,3550C | EPA8270D | 28 |
| 2-Chloronaphthalene | 91-58-7 | 3540C,3541,3545A,3550C | EPA8270D | 5.6 |
| 2-Methylnaphthalene | 91-57-6 | 3540C,3541,3545A,3550C | EPA8270D | 50 |
| 2-Nitroaniline | 88-74-4 | 3540C,3541,3545A,3550C | EPA8270D | 3.5 |
| 3,3'-Dichlorobenzidine | 91-94-1 | 3540C,3541,3545A,3550C | EPA8270D | 143 |
| 4-Bromophenyl phenyl ether | 101-55-3 | 3540C,3541,3545A,3550C | EPA8270D | 15 |
| 4-Chloroaniline | 106-47-8 | 3540C,3541,3545A,3550C | EPA8270D | 16 |
| 4-Chlorophenyl phenyl ether | 7005-72-3 | 3540C,3541,3545A,3550C | EPA8270D | 40.9 |
| Acenaphthene | 83-32-9 | 3540C,3541,3545A,3550C | EPA8270D | 35.2 |
| Acenaphthylene | 208-96-8 | 3540C,3541,3545A,3550C | EPA8270D | 35 |
| Acetophenone | 98-86-2 | 3540C,3541,3545A,3550C | EPA8270D | 0.49 |
| Anthracene | 120-12-7 | 3540C,3541,3545A,3550C | EPA8270D | 44.5 |
| Atrazine | 1912-24-9 | 3540C,3541,3545A,3550C | EPA8270D | 2.2 |
| Benzaldehyde | 100-52-7 | 3540C,3541,3545A,3550C | EPA8270D | 6100 |
| Benzo[a]anthracene | 56-55-3 | 3540C,3541,3545A,3550C | EPA8270D | 29.4 |
| Benzo[a]pyrene | 50-32-8 | 3540C,3541,3545A,3550C | EPA8270D | 25.5 |
| Benzo[b]fluoranthene | 205-99-2 | 3540C,3541,3545A,3550C | EPA8270D | 55.3 |
| Benzo[g,h,i]perylene | 191-24-2 | 3540C,3541,3545A,3550C | EPA8270D | 29.6 |
| Benzo[k]fluoranthene | 207-08-9 | 3540C,3541,3545A,3550C | EPA8270D | 58.8 |

**Table 5. Laboratory Analytical Specifications Table TAL/TCL Analytes for Soil Media** *(Continued)*

| Analyte | Analyte ID | Preparation[A] Method | USEPA[A] Method | CRDL[B] *(µg/kg)* |
|---|---|---|---|---|
| **Target Compound List** *(continued)* | | | | |
| **Semi-volatiles** *(continued)* | | | | |
| Bis(2-chloro-1-methylethyl) ether | 108-60-1 | 3540C,3541,3545A,3550C | EPA8270D | 54.1 |
| Bis(2-chloroethoxy) methane | 111-91-1 | 3540C,3541,3545A,3550C | EPA8270D | 7.2 |
| Bis(2-chloroethyl) ether | 111-44-4 | 3540C,3541,3545A,3550C | EPA8270D | 69.5 |
| Bis(2-ethylhexyl) phthalate | 117-81-7 | 3540C,3541,3545A,3550C | EPA8270D | 35 |
| Butylbenzyl phthalate | 85-68-7 | 3540C,3541,3545A,3550C | EPA8270D | 28 |
| Caprolactam | 105-60-2 | 3540C,3541,3545A,3550C | EPA8270D | 46.3 |
| Carbazole | 86-74-8 | 3540C,3541,3545A,3550C | EPA8270D | 24 |
| Chrysene | 218-01-9 | 3540C,3541,3545A,3550C | EPA8270D | 32.9 |
| Dibenz[a,h]anthracene | 53-70-3 | 3540C,3541,3545A,3550C | EPA8270D | 33.2 |
| Dibenzofuran | 132-64-9 | 3540C,3541,3545A,3550C | EPA8270D | 38.9 |
| Dibutyl phthalate | 84-74-2 | 3540C,3541,3545A,3550C | EPA8270D | 28 |
| Diethyl phthalate | 84-66-2 | 3540C,3541,3545A,3550C | EPA8270D | 28 |
| Dimethyl phthalate | 131-11-3 | 3540C,3541,3545A,3550C | EPA8270D | 28 |
| Di-n-octyl phthalate | 117-84-0 | 3540C,3541,3545A,3550C | EPA8270D | 28 |
| Fluoranthene | 206-44-0 | 3540C,3541,3545A,3550C | EPA8270D | 3.4 |
| Fluorene | 86-73-7 | 3540C,3541,3545A,3550C | EPA8270D | 37.9 |
| Hexachlorobenzene | 118-74-1 | 3540C,3541,3545A,3550C | EPA8270D | 32.2 |
| Hexachlorobutadiene | 87-68-3 | 3540C,3541,3545A,3550C | EPA8270D | 5.6 |
| Hexachlorocyclopentadiene | 77-47-4 | 3540C,3541,3545A,3550C | EPA8270D | 2.4 |
| Hexachloroethane | 67-72-1 | 3540C,3541,3545A,3550C | EPA8270D | 30 |
| Indeno[1,2,3-c,d]pyrene | 193-39-5 | 3540C,3541,3545A,3550C | EPA8270D | 30 |
| Isophorone | 78-59-1 | 3540C,3541,3545A,3550C | EPA8270D | 44 |
| m-Nitroaniline | 99-09-2 | 3540C,3541,3545A,3550C | EPA8270D | 164 |
| Naphthalene | 91-20-3 | 3540C,3541,3545A,3550C | EPA8270D | 5.6 |
| Nitrobenzene | 98-95-3 | 3540C,3541,3545A,3550C | EPA8270D | 14 |
| N-Nitrosodiphenylamine | 86-30-6 | 3540C,3541,3545A,3550C | EPA8270D | 13 |
| N-Nitrosodipropylamine | 621-64-7 | 3540C,3541,3545A,3550C | EPA8270D | 55.9 |
| Phenanthrene | 85-01-8 | 3540C,3541,3545A,3550C | EPA8270D | 33.5 |
| p-Nitroaniline | 100-01-6 | 3540C,3541,3545A,3550C | EPA8270D | 28 |
| Pyrene | 129-00-0 | 3540C,3541,3545A,3550C | EPA8270D | 8.2 |
| **Volatiles** | | | | |
| 1,1,1-Trichloroethane | 71-55-6 | 5035A | EPA8260B | 1.18 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 5035A | EPA8260B | 1.33 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 76-13-1 | 5035A | EPA8260B | C |
| 1,1,2-Trichloroethane | 79-00-5 | 5035A | EPA8260B | 0.85 |
| 1,1-Dichloroethane | 75-34-3 | 5035A | EPA8260B | 1.15 |
| 1,1-Dichloroethylene | 75-35-4 | 5035A | EPA8260B | 0.054 |
| 1,2,4-Trichlorobenzene | 120-82-1 | 5035A | EPA8260B | 0.423 |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | 5035A | EPA8260B | 0.45 |
| 1,2-Dibromoethane | 106-93-4 | 5035A | EPA8260B | 0.0069 |
| 1,2-Dichlorobenzene | 95-50-1 | 5035A | EPA8260B | C |
| 1,2-Dichloroethane (EDC) | 107-06-2 | 5035A | EPA8260B | 0.35 |
| 1,2-Dichloropropane | 78-87-5 | 5035A | EPA8260B | 0.35 |
| 1,3-Dichlorobenzene | 541-73-1 | 5035A | EPA8260B | C |
| 1,4-Dichlorobenzene | 106-46-7 | 5035A | EPA8260B | C |
| 2-Hexanone | 591-78-6 | 5035A | EPA8260B | 2.86 |

## Table 5. Laboratory Analytical Specifications Table TAL/TCL Analytes for Soil Media *(Continued/End)*

| Analyte | Analyte ID | Preparation[A] Method | USEPA[A] Method | CRDL[B] *(µg/kg)* |
|---|---|---|---|---|
| **Target Compound List *(continued)*** | | | | |
| **Volatiles *(continued)*** | | | | |
| Acetone | 67-64-1 | 5035A | EPA8260B | 7.03 |
| Benzene | 71-43-2 | 5035A | EPA8260B | 0.823 |
| Bromodichloromethane | 75-27-4 | 5035A | EPA8260B | 1 |
| Bromoform (Tribromomethane) | 75-25-2 | 5035A | EPA8260B | 1.15 |
| Bromomethane (Methyl bromide) | 74-83-9 | 5035A | EPA8260B | 2.56 |
| Carbon disulfide | 75-15-0 | 5035A | EPA8260B | 0.988 |
| Carbon tetrachloride | 56-23-5 | 5035A | EPA8260B | 1.22 |
| Chlorobenzene | 108-90-7 | 5035A | EPA8260B | 0.987 |
| Chloroethane | 75-00-3 | 5035A | EPA8260B | 2.69 |
| Chloroethene (Vinyl chloride) | 75-01-4 | 5035A | EPA8260B | 0.15 |
| Chloroform | 67-66-3 | 5035A | EPA8260B | 1.42 |
| Chloromethane (Methyl chloride) | 74-87-3 | 5035A | EPA8260B | 1.2 |
| cis-1,2-Dichloroethylene | 156-59-2 | 5035A | EPA8260B | C |
| cis-1,3-Dichloropropene | 10061-01-5 | 5035A | EPA8260B | 1.31 |
| Cyclohexane | 110-82-7 | 5035A | EPA8260B | 0.08 |
| Dibromochloromethane | 124-48-1 | 5035A | EPA8260B | 1.03 |
| Dichlorodifluoromethane | 75-71-8 | 5035A | EPA8260B | 4 |
| Dichloromethane (Methylene chloride) | 75-09-2 | 5035A | EPA8260B | 1.65 |
| Ethylbenzene | 100-41-4 | 5035A | EPA8260B | 1.07 |
| Cumene (Isopropylbenzene) | 98-82-8 | 5035A | EPA8260B | 0.254 |
| Methyl acetate | 79-20-9 | 5035A | EPA8260B | 22,000 |
| Methyl ethyl ketone | 78-93-3 | 5035A | EPA8260B | 4.68 |
| Methyl isobutyl ketone | 108-10-1 | 5035A | EPA8260B | 2.62 |
| Methyl tertiary butyl ether (MTBE) | 1634-04-4 | 5035A | EPA8260B | 0.107 |
| Methylcyclohexane | 108-87-2 | 5035A | EPA8260B | 2,600 |
| Styrene | 100-42-5 | 5035A | EPA8260B | 0.72 |
| Tetrachloroethylene (PCE) | 127-18-4 | 5035A | EPA8260B | 1.42 |
| Toluene | 108-88-3 | 5035A | EPA8260B | 1.07 |
| trans-1,2-Dichloroethylene | 156-60-5 | 5035A | EPA8260B | 2 |
| trans-1,3-Dichloropropene | 10061-02-6 | 5035A | EPA8260B | 1.13 |
| Trichloroethylene (TCE) | 79-01-6 | 5035A | EPA8260B | 1.37 |
| Trichlorofluoromethane | 75-69-4 | 5035A | EPA8260B | 2 |
| o-Xylene | 95-47-6 | 5035A | EPA8260B | 3.11 |
| m,p-Xylene | MPXYL | 5035A | EPA8260B | 5 |
| Bromochloromethane | 74-97-5 | 5035A | EPA8260B | 5 |
| 1,4-Dioxane | 123-91-1 | 5035A | EPA8260B | 100 |
| 1,2-Dichlorobenzene | 95-50-1 | 5035A | EPA8260B | 5 |
| 1,2,3-Trichlorobenzene | 87-61-6 | 5035A | EPA8260B | 5 |

A) Extraction and preparation methods differ depending upon media, concentration, instrument, laboratory, and analytical method. Preparation methods will also influence detection limits.
B) CRDL is the contract required detection limit and is not always attainable.
C) Laboratory instructed to obtain the lowest possible method detection limit.
N/A = not available
TBD = to be decided

## Table 6. Laboratory Analytical Specifications Table for Radiological Analytes in Soil Media

| Radionuclides | Typical Soil MDAs[A] *(pCi/g)* | Typical Water MDAs[A] *(pCi/L)* | Analytical Method[B] |
|---|---|---|---|
| **Alpha Spectroscopy** | | | |
| Americium-241 | 0.50 | 0.40 | NNS |
| Americium-243 | 0.50 | 0.462 | NNS |
| Curium-243/244 | 0.351 | 0.503 | NNS |
| Curium-245/246 | 0.416 | 0.458 | NNS |
| Neptunium-237 | 0.07 | 0.771 | NNS |
| Plutonium-238 | 0.50 | 0.35 | NNS |
| Plutonium-239/240 | 0.50 | 0.353 | NNS |
| Plutonium-242 | 0.50 | 0.372 | NNS |
| Thorium-228 | 0.50 | 0.445 | NNS |
| Thorium-230 | 0.50 | 0.523 | NNS |
| Thorium-232 | 0.50 | 0.45 | NNS |
| Uranium-233/234 | 0.50 | 0.663 | NNS |
| Uranium-235 | 0.206 | 0.684 | NNS |
| Uranium 238 | 0.50 | 0.744 | NNS |
| **Gamma Spectroscopy Analyses** | | | |
| Actinium-228 | 0.30 | 25.00 | NNS |
| Cesium-137 | 0.15 | 5.0 | NNS |
| Cobalt-60 | 0.03 | 10.00 | NNS |
| Europium-154 | 0.25 | 25.0 | NNS |
| Lead-214 | 0.25 | 20.00 | NNS |
| Potassium-40 | 1.00 | 75.00 | NNS |
| **Radionuclide Indicators** | | | |
| Gross Alpha | 3.000 | 3.00 | EPA900.0MOD |
| Nonvolatile beta | 4.000 | 4.00 | EPA900.0MOD |
| **Individual Beta Analyses** | | | |
| Carbon-14 | 2.00 | 10.00 | NNS |
| Iodine-129 | 2.00 | 1.00 | NNS |
| Nickel-59 | 3.38 | 20.00 | NNS |
| Nickel-63 | 4.00 | 10.00 | NNS |
| Promethium-147 | 10.00 | 10.00 | NNS |
| Radium-226 | 0.895 | 0.30 | EPA903.0MOD |
| Radium-228 | 1.29 | 0.50 | EPA903.0MOD |
| Strontium-90 | 2.00 | 0.852 | NNS |
| Technetium-99 | 5.00 | 17.3 | NNS |
| Tritium | 6.00 | 0.50 | EPA906.0MOD |

NNS = no national standard

A) All minimum detectable activities (MDAs) are sample-specific. The MDAs represented above are typical MDAs as reported by the subcontract laboratories but are not always achievable.

B) Extraction and preparation methods differ depending upon media, concentration, instrument, laboratory, and analytical method. Preparation methods will also influence detection limits. Laboratory instructed to obtain the lowest possible method detection limit.

## Table 7. Minimum Field Quality Control/Quality Assurance Sampling Requirements

| Data Quality Level | Field Quality Control/Quality Assurance Samples | Frequency of Field Quality Control/ Quality Assurance Sample |
|---|---|---|
| UU | None | |
| VU | None | |
| VV | Co-located Field Duplicate | Minimum 5%[2] |
| | Trip Blank | Minimum 1 per cooler |
| | Equipment Blank | 1 per 40 samples[3] |
| | Field Blank | Optional; 1 per 40 samples[4] |
| | Split Sample | Minimum 5% |
| SD[1] | Co-located Field Duplicate | Minimum 5%[2] |
| | Trip Blank | 1 per cooler |
| | Equipment Blank | 1 per 40 samples[3] |
| | Field Blank | Optional; 1 per 40 samples[4] |
| | Split Sample | Minimum 5% |
| D | Co-located Field Duplicate | Minimum 5%[2] |
| | Trip Blank | 1 per cooler |
| | Equipment Blank | 1 per 40 samples[3] |
| | Field Blank | Optional; 1 per 40 samples[4] |
| | Split Sample | Minimum 5% |

Data Quality Levels

UU Data Unverified and Unvalidated Data (no errors from ERDMS database loading screens)
VU Data Verified and Unvalidated Data (includes missing data checks)
VV Data Verified and Validated Data (validated to automated criteria; equivalent to USEPA Screening Level Data)
SD Data USEPA Screening Level Data with 10% Definitive Confirmation Data USEPA Definitive Level Data
D Data USEPA Definitive Level Data

Footnotes:

1. Level of data quality used in this work plan
2. Minimum frequency established per ER-SOP-043
3. Typical frequency
4. Recommended based on project needs; typical frequency

## Table 8. Preservatives, Holding Times, and Sample Containers

| Parameter | Preservatives | | Holding Time | | Containers | |
|---|---|---|---|---|---|---|
| | Aqueous | Solid | Aqueous | Solid | Aqueous | Solid |
| Volatile Organic Compounds (VOCs)<br>Including:<br>8260 – VOCs | No Residual Chlorine Adjust pH to <2 with $H_2SO_4$, HCL, or solid sodium bisulfate ($NaHSO_4$).<br>Cool to 4°C | Low-level soil Add ~5 g soil to 40 mL VOA vial preserved with 1 g of $NaHSO_4$/5 mL water | 14 days | Low/High Level 14 days | 3x40 mL glass VOC vial, PTFE septa cap | 3x40 (or 60) mL glass VOA vial (with stir bar for low-level soil), PTFE septa cap |
| Extractable Organics<br>Including:<br>8270 – Semivolatile Organics | No Residual Chlorine<br>Cool to 4°C | Cool to 4°C | 7 days until extraction/ analyzed within 40 days after extraction | 14 days until extraction/ analyze d within 40 days after extraction | 2 x 1 L amber glass bottle per chemical parameter | 250 mL CWM |
| 8081 – Organochlorine Pesticides<br>8082 – Polychlorinated Biphenyls<br>8310 – Polycyclic Aromatic Hydrocarbons | Extracts must be stored at 4°C and in the dark until analysis. Extracts must be stored at 4°C and in the dark until analysis | Cool to 4°C | 7 days until extraction/ analyzed within 40 days after extraction | 14 days until extraction/ analyzed within 40 days after extraction | 2 x 1 L amber glass bottle per chemical parameter | 250 mL CWM |
| **Metals**<br>(except $Cr^{+6}$ & Hg) | $HNO_3$ to pH <2 | Cool to 4°C | 6 months | 6 months | 1 L HDPE | 250 mL CWM (metals and cyanide may be collected in the same container for soils) |
| Hg | $HNO_3$ to pH <2 | Cool to 4°C | 28 days | 28 days | 250 mL HDPE or glass | 250 mL CWM |
| $Cr^{+6}$ | Cool to 4°C | Cool to 4°C | 24 hours | 30 days | 250 mL HDPE | 250 mL CWM |
| Miscellaneous Radiological Test Gross Alpha | $HNO_3$ to pH <2 | Cool to 4°C | 6 months | 6 months | 2 L HDPE | 250 mL HDPE |
| Radiological Test Nonvolatile Beta | $HNO_3$ to pH <2 | Cool to 4°C | 6 months | 6 months | 2 L HDPE | 250 mL HDPE |
| Tritium | None<br>Cool 0 to 6°C | None<br>Cool 0 to 6°C | 180 days | 180 days | 250<br>Amber Glass | 250 HDPE or 4 oz Amber Glass |

Abbreviations used in Table:
g = gram
L = liter
mL = milliliter
VOA = volatile organic analysis
$H_2SO_4$ = sulfuric acid
HCL = hydrochloric acid
$NaHSO_4$ = sodium bisulfate
PTFE = teflon lined seals
CWM = clear wide-mouth glass jar
$HNO_3$ = nitric acid
HDPE = high-density polyethylene plastic bottle

# Table 9. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Sample Matrix

| Sample Type[1] | ECODS L-3, LRP 131-1L, LRP 131-4L OU Subunits | Station | Top Depth (ft bgs) | Bottom Depth (ft bgs) | Media | Sample Method | Analyses[2] | Comments |
|---|---|---|---|---|---|---|---|---|
| REG | LRP 131-1L | LAP1L-001 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-001 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-001 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-001 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-001 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-001 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-002 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-002 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-002 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-002 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-002 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-002 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-003 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-003 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-003 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-003 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-003 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-003 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-004 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-004 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-004 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-004 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-004 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-004 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-005 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-005 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-005 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-005 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-005 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-005 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-006 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-006 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-006 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-006 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-006 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-006 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-007 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-007 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-007 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-007 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-007 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-007 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-008 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-008 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-008 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-008 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-008 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-1L | LAP1L-008 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-009 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |

## Table 9. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Sample Matrix (*Continued)*

| Sample Type[1] | ECODS L-3, LRP 131-1L, LRP 131-4L OU Subunits | Station | Top Depth *(ft bgs)* | Bottom Depth *(ft bgs)* | Media | Sample Method | Analyses[2] | Comments |
|---|---|---|---|---|---|---|---|---|
| REG | LRP 131-1L | LAP1L-009 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-009 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-009 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-009 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-009 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-010 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-010 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-010 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-010 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-010 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-010 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-011 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-011 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-011 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-011 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-011 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-011 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-012 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-012 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-012 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-012 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-012 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-012 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-013 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-013 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-013 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-013 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-013 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-013 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-014 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-014 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-014 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-014 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-014 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-014 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-015 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-015 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-015 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |

## Table 9. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Sample Matrix (*Continued)*

| Sample Type[1] | ECODS L-3, LRP 131-1L, LRP 131-4L OU Subunits | Station | Top Depth *(ft bgs)* | Bottom Depth *(ft bgs)* | Media | Sample Method | Analyses[2] | Comments |
|---|---|---|---|---|---|---|---|---|
| REG | LRP 131-1L | LAP1L-015 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-015 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-015 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-016 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-016 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-016 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-016 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-016 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-016 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-017 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-017 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-017 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-017 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-017 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-017 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-018 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-018 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-018 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-018 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-018 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-018 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-019 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-019 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-019 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-019 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-019 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-019 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-020 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-020 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-020 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-020 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-020 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-020 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-1L | LAP1L-021 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-021 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-021 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-021 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-1L | LAP1L-021 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |

## Table 9. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Sample Matrix (*Continued)*

| Sample Type[1] | ECODS L-3, LRP 131-1L, LRP 131-4L OU Subunits | Station | Top Depth *(ft bgs)* | Bottom Depth *(ft bgs)* | Media | Sample Method | Analyses[2] | Comments |
|---|---|---|---|---|---|---|---|---|
| REG | LRP 131-1L | LAP1L-021 | 16 | 20 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-001 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-001 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-001 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-001 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-001 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit; Tentative Depth |
| REG | LRP 131-4L | LAP4L-002 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-002 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-002 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-002 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-002 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit; Tentative Depth |
| REG | LRP 131-4L | LAP4L-003 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-003 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-003 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-003 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-003 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit; Tentative Depth |
| REG | LRP 131-4L | LAP4L-004 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-004 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-004 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-004 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-004 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit; Tentative Depth |
| REG | LRP 131-4L | LAP4L-005 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-005 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-005 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-005 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-005 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit; Tentative Depth |
| REG | LRP 131-4L | LAP4L-006 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-006 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-006 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-006 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-006 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-007 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-007 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-007 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-007 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-007 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-008 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-008 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-008 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-008 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-008 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-009 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-009 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-009 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-009 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-009 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-010 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-010 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-010 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-010 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |

## Table 9. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Sample Matrix (*Continued)*

| Sample Type[1] | ECODS L-3, LRP 131-1L, LRP 131-4L OU Subunits | Station | Top Depth *(ft bgs)* | Bottom Depth *(ft bgs)* | Media | Sample Method | Analyses[2] | Comments |
|---|---|---|---|---|---|---|---|---|
| REG | LRP 131-4L | LAP4L-010 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-011 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-011 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-011 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-011 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-011 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-012 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-012 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-012 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-012 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-012 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-013 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-013 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-013 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-013 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-013 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-014 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-014 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-014 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-014 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-014 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-015 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-015 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-015 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-015 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-015 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-016 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-016 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-016 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-016 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-016 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-017 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-017 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-017 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-017 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-017 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-018 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-018 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-018 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-018 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-018 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-019 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |

## Table 9. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Sample Matrix (*Continued)*

| Sample Type[1] | ECODS L-3, LRP 131-1L, LRP 131-4L OU Subunits | Station | Top Depth *(ft bgs)* | Bottom Depth *(ft bgs)* | Media | Sample Method | Analyses[2] | Comments |
|---|---|---|---|---|---|---|---|---|
| REG | LRP 131-4L | LAP4L-019 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-019 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-019 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-019 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit; Tentative Depth |
| REG | LRP 131-4L | LAP4L-020 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-020 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-020 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-020 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-020 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-021 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-021 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-021 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-021 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-021 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-022 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-022 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-022 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-022 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-022 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-023 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-023 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-023 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-023 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-023 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-024 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-024 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-024 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-024 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-024 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-025 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-025 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-025 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-025 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-025 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-026 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-026 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-026 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-026 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-026 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-027 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |

## Table 9. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Sample Matrix (*Continued)*

| Sample Type[1] | ECODS L-3, LRP 131-1L, LRP 131-4L OU Subunits | Station | Top Depth *(ft bgs)* | Bottom Depth *(ft bgs)* | Media | Sample Method | Analyses[2] | Comments |
|---|---|---|---|---|---|---|---|---|
| REG | LRP 131-4L | LAP4L-027 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-027 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-027 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit |
| REG | LRP 131-4L | LAP4L-027 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Waste Northeast of Pit; Tentative Depth |
| REG | LRP 131-4L | LAP4L-028 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-028 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-028 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-028 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-028 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-029 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-029 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-029 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-029 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-029 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-030 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-030 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-030 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-030 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location |
| REG | LRP 131-4L | LAP4L-030 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Interior Subunit Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-031 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-031 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-031 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-031 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-031 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-032 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-032 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-032 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-032 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-032 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-033 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-033 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-033 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-033 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location |
| REG | LRP 131-4L | LAP4L-033 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Peripheral Location; Tentative Depth |
| REG | LRP 131-4L | LAP4L-034 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-034 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-034 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-034 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-034 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3]; Tentative Depth |
| REG | LRP 131-4L | LAP4L-035 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-035 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-035 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-035 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-035 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3]; Tentative Depth |

## Table 9. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Sample Matrix (*Continued/End)*

| Sample Type[1] | ECODS L-3, LRP 131-1L, LRP 131-4L OU Subunits | Station | Top Depth *(ft bgs)* | Bottom Depth *(ft bgs)* | Media | Sample Method | Analyses[2] | Comments |
|---|---|---|---|---|---|---|---|---|
| REG | LRP 131-4L | LAP4L-036 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-036 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-036 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-036 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-036 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3]; Tentative Depth |
| REG | LRP 131-4L | LAP4L-037 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-037 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-037 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-037 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3] |
| REG | LRP 131-4L | LAP4L-037 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Area of Subsidence[3]; Tentative Depth |
| REG | LRP 131-4L | LAP4L-038 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-038 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-038 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-038 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-038 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4]; Tentative Depth |
| REG | LRP 131-4L | LAP4L-039 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-039 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-039 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-039 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-039 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4]; Tentative Depth |
| REG | LRP 131-4L | LAP4L-040 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-040 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-040 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-040 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-040 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4]; Tentative Depth |
| REG | LRP 131-4L | LAP4L-041 | 0 | 1 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-041 | 1 | 4 | Soil | Hand Auger | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-041 | 4 | 8 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-041 | 8 | 12 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4] |
| REG | LRP 131-4L | LAP4L-041 | 12 | 16 | Soil | Rotosonic (or equivalent) | TCL, TAL, Radiological Indicators | Step-Out Location[4]; Tentative Depth |

1. Field Duplicates (FD), Equipment/Rinsate Blanks (RB) and Split Samples (SPL) are not shown but will be produced during work planning stage. Trip Blanks (TB) are not shown but will be sent with each shipment of VOCs. Table 7 summarizes the number of Quality Control/Quality Assurance (QC/QA) samples needed.

2. If the gross alpha result exceeds 20 pCi/g for a soil sample, then the Alpha spectroscopy radionuclides in Table 6 will also be analyzed for that sample. If the nonvolatile beta result exceeds 50 pCi/g for a soil sample, then the gamma spectroscopy radionuclides and individual beta analyses in Table 6 will also be analyzed for that sample.

3. Due to possible safety concerns with soil stability in proximity to the subsidence area, sampling with a drill rig may not be appropriate. However, an attempt to collect samples with a hand auger will be made at the four locations around the subsidence area to include, at a minimum, surface soil (0.0 to 0.3 m [0 to 1 ft]) and shallow subsurface soil (0.3 to 1.2 m [1 to 4 ft]).

4. Sampling at the step-out locations will be conducted if buried debris is noted at locations LAP4L-011 and -032.

ft bgs - feet below ground surface
TCL - Target Compound List
TAL - Target Analyte List
REG - regular sample

| Subunit | Number of REG Samples | Minimum Number of QC/QA Samples | | | | Total Number of Samples |
|---|---|---|---|---|---|---|
| | | FD | RB | SPL | TB | |
| LRP 131-1L | 126 | 7 | 4 | 7 | 21 | 165 |
| LRP 131-4L | 205 | 11 | 6 | 11 | 31 | 264 |

## Table 10. ECODS L-3, LRP 131-1L, and LRP 131-4L OU Implementation Schedule

| Deliverable | Projected Submittal/Start Date |
|---|---|
| RFI/RI Work Plan Field Start | September 30, 2022 |
| Submit Rev. 0 RFI/RI/BRA/CMS/FS | March 22, 2024 |
| Submit Rev. 0 Statement of Basis/Proposed Plan | January 30, 2025 |
| Submit Rev. 0 Record of Decision | September 11, 2025 |
| Issue Record of Decision | May 24, 2026 |
| Submit Rev. 0 Corrective Measures Implementation/Remedial Action Implementation Plan | April 6, 2026 |
| Submit Rev. 0 Land Use Control Implementation Plan | April 6, 2026 |
| Remedial Action Start | August 27, 2027 |

# APPENDIX A

# 2003 ECODS L-3 Subunit Site Evaluation Results Above Method Detection Limits

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## Table A.1. ECODS L-3 Site Evaluation Results Above MDL

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-01 | 0 | 1 | ALUMINUM | 350 | 1970 | | REG | 4560000 | ug/kg |
| EL3-01 | 0 | 1 | ANTIMONY | 74 | 986 | | REG | 1020 | ug/kg |
| EL3-01 | 0 | 1 | AROCLOR 1254 | 7.4 | 34.5 | J | REG | 138 | ug/kg |
| EL3-01 | 0 | 1 | AROCLOR 1260 | 7.57 | 34.5 | J | REG | 34.4 | ug/kg |
| EL3-01 | 0 | 1 | ARSENIC | 74 | 394 | | REG | 1070 | ug/kg |
| EL3-01 | 0 | 1 | BARIUM | 93.7 | 394 | | REG | 26200 | ug/kg |
| EL3-01 | 0 | 1 | CALCIUM | 276 | 5920 | J | REG | 2980000 | ug/kg |
| EL3-01 | 0 | 1 | CHROMIUM | 202 | 394 | | REG | 5970 | ug/kg |
| EL3-01 | 0 | 1 | COBALT | 78.9 | 394 | | REG | 677 | ug/kg |
| EL3-01 | 0 | 1 | COPPER | 69 | 789 | | REG | 8780 | ug/kg |
| EL3-01 | 0 | 1 | DICHLOROMETHANE (METHYLENE CHLORIDE) | 0.43 | 10.2 | J | REG | 0.696 | ug/kg |
| EL3-01 | 0 | 1 | IRON | 828 | 1970 | | REG | 4130000 | ug/kg |
| EL3-01 | 0 | 1 | LEAD | 54.2 | 394 | | REG | 13900 | ug/kg |
| EL3-01 | 0 | 1 | MAGNESIUM | 661 | 3940 | J | REG | 263000 | ug/kg |
| EL3-01 | 0 | 1 | MANGANESE | 459 | 740 | | REG | 139000 | ug/kg |
| EL3-01 | 0 | 1 | MERCURY | 3.05 | 10.2 | | REG | 15.1 | ug/kg |
| EL3-01 | 0 | 1 | NICKEL | 197 | 986 | | REG | 2250 | ug/kg |
| EL3-01 | 0 | 1 | POTASSIUM | 542 | 7890 | | REG | 99800 | ug/kg |
| EL3-01 | 0 | 1 | TOLUENE | 0.184 | 1.02 | J | REG | 0.44 | ug/kg |
| EL3-01 | 0 | 1 | VANADIUM | 69 | 394 | | REG | 9420 | ug/kg |
| EL3-01 | 0 | 1 | ZINC | 143 | 986 | J | REG | 27600 | ug/kg |
| EL3-01 | 1 | 4 | 1,1'-BIPHENYL | 441 | 1840 | J | REG | 629 | ug/kg |
| EL3-01 | 1 | 4 | 2-METHYLNAPHTHALENE | 435 | 1840 | | REG | 2000 | ug/kg |
| EL3-01 | 1 | 4 | ACENAPHTHENE | 442 | 1840 | | REG | 9270 | ug/kg |
| EL3-01 | 1 | 4 | ALUMINUM | 3870 | 21800 | | REG | 9650000 | ug/kg |
| EL3-01 | 1 | 4 | ANTHRACENE | 352 | 1840 | | REG | 17600 | ug/kg |
| EL3-01 | 1 | 4 | ANTIMONY | 817 | 10900 | | REG | 56600 | ug/kg |
| EL3-01 | 1 | 4 | AROCLOR 1254 | 7.9 | 36.8 | J | REG | 423 | ug/kg |
| EL3-01 | 1 | 4 | AROCLOR 1260 | 8.08 | 36.8 | J | REG | 130 | ug/kg |
| EL3-01 | 1 | 4 | ARSENIC | 817 | 4360 | | REG | 5960 | ug/kg |
| EL3-01 | 1 | 4 | BARIUM | 1040 | 4360 | | REG | 165000 | ug/kg |
| EL3-01 | 1 | 4 | BENZO(G,H,I)PERYLENE | 332 | 1840 | | REG | 9670 | ug/kg |
| EL3-01 | 1 | 4 | BENZO[A]ANTHRACENE | 297 | 1840 | | REG | 25900 | ug/kg |
| EL3-01 | 1 | 4 | BENZO[A]PYRENE | 356 | 1840 | | REG | 20600 | ug/kg |
| EL3-01 | 1 | 4 | BENZO[B]FLUORANTHENE | 420 | 1840 | | REG | 26900 | ug/kg |
| EL3-01 | 1 | 4 | BENZO[K]FLUORANTHENE | 365 | 1840 | | REG | 9720 | ug/kg |
| EL3-01 | 1 | 4 | CADMIUM | 327 | 6540 | J | REG | 3750 | ug/kg |
| EL3-01 | 1 | 4 | CALCIUM | 3050 | 65400 | J | REG | 52800000 | ug/kg |
| EL3-01 | 1 | 4 | CARBAZOLE | 406 | 1840 | | REG | 13800 | ug/kg |
| EL3-01 | 1 | 4 | CHROMIUM | 2230 | 4360 | | REG | 56600 | ug/kg |
| EL3-01 | 1 | 4 | CHRYSENE | 304 | 1840 | | REG | 21400 | ug/kg |
| EL3-01 | 1 | 4 | COBALT | 872 | 4360 | | REG | 4670 | ug/kg |
| EL3-01 | 1 | 4 | COPPER | 763 | 8720 | | REG | 166000 | ug/kg |
| EL3-01 | 1 | 4 | DIBENZ[AH]ANTHRACENE | 362 | 1840 | | REG | 2700 | ug/kg |
| EL3-01 | 1 | 4 | DIBENZOFURAN | 402 | 1840 | | REG | 5100 | ug/kg |
| EL3-01 | 1 | 4 | FLUORANTHENE | 314 | 1840 | | REG | 35000 | ug/kg |
| EL3-01 | 1 | 4 | FLUORENE | 373 | 1840 | | REG | 10500 | ug/kg |
| EL3-01 | 1 | 4 | INDENO[1,2,3-CD]PYRENE | 332 | 1840 | | REG | 8910 | ug/kg |
| EL3-01 | 1 | 4 | IRON | 9150 | 21800 | | REG | 23700000 | ug/kg |
| EL3-01 | 1 | 4 | LEAD | 599 | 4360 | | REG | 129000 | ug/kg |
| EL3-01 | 1 | 4 | MAGNESIUM | 7300 | 43600 | J | REG | 2520000 | ug/kg |
| EL3-01 | 1 | 4 | MANGANESE | 5070 | 8170 | | REG | 447000 | ug/kg |
| EL3-01 | 1 | 4 | MERCURY | 3.14 | 10.5 | | REG | 161 | ug/kg |
| EL3-01 | 1 | 4 | NAPHTHALENE | 437 | 1840 | | REG | 5660 | ug/kg |
| EL3-01 | 1 | 4 | NICKEL | 2180 | 10900 | | REG | 34100 | ug/kg |
| EL3-01 | 1 | 4 | PHENANTHRENE | 288 | 1840 | | REG | 33900 | ug/kg |
| EL3-01 | 1 | 4 | POTASSIUM | 5990 | 87200 | | REG | 229000 | ug/kg |
| EL3-01 | 1 | 4 | PYRENE | 287 | 1840 | | REG | 34000 | ug/kg |
| EL3-01 | 1 | 4 | SODIUM | 73800 | 240000 | J | REG | 202000 | ug/kg |
| EL3-01 | 1 | 4 | TOLUENE | 0.197 | 1.1 | J | REG | 0.383 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-01 | 1 | 4 | VANADIUM | 763 | 4360 | | REG | 19900 | ug/kg |
| EL3-01 | 1 | 4 | ZINC | 1580 | 10900 | J | REG | 917000 | ug/kg |
| EL3-01 | 4 | 8 | ALUMINUM | 3660 | 20600 | | REG | 9300000 | ug/kg |
| EL3-01 | 4 | 8 | AROCLOR 1254 | 7.76 | 36.2 | J | REG | 8.08 | ug/kg |
| EL3-01 | 4 | 8 | BARIUM | 979 | 4120 | | REG | 4760 | ug/kg |
| EL3-01 | 4 | 8 | BENZO[A]ANTHRACENE | 29.2 | 181 | J | REG | 50.3 | ug/kg |
| EL3-01 | 4 | 8 | BENZO[A]PYRENE | 34.9 | 181 | J | REG | 42.3 | ug/kg |
| EL3-01 | 4 | 8 | BENZO[B]FLUORANTHENE | 41.3 | 181 | J | REG | 63.3 | ug/kg |
| EL3-01 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.2 | 181 | | REG | 351 | ug/kg |
| EL3-01 | 4 | 8 | CALCIUM | 2880 | 61800 | J | REG | 514000 | ug/kg |
| EL3-01 | 4 | 8 | CHROMIUM | 2110 | 4120 | | REG | 16600 | ug/kg |
| EL3-01 | 4 | 8 | CHRYSENE | 29.9 | 181 | J | REG | 33.6 | ug/kg |
| EL3-01 | 4 | 8 | COPPER | 721 | 8240 | J | REG | 2760 | ug/kg |
| EL3-01 | 4 | 8 | FLUORANTHENE | 30.8 | 181 | J | REG | 89.7 | ug/kg |
| EL3-01 | 4 | 8 | IRON | 8650 | 20600 | | REG | 14300000 | ug/kg |
| EL3-01 | 4 | 8 | LEAD | 567 | 4120 | J | REG | 3170 | ug/kg |
| EL3-01 | 4 | 8 | MAGNESIUM | 6900 | 41200 | J | REG | 66200 | ug/kg |
| EL3-01 | 4 | 8 | MANGANESE | 4790 | 7730 | | REG | 11100 | ug/kg |
| EL3-01 | 4 | 8 | MERCURY | 3.16 | 10.5 | J | REG | 5.64 | ug/kg |
| EL3-01 | 4 | 8 | PHENANTHRENE | 28.3 | 181 | J | REG | 78.5 | ug/kg |
| EL3-01 | 4 | 8 | POTASSIUM | 5670 | 82400 | J | REG | 53000 | ug/kg |
| EL3-01 | 4 | 8 | PYRENE | 28.2 | 181 | J | REG | 101 | ug/kg |
| EL3-01 | 4 | 8 | TOLUENE | 0.186 | 1.03 | J | REG | 0.393 | ug/kg |
| EL3-01 | 4 | 8 | VANADIUM | 721 | 4120 | | REG | 33200 | ug/kg |
| EL3-01 | 4 | 8 | ZINC | 1490 | 10300 | J | REG | 10700 | ug/kg |
| EL3-01 | 8 | 12 | ALUMINUM | 3770 | 21300 | | REG | 6940000 | ug/kg |
| EL3-01 | 8 | 12 | BARIUM | 1010 | 4250 | J | REG | 3090 | ug/kg |
| EL3-01 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.3 | 187 | | REG | 1280 | ug/kg |
| EL3-01 | 8 | 12 | CALCIUM | 2980 | 63800 | J | REG | 509000 | ug/kg |
| EL3-01 | 8 | 12 | CHROMIUM | 2180 | 4250 | | REG | 16000 | ug/kg |
| EL3-01 | 8 | 12 | COPPER | 744 | 8510 | J | REG | 2480 | ug/kg |
| EL3-01 | 8 | 12 | FLUORANTHENE | 31.9 | 187 | J | REG | 61 | ug/kg |
| EL3-01 | 8 | 12 | IRON | 8930 | 21300 | | REG | 14400000 | ug/kg |
| EL3-01 | 8 | 12 | LEAD | 585 | 4250 | J | REG | 2480 | ug/kg |
| EL3-01 | 8 | 12 | MAGNESIUM | 7120 | 42500 | J | REG | 50700 | ug/kg |
| EL3-01 | 8 | 12 | MANGANESE | 4940 | 7970 | | REG | 9950 | ug/kg |
| EL3-01 | 8 | 12 | MERCURY | 3.11 | 10.4 | J | REG | 4.07 | ug/kg |
| EL3-01 | 8 | 12 | PHENANTHRENE | 29.3 | 187 | J | REG | 50.1 | ug/kg |
| EL3-01 | 8 | 12 | POTASSIUM | 5850 | 85100 | J | REG | 40500 | ug/kg |
| EL3-01 | 8 | 12 | PYRENE | 29.2 | 187 | J | REG | 44.1 | ug/kg |
| EL3-01 | 8 | 12 | TOLUENE | 0.204 | 1.14 | J | REG | 0.329 | ug/kg |
| EL3-01 | 8 | 12 | VANADIUM | 744 | 4250 | | REG | 34300 | ug/kg |
| EL3-01 | 8 | 12 | ZINC | 1540 | 10600 | J | REG | 9310 | ug/kg |
| EL3-01 | 12 | 16 | ALUMINUM | 4020 | 22600 | | REG | 7350000 | ug/kg |
| EL3-01 | 12 | 16 | BARIUM | 1070 | 4530 | J | REG | 4220 | ug/kg |
| EL3-01 | 12 | 16 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 61.5 | 191 | | REG | 594 | ug/kg |
| EL3-01 | 12 | 16 | CALCIUM | 3170 | 67900 | J | REG | 462000 | ug/kg |
| EL3-01 | 12 | 16 | CHROMIUM | 2320 | 4530 | | REG | 11100 | ug/kg |
| EL3-01 | 12 | 16 | COPPER | 792 | 9050 | J | REG | 2440 | ug/kg |
| EL3-01 | 12 | 16 | IRON | 9500 | 22600 | | REG | 12200000 | ug/kg |
| EL3-01 | 12 | 16 | LEAD | 622 | 4530 | J | REG | 3670 | ug/kg |
| EL3-01 | 12 | 16 | MAGNESIUM | 7580 | 45300 | J | REG | 63700 | ug/kg |
| EL3-01 | 12 | 16 | MANGANESE | 5260 | 8480 | | REG | 19900 | ug/kg |
| EL3-01 | 12 | 16 | POTASSIUM | 6220 | 90500 | J | REG | 68700 | ug/kg |
| EL3-01 | 12 | 16 | TOLUENE | 0.199 | 1.11 | J | REG | 0.299 | ug/kg |
| EL3-01 | 12 | 16 | VANADIUM | 792 | 4530 | | REG | 29900 | ug/kg |
| EL3-01 | 12 | 16 | ZINC | 1640 | 11300 | J | REG | 11900 | ug/kg |
| EL3-02 | 0 | 1 | ALUMINUM | 3530 | 19900 | | REG | 9970000 | ug/kg |
| EL3-02 | 0 | 1 | BARIUM | 944 | 3970 | | REG | 27800 | ug/kg |
| EL3-02 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 56.6 | 176 | J | REG | 59.3 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-02 | 0 | 1 | CALCIUM | 2780 | 59600 | J | REG | 581000 | ug/kg |
| EL3-02 | 0 | 1 | CHROMIUM | 2040 | 3970 | | REG | 8370 | ug/kg |
| EL3-02 | 0 | 1 | COPPER | 695 | 7950 | J | REG | 1710 | ug/kg |
| EL3-02 | 0 | 1 | IRON | 8340 | 19900 | | REG | 6960000 | ug/kg |
| EL3-02 | 0 | 1 | LEAD | 546 | 3970 | | REG | 5420 | ug/kg |
| EL3-02 | 0 | 1 | MAGNESIUM | 6650 | 39700 | J | REG | 147000 | ug/kg |
| EL3-02 | 0 | 1 | MANGANESE | 4620 | 7450 | | REG | 20400 | ug/kg |
| EL3-02 | 0 | 1 | MERCURY | 3.02 | 10.1 | | REG | 35.2 | ug/kg |
| EL3-02 | 0 | 1 | POTASSIUM | 5460 | 79500 | | REG | 124000 | ug/kg |
| EL3-02 | 0 | 1 | TOLUENE | 0.185 | 1.03 | J | REG | 0.495 | ug/kg |
| EL3-02 | 0 | 1 | VANADIUM | 695 | 3970 | | REG | 16200 | ug/kg |
| EL3-02 | 0 | 1 | ZINC | 1440 | 9930 | J | REG | 81800 | ug/kg |
| EL3-02 | 1 | 4 | ALUMINUM | 3690 | 20800 | | REG | 15300000 | ug/kg |
| EL3-02 | 1 | 4 | BARIUM | 987 | 4150 | | REG | 12500 | ug/kg |
| EL3-02 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 59 | 183 | | REG | 366 | ug/kg |
| EL3-02 | 1 | 4 | CALCIUM | 2910 | 62300 | J | REG | 596000 | ug/kg |
| EL3-02 | 1 | 4 | CHROMIUM | 2130 | 4150 | | REG | 18600 | ug/kg |
| EL3-02 | 1 | 4 | COPPER | 727 | 8310 | J | REG | 3830 | ug/kg |
| EL3-02 | 1 | 4 | IRON | 8720 | 20800 | | REG | 16300000 | ug/kg |
| EL3-02 | 1 | 4 | LEAD | 571 | 4150 | | REG | 5390 | ug/kg |
| EL3-02 | 1 | 4 | MAGNESIUM | 6960 | 41500 | J | REG | 139000 | ug/kg |
| EL3-02 | 1 | 4 | MANGANESE | 4830 | 7790 | | REG | 9960 | ug/kg |
| EL3-02 | 1 | 4 | MERCURY | 3.28 | 10.9 | | REG | 46.7 | ug/kg |
| EL3-02 | 1 | 4 | NICKEL | 2080 | 10400 | J | REG | 2170 | ug/kg |
| EL3-02 | 1 | 4 | POTASSIUM | 5710 | 83100 | | REG | 122000 | ug/kg |
| EL3-02 | 1 | 4 | STYRENE | 0.118 | 1.07 | J | REG | 0.193 | ug/kg |
| EL3-02 | 1 | 4 | TOLUENE | 0.193 | 1.07 | J | REG | 0.674 | ug/kg |
| EL3-02 | 1 | 4 | VANADIUM | 727 | 4150 | | REG | 38900 | ug/kg |
| EL3-02 | 1 | 4 | ZINC | 1510 | 10400 | J | REG | 14600 | ug/kg |
| EL3-02 | 4 | 8 | ALUMINUM | 3810 | 21500 | | REG | 12000000 | ug/kg |
| EL3-02 | 4 | 8 | ARSENIC | 806 | 4300 | | REG | 5010 | ug/kg |
| EL3-02 | 4 | 8 | BARIUM | 1020 | 4300 | | REG | 5790 | ug/kg |
| EL3-02 | 4 | 8 | CALCIUM | 3010 | 64500 | J | REG | 381000 | ug/kg |
| EL3-02 | 4 | 8 | CHROMIUM | 2200 | 4300 | | REG | 27100 | ug/kg |
| EL3-02 | 4 | 8 | COPPER | 752 | 8590 | J | REG | 4140 | ug/kg |
| EL3-02 | 4 | 8 | IRON | 9020 | 21500 | | REG | 25800000 | ug/kg |
| EL3-02 | 4 | 8 | LEAD | 591 | 4300 | J | REG | 3960 | ug/kg |
| EL3-02 | 4 | 8 | MAGNESIUM | 7200 | 43000 | J | REG | 90800 | ug/kg |
| EL3-02 | 4 | 8 | MANGANESE | 5000 | 8060 | J | REG | 7670 | ug/kg |
| EL3-02 | 4 | 8 | MERCURY | 3.22 | 10.7 | | REG | 15.2 | ug/kg |
| EL3-02 | 4 | 8 | POTASSIUM | 5910 | 85900 | J | REG | 69400 | ug/kg |
| EL3-02 | 4 | 8 | TOLUENE | 0.205 | 1.14 | J | REG | 0.511 | ug/kg |
| EL3-02 | 4 | 8 | VANADIUM | 752 | 4300 | | REG | 58700 | ug/kg |
| EL3-02 | 8 | 12 | ACETONE | 0.817 | 11.5 | J | FD | 2.78 | ug/kg |
| EL3-02 | 8 | 12 | ALUMINUM | 3750 | 21100 | | REG | 8660000 | ug/kg |
| EL3-02 | 8 | 12 | ALUMINUM | 3850 | 21700 | | FD | 9160000 | ug/kg |
| EL3-02 | 8 | 12 | BARIUM | 1030 | 4340 | J | FD | 3680 | ug/kg |
| EL3-02 | 8 | 12 | BARIUM | 1000 | 4230 | J | REG | 3800 | ug/kg |
| EL3-02 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.7 | 188 | | FD | 206 | ug/kg |
| EL3-02 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60 | 186 | | REG | 286 | ug/kg |
| EL3-02 | 8 | 12 | CALCIUM | 2960 | 63400 | J | REG | 224000 | ug/kg |
| EL3-02 | 8 | 12 | CALCIUM | 3040 | 65200 | J | FD | 255000 | ug/kg |
| EL3-02 | 8 | 12 | CHROMIUM | 2170 | 4230 | | REG | 17700 | ug/kg |
| EL3-02 | 8 | 12 | CHROMIUM | 2230 | 4340 | | FD | 20500 | ug/kg |
| EL3-02 | 8 | 12 | COPPER | 760 | 8690 | J | FD | 3060 | ug/kg |
| EL3-02 | 8 | 12 | COPPER | 740 | 8460 | J | REG | 2860 | ug/kg |
| EL3-02 | 8 | 12 | IRON | 8880 | 21100 | | REG | 16500000 | ug/kg |
| EL3-02 | 8 | 12 | IRON | 9120 | 21700 | | FD | 18100000 | ug/kg |
| EL3-02 | 8 | 12 | LEAD | 597 | 4340 | J | FD | 4300 | ug/kg |
| EL3-02 | 8 | 12 | LEAD | 582 | 4230 | J | REG | 3830 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-02 | 8 | 12 | MAGNESIUM | 7080 | 42300 | J | REG | 90200 | ug/kg |
| EL3-02 | 8 | 12 | MAGNESIUM | 7280 | 43400 | J | FD | 92000 | ug/kg |
| EL3-02 | 8 | 12 | MANGANESE | 4920 | 7930 | | REG | 15500 | ug/kg |
| EL3-02 | 8 | 12 | MANGANESE | 5050 | 8140 | | FD | 17500 | ug/kg |
| EL3-02 | 8 | 12 | MERCURY | 3.33 | 11.1 | J | FD | 8.73 | ug/kg |
| EL3-02 | 8 | 12 | MERCURY | 3.15 | 10.5 | J | REG | 8.8 | ug/kg |
| EL3-02 | 8 | 12 | POTASSIUM | 5820 | 84600 | J | REG | 66800 | ug/kg |
| EL3-02 | 8 | 12 | POTASSIUM | 5970 | 86900 | J | FD | 67900 | ug/kg |
| EL3-02 | 8 | 12 | TOLUENE | 0.207 | 1.15 | J | FD | 0.472 | ug/kg |
| EL3-02 | 8 | 12 | TOLUENE | 0.196 | 1.09 | J | REG | 0.359 | ug/kg |
| EL3-02 | 8 | 12 | VANADIUM | 740 | 4230 | | REG | 40100 | ug/kg |
| EL3-02 | 8 | 12 | VANADIUM | 760 | 4340 | | FD | 44900 | ug/kg |
| EL3-02 | 8 | 12 | ZINC | 1530 | 10600 | J | REG | 9390 | ug/kg |
| EL3-02 | 8 | 12 | ZINC | 1570 | 10900 | J | FD | 14900 | ug/kg |
| EL3-02 | 12 | 16 | ALUMINUM | 3820 | 21500 | | REG | 6670000 | ug/kg |
| EL3-02 | 12 | 16 | BARIUM | 1020 | 4300 | J | REG | 1990 | ug/kg |
| EL3-02 | 12 | 16 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.2 | 187 | J | REG | 159 | ug/kg |
| EL3-02 | 12 | 16 | CALCIUM | 3010 | 64600 | J | REG | 116000 | ug/kg |
| EL3-02 | 12 | 16 | CHROMIUM | 2210 | 4300 | | REG | 15100 | ug/kg |
| EL3-02 | 12 | 16 | COPPER | 753 | 8610 | J | REG | 2240 | ug/kg |
| EL3-02 | 12 | 16 | IRON | 9040 | 21500 | | REG | 16000000 | ug/kg |
| EL3-02 | 12 | 16 | LEAD | 592 | 4300 | J | REG | 3770 | ug/kg |
| EL3-02 | 12 | 16 | MAGNESIUM | 7210 | 43000 | J | REG | 61400 | ug/kg |
| EL3-02 | 12 | 16 | MANGANESE | 5000 | 8070 | | REG | 11600 | ug/kg |
| EL3-02 | 12 | 16 | POTASSIUM | 5920 | 86100 | J | REG | 34300 | ug/kg |
| EL3-02 | 12 | 16 | TOLUENE | 0.197 | 1.09 | J | REG | 0.492 | ug/kg |
| EL3-02 | 12 | 16 | VANADIUM | 753 | 4300 | | REG | 42600 | ug/kg |
| EL3-02 | 12 | 16 | ZINC | 1560 | 10800 | J | REG | 7400 | ug/kg |
| EL3-03 | 0 | 1 | ACETONE | 0.716 | 10.1 | J | REG | 1.71 | ug/kg |
| EL3-03 | 0 | 1 | ALUMINUM | 3580 | 20200 | | REG | 6740000 | ug/kg |
| EL3-03 | 0 | 1 | ANTIMONY | 757 | 10100 | | REG | 21700 | ug/kg |
| EL3-03 | 0 | 1 | AROCLOR 1254 | 373 | 1740 | | REG | 4380 | ug/kg |
| EL3-03 | 0 | 1 | ARSENIC | 757 | 4040 | | REG | 4100 | ug/kg |
| EL3-03 | 0 | 1 | BARIUM | 959 | 4040 | J | REG | 43400 | ug/kg |
| EL3-03 | 0 | 1 | BENZO[A]ANTHRACENE | 28.1 | 174 | J | REG | 31.6 | ug/kg |
| EL3-03 | 0 | 1 | BENZO[B]FLUORANTHENE | 39.7 | 174 | J | REG | 40.3 | ug/kg |
| EL3-03 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 560 | 1740 | | REG | 16300 | ug/kg |
| EL3-03 | 0 | 1 | CALCIUM | 2830 | 60600 | | REG | 14700000 | ug/kg |
| EL3-03 | 0 | 1 | CHROMIUM | 2070 | 4040 | J | REG | 17500 | ug/kg |
| EL3-03 | 0 | 1 | COPPER | 707 | 8070 | J | REG | 53600 | ug/kg |
| EL3-03 | 0 | 1 | FLUORANTHENE | 29.6 | 174 | J | REG | 42.8 | ug/kg |
| EL3-03 | 0 | 1 | IRON | 8480 | 20200 | | REG | 8150000 | ug/kg |
| EL3-03 | 0 | 1 | LEAD | 555 | 4040 | | REG | 130000 | ug/kg |
| EL3-03 | 0 | 1 | MAGNESIUM | 6760 | 40400 | | REG | 1150000 | ug/kg |
| EL3-03 | 0 | 1 | MANGANESE | 4690 | 7570 | J | REG | 117000 | ug/kg |
| EL3-03 | 0 | 1 | MERCURY | 2.95 | 9.85 | | REG | 361 | ug/kg |
| EL3-03 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0706 | 1.01 | J | REG | 0.252 | ug/kg |
| EL3-03 | 0 | 1 | NICKEL | 2020 | 10100 | J | REG | 11100 | ug/kg |
| EL3-03 | 0 | 1 | POTASSIUM | 5550 | 80700 | | REG | 212000 | ug/kg |
| EL3-03 | 0 | 1 | PYRENE | 27.1 | 174 | J | REG | 37.2 | ug/kg |
| EL3-03 | 0 | 1 | TOLUENE | 0.182 | 1.01 | J | REG | 0.313 | ug/kg |
| EL3-03 | 0 | 1 | VANADIUM | 707 | 4040 | | REG | 10700 | ug/kg |
| EL3-03 | 0 | 1 | ZINC | 1460 | 10100 | J | REG | 321000 | ug/kg |
| EL3-03 | 1 | 4 | ACETONE | 0.778 | 11 | J | REG | 1.47 | ug/kg |
| EL3-03 | 1 | 4 | ALUMINUM | 3680 | 20700 | | REG | 14700000 | ug/kg |
| EL3-03 | 1 | 4 | AROCLOR 1254 | 7.9 | 36.8 | J | REG | 322 | ug/kg |
| EL3-03 | 1 | 4 | AROCLOR 1260 | 8.09 | 36.8 | J | REG | 67.2 | ug/kg |
| EL3-03 | 1 | 4 | ARSENIC | 777 | 4140 | J | REG | 3630 | ug/kg |
| EL3-03 | 1 | 4 | BARIUM | 984 | 4140 | J | REG | 18800 | ug/kg |
| EL3-03 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 59.3 | 184 | | REG | 1810 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-03 | 1 | 4 | CALCIUM | 2900 | 62200 | | REG | 6300000 | ug/kg |
| EL3-03 | 1 | 4 | CHROMIUM | 2120 | 4140 | J | REG | 19700 | ug/kg |
| EL3-03 | 1 | 4 | COPPER | 725 | 8290 | J | REG | 10600 | ug/kg |
| EL3-03 | 1 | 4 | IRON | 8700 | 20700 | | REG | 17400000 | ug/kg |
| EL3-03 | 1 | 4 | LEAD | 570 | 4140 | | REG | 20400 | ug/kg |
| EL3-03 | 1 | 4 | MAGNESIUM | 6940 | 41400 | | REG | 471000 | ug/kg |
| EL3-03 | 1 | 4 | MANGANESE | 4820 | 7770 | J | REG | 38600 | ug/kg |
| EL3-03 | 1 | 4 | MERCURY | 3.24 | 10.8 | | REG | 120 | ug/kg |
| EL3-03 | 1 | 4 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0767 | 1.1 | J | REG | 0.208 | ug/kg |
| EL3-03 | 1 | 4 | NICKEL | 2070 | 10400 | J | REG | 2990 | ug/kg |
| EL3-03 | 1 | 4 | POTASSIUM | 5700 | 82900 | | REG | 160000 | ug/kg |
| EL3-03 | 1 | 4 | TOLUENE | 0.197 | 1.1 | J | REG | 0.723 | ug/kg |
| EL3-03 | 1 | 4 | VANADIUM | 725 | 4140 | | REG | 36300 | ug/kg |
| EL3-03 | 4 | 8 | ACETONE | 0.76 | 10.7 | J | REG | 1.32 | ug/kg |
| EL3-03 | 4 | 8 | ALUMINUM | 3720 | 20900 | | REG | 7670000 | ug/kg |
| EL3-03 | 4 | 8 | AROCLOR 1254 | 7.84 | 36.5 | J | REG | 184 | ug/kg |
| EL3-03 | 4 | 8 | AROCLOR 1260 | 8.03 | 36.5 | J | REG | 76.8 | ug/kg |
| EL3-03 | 4 | 8 | ARSENIC | 785 | 4190 | J | REG | 4180 | ug/kg |
| EL3-03 | 4 | 8 | BARIUM | 994 | 4190 | J | REG | 5280 | ug/kg |
| EL3-03 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.9 | 183 | | REG | 829 | ug/kg |
| EL3-03 | 4 | 8 | CALCIUM | 2930 | 62800 | | REG | 1450000 | ug/kg |
| EL3-03 | 4 | 8 | CHROMIUM | 2150 | 4190 | J | REG | 19000 | ug/kg |
| EL3-03 | 4 | 8 | COPPER | 733 | 8370 | J | REG | 3560 | ug/kg |
| EL3-03 | 4 | 8 | IRON | 8790 | 20900 | | REG | 17700000 | ug/kg |
| EL3-03 | 4 | 8 | LEAD | 576 | 4190 | | REG | 12700 | ug/kg |
| EL3-03 | 4 | 8 | MAGNESIUM | 7010 | 41900 | | REG | 146000 | ug/kg |
| EL3-03 | 4 | 8 | MANGANESE | 4870 | 7850 | J | REG | 17400 | ug/kg |
| EL3-03 | 4 | 8 | MERCURY | 3.23 | 10.8 | | REG | 21.3 | ug/kg |
| EL3-03 | 4 | 8 | POTASSIUM | 5760 | 83700 | J | REG | 54400 | ug/kg |
| EL3-03 | 4 | 8 | TOLUENE | 0.193 | 1.07 | J | REG | 0.995 | ug/kg |
| EL3-03 | 4 | 8 | VANADIUM | 733 | 4190 | | REG | 39300 | ug/kg |
| EL3-03 | 4 | 8 | ZINC | 1520 | 10500 | J | REG | 22200 | ug/kg |
| EL3-04 | 0 | 1 | ALUMINUM | 3680 | 20700 | | REG | 9630000 | ug/kg |
| EL3-04 | 0 | 1 | ANTIMONY | 778 | 10400 | J | REG | 11600 | ug/kg |
| EL3-04 | 0 | 1 | AROCLOR 1254 | 7.48 | 34.8 | J | REG | 266 | ug/kg |
| EL3-04 | 0 | 1 | AROCLOR 1260 | 7.65 | 34.8 | J | REG | 75.6 | ug/kg |
| EL3-04 | 0 | 1 | BARIUM | 986 | 4150 | J | REG | 48300 | ug/kg |
| EL3-04 | 0 | 1 | BENZO[B]FLUORANTHENE | 39.8 | 174 | J | REG | 51.9 | ug/kg |
| EL3-04 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 56.1 | 174 | J | REG | 113 | ug/kg |
| EL3-04 | 0 | 1 | CALCIUM | 2900 | 62200 | | REG | 6420000 | ug/kg |
| EL3-04 | 0 | 1 | CHROMIUM | 2130 | 4150 | | REG | 16200 | ug/kg |
| EL3-04 | 0 | 1 | COPPER | 726 | 8300 | J | REG | 26500 | ug/kg |
| EL3-04 | 0 | 1 | FLUORANTHENE | 29.7 | 174 | J | REG | 30 | ug/kg |
| EL3-04 | 0 | 1 | IRON | 8710 | 20700 | | REG | 7760000 | ug/kg |
| EL3-04 | 0 | 1 | LEAD | 571 | 4150 | J | REG | 61100 | ug/kg |
| EL3-04 | 0 | 1 | MAGNESIUM | 6950 | 41500 | | REG | 429000 | ug/kg |
| EL3-04 | 0 | 1 | MANGANESE | 4820 | 7780 | J | REG | 69100 | ug/kg |
| EL3-04 | 0 | 1 | MERCURY | 2.98 | 9.93 | J | REG | 51.6 | ug/kg |
| EL3-04 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0736 | 1.05 | J | REG | 0.21 | ug/kg |
| EL3-04 | 0 | 1 | NICKEL | 2070 | 10400 | J | REG | 6420 | ug/kg |
| EL3-04 | 0 | 1 | POTASSIUM | 5710 | 83000 | | REG | 169000 | ug/kg |
| EL3-04 | 0 | 1 | SELENIUM | 674 | 10400 | J | REG | 1510 | ug/kg |
| EL3-04 | 0 | 1 | VANADIUM | 726 | 4150 | | REG | 17000 | ug/kg |
| EL3-04 | 0 | 1 | ZINC | 1500 | 10400 | | REG | 238000 | ug/kg |
| EL3-04 | 1 | 4 | ALUMINUM | 3780 | 21300 | | REG | 12900000 | ug/kg |
| EL3-04 | 1 | 4 | ALUMINUM | 3750 | 21100 | | FD | 11400000 | ug/kg |
| EL3-04 | 1 | 4 | AROCLOR 1254 | 7.81 | 36.4 | J | FD | 33.2 | ug/kg |
| EL3-04 | 1 | 4 | AROCLOR 1254 | 7.78 | 36.3 | J | REG | 21.6 | ug/kg |
| EL3-04 | 1 | 4 | AROCLOR 1260 | 7.99 | 36.4 | J | FD | 61.1 | ug/kg |
| EL3-04 | 1 | 4 | AROCLOR 1260 | 7.96 | 36.3 | J | REG | 18.6 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-04 | 1 | 4 | ARSENIC | 798 | 4260 | J | REG | 3180 | ug/kg |
| EL3-04 | 1 | 4 | ARSENIC | 793 | 4230 | J | FD | 2990 | ug/kg |
| EL3-04 | 1 | 4 | BARIUM | 1010 | 4260 | J | REG | 12900 | ug/kg |
| EL3-04 | 1 | 4 | BARIUM | 1000 | 4230 | J | FD | 13400 | ug/kg |
| EL3-04 | 1 | 4 | BENZO[A]ANTHRACENE | 29.3 | 181 | J | REG | 56.6 | ug/kg |
| EL3-04 | 1 | 4 | BENZO[B]FLUORANTHENE | 41.4 | 181 | J | REG | 52.2 | ug/kg |
| EL3-04 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.6 | 182 | | FD | 568 | ug/kg |
| EL3-04 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.4 | 181 | | REG | 331 | ug/kg |
| EL3-04 | 1 | 4 | CALCIUM | 2980 | 63800 | | REG | 2280000 | ug/kg |
| EL3-04 | 1 | 4 | CALCIUM | 2960 | 63400 | | FD | 1670000 | ug/kg |
| EL3-04 | 1 | 4 | CHROMIUM | 2180 | 4260 | | REG | 22800 | ug/kg |
| EL3-04 | 1 | 4 | CHROMIUM | 2170 | 4230 | | FD | 18800 | ug/kg |
| EL3-04 | 1 | 4 | CHRYSENE | 30 | 181 | J | REG | 52.9 | ug/kg |
| EL3-04 | 1 | 4 | COPPER | 740 | 8460 | J | FD | 6280 | ug/kg |
| EL3-04 | 1 | 4 | COPPER | 745 | 8510 | J | REG | 5640 | ug/kg |
| EL3-04 | 1 | 4 | FLUORANTHENE | 30.9 | 181 | J | REG | 102 | ug/kg |
| EL3-04 | 1 | 4 | IRON | 8940 | 21300 | | REG | 19400000 | ug/kg |
| EL3-04 | 1 | 4 | IRON | 8880 | 21100 | | FD | 18700000 | ug/kg |
| EL3-04 | 1 | 4 | LEAD | 585 | 4260 | J | REG | 9660 | ug/kg |
| EL3-04 | 1 | 4 | LEAD | 581 | 4230 | J | FD | 7780 | ug/kg |
| EL3-04 | 1 | 4 | MAGNESIUM | 7130 | 42600 | | REG | 186000 | ug/kg |
| EL3-04 | 1 | 4 | MAGNESIUM | 7080 | 42300 | | FD | 148000 | ug/kg |
| EL3-04 | 1 | 4 | MANGANESE | 4950 | 7980 | J | REG | 24900 | ug/kg |
| EL3-04 | 1 | 4 | MANGANESE | 4920 | 7930 | J | FD | 18100 | ug/kg |
| EL3-04 | 1 | 4 | MERCURY | 3.16 | 10.5 | J | FD | 29.8 | ug/kg |
| EL3-04 | 1 | 4 | MERCURY | 3.16 | 10.5 | J | REG | 67.3 | ug/kg |
| EL3-04 | 1 | 4 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0748 | 1.07 | J | FD | 0.214 | ug/kg |
| EL3-04 | 1 | 4 | PHENANTHRENE | 28.4 | 181 | J | REG | 56.6 | ug/kg |
| EL3-04 | 1 | 4 | POTASSIUM | 5850 | 85100 | | REG | 116000 | ug/kg |
| EL3-04 | 1 | 4 | POTASSIUM | 5810 | 84600 | | FD | 108000 | ug/kg |
| EL3-04 | 1 | 4 | PYRENE | 28.3 | 181 | J | REG | 85.6 | ug/kg |
| EL3-04 | 1 | 4 | TOLUENE | 0.192 | 1.07 | J | FD | 0.449 | ug/kg |
| EL3-04 | 1 | 4 | TOLUENE | 0.197 | 1.1 | | REG | 2.37 | ug/kg |
| EL3-04 | 1 | 4 | VANADIUM | 745 | 4260 | | REG | 43100 | ug/kg |
| EL3-04 | 1 | 4 | VANADIUM | 740 | 4230 | | FD | 41800 | ug/kg |
| EL3-04 | 1 | 4 | ZINC | 1540 | 10600 | | REG | 124000 | ug/kg |
| EL3-04 | 1 | 4 | ZINC | 1530 | 10600 | | FD | 52500 | ug/kg |
| EL3-04 | 4 | 8 | ALUMINUM | 3730 | 21000 | | REG | 10300000 | ug/kg |
| EL3-04 | 4 | 8 | AROCLOR 1254 | 8.05 | 37.5 | J | REG | 246 | ug/kg |
| EL3-04 | 4 | 8 | AROCLOR 1260 | 8.24 | 37.5 | J | REG | 64 | ug/kg |
| EL3-04 | 4 | 8 | ARSENIC | 789 | 4210 | | REG | 5070 | ug/kg |
| EL3-04 | 4 | 8 | BARIUM | 999 | 4210 | J | REG | 8560 | ug/kg |
| EL3-04 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.4 | 187 | J | REG | 135 | ug/kg |
| EL3-04 | 4 | 8 | CALCIUM | 2950 | 63100 | | REG | 2490000 | ug/kg |
| EL3-04 | 4 | 8 | CHROMIUM | 2160 | 4210 | | REG | 31000 | ug/kg |
| EL3-04 | 4 | 8 | COPPER | 736 | 8420 | J | REG | 6840 | ug/kg |
| EL3-04 | 4 | 8 | CYANIDE | 268 | 1100 | J | REG | 269 | ug/kg |
| EL3-04 | 4 | 8 | IRON | 8840 | 21000 | | REG | 26400000 | ug/kg |
| EL3-04 | 4 | 8 | LEAD | 579 | 4210 | J | REG | 11300 | ug/kg |
| EL3-04 | 4 | 8 | MAGNESIUM | 7050 | 42100 | | REG | 147000 | ug/kg |
| EL3-04 | 4 | 8 | MANGANESE | 4890 | 7890 | J | REG | 29600 | ug/kg |
| EL3-04 | 4 | 8 | MERCURY | 3.26 | 10.9 | J | REG | 10.3 | ug/kg |
| EL3-04 | 4 | 8 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0764 | 1.09 | J | REG | 0.251 | ug/kg |
| EL3-04 | 4 | 8 | NICKEL | 2100 | 10500 | J | REG | 2450 | ug/kg |
| EL3-04 | 4 | 8 | POTASSIUM | 5790 | 84200 | | REG | 94000 | ug/kg |
| EL3-04 | 4 | 8 | SELENIUM | 684 | 10500 | J | REG | 1700 | ug/kg |
| EL3-04 | 4 | 8 | SODIUM | 71200 | 231000 | J | REG | 190000 | ug/kg |
| EL3-04 | 4 | 8 | TOLUENE | 0.197 | 1.09 | J | REG | 0.36 | ug/kg |
| EL3-04 | 4 | 8 | VANADIUM | 736 | 4210 | | REG | 61400 | ug/kg |
| EL3-04 | 4 | 8 | ZINC | 1530 | 10500 | | REG | 267000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-05 | 0 | 1 | 1,1-DICHLOROETHYLENE | 0.258 | 1.08 | | REG | 2.62 | ug/kg |
| EL3-05 | 0 | 1 | ALUMINUM | 3640 | 20500 | | REG | 14700000 | ug/kg |
| EL3-05 | 0 | 1 | AROCLOR 1254 | 7.77 | 36.2 | J | REG | 24.9 | ug/kg |
| EL3-05 | 0 | 1 | AROCLOR 1260 | 7.95 | 36.2 | J | REG | 10.5 | ug/kg |
| EL3-05 | 0 | 1 | ARSENIC | 770 | 4110 | J | REG | 2950 | ug/kg |
| EL3-05 | 0 | 1 | BARIUM | 975 | 4110 | J | REG | 37300 | ug/kg |
| EL3-05 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.3 | 181 | | REG | 220 | ug/kg |
| EL3-05 | 0 | 1 | CALCIUM | 2870 | 61600 | | REG | 289000 | ug/kg |
| EL3-05 | 0 | 1 | CHROMIUM | 2100 | 4110 | J | REG | 21100 | ug/kg |
| EL3-05 | 0 | 1 | COPPER | 719 | 8210 | | REG | 36200 | ug/kg |
| EL3-05 | 0 | 1 | IRON | 8620 | 20500 | | REG | 13500000 | ug/kg |
| EL3-05 | 0 | 1 | LEAD | 565 | 4110 | | REG | 21400 | ug/kg |
| EL3-05 | 0 | 1 | MAGNESIUM | 6880 | 41100 | | REG | 226000 | ug/kg |
| EL3-05 | 0 | 1 | MANGANESE | 4770 | 7700 | J | REG | 37300 | ug/kg |
| EL3-05 | 0 | 1 | MERCURY | 3.14 | 10.5 | | REG | 95.6 | ug/kg |
| EL3-05 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0753 | 1.08 | J | REG | 0.237 | ug/kg |
| EL3-05 | 0 | 1 | NICKEL | 2050 | 10300 | J | REG | 2680 | ug/kg |
| EL3-05 | 0 | 1 | POTASSIUM | 5650 | 82100 | | REG | 162000 | ug/kg |
| EL3-05 | 0 | 1 | VANADIUM | 719 | 4110 | | REG | 31000 | ug/kg |
| EL3-05 | 0 | 1 | ZINC | 1490 | 10300 | J | REG | 46400 | ug/kg |
| EL3-05 | 1 | 4 | ALUMINUM | 4080 | 23000 | | REG | 21900000 | ug/kg |
| EL3-05 | 1 | 4 | ARSENIC | 862 | 4600 | | REG | 6930 | ug/kg |
| EL3-05 | 1 | 4 | BARIUM | 1090 | 4600 | J | REG | 14700 | ug/kg |
| EL3-05 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 63.5 | 197 | J | REG | 141 | ug/kg |
| EL3-05 | 1 | 4 | CALCIUM | 3220 | 69000 | | REG | 89700 | ug/kg |
| EL3-05 | 1 | 4 | CHROMIUM | 2360 | 4600 | J | REG | 28300 | ug/kg |
| EL3-05 | 1 | 4 | COPPER | 805 | 9200 | J | REG | 5370 | ug/kg |
| EL3-05 | 1 | 4 | IRON | 9660 | 23000 | | REG | 31300000 | ug/kg |
| EL3-05 | 1 | 4 | LEAD | 632 | 4600 | | REG | 6680 | ug/kg |
| EL3-05 | 1 | 4 | MAGNESIUM | 7700 | 46000 | | REG | 176000 | ug/kg |
| EL3-05 | 1 | 4 | MANGANESE | 5350 | 8620 | J | REG | 9000 | ug/kg |
| EL3-05 | 1 | 4 | MERCURY | 3.39 | 11.3 | | REG | 82.2 | ug/kg |
| EL3-05 | 1 | 4 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0786 | 1.12 | J | REG | 0.18 | ug/kg |
| EL3-05 | 1 | 4 | POTASSIUM | 6320 | 92000 | | REG | 99800 | ug/kg |
| EL3-05 | 1 | 4 | VANADIUM | 805 | 4600 | | REG | 71400 | ug/kg |
| EL3-05 | 4 | 8 | ALUMINUM | 3740 | 21100 | | REG | 6720000 | ug/kg |
| EL3-05 | 4 | 8 | ARSENIC | 791 | 4220 | | REG | 5090 | ug/kg |
| EL3-05 | 4 | 8 | BARIUM | 1000 | 4220 | J | REG | 3270 | ug/kg |
| EL3-05 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.1 | 187 | | REG | 287 | ug/kg |
| EL3-05 | 4 | 8 | CALCIUM | 2950 | 63300 | | REG | 486000 | ug/kg |
| EL3-05 | 4 | 8 | CHROMIUM | 2160 | 4220 | J | REG | 17600 | ug/kg |
| EL3-05 | 4 | 8 | COPPER | 738 | 8440 | J | REG | 2560 | ug/kg |
| EL3-05 | 4 | 8 | IRON | 8860 | 21100 | | REG | 21900000 | ug/kg |
| EL3-05 | 4 | 8 | LEAD | 580 | 4220 | | REG | 6200 | ug/kg |
| EL3-05 | 4 | 8 | MAGNESIUM | 7070 | 42200 | J | REG | 31100 | ug/kg |
| EL3-05 | 4 | 8 | MANGANESE | 4900 | 7910 | J | REG | 15300 | ug/kg |
| EL3-05 | 4 | 8 | MERCURY | 3.3 | 11 | | REG | 12.1 | ug/kg |
| EL3-05 | 4 | 8 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0754 | 1.08 | J | REG | 0.302 | ug/kg |
| EL3-05 | 4 | 8 | POTASSIUM | 5800 | 84400 | J | REG | 62900 | ug/kg |
| EL3-05 | 4 | 8 | SODIUM | 71400 | 232000 | J | REG | 140000 | ug/kg |
| EL3-05 | 4 | 8 | VANADIUM | 738 | 4220 | | REG | 40700 | ug/kg |
| EL3-05 | 4 | 8 | ZINC | 1530 | 10500 | J | REG | 168000 | ug/kg |
| EL3-06 | 0 | 1 | ACETONE | 0.724 | 10.2 | J | FD | 2.85 | ug/kg |
| EL3-06 | 0 | 1 | ALUMINUM | 3570 | 20100 | | REG | 3750000 | ug/kg |
| EL3-06 | 0 | 1 | ALUMINUM | 3570 | 20100 | | FD | 4420000 | ug/kg |
| EL3-06 | 0 | 1 | ANTIMONY | 754 | 10100 | J | REG | 9110 | ug/kg |
| EL3-06 | 0 | 1 | ANTIMONY | 754 | 10100 | J | FD | 9840 | ug/kg |
| EL3-06 | 0 | 1 | AROCLOR 1254 | 7.44 | 34.7 | J | FD | 158 | ug/kg |
| EL3-06 | 0 | 1 | AROCLOR 1254 | 7.43 | 34.6 | J | REG | 101 | ug/kg |
| EL3-06 | 0 | 1 | AROCLOR 1260 | 7.62 | 34.7 | J | FD | 51.6 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-06 | 0 | 1 | AROCLOR 1260 | 7.6 | 34.6 | J | REG | 60.5 | ug/kg |
| EL3-06 | 0 | 1 | ARSENIC | 754 | 4020 | J | REG | 3370 | ug/kg |
| EL3-06 | 0 | 1 | ARSENIC | 754 | 4020 | J | FD | 3260 | ug/kg |
| EL3-06 | 0 | 1 | BARIUM | 955 | 4020 | J | REG | 61900 | ug/kg |
| EL3-06 | 0 | 1 | BARIUM | 955 | 4020 | J | FD | 84000 | ug/kg |
| EL3-06 | 0 | 1 | BENZENE | 0.0714 | 1.02 | J | FD | 3.39 | ug/kg |
| EL3-06 | 0 | 1 | BENZENE | 0.0694 | 0.991 | | REG | 2.6 | ug/kg |
| EL3-06 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.9 | 173 | | FD | 232 | ug/kg |
| EL3-06 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.8 | 173 | | REG | 258 | ug/kg |
| EL3-06 | 0 | 1 | CADMIUM | 302 | 6030 | | REG | 10800 | ug/kg |
| EL3-06 | 0 | 1 | CADMIUM | 302 | 6030 | | FD | 8340 | ug/kg |
| EL3-06 | 0 | 1 | CALCIUM | 2810 | 60300 | | REG | 5360000 | ug/kg |
| EL3-06 | 0 | 1 | CALCIUM | 2820 | 60300 | | FD | 4520000 | ug/kg |
| EL3-06 | 0 | 1 | CARBON DISULFIDE | 0.449 | 5.1 | J | FD | 1.37 | ug/kg |
| EL3-06 | 0 | 1 | CARBON DISULFIDE | 0.436 | 4.95 | J | REG | 0.951 | ug/kg |
| EL3-06 | 0 | 1 | CHROMIUM | 2060 | 4020 | J | REG | 71900 | ug/kg |
| EL3-06 | 0 | 1 | CHROMIUM | 2060 | 4020 | J | FD | 26300 | ug/kg |
| EL3-06 | 0 | 1 | COPPER | 704 | 8050 | | FD | 44500 | ug/kg |
| EL3-06 | 0 | 1 | COPPER | 704 | 8040 | | REG | 43000 | ug/kg |
| EL3-06 | 0 | 1 | IRON | 8440 | 20100 | | REG | 6460000 | ug/kg |
| EL3-06 | 0 | 1 | IRON | 8450 | 20100 | | FD | 12300000 | ug/kg |
| EL3-06 | 0 | 1 | LEAD | 553 | 4020 | | REG | 1300000 | ug/kg |
| EL3-06 | 0 | 1 | LEAD | 553 | 4020 | | FD | 1220000 | ug/kg |
| EL3-06 | 0 | 1 | MAGNESIUM | 6730 | 40200 | | REG | 434000 | ug/kg |
| EL3-06 | 0 | 1 | MAGNESIUM | 6740 | 40200 | | FD | 412000 | ug/kg |
| EL3-06 | 0 | 1 | MANGANESE | 4670 | 7540 | J | REG | 95200 | ug/kg |
| EL3-06 | 0 | 1 | MANGANESE | 4680 | 7540 | J | FD | 111000 | ug/kg |
| EL3-06 | 0 | 1 | MERCURY | 3.09 | 10.3 | | FD | 58.4 | ug/kg |
| EL3-06 | 0 | 1 | MERCURY | 3.03 | 10.1 | | REG | 57.1 | ug/kg |
| EL3-06 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0714 | 1.02 | J | FD | 0.296 | ug/kg |
| EL3-06 | 0 | 1 | NICKEL | 2010 | 10100 | | REG | 37000 | ug/kg |
| EL3-06 | 0 | 1 | NICKEL | 2010 | 10100 | J | FD | 8230 | ug/kg |
| EL3-06 | 0 | 1 | POTASSIUM | 5530 | 80400 | | REG | 82300 | ug/kg |
| EL3-06 | 0 | 1 | POTASSIUM | 5530 | 80500 | | FD | 98600 | ug/kg |
| EL3-06 | 0 | 1 | SILVER | 805 | 4020 | J | FD | 1430 | ug/kg |
| EL3-06 | 0 | 1 | SODIUM | 68100 | 221000 | J | REG | 76600 | ug/kg |
| EL3-06 | 0 | 1 | TOLUENE | 0.184 | 1.02 | | FD | 2.24 | ug/kg |
| EL3-06 | 0 | 1 | TOLUENE | 0.178 | 0.991 | | REG | 1.47 | ug/kg |
| EL3-06 | 0 | 1 | VANADIUM | 704 | 4020 | | REG | 7320 | ug/kg |
| EL3-06 | 0 | 1 | VANADIUM | 704 | 4020 | | FD | 10400 | ug/kg |
| EL3-06 | 0 | 1 | XYLENES | 0.173 | 1.02 | J | FD | 0.449 | ug/kg |
| EL3-06 | 0 | 1 | XYLENES | 0.168 | 0.991 | J | REG | 0.198 | ug/kg |
| EL3-06 | 0 | 1 | ZINC | 1460 | 10100 | J | REG | 144000 | ug/kg |
| EL3-06 | 0 | 1 | ZINC | 1460 | 10100 | J | FD | 184000 | ug/kg |
| EL3-06 | 1 | 4 | ALUMINUM | 3740 | 21100 | | REG | 5790000 | ug/kg |
| EL3-06 | 1 | 4 | ANTIMONY | 790 | 10500 | | REG | 14400 | ug/kg |
| EL3-06 | 1 | 4 | AROCLOR 1254 | 15.4 | 71.8 | J | REG | 414 | ug/kg |
| EL3-06 | 1 | 4 | AROCLOR 1260 | 15.8 | 71.8 | J | REG | 141 | ug/kg |
| EL3-06 | 1 | 4 | ARSENIC | 790 | 4210 | | REG | 8680 | ug/kg |
| EL3-06 | 1 | 4 | BARIUM | 1000 | 4210 | J | REG | 37700 | ug/kg |
| EL3-06 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 579 | 1800 | | REG | 37100 | ug/kg |
| EL3-06 | 1 | 4 | CADMIUM | 316 | 6320 | | REG | 11900 | ug/kg |
| EL3-06 | 1 | 4 | CALCIUM | 2950 | 63200 | | REG | 13600000 | ug/kg |
| EL3-06 | 1 | 4 | CHROMIUM | 2160 | 4210 | J | REG | 72300 | ug/kg |
| EL3-06 | 1 | 4 | COBALT | 842 | 4210 | J | REG | 2140 | ug/kg |
| EL3-06 | 1 | 4 | COPPER | 737 | 8420 | | REG | 3890000 | ug/kg |
| EL3-06 | 1 | 4 | IRON | 8840 | 21100 | | REG | 26200000 | ug/kg |
| EL3-06 | 1 | 4 | LEAD | 579 | 4210 | | REG | 102000 | ug/kg |
| EL3-06 | 1 | 4 | MAGNESIUM | 7050 | 42100 | | REG | 749000 | ug/kg |
| EL3-06 | 1 | 4 | MANGANESE | 4900 | 7900 | J | REG | 144000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-06 | 1 | 4 | MERCURY | 3.16 | 10.5 | | REG | 156 | ug/kg |
| EL3-06 | 1 | 4 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0744 | 1.06 | J | REG | 0.425 | ug/kg |
| EL3-06 | 1 | 4 | NICKEL | 2110 | 10500 | | REG | 39500 | ug/kg |
| EL3-06 | 1 | 4 | POTASSIUM | 5790 | 84200 | | REG | 105000 | ug/kg |
| EL3-06 | 1 | 4 | PYRENE | 28 | 180 | J | REG | 28.4 | ug/kg |
| EL3-06 | 1 | 4 | SODIUM | 71300 | 232000 | J | REG | 76200 | ug/kg |
| EL3-06 | 1 | 4 | TOLUENE | 0.191 | 1.06 | J | REG | 0.839 | ug/kg |
| EL3-06 | 1 | 4 | VANADIUM | 737 | 4210 | | REG | 24600 | ug/kg |
| EL3-06 | 1 | 4 | ZINC | 1530 | 10500 | J | REG | 410000 | ug/kg |
| EL3-06 | 4 | 8 | 1,1-DICHLOROETHYLENE | 0.277 | 1.15 | | REG | 2.79 | ug/kg |
| EL3-06 | 4 | 8 | ALUMINUM | 3810 | 21500 | | REG | 5540000 | ug/kg |
| EL3-06 | 4 | 8 | ARSENIC | 804 | 4290 | J | REG | 2910 | ug/kg |
| EL3-06 | 4 | 8 | BARIUM | 1020 | 4290 | J | REG | 1750 | ug/kg |
| EL3-06 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.1 | 186 | | REG | 389 | ug/kg |
| EL3-06 | 4 | 8 | CALCIUM | 3000 | 64400 | | REG | 300000 | ug/kg |
| EL3-06 | 4 | 8 | CHROMIUM | 2200 | 4290 | J | REG | 9470 | ug/kg |
| EL3-06 | 4 | 8 | COPPER | 751 | 8580 | | REG | 31700 | ug/kg |
| EL3-06 | 4 | 8 | IRON | 9010 | 21500 | | REG | 10100000 | ug/kg |
| EL3-06 | 4 | 8 | LEAD | 590 | 4290 | J | REG | 3420 | ug/kg |
| EL3-06 | 4 | 8 | MAGNESIUM | 7190 | 42900 | J | REG | 19900 | ug/kg |
| EL3-06 | 4 | 8 | MANGANESE | 4990 | 8040 | J | REG | 7530 | ug/kg |
| EL3-06 | 4 | 8 | MERCURY | 3.31 | 11 | | REG | 15.1 | ug/kg |
| EL3-06 | 4 | 8 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0807 | 1.15 | J | REG | 0.208 | ug/kg |
| EL3-06 | 4 | 8 | POTASSIUM | 5900 | 85800 | J | REG | 23300 | ug/kg |
| EL3-06 | 4 | 8 | VANADIUM | 751 | 4290 | | REG | 20000 | ug/kg |
| EL3-06 | 4 | 8 | ZINC | 1560 | 10700 | J | REG | 21300 | ug/kg |
| EL3-06 | 8 | 12 | 1,1-DICHLOROETHYLENE | 0.257 | 1.07 | J | REG | 0.354 | ug/kg |
| EL3-06 | 8 | 12 | ALUMINUM | 3790 | 21300 | | REG | 4100000 | ug/kg |
| EL3-06 | 8 | 12 | BARIUM | 1010 | 4270 | J | REG | 1690 | ug/kg |
| EL3-06 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.3 | 187 | J | REG | 166 | ug/kg |
| EL3-06 | 8 | 12 | CALCIUM | 2990 | 64000 | J | REG | 57600 | ug/kg |
| EL3-06 | 8 | 12 | CHROMIUM | 2190 | 4270 | J | REG | 6290 | ug/kg |
| EL3-06 | 8 | 12 | COPPER | 747 | 8540 | J | REG | 4310 | ug/kg |
| EL3-06 | 8 | 12 | IRON | 8970 | 21300 | | REG | 17000000 | ug/kg |
| EL3-06 | 8 | 12 | LEAD | 587 | 4270 | | REG | 7410 | ug/kg |
| EL3-06 | 8 | 12 | MAGNESIUM | 7150 | 42700 | J | REG | 28200 | ug/kg |
| EL3-06 | 8 | 12 | MANGANESE | 4960 | 8010 | J | REG | 36900 | ug/kg |
| EL3-06 | 8 | 12 | MERCURY | 3.3 | 11 | J | REG | 8.05 | ug/kg |
| EL3-06 | 8 | 12 | POTASSIUM | 5870 | 85400 | J | REG | 50900 | ug/kg |
| EL3-06 | 8 | 12 | VANADIUM | 747 | 4270 | | REG | 36400 | ug/kg |
| EL3-06 | 8 | 12 | ZINC | 1550 | 10700 | J | REG | 6640 | ug/kg |
| EL3-07 | 0 | 1 | ALUMINUM | 337 | 1900 | | REG | 3840000 | ug/kg |
| EL3-07 | 0 | 1 | ANTHRACENE | 32.6 | 171 | J | REG | 42.3 | ug/kg |
| EL3-07 | 0 | 1 | ANTIMONY | 71.3 | 950 | J | REG | 849 | ug/kg |
| EL3-07 | 0 | 1 | AROCLOR 1254 | 7.32 | 34.1 | J | REG | 183 | ug/kg |
| EL3-07 | 0 | 1 | AROCLOR 1260 | 7.49 | 34.1 | J | REG | 80.9 | ug/kg |
| EL3-07 | 0 | 1 | ARSENIC | 71.3 | 380 | | REG | 1130 | ug/kg |
| EL3-07 | 0 | 1 | BARIUM | 90.3 | 380 | J | REG | 22900 | ug/kg |
| EL3-07 | 0 | 1 | BENZO(G,H,I)PERYLENE | 30.7 | 171 | J | REG | 109 | ug/kg |
| EL3-07 | 0 | 1 | BENZO[A]ANTHRACENE | 27.6 | 171 | J | REG | 147 | ug/kg |
| EL3-07 | 0 | 1 | BENZO[A]PYRENE | 33 | 171 | | REG | 182 | ug/kg |
| EL3-07 | 0 | 1 | BENZO[B]FLUORANTHENE | 38.9 | 171 | | REG | 260 | ug/kg |
| EL3-07 | 0 | 1 | BENZO[K]FLUORANTHENE | 33.8 | 171 | J | REG | 101 | ug/kg |
| EL3-07 | 0 | 1 | CADMIUM | 28.5 | 570 | J | REG | 113 | ug/kg |
| EL3-07 | 0 | 1 | CALCIUM | 266 | 5700 | | REG | 273000 | ug/kg |
| EL3-07 | 0 | 1 | CHROMIUM | 195 | 380 | | REG | 5170 | ug/kg |
| EL3-07 | 0 | 1 | CHRYSENE | 28.2 | 171 | J | REG | 132 | ug/kg |
| EL3-07 | 0 | 1 | COBALT | 76 | 380 | | REG | 568 | ug/kg |
| EL3-07 | 0 | 1 | COPPER | 66.5 | 760 | J | REG | 34400 | ug/kg |
| EL3-07 | 0 | 1 | FLUORANTHENE | 29.1 | 171 | | REG | 279 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-07 | 0 | 1 | INDENO[1,2,3-CD]PYRENE | 30.8 | 171 | J | REG | 98.6 | ug/kg |
| EL3-07 | 0 | 1 | IRON | 798 | 1900 | | REG | 3220000 | ug/kg |
| EL3-07 | 0 | 1 | LEAD | 52.3 | 380 | J | REG | 13800 | ug/kg |
| EL3-07 | 0 | 1 | MAGNESIUM | 637 | 3800 | | REG | 109000 | ug/kg |
| EL3-07 | 0 | 1 | MANGANESE | 442 | 713 | J | REG | 69300 | ug/kg |
| EL3-07 | 0 | 1 | MERCURY | 2.87 | 9.57 | J | REG | 14.7 | ug/kg |
| EL3-07 | 0 | 1 | NICKEL | 190 | 950 | | REG | 2180 | ug/kg |
| EL3-07 | 0 | 1 | PHENANTHRENE | 26.7 | 171 | J | REG | 160 | ug/kg |
| EL3-07 | 0 | 1 | POTASSIUM | 523 | 7600 | | REG | 51900 | ug/kg |
| EL3-07 | 0 | 1 | PYRENE | 26.6 | 171 | | REG | 217 | ug/kg |
| EL3-07 | 0 | 1 | VANADIUM | 66.5 | 380 | | REG | 5850 | ug/kg |
| EL3-07 | 0 | 1 | ZINC | 138 | 950 | | REG | 112000 | ug/kg |
| EL3-07 | 1 | 4 | ALUMINUM | 358 | 2010 | | REG | 4930000 | ug/kg |
| EL3-07 | 1 | 4 | ANTHRACENE | 32.8 | 172 | J | REG | 69.4 | ug/kg |
| EL3-07 | 1 | 4 | ANTIMONY | 75.5 | 1010 | J | REG | 30600 | ug/kg |
| EL3-07 | 1 | 4 | AROCLOR 1254 | 7.37 | 34.3 | J | REG | 116 | ug/kg |
| EL3-07 | 1 | 4 | AROCLOR 1260 | 7.54 | 34.3 | J | REG | 78.5 | ug/kg |
| EL3-07 | 1 | 4 | ARSENIC | 75.5 | 403 | | REG | 3190 | ug/kg |
| EL3-07 | 1 | 4 | BARIUM | 95.7 | 403 | J | REG | 35900 | ug/kg |
| EL3-07 | 1 | 4 | BENZENE | 0.0712 | 1.02 | J | REG | 0.947 | ug/kg |
| EL3-07 | 1 | 4 | BENZO(G,H,I)PERYLENE | 30.9 | 172 | J | REG | 137 | ug/kg |
| EL3-07 | 1 | 4 | BENZO[A]ANTHRACENE | 27.7 | 172 | | REG | 272 | ug/kg |
| EL3-07 | 1 | 4 | BENZO[A]PYRENE | 33.2 | 172 | | REG | 257 | ug/kg |
| EL3-07 | 1 | 4 | BENZO[B]FLUORANTHENE | 39.2 | 172 | | REG | 411 | ug/kg |
| EL3-07 | 1 | 4 | BENZO[K]FLUORANTHENE | 34 | 172 | J | REG | 128 | ug/kg |
| EL3-07 | 1 | 4 | CADMIUM | 30.2 | 604 | | REG | 5960 | ug/kg |
| EL3-07 | 1 | 4 | CALCIUM | 282 | 6040 | | REG | 15000000 | ug/kg |
| EL3-07 | 1 | 4 | CARBAZOLE | 37.9 | 172 | J | REG | 54.6 | ug/kg |
| EL3-07 | 1 | 4 | CHROMIUM | 206 | 403 | | REG | 80100 | ug/kg |
| EL3-07 | 1 | 4 | CHRYSENE | 28.4 | 172 | | REG | 247 | ug/kg |
| EL3-07 | 1 | 4 | COBALT | 80.6 | 403 | | REG | 1660 | ug/kg |
| EL3-07 | 1 | 4 | COPPER | 70.5 | 806 | J | REG | 54800 | ug/kg |
| EL3-07 | 1 | 4 | DIBENZ[AH]ANTHRACENE | 33.8 | 172 | J | REG | 42.2 | ug/kg |
| EL3-07 | 1 | 4 | FLUORANTHENE | 29.3 | 172 | | REG | 458 | ug/kg |
| EL3-07 | 1 | 4 | INDENO[1,2,3-CD]PYRENE | 31 | 172 | J | REG | 129 | ug/kg |
| EL3-07 | 1 | 4 | IRON | 846 | 2010 | | REG | 4920000 | ug/kg |
| EL3-07 | 1 | 4 | LEAD | 55.4 | 403 | J | REG | 31200 | ug/kg |
| EL3-07 | 1 | 4 | MAGNESIUM | 675 | 4030 | | REG | 1410000 | ug/kg |
| EL3-07 | 1 | 4 | MANGANESE | 468 | 755 | J | REG | 116000 | ug/kg |
| EL3-07 | 1 | 4 | MERCURY | 2.91 | 9.69 | J | REG | 45.2 | ug/kg |
| EL3-07 | 1 | 4 | NICKEL | 201 | 1010 | | REG | 42400 | ug/kg |
| EL3-07 | 1 | 4 | PHENANTHRENE | 26.9 | 172 | | REG | 289 | ug/kg |
| EL3-07 | 1 | 4 | POTASSIUM | 554 | 8060 | | REG | 121000 | ug/kg |
| EL3-07 | 1 | 4 | PYRENE | 26.8 | 172 | | REG | 399 | ug/kg |
| EL3-07 | 1 | 4 | SODIUM | 6820 | 22200 | J | REG | 102000 | ug/kg |
| EL3-07 | 1 | 4 | VANADIUM | 70.5 | 403 | | REG | 8900 | ug/kg |
| EL3-07 | 1 | 4 | XYLENES | 0.173 | 1.02 | J | REG | 0.712 | ug/kg |
| EL3-07 | 1 | 4 | ZINC | 146 | 1010 | | REG | 88200 | ug/kg |
| EL3-07 | 4 | 8 | ALUMINUM | 3990 | 22500 | | REG | 9920000 | ug/kg |
| EL3-07 | 4 | 8 | ANTIMONY | 843 | 11200 | J | REG | 24100 | ug/kg |
| EL3-07 | 4 | 8 | AROCLOR 1254 | 8.2 | 38.2 | J | REG | 156 | ug/kg |
| EL3-07 | 4 | 8 | AROCLOR 1260 | 8.39 | 38.2 | J | REG | 237 | ug/kg |
| EL3-07 | 4 | 8 | ARSENIC | 843 | 4490 | | REG | 5500 | ug/kg |
| EL3-07 | 4 | 8 | BARIUM | 1070 | 4490 | J | REG | 72800 | ug/kg |
| EL3-07 | 4 | 8 | BENZO[A]ANTHRACENE | 30.9 | 191 | J | REG | 47.4 | ug/kg |
| EL3-07 | 4 | 8 | BENZO[A]PYRENE | 36.9 | 191 | J | REG | 47.4 | ug/kg |
| EL3-07 | 4 | 8 | BENZO[B]FLUORANTHENE | 43.6 | 191 | J | REG | 64.2 | ug/kg |
| EL3-07 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 61.5 | 191 | | REG | 468 | ug/kg |
| EL3-07 | 4 | 8 | CALCIUM | 3150 | 67400 | | REG | 17100000 | ug/kg |
| EL3-07 | 4 | 8 | CHROMIUM | 2300 | 4490 | | REG | 36700 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-07 | 4 | 8 | CHRYSENE | 31.6 | 191 | J | REG | 38.2 | ug/kg |
| EL3-07 | 4 | 8 | COBALT | 899 | 4490 | J | REG | 1880 | ug/kg |
| EL3-07 | 4 | 8 | COPPER | 786 | 8990 | J | REG | 8370000 | ug/kg |
| EL3-07 | 4 | 8 | FLUORANTHENE | 32.6 | 191 | J | REG | 57.7 | ug/kg |
| EL3-07 | 4 | 8 | IRON | 9440 | 22500 | | REG | 25300000 | ug/kg |
| EL3-07 | 4 | 8 | LEAD | 618 | 4490 | J | REG | 39600 | ug/kg |
| EL3-07 | 4 | 8 | MAGNESIUM | 7530 | 44900 | | REG | 1260000 | ug/kg |
| EL3-07 | 4 | 8 | MANGANESE | 5220 | 8430 | J | REG | 116000 | ug/kg |
| EL3-07 | 4 | 8 | MERCURY | 3.34 | 11.1 | J | REG | 32.8 | ug/kg |
| EL3-07 | 4 | 8 | NICKEL | 2250 | 11200 | | REG | 17400 | ug/kg |
| EL3-07 | 4 | 8 | POTASSIUM | 6180 | 89900 | | REG | 216000 | ug/kg |
| EL3-07 | 4 | 8 | PYRENE | 29.8 | 191 | J | REG | 49.7 | ug/kg |
| EL3-07 | 4 | 8 | SODIUM | 76100 | 247000 | J | REG | 111000 | ug/kg |
| EL3-07 | 4 | 8 | VANADIUM | 786 | 4490 | | REG | 49300 | ug/kg |
| EL3-07 | 4 | 8 | ZINC | 1630 | 11200 | | REG | 166000 | ug/kg |
| EL3-08 | 0 | 1 | ALUMINUM | 337 | 1900 | | REG | 4220000 | ug/kg |
| EL3-08 | 0 | 1 | ANTIMONY | 71.2 | 949 | J | REG | 1710 | ug/kg |
| EL3-08 | 0 | 1 | AROCLOR 1254 | 7.29 | 34 | J | REG | 47.7 | ug/kg |
| EL3-08 | 0 | 1 | AROCLOR 1260 | 7.46 | 34 | J | REG | 31.5 | ug/kg |
| EL3-08 | 0 | 1 | ARSENIC | 71.2 | 380 | | REG | 783 | ug/kg |
| EL3-08 | 0 | 1 | BARIUM | 90.2 | 380 | J | REG | 19600 | ug/kg |
| EL3-08 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 54.7 | 170 | | REG | 222 | ug/kg |
| EL3-08 | 0 | 1 | CALCIUM | 266 | 5700 | | REG | 1650000 | ug/kg |
| EL3-08 | 0 | 1 | CHROMIUM | 195 | 380 | | REG | 4430 | ug/kg |
| EL3-08 | 0 | 1 | COBALT | 75.9 | 380 | | REG | 491 | ug/kg |
| EL3-08 | 0 | 1 | COPPER | 66.4 | 759 | J | REG | 8360 | ug/kg |
| EL3-08 | 0 | 1 | IRON | 797 | 1900 | | REG | 3030000 | ug/kg |
| EL3-08 | 0 | 1 | LEAD | 52.2 | 380 | J | REG | 6630 | ug/kg |
| EL3-08 | 0 | 1 | MAGNESIUM | 636 | 3800 | | REG | 166000 | ug/kg |
| EL3-08 | 0 | 1 | MANGANESE | 441 | 712 | J | REG | 49100 | ug/kg |
| EL3-08 | 0 | 1 | MERCURY | 3.05 | 10.2 | J | REG | 17.3 | ug/kg |
| EL3-08 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0714 | 1.02 | J | REG | 0.214 | ug/kg |
| EL3-08 | 0 | 1 | NICKEL | 190 | 949 | | REG | 1790 | ug/kg |
| EL3-08 | 0 | 1 | POTASSIUM | 522 | 7590 | | REG | 68800 | ug/kg |
| EL3-08 | 0 | 1 | TOLUENE | 0.183 | 1.02 | J | REG | 0.285 | ug/kg |
| EL3-08 | 0 | 1 | VANADIUM | 66.4 | 380 | | REG | 6510 | ug/kg |
| EL3-08 | 0 | 1 | ZINC | 138 | 949 | | REG | 13200 | ug/kg |
| EL3-08 | 1 | 4 | ACETONE | 0.713 | 10 | J | REG | 9.85 | ug/kg |
| EL3-08 | 1 | 4 | ALUMINUM | 346 | 1950 | | REG | 3760000 | ug/kg |
| EL3-08 | 1 | 4 | ANTIMONY | 73.1 | 974 | | REG | 2600 | ug/kg |
| EL3-08 | 1 | 4 | AROCLOR 1254 | 7.43 | 34.6 | | REG | 38 | ug/kg |
| EL3-08 | 1 | 4 | ARSENIC | 73.1 | 390 | | REG | 1910 | ug/kg |
| EL3-08 | 1 | 4 | BARIUM | 92.6 | 390 | J | REG | 20600 | ug/kg |
| EL3-08 | 1 | 4 | BENZENE | 0.0703 | 1 | J | REG | 0.161 | ug/kg |
| EL3-08 | 1 | 4 | CADMIUM | 29.2 | 585 | J | REG | 73.5 | ug/kg |
| EL3-08 | 1 | 4 | CALCIUM | 273 | 5850 | | REG | 2950000 | ug/kg |
| EL3-08 | 1 | 4 | CHROMIUM | 200 | 390 | J | REG | 10400 | ug/kg |
| EL3-08 | 1 | 4 | COBALT | 77.9 | 390 | | REG | 939 | ug/kg |
| EL3-08 | 1 | 4 | COPPER | 68.2 | 779 | J | REG | 101000 | ug/kg |
| EL3-08 | 1 | 4 | IRON | 818 | 1950 | | REG | 5320000 | ug/kg |
| EL3-08 | 1 | 4 | LEAD | 53.6 | 390 | | REG | 13000 | ug/kg |
| EL3-08 | 1 | 4 | MAGNESIUM | 653 | 3900 | | REG | 231000 | ug/kg |
| EL3-08 | 1 | 4 | MANGANESE | 453 | 731 | J | REG | 79600 | ug/kg |
| EL3-08 | 1 | 4 | MERCURY | 3.07 | 10.2 | | REG | 10.7 | ug/kg |
| EL3-08 | 1 | 4 | METHYL ETHYL KETONE | 0.392 | 5.02 | J | REG | 1.37 | ug/kg |
| EL3-08 | 1 | 4 | NICKEL | 195 | 974 | J | REG | 6260 | ug/kg |
| EL3-08 | 1 | 4 | POTASSIUM | 536 | 7790 | | REG | 57100 | ug/kg |
| EL3-08 | 1 | 4 | TOLUENE | 0.181 | 1 | J | REG | 0.462 | ug/kg |
| EL3-08 | 1 | 4 | VANADIUM | 68.2 | 390 | | REG | 7560 | ug/kg |
| EL3-08 | 1 | 4 | ZINC | 141 | 974 | J | REG | 26000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-08 | 4 | 8 | ACETONE | 0.784 | 11 | J | REG | 1.92 | ug/kg |
| EL3-08 | 4 | 8 | ALUMINUM | 4010 | 22600 | | REG | 11700000 | ug/kg |
| EL3-08 | 4 | 8 | ANTIMONY | 847 | 11300 | J | REG | 7560 | ug/kg |
| EL3-08 | 4 | 8 | AROCLOR 1254 | 8.15 | 38 | | REG | 114 | ug/kg |
| EL3-08 | 4 | 8 | ARSENIC | 847 | 4520 | | REG | 6340 | ug/kg |
| EL3-08 | 4 | 8 | BARIUM | 1070 | 4520 | J | REG | 14900 | ug/kg |
| EL3-08 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 61.2 | 190 | J | REG | 68 | ug/kg |
| EL3-08 | 4 | 8 | CALCIUM | 3160 | 67800 | | REG | 4990000 | ug/kg |
| EL3-08 | 4 | 8 | CHROMIUM | 2310 | 4520 | J | REG | 26900 | ug/kg |
| EL3-08 | 4 | 8 | COPPER | 790 | 9030 | J | REG | 50200 | ug/kg |
| EL3-08 | 4 | 8 | IRON | 9490 | 22600 | | REG | 27300000 | ug/kg |
| EL3-08 | 4 | 8 | LEAD | 621 | 4520 | | REG | 11700 | ug/kg |
| EL3-08 | 4 | 8 | MAGNESIUM | 7570 | 45200 | | REG | 703000 | ug/kg |
| EL3-08 | 4 | 8 | MANGANESE | 5250 | 8470 | J | REG | 46700 | ug/kg |
| EL3-08 | 4 | 8 | MERCURY | 3.42 | 11.4 | | REG | 17.3 | ug/kg |
| EL3-08 | 4 | 8 | NICKEL | 2260 | 11300 | J | REG | 5990 | ug/kg |
| EL3-08 | 4 | 8 | POTASSIUM | 6210 | 90300 | | REG | 115000 | ug/kg |
| EL3-08 | 4 | 8 | TOLUENE | 0.199 | 1.1 | J | REG | 0.298 | ug/kg |
| EL3-08 | 4 | 8 | VANADIUM | 790 | 4520 | | REG | 58600 | ug/kg |
| EL3-08 | 4 | 8 | ZINC | 1640 | 11300 | J | REG | 85400 | ug/kg |
| EL3-09 | 0 | 1 | ACETONE | 0.726 | 10.2 | J | REG | 1.71 | ug/kg |
| EL3-09 | 0 | 1 | ALUMINUM | 3540 | 19900 | | REG | 6320000 | ug/kg |
| EL3-09 | 0 | 1 | AROCLOR 1254 | 7.57 | 35.3 | | REG | 113 | ug/kg |
| EL3-09 | 0 | 1 | BARIUM | 947 | 3990 | J | REG | 16400 | ug/kg |
| EL3-09 | 0 | 1 | BENZALDEHYDE | 39 | 176 | | REG | 222 | ug/kg |
| EL3-09 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 56.9 | 176 | | REG | 570 | ug/kg |
| EL3-09 | 0 | 1 | CALCIUM | 2790 | 59800 | | REG | 629000 | ug/kg |
| EL3-09 | 0 | 1 | CHROMIUM | 2040 | 3990 | J | REG | 5530 | ug/kg |
| EL3-09 | 0 | 1 | COPPER | 698 | 7970 | J | REG | 8150 | ug/kg |
| EL3-09 | 0 | 1 | CYANIDE | 256 | 1050 | J | REG | 1220 | ug/kg |
| EL3-09 | 0 | 1 | IRON | 8370 | 19900 | | REG | 7140000 | ug/kg |
| EL3-09 | 0 | 1 | LEAD | 548 | 3990 | | REG | 7170 | ug/kg |
| EL3-09 | 0 | 1 | MAGNESIUM | 6680 | 39900 | | REG | 74900 | ug/kg |
| EL3-09 | 0 | 1 | MANGANESE | 4630 | 7470 | J | REG | 83800 | ug/kg |
| EL3-09 | 0 | 1 | MERCURY | 3.1 | 10.3 | | REG | 35.8 | ug/kg |
| EL3-09 | 0 | 1 | POTASSIUM | 5480 | 79700 | J | REG | 64100 | ug/kg |
| EL3-09 | 0 | 1 | STYRENE | 0.112 | 1.02 | J | REG | 0.368 | ug/kg |
| EL3-09 | 0 | 1 | TOLUENE | 0.184 | 1.02 | J | REG | 0.256 | ug/kg |
| EL3-09 | 0 | 1 | VANADIUM | 698 | 3990 | | REG | 15200 | ug/kg |
| EL3-09 | 0 | 1 | ZINC | 1450 | 9970 | J | REG | 9020 | ug/kg |
| EL3-09 | 1 | 4 | ACETONE | 0.748 | 10.5 | J | REG | 1.17 | ug/kg |
| EL3-09 | 1 | 4 | ALUMINUM | 3790 | 21300 | | REG | 8500000 | ug/kg |
| EL3-09 | 1 | 4 | AROCLOR 1254 | 7.65 | 35.6 | | REG | 109 | ug/kg |
| EL3-09 | 1 | 4 | BARIUM | 1010 | 4270 | J | REG | 16200 | ug/kg |
| EL3-09 | 1 | 4 | BENZALDEHYDE | 39.4 | 178 | J | REG | 52 | ug/kg |
| EL3-09 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 57.4 | 178 | | REG | 344 | ug/kg |
| EL3-09 | 1 | 4 | CALCIUM | 2990 | 64000 | | REG | 539000 | ug/kg |
| EL3-09 | 1 | 4 | CHROMIUM | 2190 | 4270 | J | REG | 8970 | ug/kg |
| EL3-09 | 1 | 4 | COPPER | 747 | 8540 | J | REG | 16700 | ug/kg |
| EL3-09 | 1 | 4 | IRON | 8960 | 21300 | | REG | 10400000 | ug/kg |
| EL3-09 | 1 | 4 | LEAD | 587 | 4270 | | REG | 9170 | ug/kg |
| EL3-09 | 1 | 4 | MAGNESIUM | 7150 | 42700 | | REG | 106000 | ug/kg |
| EL3-09 | 1 | 4 | MANGANESE | 4960 | 8000 | J | REG | 82900 | ug/kg |
| EL3-09 | 1 | 4 | MERCURY | 3.14 | 10.5 | | REG | 27.3 | ug/kg |
| EL3-09 | 1 | 4 | POTASSIUM | 5870 | 85400 | J | REG | 72300 | ug/kg |
| EL3-09 | 1 | 4 | TOLUENE | 0.19 | 1.05 | J | REG | 0.211 | ug/kg |
| EL3-09 | 1 | 4 | VANADIUM | 747 | 4270 | | REG | 22200 | ug/kg |
| EL3-09 | 1 | 4 | ZINC | 1550 | 10700 | J | REG | 16800 | ug/kg |
| EL3-09 | 4 | 8 | ACETONE | 0.76 | 10.7 | J | REG | 1.32 | ug/kg |
| EL3-09 | 4 | 8 | ALUMINUM | 3610 | 20300 | | REG | 5990000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-09 | 4 | 8 | BARIUM | 966 | 4070 | J | REG | 3020 | ug/kg |
| EL3-09 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 59.3 | 184 | | REG | 360 | ug/kg |
| EL3-09 | 4 | 8 | CALCIUM | 2850 | 61000 | | REG | 377000 | ug/kg |
| EL3-09 | 4 | 8 | CHROMIUM | 2080 | 4070 | J | REG | 10000 | ug/kg |
| EL3-09 | 4 | 8 | IRON | 8540 | 20300 | | REG | 11800000 | ug/kg |
| EL3-09 | 4 | 8 | LEAD | 559 | 4070 | J | REG | 3250 | ug/kg |
| EL3-09 | 4 | 8 | MAGNESIUM | 6810 | 40700 | J | REG | 39800 | ug/kg |
| EL3-09 | 4 | 8 | MANGANESE | 4730 | 7620 | J | REG | 13600 | ug/kg |
| EL3-09 | 4 | 8 | POTASSIUM | 5590 | 81300 | J | REG | 41100 | ug/kg |
| EL3-09 | 4 | 8 | TOLUENE | 0.193 | 1.07 | J | REG | 0.257 | ug/kg |
| EL3-09 | 4 | 8 | VANADIUM | 712 | 4070 | | REG | 27600 | ug/kg |
| EL3-09 | 4 | 8 | ZINC | 1470 | 10200 | J | REG | 8160 | ug/kg |
| EL3-10 | 0 | 1 | 1,1-DICHLOROETHYLENE | 0.237 | 0.989 | J | REG | 0.514 | ug/kg |
| EL3-10 | 0 | 1 | ACETONE | 0.702 | 9.89 | J | REG | 4.57 | ug/kg |
| EL3-10 | 0 | 1 | ALUMINUM | 352 | 1980 | | REG | 4130000 | ug/kg |
| EL3-10 | 0 | 1 | AROCLOR 1254 | 7.4 | 34.5 | J | REG | 12 | ug/kg |
| EL3-10 | 0 | 1 | ARSENIC | 74.3 | 396 | | REG | 821 | ug/kg |
| EL3-10 | 0 | 1 | BARIUM | 94.1 | 396 | J | REG | 19400 | ug/kg |
| EL3-10 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.6 | 172 | J | REG | 106 | ug/kg |
| EL3-10 | 0 | 1 | CALCIUM | 277 | 5940 | | REG | 209000 | ug/kg |
| EL3-10 | 0 | 1 | CHROMIUM | 203 | 396 | J | REG | 3930 | ug/kg |
| EL3-10 | 0 | 1 | COBALT | 79.2 | 396 | J | REG | 338 | ug/kg |
| EL3-10 | 0 | 1 | COPPER | 69.3 | 792 | J | REG | 25600 | ug/kg |
| EL3-10 | 0 | 1 | IRON | 832 | 1980 | | REG | 3030000 | ug/kg |
| EL3-10 | 0 | 1 | LEAD | 54.5 | 396 | | REG | 4140 | ug/kg |
| EL3-10 | 0 | 1 | MAGNESIUM | 664 | 3960 | | REG | 76300 | ug/kg |
| EL3-10 | 0 | 1 | MANGANESE | 461 | 743 | J | REG | 55900 | ug/kg |
| EL3-10 | 0 | 1 | MERCURY | 2.96 | 9.87 | J | REG | 4.82 | ug/kg |
| EL3-10 | 0 | 1 | NICKEL | 198 | 990 | J | REG | 1290 | ug/kg |
| EL3-10 | 0 | 1 | POTASSIUM | 545 | 7920 | | REG | 49300 | ug/kg |
| EL3-10 | 0 | 1 | TOLUENE | 0.178 | 0.989 | J | REG | 0.326 | ug/kg |
| EL3-10 | 0 | 1 | VANADIUM | 69.3 | 396 | | REG | 6790 | ug/kg |
| EL3-10 | 0 | 1 | ZINC | 144 | 990 | J | REG | 4780 | ug/kg |
| EL3-10 | 1 | 4 | 1,1-DICHLOROETHYLENE | 0.252 | 1.05 | J | REG | 0.526 | ug/kg |
| EL3-10 | 1 | 4 | ACETONE | 0.747 | 10.5 | J | REG | 1.45 | ug/kg |
| EL3-10 | 1 | 4 | ALUMINUM | 353 | 1990 | | REG | 4560000 | ug/kg |
| EL3-10 | 1 | 4 | ANTIMONY | 74.6 | 995 | J | REG | 611 | ug/kg |
| EL3-10 | 1 | 4 | AROCLOR 1254 | 7.45 | 34.7 | J | REG | 9.82 | ug/kg |
| EL3-10 | 1 | 4 | ARSENIC | 74.6 | 398 | | REG | 841 | ug/kg |
| EL3-10 | 1 | 4 | BARIUM | 94.5 | 398 | J | REG | 21600 | ug/kg |
| EL3-10 | 1 | 4 | CALCIUM | 279 | 5970 | | REG | 208000 | ug/kg |
| EL3-10 | 1 | 4 | CHROMIUM | 204 | 398 | J | REG | 4130 | ug/kg |
| EL3-10 | 1 | 4 | COBALT | 79.6 | 398 | | REG | 463 | ug/kg |
| EL3-10 | 1 | 4 | COPPER | 69.7 | 796 | J | REG | 1770 | ug/kg |
| EL3-10 | 1 | 4 | IRON | 836 | 1990 | | REG | 3280000 | ug/kg |
| EL3-10 | 1 | 4 | LEAD | 54.7 | 398 | | REG | 4560 | ug/kg |
| EL3-10 | 1 | 4 | MAGNESIUM | 667 | 3980 | | REG | 82900 | ug/kg |
| EL3-10 | 1 | 4 | MANGANESE | 463 | 746 | J | REG | 66700 | ug/kg |
| EL3-10 | 1 | 4 | MERCURY | 2.94 | 9.81 | J | REG | 4.95 | ug/kg |
| EL3-10 | 1 | 4 | NICKEL | 199 | 995 | J | REG | 1280 | ug/kg |
| EL3-10 | 1 | 4 | POTASSIUM | 547 | 7960 | | REG | 50300 | ug/kg |
| EL3-10 | 1 | 4 | TOLUENE | 0.189 | 1.05 | J | REG | 0.252 | ug/kg |
| EL3-10 | 1 | 4 | VANADIUM | 69.7 | 398 | | REG | 7130 | ug/kg |
| EL3-10 | 1 | 4 | ZINC | 144 | 995 | J | REG | 3360 | ug/kg |
| EL3-10 | 4 | 8 | ACETONE | 0.711 | 10 | J | REG | 1.57 | ug/kg |
| EL3-10 | 4 | 8 | ALUMINUM | 3450 | 19400 | | REG | 5540000 | ug/kg |
| EL3-10 | 4 | 8 | ANTIMONY | 729 | 9720 | J | REG | 6610 | ug/kg |
| EL3-10 | 4 | 8 | AROCLOR 1254 | 7.57 | 35.3 | J | REG | 180 | ug/kg |
| EL3-10 | 4 | 8 | AROCLOR 1260 | 7.75 | 35.3 | J | REG | 53.6 | ug/kg |
| EL3-10 | 4 | 8 | ARSENIC | 729 | 3890 | | REG | 13100 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-10 | 4 | 8 | BARIUM | 923 | 3890 | J | REG | 22200 | ug/kg |
| EL3-10 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 56.8 | 176 | J | REG | 118 | ug/kg |
| EL3-10 | 4 | 8 | CADMIUM | 292 | 5830 | J | REG | 622 | ug/kg |
| EL3-10 | 4 | 8 | CALCIUM | 2720 | 58300 | | REG | 783000 | ug/kg |
| EL3-10 | 4 | 8 | CHROMIUM | 1990 | 3890 | J | REG | 15400 | ug/kg |
| EL3-10 | 4 | 8 | COBALT | 778 | 3890 | J | REG | 1810 | ug/kg |
| EL3-10 | 4 | 8 | COPPER | 680 | 7780 | J | REG | 65100 | ug/kg |
| EL3-10 | 4 | 8 | IRON | 8170 | 19400 | | REG | 31700000 | ug/kg |
| EL3-10 | 4 | 8 | LEAD | 535 | 3890 | | REG | 136000 | ug/kg |
| EL3-10 | 4 | 8 | MAGNESIUM | 6510 | 38900 | | REG | 150000 | ug/kg |
| EL3-10 | 4 | 8 | MANGANESE | 4520 | 7290 | J | REG | 115000 | ug/kg |
| EL3-10 | 4 | 8 | NICKEL | 1940 | 9720 | J | REG | 12700 | ug/kg |
| EL3-10 | 4 | 8 | POTASSIUM | 5350 | 77800 | | REG | 103000 | ug/kg |
| EL3-10 | 4 | 8 | SODIUM | 65800 | 214000 | J | REG | 235000 | ug/kg |
| EL3-10 | 4 | 8 | TOLUENE | 0.18 | 1 | J | REG | 0.271 | ug/kg |
| EL3-10 | 4 | 8 | VANADIUM | 680 | 3890 | | REG | 18300 | ug/kg |
| EL3-10 | 4 | 8 | ZINC | 1410 | 9720 | J | REG | 1120000 | ug/kg |
| EL3-10 | 8 | 12 | ACETONE | 0.756 | 10.7 | J | REG | 1.28 | ug/kg |
| EL3-10 | 8 | 12 | ALUMINUM | 3750 | 21100 | | REG | 8650000 | ug/kg |
| EL3-10 | 8 | 12 | AROCLOR 1254 | 7.91 | 36.9 | J | REG | 13.8 | ug/kg |
| EL3-10 | 8 | 12 | ARSENIC | 793 | 4230 | J | REG | 3270 | ug/kg |
| EL3-10 | 8 | 12 | BARIUM | 1000 | 4230 | J | REG | 4470 | ug/kg |
| EL3-10 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 59.4 | 184 | | REG | 244 | ug/kg |
| EL3-10 | 8 | 12 | CALCIUM | 2960 | 63400 | | REG | 1030000 | ug/kg |
| EL3-10 | 8 | 12 | CHROMIUM | 2170 | 4230 | J | REG | 20700 | ug/kg |
| EL3-10 | 8 | 12 | COPPER | 740 | 8460 | J | REG | 5560 | ug/kg |
| EL3-10 | 8 | 12 | IRON | 8880 | 21100 | | REG | 16100000 | ug/kg |
| EL3-10 | 8 | 12 | LEAD | 581 | 4230 | | REG | 6500 | ug/kg |
| EL3-10 | 8 | 12 | MAGNESIUM | 7080 | 42300 | | REG | 53300 | ug/kg |
| EL3-10 | 8 | 12 | MANGANESE | 4920 | 7930 | J | REG | 16100 | ug/kg |
| EL3-10 | 8 | 12 | POTASSIUM | 5810 | 84600 | | REG | 111000 | ug/kg |
| EL3-10 | 8 | 12 | SODIUM | 71600 | 233000 | J | REG | 107000 | ug/kg |
| EL3-10 | 8 | 12 | TOLUENE | 0.192 | 1.07 | J | REG | 0.256 | ug/kg |
| EL3-10 | 8 | 12 | VANADIUM | 740 | 4230 | | REG | 37200 | ug/kg |
| EL3-10 | 8 | 12 | ZINC | 1530 | 10600 | J | REG | 156000 | ug/kg |
| EL3-11 | 0 | 1 | ALUMINUM | 348 | 1960 | | REG | 4400000 | ug/kg |
| EL3-11 | 0 | 1 | AROCLOR 1254 | 7.4 | 34.5 | J | REG | 16.7 | ug/kg |
| EL3-11 | 0 | 1 | ARSENIC | 73.5 | 392 | | REG | 1040 | ug/kg |
| EL3-11 | 0 | 1 | BARIUM | 93.1 | 392 | | REG | 29800 | ug/kg |
| EL3-11 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.5 | 172 | J | REG | 99.3 | ug/kg |
| EL3-11 | 0 | 1 | CALCIUM | 274 | 5880 | J | REG | 444000 | ug/kg |
| EL3-11 | 0 | 1 | CHROMIUM | 201 | 392 | | REG | 4070 | ug/kg |
| EL3-11 | 0 | 1 | COBALT | 78.4 | 392 | J | REG | 309 | ug/kg |
| EL3-11 | 0 | 1 | COPPER | 68.6 | 784 | | REG | 2080 | ug/kg |
| EL3-11 | 0 | 1 | IRON | 823 | 1960 | | REG | 2990000 | ug/kg |
| EL3-11 | 0 | 1 | LEAD | 53.9 | 392 | | REG | 4400 | ug/kg |
| EL3-11 | 0 | 1 | MAGNESIUM | 657 | 3920 | J | REG | 80700 | ug/kg |
| EL3-11 | 0 | 1 | MANGANESE | 456 | 735 | | REG | 81100 | ug/kg |
| EL3-11 | 0 | 1 | MERCURY | 3.02 | 10.1 | | REG | 17.2 | ug/kg |
| EL3-11 | 0 | 1 | NICKEL | 196 | 980 | | REG | 1180 | ug/kg |
| EL3-11 | 0 | 1 | POTASSIUM | 539 | 7840 | | REG | 50600 | ug/kg |
| EL3-11 | 0 | 1 | TOLUENE | 0.181 | 1.01 | J | REG | 0.352 | ug/kg |
| EL3-11 | 0 | 1 | VANADIUM | 68.6 | 392 | | REG | 6580 | ug/kg |
| EL3-11 | 0 | 1 | ZINC | 142 | 980 | J | REG | 3140 | ug/kg |
| EL3-11 | 1 | 4 | ALUMINUM | 362 | 2040 | | REG | 3880000 | ug/kg |
| EL3-11 | 1 | 4 | ANTIMONY | 76.6 | 1020 | | REG | 1110 | ug/kg |
| EL3-11 | 1 | 4 | AROCLOR 1254 | 7.39 | 34.4 | | REG | 144 | ug/kg |
| EL3-11 | 1 | 4 | ARSENIC | 76.6 | 408 | | REG | 869 | ug/kg |
| EL3-11 | 1 | 4 | BARIUM | 97 | 408 | | REG | 25300 | ug/kg |
| EL3-11 | 1 | 4 | BENZO[A]ANTHRACENE | 27.8 | 172 | J | REG | 43.4 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-11 | 1 | 4 | BENZO[A]PYRENE | 33.3 | 172 | J | REG | 37.2 | ug/kg |
| EL3-11 | 1 | 4 | BENZO[B]FLUORANTHENE | 39.3 | 172 | J | REG | 54.1 | ug/kg |
| EL3-11 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.5 | 172 | | REG | 433 | ug/kg |
| EL3-11 | 1 | 4 | CADMIUM | 30.6 | 612 | J | REG | 103 | ug/kg |
| EL3-11 | 1 | 4 | CALCIUM | 286 | 6120 | J | REG | 680000 | ug/kg |
| EL3-11 | 1 | 4 | CHROMIUM | 209 | 408 | | REG | 6270 | ug/kg |
| EL3-11 | 1 | 4 | CHRYSENE | 28.5 | 172 | J | REG | 32 | ug/kg |
| EL3-11 | 1 | 4 | COBALT | 81.7 | 408 | | REG | 470 | ug/kg |
| EL3-11 | 1 | 4 | COPPER | 71.4 | 817 | | REG | 9920 | ug/kg |
| EL3-11 | 1 | 4 | FLUORANTHENE | 29.4 | 172 | J | REG | 74.7 | ug/kg |
| EL3-11 | 1 | 4 | IRON | 857 | 2040 | | REG | 3200000 | ug/kg |
| EL3-11 | 1 | 4 | LEAD | 56.1 | 408 | | REG | 6370 | ug/kg |
| EL3-11 | 1 | 4 | MAGNESIUM | 684 | 4080 | J | REG | 75800 | ug/kg |
| EL3-11 | 1 | 4 | MANGANESE | 475 | 766 | | REG | 120000 | ug/kg |
| EL3-11 | 1 | 4 | MERCURY | 2.99 | 9.97 | | REG | 25 | ug/kg |
| EL3-11 | 1 | 4 | NICKEL | 204 | 1020 | | REG | 2950 | ug/kg |
| EL3-11 | 1 | 4 | PHENANTHRENE | 26.9 | 172 | J | REG | 49.3 | ug/kg |
| EL3-11 | 1 | 4 | POTASSIUM | 561 | 8170 | | REG | 41000 | ug/kg |
| EL3-11 | 1 | 4 | PYRENE | 26.9 | 172 | J | REG | 57.5 | ug/kg |
| EL3-11 | 1 | 4 | TOLUENE | 0.177 | 0.982 | J | REG | 0.314 | ug/kg |
| EL3-11 | 1 | 4 | VANADIUM | 71.4 | 408 | | REG | 5590 | ug/kg |
| EL3-11 | 1 | 4 | ZINC | 148 | 1020 | J | REG | 25500 | ug/kg |
| EL3-11 | 4 | 8 | ALUMINUM | 3680 | 20800 | | REG | 10100000 | ug/kg |
| EL3-11 | 4 | 8 | AROCLOR 1254 | 7.99 | 37.2 | J | REG | 28 | ug/kg |
| EL3-11 | 4 | 8 | ARSENIC | 778 | 4150 | J | REG | 3230 | ug/kg |
| EL3-11 | 4 | 8 | BARIUM | 986 | 4150 | | REG | 9530 | ug/kg |
| EL3-11 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60 | 186 | | REG | 579 | ug/kg |
| EL3-11 | 4 | 8 | CALCIUM | 2910 | 62300 | J | REG | 519000 | ug/kg |
| EL3-11 | 4 | 8 | CHROMIUM | 2130 | 4150 | | REG | 18500 | ug/kg |
| EL3-11 | 4 | 8 | COPPER | 726 | 8300 | J | REG | 4150 | ug/kg |
| EL3-11 | 4 | 8 | IRON | 8720 | 20800 | | REG | 18500000 | ug/kg |
| EL3-11 | 4 | 8 | LEAD | 571 | 4150 | J | REG | 3960 | ug/kg |
| EL3-11 | 4 | 8 | MAGNESIUM | 6950 | 41500 | J | REG | 75000 | ug/kg |
| EL3-11 | 4 | 8 | MANGANESE | 4830 | 7780 | | REG | 35900 | ug/kg |
| EL3-11 | 4 | 8 | MERCURY | 3.33 | 11.1 | J | REG | 8.94 | ug/kg |
| EL3-11 | 4 | 8 | POTASSIUM | 5710 | 83000 | J | REG | 58300 | ug/kg |
| EL3-11 | 4 | 8 | TOLUENE | 0.192 | 1.07 | J | REG | 0.469 | ug/kg |
| EL3-11 | 4 | 8 | VANADIUM | 726 | 4150 | | REG | 41300 | ug/kg |
| EL3-11 | 4 | 8 | ZINC | 1500 | 10400 | J | REG | 28000 | ug/kg |
| EL3-12 | 0 | 1 | ALUMINUM | 1810 | 10200 | | REG | 4590000 | ug/kg |
| EL3-12 | 0 | 1 | ALUMINUM | 1730 | 9740 | | FD | 4340000 | ug/kg |
| EL3-12 | 0 | 1 | ANTHRACENE | 33 | 173 | J | FD | 90.5 | ug/kg |
| EL3-12 | 0 | 1 | AROCLOR 1254 | 7.41 | 34.5 | | FD | 41.5 | ug/kg |
| EL3-12 | 0 | 1 | AROCLOR 1254 | 7.4 | 34.5 | | REG | 38.8 | ug/kg |
| EL3-12 | 0 | 1 | ARSENIC | 383 | 2040 | J | REG | 1380 | ug/kg |
| EL3-12 | 0 | 1 | BARIUM | 485 | 2040 | | REG | 23500 | ug/kg |
| EL3-12 | 0 | 1 | BARIUM | 463 | 1950 | | FD | 22600 | ug/kg |
| EL3-12 | 0 | 1 | BENZALDEHYDE | 38.1 | 172 | J | REG | 51.4 | ug/kg |
| EL3-12 | 0 | 1 | BENZO(G,H,I)PERYLENE | 31.1 | 173 | J | FD | 104 | ug/kg |
| EL3-12 | 0 | 1 | BENZO[A]ANTHRACENE | 27.9 | 173 | | FD | 348 | ug/kg |
| EL3-12 | 0 | 1 | BENZO[A]ANTHRACENE | 27.9 | 172 | J | REG | 41.4 | ug/kg |
| EL3-12 | 0 | 1 | BENZO[A]PYRENE | 33.4 | 173 | | FD | 251 | ug/kg |
| EL3-12 | 0 | 1 | BENZO[A]PYRENE | 33.3 | 172 | J | REG | 40 | ug/kg |
| EL3-12 | 0 | 1 | BENZO[B]FLUORANTHENE | 39.4 | 173 | | FD | 359 | ug/kg |
| EL3-12 | 0 | 1 | BENZO[B]FLUORANTHENE | 39.3 | 172 | J | REG | 55.9 | ug/kg |
| EL3-12 | 0 | 1 | BENZO[K]FLUORANTHENE | 34.2 | 173 | J | FD | 129 | ug/kg |
| EL3-12 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.7 | 173 | J | FD | 62.5 | ug/kg |
| EL3-12 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.5 | 172 | J | REG | 95.5 | ug/kg |
| EL3-12 | 0 | 1 | CALCIUM | 1430 | 30600 | | REG | 587000 | ug/kg |
| EL3-12 | 0 | 1 | CALCIUM | 1360 | 29200 | | FD | 556000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-12 | 0 | 1 | CHROMIUM | 1050 | 2040 | | REG | 6420 | ug/kg |
| EL3-12 | 0 | 1 | CHROMIUM | 998 | 1950 | | FD | 4300 | ug/kg |
| EL3-12 | 0 | 1 | CHRYSENE | 28.6 | 173 | | FD | 277 | ug/kg |
| EL3-12 | 0 | 1 | CHRYSENE | 28.5 | 172 | J | REG | 32.8 | ug/kg |
| EL3-12 | 0 | 1 | COPPER | 357 | 4080 | J | REG | 3910 | ug/kg |
| EL3-12 | 0 | 1 | COPPER | 341 | 3900 | J | FD | 2660 | ug/kg |
| EL3-12 | 0 | 1 | DIBENZ[AH]ANTHRACENE | 34 | 173 | J | FD | 35.2 | ug/kg |
| EL3-12 | 0 | 1 | FLUORANTHENE | 29.5 | 173 | | FD | 776 | ug/kg |
| EL3-12 | 0 | 1 | FLUORANTHENE | 29.4 | 172 | J | REG | 69 | ug/kg |
| EL3-12 | 0 | 1 | INDENO[1,2,3-CD]PYRENE | 31.2 | 173 | J | FD | 97.1 | ug/kg |
| EL3-12 | 0 | 1 | IRON | 4290 | 10200 | | REG | 3800000 | ug/kg |
| EL3-12 | 0 | 1 | IRON | 4090 | 9740 | | FD | 3350000 | ug/kg |
| EL3-12 | 0 | 1 | LEAD | 281 | 2040 | | REG | 6180 | ug/kg |
| EL3-12 | 0 | 1 | LEAD | 268 | 1950 | | FD | 5820 | ug/kg |
| EL3-12 | 0 | 1 | MAGNESIUM | 3420 | 20400 | J | REG | 79900 | ug/kg |
| EL3-12 | 0 | 1 | MAGNESIUM | 3260 | 19500 | J | FD | 72900 | ug/kg |
| EL3-12 | 0 | 1 | MANGANESE | 2370 | 3830 | | REG | 130000 | ug/kg |
| EL3-12 | 0 | 1 | MANGANESE | 2260 | 3650 | | FD | 101000 | ug/kg |
| EL3-12 | 0 | 1 | MERCURY | 3.05 | 10.2 | | FD | 18.4 | ug/kg |
| EL3-12 | 0 | 1 | MERCURY | 3.02 | 10.1 | | REG | 10.7 | ug/kg |
| EL3-12 | 0 | 1 | NICKEL | 1020 | 5100 | J | REG | 1210 | ug/kg |
| EL3-12 | 0 | 1 | PHENANTHRENE | 27 | 173 | | FD | 445 | ug/kg |
| EL3-12 | 0 | 1 | PHENANTHRENE | 27 | 172 | J | REG | 34.1 | ug/kg |
| EL3-12 | 0 | 1 | POTASSIUM | 2810 | 40800 | | REG | 53500 | ug/kg |
| EL3-12 | 0 | 1 | POTASSIUM | 2680 | 39000 | | FD | 52500 | ug/kg |
| EL3-12 | 0 | 1 | PYRENE | 26.9 | 173 | | FD | 679 | ug/kg |
| EL3-12 | 0 | 1 | PYRENE | 26.9 | 172 | J | REG | 62.1 | ug/kg |
| EL3-12 | 0 | 1 | TOLUENE | 0.185 | 1.03 | J | FD | 0.441 | ug/kg |
| EL3-12 | 0 | 1 | TOLUENE | 0.185 | 1.03 | J | REG | 0.4 | ug/kg |
| EL3-12 | 0 | 1 | VANADIUM | 357 | 2040 | | REG | 7910 | ug/kg |
| EL3-12 | 0 | 1 | VANADIUM | 341 | 1950 | | FD | 7440 | ug/kg |
| EL3-12 | 0 | 1 | ZINC | 740 | 5100 | J | REG | 7250 | ug/kg |
| EL3-12 | 0 | 1 | ZINC | 706 | 4870 | J | FD | 6450 | ug/kg |
| EL3-12 | 1 | 4 | ALUMINUM | 3490 | 19700 | | REG | 7380000 | ug/kg |
| EL3-12 | 1 | 4 | AROCLOR 1254 | 7.61 | 35.4 | J | REG | 35.2 | ug/kg |
| EL3-12 | 1 | 4 | AROCLOR 1260 | 7.79 | 35.4 | J | REG | 17.3 | ug/kg |
| EL3-12 | 1 | 4 | ARSENIC | 738 | 3940 | J | REG | 2580 | ug/kg |
| EL3-12 | 1 | 4 | BARIUM | 935 | 3940 | | REG | 18300 | ug/kg |
| EL3-12 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 57.1 | 177 | J | REG | 104 | ug/kg |
| EL3-12 | 1 | 4 | CALCIUM | 2760 | 59100 | | REG | 521000 | ug/kg |
| EL3-12 | 1 | 4 | CHROMIUM | 2020 | 3940 | | REG | 10800 | ug/kg |
| EL3-12 | 1 | 4 | COPPER | 689 | 7880 | J | REG | 5900 | ug/kg |
| EL3-12 | 1 | 4 | IRON | 8270 | 19700 | | REG | 10700000 | ug/kg |
| EL3-12 | 1 | 4 | LEAD | 541 | 3940 | | REG | 9380 | ug/kg |
| EL3-12 | 1 | 4 | MAGNESIUM | 6600 | 39400 | J | REG | 79400 | ug/kg |
| EL3-12 | 1 | 4 | MANGANESE | 4580 | 7380 | | REG | 82800 | ug/kg |
| EL3-12 | 1 | 4 | MERCURY | 3.15 | 10.5 | | REG | 21.9 | ug/kg |
| EL3-12 | 1 | 4 | NICKEL | 1970 | 9840 | J | REG | 2140 | ug/kg |
| EL3-12 | 1 | 4 | POTASSIUM | 5410 | 78800 | J | REG | 60200 | ug/kg |
| EL3-12 | 1 | 4 | TOLUENE | 0.183 | 1.01 | J | REG | 0.396 | ug/kg |
| EL3-12 | 1 | 4 | VANADIUM | 689 | 3940 | | REG | 20400 | ug/kg |
| EL3-12 | 1 | 4 | ZINC | 1430 | 9840 | J | REG | 11000 | ug/kg |
| EL3-12 | 4 | 8 | ALUMINUM | 3730 | 21000 | | REG | 9180000 | ug/kg |
| EL3-12 | 4 | 8 | ARSENIC | 788 | 4200 | J | REG | 3000 | ug/kg |
| EL3-12 | 4 | 8 | BARIUM | 998 | 4200 | | REG | 6410 | ug/kg |
| EL3-12 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.8 | 182 | J | REG | 157 | ug/kg |
| EL3-12 | 4 | 8 | CALCIUM | 2940 | 63100 | | REG | 309000 | ug/kg |
| EL3-12 | 4 | 8 | CHROMIUM | 2150 | 4200 | | REG | 16200 | ug/kg |
| EL3-12 | 4 | 8 | COPPER | 736 | 8410 | J | REG | 1660 | ug/kg |
| EL3-12 | 4 | 8 | IRON | 8830 | 21000 | | REG | 14700000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-12 | 4 | 8 | LEAD | 578 | 4200 | J | REG | 3780 | ug/kg |
| EL3-12 | 4 | 8 | MAGNESIUM | 7040 | 42000 | J | REG | 54800 | ug/kg |
| EL3-12 | 4 | 8 | MANGANESE | 4890 | 7880 | | REG | 23700 | ug/kg |
| EL3-12 | 4 | 8 | MERCURY | 3.06 | 10.2 | J | REG | 9.34 | ug/kg |
| EL3-12 | 4 | 8 | POTASSIUM | 5780 | 84100 | J | REG | 51600 | ug/kg |
| EL3-12 | 4 | 8 | TOLUENE | 0.189 | 1.05 | J | REG | 0.421 | ug/kg |
| EL3-12 | 4 | 8 | VANADIUM | 736 | 4200 | | REG | 33300 | ug/kg |
| EL3-13 | 0 | 1 | ALUMINUM | 1730 | 9740 | | REG | 7860000 | ug/kg |
| EL3-13 | 0 | 1 | AROCLOR 1254 | 7.45 | 34.7 | J | REG | 9.18 | ug/kg |
| EL3-13 | 0 | 1 | BARIUM | 463 | 1950 | | REG | 24900 | ug/kg |
| EL3-13 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.9 | 174 | J | REG | 120 | ug/kg |
| EL3-13 | 0 | 1 | CALCIUM | 1360 | 29200 | | REG | 56200 | ug/kg |
| EL3-13 | 0 | 1 | CHROMIUM | 999 | 1950 | | REG | 5540 | ug/kg |
| EL3-13 | 0 | 1 | COPPER | 341 | 3900 | J | REG | 2020 | ug/kg |
| EL3-13 | 0 | 1 | IRON | 4090 | 9740 | | REG | 5090000 | ug/kg |
| EL3-13 | 0 | 1 | LEAD | 268 | 1950 | | REG | 5670 | ug/kg |
| EL3-13 | 0 | 1 | MAGNESIUM | 3260 | 19500 | J | REG | 129000 | ug/kg |
| EL3-13 | 0 | 1 | MANGANESE | 2270 | 3650 | | REG | 18600 | ug/kg |
| EL3-13 | 0 | 1 | MERCURY | 3.05 | 10.2 | | REG | 24.3 | ug/kg |
| EL3-13 | 0 | 1 | NICKEL | 974 | 4870 | J | REG | 1610 | ug/kg |
| EL3-13 | 0 | 1 | POTASSIUM | 2680 | 39000 | | REG | 107000 | ug/kg |
| EL3-13 | 0 | 1 | TOLUENE | 0.18 | 1 | J | REG | 0.28 | ug/kg |
| EL3-13 | 0 | 1 | VANADIUM | 341 | 1950 | | REG | 11500 | ug/kg |
| EL3-13 | 0 | 1 | ZINC | 706 | 4870 | J | REG | 4770 | ug/kg |
| EL3-13 | 1 | 4 | ALUMINUM | 3770 | 21200 | | REG | 16800000 | ug/kg |
| EL3-13 | 1 | 4 | ARSENIC | 796 | 4250 | J | REG | 2720 | ug/kg |
| EL3-13 | 1 | 4 | BARIUM | 1010 | 4250 | | REG | 18100 | ug/kg |
| EL3-13 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.7 | 182 | J | REG | 72.9 | ug/kg |
| EL3-13 | 1 | 4 | CALCIUM | 2970 | 63700 | J | REG | 49700 | ug/kg |
| EL3-13 | 1 | 4 | CHROMIUM | 2180 | 4250 | | REG | 15700 | ug/kg |
| EL3-13 | 1 | 4 | COPPER | 743 | 8490 | J | REG | 6560 | ug/kg |
| EL3-13 | 1 | 4 | IRON | 8920 | 21200 | | REG | 15500000 | ug/kg |
| EL3-13 | 1 | 4 | LEAD | 584 | 4250 | | REG | 6650 | ug/kg |
| EL3-13 | 1 | 4 | MAGNESIUM | 7110 | 42500 | J | REG | 171000 | ug/kg |
| EL3-13 | 1 | 4 | MANGANESE | 4940 | 7960 | | REG | 10100 | ug/kg |
| EL3-13 | 1 | 4 | MERCURY | 3.13 | 10.4 | | REG | 73.3 | ug/kg |
| EL3-13 | 1 | 4 | POTASSIUM | 5840 | 84900 | | REG | 116000 | ug/kg |
| EL3-13 | 1 | 4 | TOLUENE | 0.188 | 1.04 | J | REG | 0.324 | ug/kg |
| EL3-13 | 1 | 4 | VANADIUM | 743 | 4250 | | REG | 33800 | ug/kg |
| EL3-13 | 1 | 4 | ZINC | 1540 | 10600 | J | REG | 6070 | ug/kg |
| EL3-13 | 4 | 8 | ALUMINUM | 3660 | 20600 | | REG | 9540000 | ug/kg |
| EL3-13 | 4 | 8 | ARSENIC | 774 | 4130 | | REG | 4320 | ug/kg |
| EL3-13 | 4 | 8 | BARIUM | 981 | 4130 | | REG | 4250 | ug/kg |
| EL3-13 | 4 | 8 | CALCIUM | 2890 | 61900 | J | REG | 26200 | ug/kg |
| EL3-13 | 4 | 8 | CHROMIUM | 2120 | 4130 | | REG | 19200 | ug/kg |
| EL3-13 | 4 | 8 | COPPER | 723 | 8260 | J | REG | 1630 | ug/kg |
| EL3-13 | 4 | 8 | IRON | 8670 | 20600 | | REG | 18800000 | ug/kg |
| EL3-13 | 4 | 8 | LEAD | 568 | 4130 | J | REG | 3940 | ug/kg |
| EL3-13 | 4 | 8 | MAGNESIUM | 6920 | 41300 | J | REG | 62500 | ug/kg |
| EL3-13 | 4 | 8 | MANGANESE | 4800 | 7740 | | REG | 9160 | ug/kg |
| EL3-13 | 4 | 8 | MERCURY | 3.19 | 10.6 | J | REG | 5.98 | ug/kg |
| EL3-13 | 4 | 8 | POTASSIUM | 5680 | 82600 | J | REG | 37100 | ug/kg |
| EL3-13 | 4 | 8 | STYRENE | 0.119 | 1.08 | J | REG | 0.162 | ug/kg |
| EL3-13 | 4 | 8 | TOLUENE | 0.194 | 1.08 | J | REG | 0.539 | ug/kg |
| EL3-13 | 4 | 8 | VANADIUM | 723 | 4130 | | REG | 40900 | ug/kg |
| EL3-14 | 0 | 1 | ALUMINUM | 1810 | 10200 | | REG | 3860000 | ug/kg |
| EL3-14 | 0 | 1 | AROCLOR 1254 | 7.32 | 34.1 | J | REG | 83.3 | ug/kg |
| EL3-14 | 0 | 1 | AROCLOR 1260 | 7.49 | 34.1 | J | REG | 30.3 | ug/kg |
| EL3-14 | 0 | 1 | ARSENIC | 382 | 2040 | J | REG | 1530 | ug/kg |
| EL3-14 | 0 | 1 | BARIUM | 484 | 2040 | | REG | 23300 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-14 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 54.9 | 171 | | REG | 416 | ug/kg |
| EL3-14 | 0 | 1 | CALCIUM | 1430 | 30600 | | REG | 251000 | ug/kg |
| EL3-14 | 0 | 1 | CHROMIUM | 1040 | 2040 | | REG | 4710 | ug/kg |
| EL3-14 | 0 | 1 | COPPER | 357 | 4080 | | REG | 41000 | ug/kg |
| EL3-14 | 0 | 1 | IRON | 4280 | 10200 | | REG | 2830000 | ug/kg |
| EL3-14 | 0 | 1 | LEAD | 280 | 2040 | | REG | 20100 | ug/kg |
| EL3-14 | 0 | 1 | MAGNESIUM | 3410 | 20400 | J | REG | 89000 | ug/kg |
| EL3-14 | 0 | 1 | MANGANESE | 2370 | 3820 | | REG | 87700 | ug/kg |
| EL3-14 | 0 | 1 | MERCURY | 3.02 | 10.1 | | REG | 11.9 | ug/kg |
| EL3-14 | 0 | 1 | NICKEL | 1020 | 5090 | J | REG | 1630 | ug/kg |
| EL3-14 | 0 | 1 | POTASSIUM | 2800 | 40800 | | REG | 67100 | ug/kg |
| EL3-14 | 0 | 1 | TOLUENE | 0.186 | 1.03 | J | REG | 0.279 | ug/kg |
| EL3-14 | 0 | 1 | VANADIUM | 357 | 2040 | | REG | 5520 | ug/kg |
| EL3-14 | 0 | 1 | ZINC | 739 | 5090 | J | REG | 49900 | ug/kg |
| EL3-14 | 1 | 4 | ALUMINUM | 3550 | 20000 | | REG | 7980000 | ug/kg |
| EL3-14 | 1 | 4 | ANTIMONY | 751 | 10000 | | REG | 40300 | ug/kg |
| EL3-14 | 1 | 4 | AROCLOR 1254 | 152 | 710 | | REG | 2390 | ug/kg |
| EL3-14 | 1 | 4 | ARSENIC | 751 | 4000 | | REG | 9060 | ug/kg |
| EL3-14 | 1 | 4 | BARIUM | 951 | 4000 | | REG | 279000 | ug/kg |
| EL3-14 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 57.2 | 177 | | REG | 238 | ug/kg |
| EL3-14 | 1 | 4 | CADMIUM | 300 | 6010 | J | REG | 4750 | ug/kg |
| EL3-14 | 1 | 4 | CALCIUM | 2800 | 60100 | | REG | 3730000 | ug/kg |
| EL3-14 | 1 | 4 | CHROMIUM | 2050 | 4000 | | REG | 46800 | ug/kg |
| EL3-14 | 1 | 4 | COBALT | 801 | 4000 | J | REG | 2430 | ug/kg |
| EL3-14 | 1 | 4 | COPPER | 701 | 8010 | | REG | 1140000 | ug/kg |
| EL3-14 | 1 | 4 | IRON | 8410 | 20000 | | REG | 24300000 | ug/kg |
| EL3-14 | 1 | 4 | LEAD | 550 | 4000 | | REG | 396000 | ug/kg |
| EL3-14 | 1 | 4 | MAGNESIUM | 6710 | 40000 | J | REG | 1030000 | ug/kg |
| EL3-14 | 1 | 4 | MANGANESE | 4650 | 7510 | | REG | 320000 | ug/kg |
| EL3-14 | 1 | 4 | MERCURY | 3.09 | 10.3 | | REG | 23.4 | ug/kg |
| EL3-14 | 1 | 4 | NICKEL | 2000 | 10000 | | REG | 25500 | ug/kg |
| EL3-14 | 1 | 4 | POTASSIUM | 5500 | 80100 | | REG | 251000 | ug/kg |
| EL3-14 | 1 | 4 | SODIUM | 67800 | 220000 | | REG | 270000 | ug/kg |
| EL3-14 | 1 | 4 | TOLUENE | 0.183 | 1.02 | J | REG | 0.366 | ug/kg |
| EL3-14 | 1 | 4 | VANADIUM | 701 | 4000 | | REG | 19400 | ug/kg |
| EL3-14 | 1 | 4 | ZINC | 1450 | 10000 | J | REG | 808000 | ug/kg |
| EL3-14 | 4 | 8 | ALUMINUM | 4000 | 22600 | | REG | 12700000 | ug/kg |
| EL3-14 | 4 | 8 | ALUMINUM | 3980 | 22400 | | FD | 13600000 | ug/kg |
| EL3-14 | 4 | 8 | AROCLOR 1254 | 8.3 | 38.7 | | REG | 121 | ug/kg |
| EL3-14 | 4 | 8 | AROCLOR 1254 | 8.25 | 38.4 | | FD | 150 | ug/kg |
| EL3-14 | 4 | 8 | ARSENIC | 846 | 4510 | | REG | 7070 | ug/kg |
| EL3-14 | 4 | 8 | ARSENIC | 840 | 4480 | | FD | 6970 | ug/kg |
| EL3-14 | 4 | 8 | BARIUM | 1070 | 4510 | | REG | 9370 | ug/kg |
| EL3-14 | 4 | 8 | BARIUM | 1060 | 4480 | | FD | 6050 | ug/kg |
| EL3-14 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 62.3 | 193 | | REG | 547 | ug/kg |
| EL3-14 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 61.9 | 192 | | FD | 693 | ug/kg |
| EL3-14 | 4 | 8 | CALCIUM | 3160 | 67700 | | REG | 329000 | ug/kg |
| EL3-14 | 4 | 8 | CALCIUM | 3140 | 67200 | | FD | 306000 | ug/kg |
| EL3-14 | 4 | 8 | CHROMIUM | 2310 | 4510 | | REG | 31300 | ug/kg |
| EL3-14 | 4 | 8 | CHROMIUM | 2300 | 4480 | | FD | 31000 | ug/kg |
| EL3-14 | 4 | 8 | COPPER | 790 | 9020 | | REG | 178000 | ug/kg |
| EL3-14 | 4 | 8 | COPPER | 784 | 8960 | | FD | 154000 | ug/kg |
| EL3-14 | 4 | 8 | IRON | 9480 | 22600 | | REG | 29000000 | ug/kg |
| EL3-14 | 4 | 8 | IRON | 9410 | 22400 | | FD | 29600000 | ug/kg |
| EL3-14 | 4 | 8 | LEAD | 620 | 4510 | | REG | 16200 | ug/kg |
| EL3-14 | 4 | 8 | LEAD | 616 | 4480 | | FD | 14000 | ug/kg |
| EL3-14 | 4 | 8 | MAGNESIUM | 7560 | 45100 | J | REG | 109000 | ug/kg |
| EL3-14 | 4 | 8 | MAGNESIUM | 7500 | 44800 | J | FD | 106000 | ug/kg |
| EL3-14 | 4 | 8 | MANGANESE | 5250 | 8460 | | REG | 15600 | ug/kg |
| EL3-14 | 4 | 8 | MANGANESE | 5210 | 8400 | | FD | 14500 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-14 | 4 | 8 | MERCURY | 3.37 | 11.2 | | FD | 22.7 | ug/kg |
| EL3-14 | 4 | 8 | MERCURY | 3.45 | 11.5 | | REG | 16.8 | ug/kg |
| EL3-14 | 4 | 8 | POTASSIUM | 6200 | 90200 | J | REG | 48200 | ug/kg |
| EL3-14 | 4 | 8 | POTASSIUM | 6160 | 89600 | J | FD | 53400 | ug/kg |
| EL3-14 | 4 | 8 | TOLUENE | 0.205 | 1.14 | J | FD | 0.422 | ug/kg |
| EL3-14 | 4 | 8 | TOLUENE | 0.201 | 1.12 | J | REG | 0.39 | ug/kg |
| EL3-14 | 4 | 8 | VANADIUM | 790 | 4510 | | REG | 66000 | ug/kg |
| EL3-14 | 4 | 8 | VANADIUM | 784 | 4480 | | FD | 68600 | ug/kg |
| EL3-14 | 4 | 8 | ZINC | 1640 | 11300 | J | REG | 22800 | ug/kg |
| EL3-14 | 4 | 8 | ZINC | 1620 | 11200 | J | FD | 18200 | ug/kg |
| EL3-15 | 0 | 1 | ALUMINUM | 342 | 1930 | | REG | 3790000 | ug/kg |
| EL3-15 | 0 | 1 | AROCLOR 1254 | 7.29 | 34 | J | REG | 21.3 | ug/kg |
| EL3-15 | 0 | 1 | AROCLOR 1260 | 7.47 | 34 | J | REG | 7.59 | ug/kg |
| EL3-15 | 0 | 1 | ARSENIC | 72.3 | 385 | | REG | 588 | ug/kg |
| EL3-15 | 0 | 1 | BARIUM | 91.5 | 385 | J | REG | 17200 | ug/kg |
| EL3-15 | 0 | 1 | CALCIUM | 270 | 5780 | | REG | 78700 | ug/kg |
| EL3-15 | 0 | 1 | CHROMIUM | 198 | 385 | | REG | 3520 | ug/kg |
| EL3-15 | 0 | 1 | COBALT | 77.1 | 385 | | REG | 395 | ug/kg |
| EL3-15 | 0 | 1 | COPPER | 67.4 | 771 | J | REG | 2730 | ug/kg |
| EL3-15 | 0 | 1 | IRON | 809 | 1930 | | REG | 2620000 | ug/kg |
| EL3-15 | 0 | 1 | LEAD | 53 | 385 | J | REG | 4080 | ug/kg |
| EL3-15 | 0 | 1 | MAGNESIUM | 646 | 3850 | | REG | 74900 | ug/kg |
| EL3-15 | 0 | 1 | MANGANESE | 448 | 723 | J | REG | 49900 | ug/kg |
| EL3-15 | 0 | 1 | MERCURY | 2.9 | 9.66 | J | REG | 5.24 | ug/kg |
| EL3-15 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0689 | 0.984 | J | REG | 0.256 | ug/kg |
| EL3-15 | 0 | 1 | NICKEL | 193 | 963 | | REG | 1110 | ug/kg |
| EL3-15 | 0 | 1 | POTASSIUM | 530 | 7710 | | REG | 50800 | ug/kg |
| EL3-15 | 0 | 1 | VANADIUM | 67.4 | 385 | | REG | 5730 | ug/kg |
| EL3-15 | 0 | 1 | ZINC | 140 | 963 | | REG | 3890 | ug/kg |
| EL3-15 | 1 | 4 | ALUMINUM | 340 | 1920 | | REG | 3610000 | ug/kg |
| EL3-15 | 1 | 4 | ANTIMONY | 71.9 | 959 | J | REG | 1570 | ug/kg |
| EL3-15 | 1 | 4 | AROCLOR 1254 | 7.3 | 34 | J | REG | 19.2 | ug/kg |
| EL3-15 | 1 | 4 | AROCLOR 1260 | 7.47 | 34 | J | REG | 11 | ug/kg |
| EL3-15 | 1 | 4 | ARSENIC | 71.9 | 384 | | REG | 559 | ug/kg |
| EL3-15 | 1 | 4 | BARIUM | 91.1 | 384 | J | REG | 19300 | ug/kg |
| EL3-15 | 1 | 4 | CALCIUM | 268 | 5750 | | REG | 141000 | ug/kg |
| EL3-15 | 1 | 4 | CHROMIUM | 197 | 384 | | REG | 3410 | ug/kg |
| EL3-15 | 1 | 4 | COBALT | 76.7 | 384 | | REG | 403 | ug/kg |
| EL3-15 | 1 | 4 | COPPER | 67.1 | 767 | J | REG | 2640 | ug/kg |
| EL3-15 | 1 | 4 | IRON | 805 | 1920 | | REG | 2320000 | ug/kg |
| EL3-15 | 1 | 4 | LEAD | 52.7 | 384 | J | REG | 3830 | ug/kg |
| EL3-15 | 1 | 4 | MAGNESIUM | 642 | 3840 | | REG | 74700 | ug/kg |
| EL3-15 | 1 | 4 | MANGANESE | 446 | 719 | J | REG | 55100 | ug/kg |
| EL3-15 | 1 | 4 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0696 | 0.994 | J | REG | 0.209 | ug/kg |
| EL3-15 | 1 | 4 | NICKEL | 192 | 959 | | REG | 1210 | ug/kg |
| EL3-15 | 1 | 4 | POTASSIUM | 527 | 7670 | | REG | 48300 | ug/kg |
| EL3-15 | 1 | 4 | VANADIUM | 67.1 | 384 | | REG | 5080 | ug/kg |
| EL3-15 | 1 | 4 | ZINC | 139 | 959 | | REG | 5680 | ug/kg |
| EL3-15 | 4 | 8 | ALUMINUM | 3660 | 20600 | | REG | 12700000 | ug/kg |
| EL3-15 | 4 | 8 | ANTIMONY | 773 | 10300 | J | REG | 18900 | ug/kg |
| EL3-15 | 4 | 8 | AROCLOR 1254 | 160 | 744 | J | REG | 3710 | ug/kg |
| EL3-15 | 4 | 8 | AROCLOR 1260 | 164 | 744 | J | REG | 1300 | ug/kg |
| EL3-15 | 4 | 8 | ARSENIC | 773 | 4130 | | REG | 9930 | ug/kg |
| EL3-15 | 4 | 8 | BARIUM | 980 | 4130 | J | REG | 285000 | ug/kg |
| EL3-15 | 4 | 8 | BENZO(G,H,I)PERYLENE | 33.5 | 186 | J | REG | 55.1 | ug/kg |
| EL3-15 | 4 | 8 | BENZO[A]ANTHRACENE | 30.1 | 186 | J | REG | 58.1 | ug/kg |
| EL3-15 | 4 | 8 | BENZO[A]PYRENE | 36 | 186 | J | REG | 65.1 | ug/kg |
| EL3-15 | 4 | 8 | BENZO[B]FLUORANTHENE | 42.5 | 186 | J | REG | 111 | ug/kg |
| EL3-15 | 4 | 8 | BENZO[K]FLUORANTHENE | 36.9 | 186 | J | REG | 40.9 | ug/kg |
| EL3-15 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60 | 186 | | REG | 1540 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-15 | 4 | 8 | CADMIUM | 309 | 6190 | J | REG | 1030 | ug/kg |
| EL3-15 | 4 | 8 | CALCIUM | 2890 | 61900 | | REG | 24000000 | ug/kg |
| EL3-15 | 4 | 8 | CHROMIUM | 2110 | 4130 | | REG | 39300 | ug/kg |
| EL3-15 | 4 | 8 | CHRYSENE | 30.8 | 186 | J | REG | 59.9 | ug/kg |
| EL3-15 | 4 | 8 | COBALT | 825 | 4130 | J | REG | 2610 | ug/kg |
| EL3-15 | 4 | 8 | COPPER | 722 | 8250 | J | REG | 4900000 | ug/kg |
| EL3-15 | 4 | 8 | DI-N-BUTYL PHTHALATE | 34.1 | 186 | J | REG | 81.1 | ug/kg |
| EL3-15 | 4 | 8 | FLUORANTHENE | 31.7 | 186 | J | REG | 100 | ug/kg |
| EL3-15 | 4 | 8 | INDENO[1,2,3-CD]PYRENE | 33.6 | 186 | J | REG | 47.3 | ug/kg |
| EL3-15 | 4 | 8 | IRON | 8660 | 20600 | | REG | 31600000 | ug/kg |
| EL3-15 | 4 | 8 | LEAD | 567 | 4130 | J | REG | 129000 | ug/kg |
| EL3-15 | 4 | 8 | MAGNESIUM | 6910 | 41300 | | REG | 1550000 | ug/kg |
| EL3-15 | 4 | 8 | MANGANESE | 4800 | 7730 | J | REG | 209000 | ug/kg |
| EL3-15 | 4 | 8 | MERCURY | 3.35 | 11.2 | J | REG | 3790 | ug/kg |
| EL3-15 | 4 | 8 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0744 | 1.06 | J | REG | 0.383 | ug/kg |
| EL3-15 | 4 | 8 | NICKEL | 2060 | 10300 | | REG | 16100 | ug/kg |
| EL3-15 | 4 | 8 | PHENANTHRENE | 29.1 | 186 | J | REG | 53.6 | ug/kg |
| EL3-15 | 4 | 8 | POTASSIUM | 5670 | 82500 | | REG | 266000 | ug/kg |
| EL3-15 | 4 | 8 | PYRENE | 29 | 186 | J | REG | 79.3 | ug/kg |
| EL3-15 | 4 | 8 | SODIUM | 69800 | 227000 | J | REG | 171000 | ug/kg |
| EL3-15 | 4 | 8 | VANADIUM | 722 | 4130 | | REG | 51700 | ug/kg |
| EL3-15 | 4 | 8 | ZINC | 1500 | 10300 | | REG | 476000 | ug/kg |
| EL3-16 | 0 | 1 | ALUMINUM | 341 | 1920 | | REG | 3520000 | ug/kg |
| EL3-16 | 0 | 1 | AROCLOR 1254 | 147 | 687 | J | REG | 5630 | ug/kg |
| EL3-16 | 0 | 1 | AROCLOR 1260 | 151 | 687 | J | REG | 2170 | ug/kg |
| EL3-16 | 0 | 1 | ARSENIC | 72.1 | 385 | | REG | 781 | ug/kg |
| EL3-16 | 0 | 1 | BARIUM | 91.4 | 385 | J | REG | 21000 | ug/kg |
| EL3-16 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.4 | 172 | J | REG | 102 | ug/kg |
| EL3-16 | 0 | 1 | CALCIUM | 269 | 5770 | | REG | 114000 | ug/kg |
| EL3-16 | 0 | 1 | CHROMIUM | 197 | 385 | J | REG | 3570 | ug/kg |
| EL3-16 | 0 | 1 | COBALT | 76.9 | 385 | J | REG | 271 | ug/kg |
| EL3-16 | 0 | 1 | COPPER | 67.3 | 769 | | REG | 25900 | ug/kg |
| EL3-16 | 0 | 1 | IRON | 808 | 1920 | | REG | 2690000 | ug/kg |
| EL3-16 | 0 | 1 | LEAD | 52.9 | 385 | | REG | 5130 | ug/kg |
| EL3-16 | 0 | 1 | MAGNESIUM | 644 | 3850 | | REG | 69700 | ug/kg |
| EL3-16 | 0 | 1 | MANGANESE | 447 | 721 | J | REG | 58600 | ug/kg |
| EL3-16 | 0 | 1 | MERCURY | 3.03 | 10.1 | J | REG | 7.82 | ug/kg |
| EL3-16 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0691 | 0.987 | J | REG | 0.326 | ug/kg |
| EL3-16 | 0 | 1 | NICKEL | 192 | 962 | | REG | 1190 | ug/kg |
| EL3-16 | 0 | 1 | POTASSIUM | 529 | 7690 | | REG | 49900 | ug/kg |
| EL3-16 | 0 | 1 | VANADIUM | 67.3 | 385 | | REG | 5280 | ug/kg |
| EL3-16 | 0 | 1 | ZINC | 139 | 962 | J | REG | 24600 | ug/kg |
| EL3-16 | 1 | 4 | 1,1-DICHLOROETHYLENE | 0.238 | 0.992 | J | FD | 7.65 | ug/kg |
| EL3-16 | 1 | 4 | ACETONE | 0.704 | 9.92 | J | FD | 9.22 | ug/kg |
| EL3-16 | 1 | 4 | ALUMINUM | 346 | 1950 | | REG | 3920000 | ug/kg |
| EL3-16 | 1 | 4 | ALUMINUM | 337 | 1900 | | FD | 3690000 | ug/kg |
| EL3-16 | 1 | 4 | ANTIMONY | 73.1 | 974 | | REG | 1300 | ug/kg |
| EL3-16 | 1 | 4 | ANTIMONY | 71.2 | 949 | | FD | 1440 | ug/kg |
| EL3-16 | 1 | 4 | AROCLOR 1254 | 7.35 | 34.3 | J | REG | 244 | ug/kg |
| EL3-16 | 1 | 4 | AROCLOR 1254 | 7.35 | 34.3 | J | FD | 225 | ug/kg |
| EL3-16 | 1 | 4 | AROCLOR 1260 | 7.53 | 34.3 | J | REG | 160 | ug/kg |
| EL3-16 | 1 | 4 | AROCLOR 1260 | 7.53 | 34.3 | J | FD | 51.2 | ug/kg |
| EL3-16 | 1 | 4 | ARSENIC | 73.1 | 390 | | REG | 898 | ug/kg |
| EL3-16 | 1 | 4 | ARSENIC | 71.2 | 380 | | FD | 842 | ug/kg |
| EL3-16 | 1 | 4 | BARIUM | 92.6 | 390 | J | REG | 23200 | ug/kg |
| EL3-16 | 1 | 4 | BARIUM | 90.2 | 380 | J | FD | 22600 | ug/kg |
| EL3-16 | 1 | 4 | BENZENE | 0.0695 | 0.992 | J | FD | 1 | ug/kg |
| EL3-16 | 1 | 4 | BENZENE | 0.0734 | 1.05 | J | REG | 1.36 | ug/kg |
| EL3-16 | 1 | 4 | BENZO[A]ANTHRACENE | 27.7 | 171 | J | REG | 34.6 | ug/kg |
| EL3-16 | 1 | 4 | BENZO[A]ANTHRACENE | 27.7 | 171 | J | FD | 31.9 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-16 | 1 | 4 | BENZO[A]PYRENE | 33.1 | 171 | J | REG | 35.6 | ug/kg |
| EL3-16 | 1 | 4 | BENZO[B]FLUORANTHENE | 39.1 | 171 | J | REG | 50.7 | ug/kg |
| EL3-16 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.2 | 171 | | REG | 330 | ug/kg |
| EL3-16 | 1 | 4 | CALCIUM | 273 | 5850 | | REG | 594000 | ug/kg |
| EL3-16 | 1 | 4 | CALCIUM | 266 | 5690 | | FD | 667000 | ug/kg |
| EL3-16 | 1 | 4 | CHROMIUM | 200 | 390 | J | REG | 4740 | ug/kg |
| EL3-16 | 1 | 4 | CHROMIUM | 195 | 380 | J | FD | 4870 | ug/kg |
| EL3-16 | 1 | 4 | COBALT | 77.9 | 390 | J | REG | 369 | ug/kg |
| EL3-16 | 1 | 4 | COBALT | 75.9 | 380 | | FD | 385 | ug/kg |
| EL3-16 | 1 | 4 | COPPER | 68.2 | 779 | | REG | 12900 | ug/kg |
| EL3-16 | 1 | 4 | COPPER | 66.4 | 759 | | FD | 10700 | ug/kg |
| EL3-16 | 1 | 4 | DICHLOROMETHANE (METHYLENE CHLORIDE) | 0.417 | 9.92 | J | FD | 0.447 | ug/kg |
| EL3-16 | 1 | 4 | FLUORANTHENE | 29.2 | 171 | J | REG | 61.3 | ug/kg |
| EL3-16 | 1 | 4 | FLUORANTHENE | 29.2 | 171 | J | FD | 57.2 | ug/kg |
| EL3-16 | 1 | 4 | IRON | 818 | 1950 | | REG | 2890000 | ug/kg |
| EL3-16 | 1 | 4 | IRON | 797 | 1900 | | FD | 2790000 | ug/kg |
| EL3-16 | 1 | 4 | LEAD | 53.6 | 390 | | REG | 8030 | ug/kg |
| EL3-16 | 1 | 4 | LEAD | 52.2 | 380 | | FD | 8490 | ug/kg |
| EL3-16 | 1 | 4 | MAGNESIUM | 653 | 3900 | | REG | 108000 | ug/kg |
| EL3-16 | 1 | 4 | MAGNESIUM | 636 | 3800 | | FD | 108000 | ug/kg |
| EL3-16 | 1 | 4 | MANGANESE | 453 | 731 | J | REG | 69200 | ug/kg |
| EL3-16 | 1 | 4 | MANGANESE | 441 | 712 | J | FD | 73400 | ug/kg |
| EL3-16 | 1 | 4 | MERCURY | 3.01 | 10 | | REG | 40.2 | ug/kg |
| EL3-16 | 1 | 4 | MERCURY | 2.85 | 9.51 | | FD | 35.6 | ug/kg |
| EL3-16 | 1 | 4 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0695 | 0.992 | J | FD | 0.288 | ug/kg |
| EL3-16 | 1 | 4 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0734 | 1.05 | J | REG | 0.43 | ug/kg |
| EL3-16 | 1 | 4 | NICKEL | 195 | 974 | | REG | 1660 | ug/kg |
| EL3-16 | 1 | 4 | NICKEL | 190 | 949 | | FD | 1840 | ug/kg |
| EL3-16 | 1 | 4 | PHENANTHRENE | 26.8 | 171 | J | REG | 28.8 | ug/kg |
| EL3-16 | 1 | 4 | PHENANTHRENE | 26.8 | 171 | J | FD | 35.3 | ug/kg |
| EL3-16 | 1 | 4 | POTASSIUM | 536 | 7790 | | REG | 50800 | ug/kg |
| EL3-16 | 1 | 4 | POTASSIUM | 522 | 7590 | | FD | 48900 | ug/kg |
| EL3-16 | 1 | 4 | PYRENE | 26.7 | 171 | J | REG | 49.7 | ug/kg |
| EL3-16 | 1 | 4 | PYRENE | 26.7 | 171 | J | FD | 45.2 | ug/kg |
| EL3-16 | 1 | 4 | VANADIUM | 68.2 | 390 | | REG | 5600 | ug/kg |
| EL3-16 | 1 | 4 | VANADIUM | 66.4 | 380 | | FD | 5500 | ug/kg |
| EL3-16 | 1 | 4 | XYLENES | 0.178 | 1.05 | J | REG | 0.514 | ug/kg |
| EL3-16 | 1 | 4 | ZINC | 141 | 974 | J | REG | 15500 | ug/kg |
| EL3-16 | 1 | 4 | ZINC | 138 | 949 | J | FD | 16900 | ug/kg |
| EL3-16 | 4 | 8 | ALUMINUM | 3520 | 19800 | | REG | 7820000 | ug/kg |
| EL3-16 | 4 | 8 | ANTIMONY | 744 | 9920 | J | REG | 13500 | ug/kg |
| EL3-16 | 4 | 8 | AROCLOR 1254 | 15.3 | 71.3 | J | REG | 399 | ug/kg |
| EL3-16 | 4 | 8 | AROCLOR 1260 | 15.7 | 71.3 | J | REG | 135 | ug/kg |
| EL3-16 | 4 | 8 | ARSENIC | 744 | 3970 | J | REG | 3840 | ug/kg |
| EL3-16 | 4 | 8 | BARIUM | 942 | 3970 | J | REG | 189000 | ug/kg |
| EL3-16 | 4 | 8 | BENZENE | 0.0758 | 1.08 | | REG | 1.67 | ug/kg |
| EL3-16 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 57.5 | 178 | | REG | 1240 | ug/kg |
| EL3-16 | 4 | 8 | CADMIUM | 298 | 5950 | J | REG | 2380 | ug/kg |
| EL3-16 | 4 | 8 | CALCIUM | 2780 | 59500 | | REG | 9330000 | ug/kg |
| EL3-16 | 4 | 8 | CHROMIUM | 2030 | 3970 | | REG | 38500 | ug/kg |
| EL3-16 | 4 | 8 | COBALT | 793 | 3970 | J | REG | 2070 | ug/kg |
| EL3-16 | 4 | 8 | COPPER | 694 | 7930 | J | REG | 745000 | ug/kg |
| EL3-16 | 4 | 8 | FLUORANTHENE | 30.4 | 178 | J | REG | 31.4 | ug/kg |
| EL3-16 | 4 | 8 | IRON | 8330 | 19800 | | REG | 20200000 | ug/kg |
| EL3-16 | 4 | 8 | LEAD | 545 | 3970 | J | REG | 157000 | ug/kg |
| EL3-16 | 4 | 8 | MAGNESIUM | 6640 | 39700 | | REG | 1040000 | ug/kg |
| EL3-16 | 4 | 8 | MANGANESE | 4610 | 7440 | J | REG | 154000 | ug/kg |
| EL3-16 | 4 | 8 | MERCURY | 3.04 | 10.1 | J | REG | 88.3 | ug/kg |
| EL3-16 | 4 | 8 | NICKEL | 1980 | 9920 | | REG | 16200 | ug/kg |
| EL3-16 | 4 | 8 | POTASSIUM | 5450 | 79300 | | REG | 177000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-16 | 4 | 8 | SODIUM | 67100 | 218000 | J | REG | 160000 | ug/kg |
| EL3-16 | 4 | 8 | VANADIUM | 694 | 3970 | | REG | 21800 | ug/kg |
| EL3-16 | 4 | 8 | XYLENES | 0.184 | 1.08 | J | REG | 0.292 | ug/kg |
| EL3-16 | 4 | 8 | ZINC | 1440 | 9920 | | REG | 648000 | ug/kg |
| EL3-16 | 8 | 12 | ALUMINUM | 3560 | 20100 | | REG | 5020000 | ug/kg |
| EL3-16 | 8 | 12 | ANTIMONY | 753 | 10000 | J | REG | 4680 | ug/kg |
| EL3-16 | 8 | 12 | AROCLOR 1254 | 15.2 | 70.9 | J | REG | 354 | ug/kg |
| EL3-16 | 8 | 12 | AROCLOR 1260 | 15.6 | 70.9 | J | REG | 102 | ug/kg |
| EL3-16 | 8 | 12 | BARIUM | 954 | 4020 | J | REG | 73100 | ug/kg |
| EL3-16 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 57.1 | 177 | | REG | 616 | ug/kg |
| EL3-16 | 8 | 12 | CADMIUM | 301 | 6020 | J | REG | 1190 | ug/kg |
| EL3-16 | 8 | 12 | CALCIUM | 2810 | 60200 | | REG | 2230000 | ug/kg |
| EL3-16 | 8 | 12 | CHROMIUM | 2060 | 4020 | | REG | 14500 | ug/kg |
| EL3-16 | 8 | 12 | COPPER | 703 | 8030 | J | REG | 153000 | ug/kg |
| EL3-16 | 8 | 12 | IRON | 8430 | 20100 | | REG | 13500000 | ug/kg |
| EL3-16 | 8 | 12 | LEAD | 552 | 4020 | J | REG | 50900 | ug/kg |
| EL3-16 | 8 | 12 | MAGNESIUM | 6730 | 40200 | | REG | 361000 | ug/kg |
| EL3-16 | 8 | 12 | MANGANESE | 4670 | 7530 | J | REG | 88200 | ug/kg |
| EL3-16 | 8 | 12 | MERCURY | 3.19 | 10.6 | J | REG | 56.9 | ug/kg |
| EL3-16 | 8 | 12 | NICKEL | 2010 | 10000 | J | REG | 4800 | ug/kg |
| EL3-16 | 8 | 12 | POTASSIUM | 5520 | 80300 | | REG | 94000 | ug/kg |
| EL3-16 | 8 | 12 | SODIUM | 68000 | 221000 | J | REG | 223000 | ug/kg |
| EL3-16 | 8 | 12 | VANADIUM | 703 | 4020 | | REG | 16200 | ug/kg |
| EL3-16 | 8 | 12 | ZINC | 1460 | 10000 | | REG | 581000 | ug/kg |
| EL3-17 | 0 | 1 | ACETONE | 0.747 | 10.5 | | REG | 28.6 | ug/kg |
| EL3-17 | 0 | 1 | ALUMINUM | 351 | 1980 | | REG | 5560000 | ug/kg |
| EL3-17 | 0 | 1 | AROCLOR 1254 | 7.43 | 34.6 | J | REG | 12.2 | ug/kg |
| EL3-17 | 0 | 1 | AROCLOR 1260 | 7.61 | 34.6 | J | REG | 7.65 | ug/kg |
| EL3-17 | 0 | 1 | ARSENIC | 74.2 | 396 | | REG | 997 | ug/kg |
| EL3-17 | 0 | 1 | BARIUM | 94 | 396 | J | REG | 24000 | ug/kg |
| EL3-17 | 0 | 1 | CALCIUM | 277 | 5940 | | REG | 77500 | ug/kg |
| EL3-17 | 0 | 1 | CHROMIUM | 203 | 396 | J | REG | 4660 | ug/kg |
| EL3-17 | 0 | 1 | COBALT | 79.2 | 396 | J | REG | 340 | ug/kg |
| EL3-17 | 0 | 1 | COPPER | 69.3 | 792 | | REG | 7980 | ug/kg |
| EL3-17 | 0 | 1 | DDE | 0.106 | 1.73 | J | REG | 0.584 | ug/kg |
| EL3-17 | 0 | 1 | DDT | 0.131 | 1.73 | J | REG | 1.07 | ug/kg |
| EL3-17 | 0 | 1 | IRON | 831 | 1980 | | REG | 3560000 | ug/kg |
| EL3-17 | 0 | 1 | LEAD | 54.4 | 396 | | REG | 5430 | ug/kg |
| EL3-17 | 0 | 1 | MAGNESIUM | 663 | 3960 | | REG | 97700 | ug/kg |
| EL3-17 | 0 | 1 | MANGANESE | 460 | 742 | J | REG | 28200 | ug/kg |
| EL3-17 | 0 | 1 | MERCURY | 3.06 | 10.2 | | REG | 28 | ug/kg |
| EL3-17 | 0 | 1 | METHYL ETHYL KETONE | 0.41 | 5.26 | J | REG | 1.57 | ug/kg |
| EL3-17 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0736 | 1.05 | J | REG | 0.4 | ug/kg |
| EL3-17 | 0 | 1 | NICKEL | 198 | 990 | | REG | 1900 | ug/kg |
| EL3-17 | 0 | 1 | POTASSIUM | 544 | 7920 | | REG | 62900 | ug/kg |
| EL3-17 | 0 | 1 | VANADIUM | 69.3 | 396 | | REG | 7730 | ug/kg |
| EL3-17 | 0 | 1 | ZINC | 143 | 990 | J | REG | 4880 | ug/kg |
| EL3-17 | 1 | 4 | 1,1-DICHLOROETHYLENE | 0.254 | 1.06 | | REG | 2.88 | ug/kg |
| EL3-17 | 1 | 4 | ACETONE | 0.751 | 10.6 | | REG | 11.4 | ug/kg |
| EL3-17 | 1 | 4 | ALUMINUM | 3700 | 20800 | | REG | 10700000 | ug/kg |
| EL3-17 | 1 | 4 | ARSENIC | 782 | 4170 | J | REG | 2700 | ug/kg |
| EL3-17 | 1 | 4 | BARIUM | 990 | 4170 | J | REG | 12200 | ug/kg |
| EL3-17 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58 | 180 | | REG | 1290 | ug/kg |
| EL3-17 | 1 | 4 | CALCIUM | 2920 | 62500 | J | REG | 59200 | ug/kg |
| EL3-17 | 1 | 4 | CHROMIUM | 2140 | 4170 | J | REG | 13400 | ug/kg |
| EL3-17 | 1 | 4 | COPPER | 729 | 8340 | J | REG | 2570 | ug/kg |
| EL3-17 | 1 | 4 | IRON | 8750 | 20800 | | REG | 13900000 | ug/kg |
| EL3-17 | 1 | 4 | LEAD | 573 | 4170 | | REG | 5140 | ug/kg |
| EL3-17 | 1 | 4 | MAGNESIUM | 6980 | 41700 | | REG | 108000 | ug/kg |
| EL3-17 | 1 | 4 | MANGANESE | 4850 | 7820 | J | REG | 11000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-17 | 1 | 4 | MERCURY | 3.14 | 10.5 | | REG | 35.2 | ug/kg |
| EL3-17 | 1 | 4 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0741 | 1.06 | J | REG | 0.307 | ug/kg |
| EL3-17 | 1 | 4 | POTASSIUM | 5730 | 83400 | J | REG | 77600 | ug/kg |
| EL3-17 | 1 | 4 | VANADIUM | 729 | 4170 | | REG | 30900 | ug/kg |
| EL3-17 | 1 | 4 | ZINC | 1510 | 10400 | J | REG | 8530 | ug/kg |
| EL3-17 | 4 | 8 | ALUMINUM | 3680 | 20700 | | REG | 7700000 | ug/kg |
| EL3-17 | 4 | 8 | ARSENIC | 777 | 4140 | J | REG | 3410 | ug/kg |
| EL3-17 | 4 | 8 | BARIUM | 984 | 4140 | J | REG | 2950 | ug/kg |
| EL3-17 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.2 | 187 | | REG | 527 | ug/kg |
| EL3-17 | 4 | 8 | CALCIUM | 2900 | 62100 | J | REG | 5010 | ug/kg |
| EL3-17 | 4 | 8 | CHROMIUM | 2120 | 4140 | J | REG | 11000 | ug/kg |
| EL3-17 | 4 | 8 | IRON | 8700 | 20700 | | REG | 16900000 | ug/kg |
| EL3-17 | 4 | 8 | LEAD | 570 | 4140 | J | REG | 4040 | ug/kg |
| EL3-17 | 4 | 8 | MAGNESIUM | 6940 | 41400 | J | REG | 30700 | ug/kg |
| EL3-17 | 4 | 8 | MANGANESE | 4820 | 7770 | J | REG | 9840 | ug/kg |
| EL3-17 | 4 | 8 | MERCURY | 3.11 | 10.4 | | REG | 21.3 | ug/kg |
| EL3-17 | 4 | 8 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0767 | 1.1 | J | REG | 0.361 | ug/kg |
| EL3-17 | 4 | 8 | POTASSIUM | 5700 | 82900 | J | REG | 31900 | ug/kg |
| EL3-17 | 4 | 8 | VANADIUM | 725 | 4140 | | REG | 32500 | ug/kg |
| EL3-17 | 4 | 8 | ZINC | 1500 | 10400 | J | REG | 9700 | ug/kg |
| EL3-18 | 0 | 1 | ACETONE | 0.722 | 10.2 | J | REG | 0.916 | ug/kg |
| EL3-18 | 0 | 1 | ALUMINUM | 3510 | 19800 | | REG | 6180000 | ug/kg |
| EL3-18 | 0 | 1 | AROCLOR 1254 | 7.57 | 35.3 | J | REG | 16 | ug/kg |
| EL3-18 | 0 | 1 | BARIUM | 938 | 3950 | J | REG | 13100 | ug/kg |
| EL3-18 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 56.8 | 176 | J | REG | 70.9 | ug/kg |
| EL3-18 | 0 | 1 | CALCIUM | 2770 | 59300 | | REG | 898000 | ug/kg |
| EL3-18 | 0 | 1 | CHROMIUM | 2020 | 3950 | J | REG | 7510 | ug/kg |
| EL3-18 | 0 | 1 | COPPER | 691 | 7900 | J | REG | 3060 | ug/kg |
| EL3-18 | 0 | 1 | IRON | 8300 | 19800 | | REG | 7760000 | ug/kg |
| EL3-18 | 0 | 1 | LEAD | 543 | 3950 | | REG | 4880 | ug/kg |
| EL3-18 | 0 | 1 | MAGNESIUM | 6620 | 39500 | | REG | 82900 | ug/kg |
| EL3-18 | 0 | 1 | MANGANESE | 4590 | 7410 | J | REG | 37400 | ug/kg |
| EL3-18 | 0 | 1 | MERCURY | 3.1 | 10.3 | | REG | 24.4 | ug/kg |
| EL3-18 | 0 | 1 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0712 | 1.02 | J | REG | 0.376 | ug/kg |
| EL3-18 | 0 | 1 | POTASSIUM | 5430 | 79000 | J | REG | 72000 | ug/kg |
| EL3-18 | 0 | 1 | TOLUENE | 0.183 | 1.02 | J | REG | 0.346 | ug/kg |
| EL3-18 | 0 | 1 | VANADIUM | 691 | 3950 | | REG | 17200 | ug/kg |
| EL3-18 | 0 | 1 | ZINC | 1430 | 9880 | J | REG | 10000 | ug/kg |
| EL3-18 | 1 | 4 | ACETONE | 0.757 | 10.7 | J | REG | 2.34 | ug/kg |
| EL3-18 | 1 | 4 | ALUMINUM | 3790 | 21300 | | REG | 13000000 | ug/kg |
| EL3-18 | 1 | 4 | ARSENIC | 801 | 4270 | J | REG | 3330 | ug/kg |
| EL3-18 | 1 | 4 | BARIUM | 1010 | 4270 | J | REG | 19600 | ug/kg |
| EL3-18 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 59 | 183 | | REG | 237 | ug/kg |
| EL3-18 | 1 | 4 | CALCIUM | 2990 | 64000 | | REG | 784000 | ug/kg |
| EL3-18 | 1 | 4 | CHROMIUM | 2190 | 4270 | J | REG | 14600 | ug/kg |
| EL3-18 | 1 | 4 | COPPER | 747 | 8540 | J | REG | 3710 | ug/kg |
| EL3-18 | 1 | 4 | IRON | 8970 | 21300 | | REG | 14500000 | ug/kg |
| EL3-18 | 1 | 4 | LEAD | 587 | 4270 | | REG | 4860 | ug/kg |
| EL3-18 | 1 | 4 | MAGNESIUM | 7150 | 42700 | | REG | 148000 | ug/kg |
| EL3-18 | 1 | 4 | MANGANESE | 4960 | 8010 | J | REG | 33800 | ug/kg |
| EL3-18 | 1 | 4 | MERCURY | 3.08 | 10.3 | | REG | 30.1 | ug/kg |
| EL3-18 | 1 | 4 | POTASSIUM | 5870 | 85400 | | REG | 110000 | ug/kg |
| EL3-18 | 1 | 4 | TOLUENE | 0.192 | 1.07 | J | REG | 0.384 | ug/kg |
| EL3-18 | 1 | 4 | VANADIUM | 747 | 4270 | | REG | 33400 | ug/kg |
| EL3-18 | 1 | 4 | ZINC | 1550 | 10700 | J | REG | 16200 | ug/kg |
| EL3-18 | 4 | 8 | ACETONE | 0.752 | 10.6 | J | REG | 1.01 | ug/kg |
| EL3-18 | 4 | 8 | ALUMINUM | 3970 | 22300 | | REG | 8130000 | ug/kg |
| EL3-18 | 4 | 8 | ALUMINUM | 3720 | 20900 | | FD | 7170000 | ug/kg |
| EL3-18 | 4 | 8 | ARSENIC | 838 | 4470 | J | REG | 3630 | ug/kg |
| EL3-18 | 4 | 8 | BARIUM | 1060 | 4470 | J | REG | 3640 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-18 | 4 | 8 | BARIUM | 995 | 4190 | J | FD | 3410 | ug/kg |
| EL3-18 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60 | 186 | | REG | 323 | ug/kg |
| EL3-18 | 4 | 8 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 59.6 | 185 | | FD | 259 | ug/kg |
| EL3-18 | 4 | 8 | CALCIUM | 3130 | 67000 | | REG | 414000 | ug/kg |
| EL3-18 | 4 | 8 | CALCIUM | 2930 | 62800 | | FD | 387000 | ug/kg |
| EL3-18 | 4 | 8 | CHROMIUM | 2290 | 4470 | J | REG | 15600 | ug/kg |
| EL3-18 | 4 | 8 | CHROMIUM | 2150 | 4190 | J | FD | 12700 | ug/kg |
| EL3-18 | 4 | 8 | COPPER | 733 | 8380 | J | FD | 2030 | ug/kg |
| EL3-18 | 4 | 8 | COPPER | 782 | 8940 | J | REG | 1980 | ug/kg |
| EL3-18 | 4 | 8 | IRON | 9380 | 22300 | | REG | 16700000 | ug/kg |
| EL3-18 | 4 | 8 | IRON | 8800 | 20900 | | FD | 14800000 | ug/kg |
| EL3-18 | 4 | 8 | LEAD | 614 | 4470 | J | REG | 3910 | ug/kg |
| EL3-18 | 4 | 8 | LEAD | 576 | 4190 | J | FD | 3340 | ug/kg |
| EL3-18 | 4 | 8 | MAGNESIUM | 7480 | 44700 | | REG | 65900 | ug/kg |
| EL3-18 | 4 | 8 | MAGNESIUM | 7020 | 41900 | | FD | 59700 | ug/kg |
| EL3-18 | 4 | 8 | MANGANESE | 5190 | 8380 | J | REG | 12900 | ug/kg |
| EL3-18 | 4 | 8 | MANGANESE | 4870 | 7850 | J | FD | 13400 | ug/kg |
| EL3-18 | 4 | 8 | METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0741 | 1.06 | J | REG | 0.191 | ug/kg |
| EL3-18 | 4 | 8 | POTASSIUM | 6140 | 89400 | J | REG | 67200 | ug/kg |
| EL3-18 | 4 | 8 | POTASSIUM | 5760 | 83800 | J | FD | 67600 | ug/kg |
| EL3-18 | 4 | 8 | TOLUENE | 0.192 | 1.07 | J | FD | 0.31 | ug/kg |
| EL3-18 | 4 | 8 | TOLUENE | 0.191 | 1.06 | J | REG | 0.275 | ug/kg |
| EL3-18 | 4 | 8 | VANADIUM | 782 | 4470 | | REG | 41200 | ug/kg |
| EL3-18 | 4 | 8 | VANADIUM | 733 | 4190 | | FD | 33500 | ug/kg |
| EL3-18 | 4 | 8 | ZINC | 1620 | 11200 | J | REG | 5930 | ug/kg |
| EL3-18 | 4 | 8 | ZINC | 1520 | 10500 | J | FD | 7760 | ug/kg |
| EL3-19 | 0 | 1 | ALUMINUM | 1770 | 9970 | | REG | 8700000 | ug/kg |
| EL3-19 | 0 | 1 | AROCLOR 1254 | 7.49 | 34.9 | J | REG | 21.2 | ug/kg |
| EL3-19 | 0 | 1 | AROCLOR 1260 | 7.66 | 34.9 | J | REG | 11.8 | ug/kg |
| EL3-19 | 0 | 1 | ARSENIC | 374 | 1990 | | REG | 2300 | ug/kg |
| EL3-19 | 0 | 1 | BARIUM | 473 | 1990 | | REG | 30100 | ug/kg |
| EL3-19 | 0 | 1 | BENZO[A]ANTHRACENE | 28.2 | 174 | J | REG | 36.3 | ug/kg |
| EL3-19 | 0 | 1 | BENZO[B]FLUORANTHENE | 39.8 | 174 | J | REG | 46.7 | ug/kg |
| EL3-19 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 56.2 | 174 | J | REG | 137 | ug/kg |
| EL3-19 | 0 | 1 | CALCIUM | 1400 | 29900 | | REG | 503000 | ug/kg |
| EL3-19 | 0 | 1 | CHROMIUM | 1020 | 1990 | | REG | 8400 | ug/kg |
| EL3-19 | 0 | 1 | COPPER | 349 | 3990 | | REG | 8840 | ug/kg |
| EL3-19 | 0 | 1 | FLUORANTHENE | 29.8 | 174 | J | REG | 61.4 | ug/kg |
| EL3-19 | 0 | 1 | IRON | 4190 | 9970 | | REG | 8170000 | ug/kg |
| EL3-19 | 0 | 1 | LEAD | 274 | 1990 | | REG | 7530 | ug/kg |
| EL3-19 | 0 | 1 | MAGNESIUM | 3340 | 19900 | J | REG | 126000 | ug/kg |
| EL3-19 | 0 | 1 | MANGANESE | 2320 | 3740 | | REG | 71000 | ug/kg |
| EL3-19 | 0 | 1 | MERCURY | 3.12 | 10.4 | | REG | 33.7 | ug/kg |
| EL3-19 | 0 | 1 | NICKEL | 997 | 4980 | J | REG | 1640 | ug/kg |
| EL3-19 | 0 | 1 | PHENANTHRENE | 27.3 | 174 | J | REG | 32.1 | ug/kg |
| EL3-19 | 0 | 1 | POTASSIUM | 2740 | 39900 | | REG | 100000 | ug/kg |
| EL3-19 | 0 | 1 | PYRENE | 27.2 | 174 | J | REG | 55.5 | ug/kg |
| EL3-19 | 0 | 1 | TOLUENE | 0.187 | 1.04 | J | REG | 0.311 | ug/kg |
| EL3-19 | 0 | 1 | VANADIUM | 349 | 1990 | | REG | 18000 | ug/kg |
| EL3-19 | 0 | 1 | ZINC | 723 | 4980 | J | REG | 6220 | ug/kg |
| EL3-19 | 1 | 4 | ALUMINUM | 3770 | 21200 | | REG | 19200000 | ug/kg |
| EL3-19 | 1 | 4 | ARSENIC | 796 | 4240 | | REG | 4950 | ug/kg |
| EL3-19 | 1 | 4 | BARIUM | 1010 | 4240 | | REG | 32600 | ug/kg |
| EL3-19 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.9 | 183 | J | REG | 178 | ug/kg |
| EL3-19 | 1 | 4 | CALCIUM | 2970 | 63600 | | REG | 731000 | ug/kg |
| EL3-19 | 1 | 4 | CHROMIUM | 2170 | 4240 | | REG | 15700 | ug/kg |
| EL3-19 | 1 | 4 | COPPER | 743 | 8490 | J | REG | 3760 | ug/kg |
| EL3-19 | 1 | 4 | IRON | 8910 | 21200 | | REG | 17900000 | ug/kg |
| EL3-19 | 1 | 4 | LEAD | 583 | 4240 | | REG | 6730 | ug/kg |
| EL3-19 | 1 | 4 | MAGNESIUM | 7110 | 42400 | J | REG | 208000 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-19 | 1 | 4 | MANGANESE | 4930 | 7960 | | REG | 27500 | ug/kg |
| EL3-19 | 1 | 4 | MERCURY | 3.29 | 11 | | REG | 55.1 | ug/kg |
| EL3-19 | 1 | 4 | NICKEL | 2120 | 10600 | J | REG | 3370 | ug/kg |
| EL3-19 | 1 | 4 | POTASSIUM | 5830 | 84900 | | REG | 165000 | ug/kg |
| EL3-19 | 1 | 4 | SODIUM | 71800 | 233000 | J | REG | 86000 | ug/kg |
| EL3-19 | 1 | 4 | TOLUENE | 0.189 | 1.05 | J | REG | 0.483 | ug/kg |
| EL3-19 | 1 | 4 | VANADIUM | 743 | 4240 | | REG | 37000 | ug/kg |
| EL3-19 | 1 | 4 | ZINC | 1540 | 10600 | J | REG | 4480 | ug/kg |
| EL3-19 | 8 | 12 | ALUMINUM | 3840 | 21600 | | REG | 10100000 | ug/kg |
| EL3-19 | 8 | 12 | BARIUM | 1030 | 4330 | | REG | 5600 | ug/kg |
| EL3-19 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 61.2 | 190 | | REG | 1810 | ug/kg |
| EL3-19 | 8 | 12 | CALCIUM | 3030 | 64900 | | REG | 523000 | ug/kg |
| EL3-19 | 8 | 12 | CHROMIUM | 2220 | 4330 | | REG | 12400 | ug/kg |
| EL3-19 | 8 | 12 | IRON | 9090 | 21600 | | REG | 9830000 | ug/kg |
| EL3-19 | 8 | 12 | LEAD | 595 | 4330 | J | REG | 2430 | ug/kg |
| EL3-19 | 8 | 12 | MAGNESIUM | 7250 | 43300 | J | REG | 67200 | ug/kg |
| EL3-19 | 8 | 12 | MANGANESE | 5030 | 8110 | | REG | 34000 | ug/kg |
| EL3-19 | 8 | 12 | MERCURY | 3.2 | 10.7 | | REG | 11.6 | ug/kg |
| EL3-19 | 8 | 12 | POTASSIUM | 5950 | 86500 | J | REG | 71200 | ug/kg |
| EL3-19 | 8 | 12 | TOLUENE | 0.208 | 1.16 | J | REG | 0.463 | ug/kg |
| EL3-19 | 8 | 12 | VANADIUM | 757 | 4330 | | REG | 24200 | ug/kg |
| EL3-19 | 8 | 12 | ZINC | 1570 | 10800 | J | REG | 2690 | ug/kg |
| EL3-19 | 12 | 16 | ALUMINUM | 3750 | 21100 | | REG | 6910000 | ug/kg |
| EL3-19 | 12 | 16 | BARIUM | 1000 | 4220 | J | REG | 3780 | ug/kg |
| EL3-19 | 12 | 16 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.2 | 187 | | REG | 1020 | ug/kg |
| EL3-19 | 12 | 16 | CALCIUM | 2960 | 63300 | | REG | 291000 | ug/kg |
| EL3-19 | 12 | 16 | CHROMIUM | 2160 | 4220 | | REG | 10300 | ug/kg |
| EL3-19 | 12 | 16 | IRON | 8870 | 21100 | | REG | 12300000 | ug/kg |
| EL3-19 | 12 | 16 | LEAD | 581 | 4220 | J | REG | 3380 | ug/kg |
| EL3-19 | 12 | 16 | MAGNESIUM | 7070 | 42200 | J | REG | 52400 | ug/kg |
| EL3-19 | 12 | 16 | MANGANESE | 4910 | 7920 | | REG | 15400 | ug/kg |
| EL3-19 | 12 | 16 | MERCURY | 3.18 | 10.6 | J | REG | 5.19 | ug/kg |
| EL3-19 | 12 | 16 | POTASSIUM | 5810 | 84400 | J | REG | 69000 | ug/kg |
| EL3-19 | 12 | 16 | TOLUENE | 0.194 | 1.08 | J | REG | 0.367 | ug/kg |
| EL3-19 | 12 | 16 | VANADIUM | 739 | 4220 | | REG | 29100 | ug/kg |
| EL3-20 | 0 | 1 | ACETONE | 0.703 | 9.9 | | REG | 149 | ug/kg |
| EL3-20 | 0 | 1 | ALUMINUM | 1710 | 9630 | | REG | 5100000 | ug/kg |
| EL3-20 | 0 | 1 | BARIUM | 458 | 1930 | | REG | 19300 | ug/kg |
| EL3-20 | 0 | 1 | CALCIUM | 1350 | 28900 | | REG | 51500 | ug/kg |
| EL3-20 | 0 | 1 | CHROMIUM | 987 | 1930 | | REG | 4280 | ug/kg |
| EL3-20 | 0 | 1 | COPPER | 337 | 3850 | J | REG | 865 | ug/kg |
| EL3-20 | 0 | 1 | IRON | 4050 | 9630 | | REG | 3320000 | ug/kg |
| EL3-20 | 0 | 1 | LEAD | 265 | 1930 | | REG | 4480 | ug/kg |
| EL3-20 | 0 | 1 | MAGNESIUM | 3230 | 19300 | J | REG | 115000 | ug/kg |
| EL3-20 | 0 | 1 | MANGANESE | 2240 | 3610 | | REG | 23400 | ug/kg |
| EL3-20 | 0 | 1 | MERCURY | 2.98 | 9.93 | J | REG | 8.38 | ug/kg |
| EL3-20 | 0 | 1 | METHYL ETHYL KETONE | 0.386 | 4.95 | | REG | 8.11 | ug/kg |
| EL3-20 | 0 | 1 | NICKEL | 963 | 4820 | J | REG | 1340 | ug/kg |
| EL3-20 | 0 | 1 | POTASSIUM | 2650 | 38500 | | REG | 82900 | ug/kg |
| EL3-20 | 0 | 1 | VANADIUM | 337 | 1930 | | REG | 7330 | ug/kg |
| EL3-20 | 0 | 1 | ZINC | 698 | 4820 | J | REG | 3090 | ug/kg |
| EL3-20 | 1 | 4 | ALUMINUM | 1810 | 10200 | | REG | 18300000 | ug/kg |
| EL3-20 | 1 | 4 | ARSENIC | 382 | 2040 | | REG | 3030 | ug/kg |
| EL3-20 | 1 | 4 | BARIUM | 484 | 2040 | | REG | 15300 | ug/kg |
| EL3-20 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.8 | 182 | | REG | 197 | ug/kg |
| EL3-20 | 1 | 4 | CALCIUM | 1430 | 30500 | | REG | 112000 | ug/kg |
| EL3-20 | 1 | 4 | CHROMIUM | 1040 | 2040 | | REG | 18100 | ug/kg |
| EL3-20 | 1 | 4 | COPPER | 356 | 4070 | J | REG | 3740 | ug/kg |
| EL3-20 | 1 | 4 | IRON | 4280 | 10200 | | REG | 16600000 | ug/kg |
| EL3-20 | 1 | 4 | LEAD | 280 | 2040 | | REG | 6110 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-20 | 1 | 4 | MAGNESIUM | 3410 | 20400 | J | REG | 223000 | ug/kg |
| EL3-20 | 1 | 4 | MANGANESE | 2370 | 3820 | | REG | 14400 | ug/kg |
| EL3-20 | 1 | 4 | MERCURY | 3.12 | 10.4 | J | REG | 41.7 | ug/kg |
| EL3-20 | 1 | 4 | NICKEL | 1020 | 5090 | J | REG | 2820 | ug/kg |
| EL3-20 | 1 | 4 | POTASSIUM | 2800 | 40700 | | REG | 145000 | ug/kg |
| EL3-20 | 1 | 4 | VANADIUM | 356 | 2040 | | REG | 36300 | ug/kg |
| EL3-20 | 1 | 4 | ZINC | 738 | 5090 | J | REG | 4680 | ug/kg |
| EL3-20 | 8 | 12 | 1,1-DICHLOROETHYLENE | 0.265 | 1.1 | | REG | 1.65 | ug/kg |
| EL3-20 | 8 | 12 | 1,1-DICHLOROETHYLENE | 0.277 | 1.16 | J | FD | 0.728 | ug/kg |
| EL3-20 | 8 | 12 | ALUMINUM | 3910 | 22000 | | REG | 12100000 | ug/kg |
| EL3-20 | 8 | 12 | ALUMINUM | 3980 | 22400 | | FD | 15100000 | ug/kg |
| EL3-20 | 8 | 12 | ARSENIC | 826 | 4400 | | REG | 6000 | ug/kg |
| EL3-20 | 8 | 12 | ARSENIC | 840 | 4480 | | FD | 8840 | ug/kg |
| EL3-20 | 8 | 12 | BARIUM | 1050 | 4400 | J | REG | 3470 | ug/kg |
| EL3-20 | 8 | 12 | BARIUM | 1060 | 4480 | J | FD | 4230 | ug/kg |
| EL3-20 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 62.3 | 193 | | REG | 524 | ug/kg |
| EL3-20 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 63 | 195 | | FD | 881 | ug/kg |
| EL3-20 | 8 | 12 | CALCIUM | 3080 | 66100 | J | REG | 52100 | ug/kg |
| EL3-20 | 8 | 12 | CALCIUM | 3140 | 67200 | J | FD | 63100 | ug/kg |
| EL3-20 | 8 | 12 | CHROMIUM | 2260 | 4400 | | REG | 24900 | ug/kg |
| EL3-20 | 8 | 12 | CHROMIUM | 2300 | 4480 | | FD | 35400 | ug/kg |
| EL3-20 | 8 | 12 | COPPER | 784 | 8960 | J | FD | 2990 | ug/kg |
| EL3-20 | 8 | 12 | COPPER | 771 | 8810 | J | REG | 2270 | ug/kg |
| EL3-20 | 8 | 12 | IRON | 9250 | 22000 | | REG | 28100000 | ug/kg |
| EL3-20 | 8 | 12 | IRON | 9410 | 22400 | | FD | 39000000 | ug/kg |
| EL3-20 | 8 | 12 | LEAD | 606 | 4400 | | REG | 5000 | ug/kg |
| EL3-20 | 8 | 12 | LEAD | 616 | 4480 | | FD | 6160 | ug/kg |
| EL3-20 | 8 | 12 | MAGNESIUM | 7380 | 44000 | J | REG | 74600 | ug/kg |
| EL3-20 | 8 | 12 | MAGNESIUM | 7510 | 44800 | J | FD | 95000 | ug/kg |
| EL3-20 | 8 | 12 | MANGANESE | 5120 | 8260 | | REG | 10700 | ug/kg |
| EL3-20 | 8 | 12 | MANGANESE | 5210 | 8400 | | FD | 10100 | ug/kg |
| EL3-20 | 8 | 12 | POTASSIUM | 6060 | 88100 | J | REG | 55900 | ug/kg |
| EL3-20 | 8 | 12 | POTASSIUM | 6160 | 89600 | J | FD | 61000 | ug/kg |
| EL3-20 | 8 | 12 | VANADIUM | 771 | 4400 | | REG | 64200 | ug/kg |
| EL3-20 | 8 | 12 | VANADIUM | 784 | 4480 | | FD | 89800 | ug/kg |
| EL3-20 | 12 | 16 | ALUMINUM | 1870 | 10500 | | REG | 5030000 | ug/kg |
| EL3-20 | 12 | 16 | ARSENIC | 395 | 2110 | J | REG | 1630 | ug/kg |
| EL3-20 | 12 | 16 | BARIUM | 501 | 2110 | J | REG | 1680 | ug/kg |
| EL3-20 | 12 | 16 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.3 | 187 | | REG | 451 | ug/kg |
| EL3-20 | 12 | 16 | CHROMIUM | 1080 | 2110 | | REG | 4060 | ug/kg |
| EL3-20 | 12 | 16 | COPPER | 369 | 4220 | J | REG | 1150 | ug/kg |
| EL3-20 | 12 | 16 | IRON | 4430 | 10500 | | REG | 6400000 | ug/kg |
| EL3-20 | 12 | 16 | LEAD | 290 | 2110 | | REG | 5110 | ug/kg |
| EL3-20 | 12 | 16 | MAGNESIUM | 3530 | 21100 | J | REG | 34300 | ug/kg |
| EL3-20 | 12 | 16 | MANGANESE | 2450 | 3950 | | REG | 7340 | ug/kg |
| EL3-20 | 12 | 16 | POTASSIUM | 2900 | 42200 | J | REG | 37200 | ug/kg |
| EL3-20 | 12 | 16 | VANADIUM | 369 | 2110 | | REG | 19400 | ug/kg |
| EL3-20 | 12 | 16 | ZINC | 764 | 5270 | J | REG | 928 | ug/kg |
| EL3-21 | 0 | 1 | ALUMINUM | 1780 | 10100 | | REG | 7260000 | ug/kg |
| EL3-21 | 0 | 1 | BARIUM | 478 | 2010 | | REG | 28500 | ug/kg |
| EL3-21 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 56.2 | 174 | J | REG | 121 | ug/kg |
| EL3-21 | 0 | 1 | CALCIUM | 1410 | 30200 | | REG | 73400 | ug/kg |
| EL3-21 | 0 | 1 | CHROMIUM | 1030 | 2010 | | REG | 5680 | ug/kg |
| EL3-21 | 0 | 1 | COPPER | 352 | 4020 | J | REG | 1910 | ug/kg |
| EL3-21 | 0 | 1 | IRON | 4220 | 10100 | | REG | 5030000 | ug/kg |
| EL3-21 | 0 | 1 | LEAD | 276 | 2010 | | REG | 4850 | ug/kg |
| EL3-21 | 0 | 1 | MAGNESIUM | 3370 | 20100 | J | REG | 139000 | ug/kg |
| EL3-21 | 0 | 1 | MANGANESE | 2340 | 3770 | | REG | 30000 | ug/kg |
| EL3-21 | 0 | 1 | MERCURY | 3.1 | 10.3 | | REG | 14.3 | ug/kg |
| EL3-21 | 0 | 1 | NICKEL | 1010 | 5030 | J | REG | 1690 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-21 | 0 | 1 | POTASSIUM | 2760 | 40200 | | REG | 95900 | ug/kg |
| EL3-21 | 0 | 1 | TOLUENE | 0.19 | 1.06 | J | REG | 0.296 | ug/kg |
| EL3-21 | 0 | 1 | VANADIUM | 352 | 2010 | | REG | 10300 | ug/kg |
| EL3-21 | 0 | 1 | ZINC | 729 | 5030 | J | REG | 3080 | ug/kg |
| EL3-21 | 1 | 4 | ALUMINUM | 3740 | 21100 | | REG | 18900000 | ug/kg |
| EL3-21 | 1 | 4 | BARIUM | 1000 | 4210 | | REG | 17300 | ug/kg |
| EL3-21 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 59.3 | 184 | J | REG | 60.3 | ug/kg |
| EL3-21 | 1 | 4 | CALCIUM | 2950 | 63200 | | REG | 66400 | ug/kg |
| EL3-21 | 1 | 4 | CHROMIUM | 2160 | 4210 | | REG | 17900 | ug/kg |
| EL3-21 | 1 | 4 | COPPER | 737 | 8420 | J | REG | 3290 | ug/kg |
| EL3-21 | 1 | 4 | IRON | 8850 | 21100 | | REG | 16300000 | ug/kg |
| EL3-21 | 1 | 4 | LEAD | 579 | 4210 | | REG | 5970 | ug/kg |
| EL3-21 | 1 | 4 | MAGNESIUM | 7060 | 42100 | J | REG | 206000 | ug/kg |
| EL3-21 | 1 | 4 | MANGANESE | 4900 | 7900 | | REG | 13400 | ug/kg |
| EL3-21 | 1 | 4 | MERCURY | 3.23 | 10.8 | J | REG | 76 | ug/kg |
| EL3-21 | 1 | 4 | NICKEL | 2110 | 10500 | J | REG | 2410 | ug/kg |
| EL3-21 | 1 | 4 | POTASSIUM | 5790 | 84200 | | REG | 139000 | ug/kg |
| EL3-21 | 1 | 4 | VANADIUM | 737 | 4210 | | REG | 36600 | ug/kg |
| EL3-21 | 1 | 4 | ZINC | 1530 | 10500 | J | REG | 3900 | ug/kg |
| EL3-21 | 8 | 12 | 1,1-DICHLOROETHYLENE | 0.273 | 1.14 | | REG | 2.37 | ug/kg |
| EL3-21 | 8 | 12 | ALUMINUM | 3680 | 20700 | | REG | 6790000 | ug/kg |
| EL3-21 | 8 | 12 | BARIUM | 986 | 4150 | J | REG | 3770 | ug/kg |
| EL3-21 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.2 | 187 | | REG | 516 | ug/kg |
| EL3-21 | 8 | 12 | CHROMIUM | 2130 | 4150 | | REG | 10600 | ug/kg |
| EL3-21 | 8 | 12 | IRON | 8710 | 20700 | | REG | 11900000 | ug/kg |
| EL3-21 | 8 | 12 | LEAD | 571 | 4150 | J | REG | 3610 | ug/kg |
| EL3-21 | 8 | 12 | MAGNESIUM | 6950 | 41500 | J | REG | 48000 | ug/kg |
| EL3-21 | 8 | 12 | MANGANESE | 4820 | 7780 | | REG | 19900 | ug/kg |
| EL3-21 | 8 | 12 | POTASSIUM | 5710 | 83000 | J | REG | 49800 | ug/kg |
| EL3-21 | 8 | 12 | VANADIUM | 726 | 4150 | | REG | 27500 | ug/kg |
| EL3-21 | 8 | 12 | ZINC | 1500 | 10400 | J | REG | 1640 | ug/kg |
| EL3-21 | 12 | 16 | 1,1-DICHLOROETHYLENE | 0.283 | 1.18 | J | REG | 0.648 | ug/kg |
| EL3-21 | 12 | 16 | ALUMINUM | 4000 | 22500 | | REG | 14900000 | ug/kg |
| EL3-21 | 12 | 16 | ARSENIC | 845 | 4510 | | REG | 5500 | ug/kg |
| EL3-21 | 12 | 16 | BARIUM | 1070 | 4510 | | REG | 5040 | ug/kg |
| EL3-21 | 12 | 16 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 65.2 | 203 | | REG | 683 | ug/kg |
| EL3-21 | 12 | 16 | CHROMIUM | 2310 | 4510 | | REG | 26900 | ug/kg |
| EL3-21 | 12 | 16 | COPPER | 789 | 9010 | J | REG | 3720 | ug/kg |
| EL3-21 | 12 | 16 | IRON | 9460 | 22500 | | REG | 26700000 | ug/kg |
| EL3-21 | 12 | 16 | LEAD | 620 | 4510 | | REG | 6300 | ug/kg |
| EL3-21 | 12 | 16 | MAGNESIUM | 7550 | 45100 | J | REG | 86400 | ug/kg |
| EL3-21 | 12 | 16 | MANGANESE | 5240 | 8450 | | REG | 19300 | ug/kg |
| EL3-21 | 12 | 16 | MERCURY | 3.54 | 11.8 | J | REG | 8.23 | ug/kg |
| EL3-21 | 12 | 16 | NICKEL | 2250 | 11300 | J | REG | 4060 | ug/kg |
| EL3-21 | 12 | 16 | POTASSIUM | 6200 | 90100 | J | REG | 66800 | ug/kg |
| EL3-21 | 12 | 16 | VANADIUM | 789 | 4510 | | REG | 67300 | ug/kg |
| EL3-21 | 12 | 16 | ZINC | 1630 | 11300 | J | REG | 3680 | ug/kg |
| EL3-22 | 0 | 1 | 1,1-DICHLOROETHYLENE | 0.248 | 1.03 | J | REG | 0.362 | ug/kg |
| EL3-22 | 0 | 1 | ALUMINUM | 1750 | 9840 | | REG | 7250000 | ug/kg |
| EL3-22 | 0 | 1 | BARIUM | 467 | 1970 | | REG | 30900 | ug/kg |
| EL3-22 | 0 | 1 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 55.8 | 173 | | REG | 262 | ug/kg |
| EL3-22 | 0 | 1 | CALCIUM | 1380 | 29500 | | REG | 110000 | ug/kg |
| EL3-22 | 0 | 1 | CHROMIUM | 1010 | 1970 | | REG | 5830 | ug/kg |
| EL3-22 | 0 | 1 | COPPER | 344 | 3930 | J | REG | 1300 | ug/kg |
| EL3-22 | 0 | 1 | IRON | 4130 | 9840 | | REG | 5460000 | ug/kg |
| EL3-22 | 0 | 1 | LEAD | 271 | 1970 | | REG | 4500 | ug/kg |
| EL3-22 | 0 | 1 | MAGNESIUM | 3300 | 19700 | J | REG | 137000 | ug/kg |
| EL3-22 | 0 | 1 | MANGANESE | 2290 | 3690 | | REG | 56600 | ug/kg |
| EL3-22 | 0 | 1 | MERCURY | 2.99 | 9.96 | J | REG | 13.1 | ug/kg |
| EL3-22 | 0 | 1 | NICKEL | 984 | 4920 | J | REG | 1460 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-22 | 0 | 1 | POTASSIUM | 2710 | 39300 | | REG | 99400 | ug/kg |
| EL3-22 | 0 | 1 | VANADIUM | 344 | 1970 | | REG | 11800 | ug/kg |
| EL3-22 | 0 | 1 | ZINC | 713 | 4920 | J | REG | 3320 | ug/kg |
| EL3-22 | 1 | 4 | 1,1-DICHLOROETHYLENE | 0.265 | 1.11 | | REG | 2.12 | ug/kg |
| EL3-22 | 1 | 4 | 1,1-DICHLOROETHYLENE | 0.257 | 1.07 | | FD | 2.25 | ug/kg |
| EL3-22 | 1 | 4 | ALUMINUM | 3710 | 20900 | | REG | 17300000 | ug/kg |
| EL3-22 | 1 | 4 | ALUMINUM | 1840 | 10300 | | FD | 16000000 | ug/kg |
| EL3-22 | 1 | 4 | ARSENIC | 784 | 4180 | J | REG | 3470 | ug/kg |
| EL3-22 | 1 | 4 | ARSENIC | 388 | 2070 | | FD | 4160 | ug/kg |
| EL3-22 | 1 | 4 | BARIUM | 993 | 4180 | | REG | 23700 | ug/kg |
| EL3-22 | 1 | 4 | BARIUM | 491 | 2070 | | FD | 21600 | ug/kg |
| EL3-22 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.9 | 183 | | REG | 232 | ug/kg |
| EL3-22 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 58.9 | 183 | J | FD | 114 | ug/kg |
| EL3-22 | 1 | 4 | CALCIUM | 2930 | 62700 | | REG | 73000 | ug/kg |
| EL3-22 | 1 | 4 | CALCIUM | 1450 | 31000 | | FD | 63500 | ug/kg |
| EL3-22 | 1 | 4 | CHROMIUM | 2140 | 4180 | | REG | 17800 | ug/kg |
| EL3-22 | 1 | 4 | CHROMIUM | 1060 | 2070 | | FD | 17800 | ug/kg |
| EL3-22 | 1 | 4 | COPPER | 362 | 4140 | J | FD | 3360 | ug/kg |
| EL3-22 | 1 | 4 | COPPER | 732 | 8360 | J | REG | 2990 | ug/kg |
| EL3-22 | 1 | 4 | IRON | 8780 | 20900 | | REG | 16900000 | ug/kg |
| EL3-22 | 1 | 4 | IRON | 4340 | 10300 | | FD | 16600000 | ug/kg |
| EL3-22 | 1 | 4 | LEAD | 575 | 4180 | | REG | 5710 | ug/kg |
| EL3-22 | 1 | 4 | LEAD | 284 | 2070 | | FD | 5890 | ug/kg |
| EL3-22 | 1 | 4 | MAGNESIUM | 7000 | 41800 | J | REG | 234000 | ug/kg |
| EL3-22 | 1 | 4 | MAGNESIUM | 3460 | 20700 | J | FD | 217000 | ug/kg |
| EL3-22 | 1 | 4 | MANGANESE | 4860 | 7840 | | REG | 16400 | ug/kg |
| EL3-22 | 1 | 4 | MANGANESE | 2400 | 3880 | | FD | 16100 | ug/kg |
| EL3-22 | 1 | 4 | MERCURY | 3.26 | 10.9 | J | REG | 62.2 | ug/kg |
| EL3-22 | 1 | 4 | MERCURY | 3.23 | 10.8 | J | FD | 51.3 | ug/kg |
| EL3-22 | 1 | 4 | NICKEL | 2090 | 10500 | J | REG | 2690 | ug/kg |
| EL3-22 | 1 | 4 | NICKEL | 1030 | 5170 | J | FD | 2650 | ug/kg |
| EL3-22 | 1 | 4 | POTASSIUM | 5750 | 83600 | | REG | 150000 | ug/kg |
| EL3-22 | 1 | 4 | POTASSIUM | 2840 | 41400 | | FD | 142000 | ug/kg |
| EL3-22 | 1 | 4 | VANADIUM | 732 | 4180 | | REG | 36100 | ug/kg |
| EL3-22 | 1 | 4 | VANADIUM | 362 | 2070 | | FD | 35600 | ug/kg |
| EL3-22 | 1 | 4 | ZINC | 1520 | 10500 | J | REG | 4770 | ug/kg |
| EL3-22 | 1 | 4 | ZINC | 750 | 5170 | J | FD | 4430 | ug/kg |
| EL3-22 | 8 | 12 | ALUMINUM | 3810 | 21400 | | REG | 12200000 | ug/kg |
| EL3-22 | 8 | 12 | ARSENIC | 804 | 4290 | | REG | 5870 | ug/kg |
| EL3-22 | 8 | 12 | BARIUM | 1020 | 4290 | J | REG | 3410 | ug/kg |
| EL3-22 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 61.5 | 191 | | REG | 484 | ug/kg |
| EL3-22 | 8 | 12 | CHROMIUM | 2200 | 4290 | | REG | 24000 | ug/kg |
| EL3-22 | 8 | 12 | COPPER | 750 | 8570 | J | REG | 2140 | ug/kg |
| EL3-22 | 8 | 12 | IRON | 9000 | 21400 | | REG | 23800000 | ug/kg |
| EL3-22 | 8 | 12 | LEAD | 590 | 4290 | | REG | 4420 | ug/kg |
| EL3-22 | 8 | 12 | MAGNESIUM | 7180 | 42900 | J | REG | 51800 | ug/kg |
| EL3-22 | 8 | 12 | MANGANESE | 4980 | 8040 | | REG | 10000 | ug/kg |
| EL3-22 | 8 | 12 | MERCURY | 3.29 | 11 | J | REG | 3.41 | ug/kg |
| EL3-22 | 8 | 12 | POTASSIUM | 5900 | 85700 | J | REG | 40500 | ug/kg |
| EL3-22 | 8 | 12 | VANADIUM | 750 | 4290 | | REG | 54700 | ug/kg |
| EL3-22 | 12 | 16 | ALUMINUM | 3910 | 22000 | | REG | 9410000 | ug/kg |
| EL3-22 | 12 | 16 | ARSENIC | 826 | 4400 | J | REG | 2810 | ug/kg |
| EL3-22 | 12 | 16 | BARIUM | 1050 | 4400 | J | REG | 2780 | ug/kg |
| EL3-22 | 12 | 16 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 62.8 | 195 | | REG | 329 | ug/kg |
| EL3-22 | 12 | 16 | CHROMIUM | 2260 | 4400 | | REG | 19300 | ug/kg |
| EL3-22 | 12 | 16 | COPPER | 771 | 8810 | J | REG | 2350 | ug/kg |
| EL3-22 | 12 | 16 | IRON | 9250 | 22000 | | REG | 19300000 | ug/kg |
| EL3-22 | 12 | 16 | LEAD | 606 | 4400 | | REG | 4900 | ug/kg |
| EL3-22 | 12 | 16 | MAGNESIUM | 7380 | 44000 | J | REG | 37400 | ug/kg |
| EL3-22 | 12 | 16 | MANGANESE | 5120 | 8260 | | REG | 9380 | ug/kg |

## Table A.1. ECODS L-3 Site Evaluation Results Above MDL *(Continued/End)*

| Location ID | Sample Interval [ft bgs] | | Analyte | MDL | PQL | Qualifier | Sample Type | Result | Result Units |
|---|---|---|---|---|---|---|---|---|---|
| | Top | Bottom | | | | | | | |
| EL3-22 | 12 | 16 | POTASSIUM | 6060 | 88100 | J | REG | 41600 | ug/kg |
| EL3-22 | 12 | 16 | VANADIUM | 771 | 4400 | | REG | 49400 | ug/kg |
| EL3-23 | 0 | 1 | ALUMINUM | 1720 | 9690 | | REG | 3400000 | ug/kg |
| EL3-23 | 0 | 1 | ARSENIC | 363 | 1940 | J | REG | 1720 | ug/kg |
| EL3-23 | 0 | 1 | BARIUM | 460 | 1940 | | REG | 12200 | ug/kg |
| EL3-23 | 0 | 1 | CALCIUM | 1360 | 29100 | | REG | 32200 | ug/kg |
| EL3-23 | 0 | 1 | CHROMIUM | 993 | 1940 | | REG | 3720 | ug/kg |
| EL3-23 | 0 | 1 | IRON | 4070 | 9690 | | REG | 3220000 | ug/kg |
| EL3-23 | 0 | 1 | LEAD | 266 | 1940 | | REG | 3650 | ug/kg |
| EL3-23 | 0 | 1 | MAGNESIUM | 3250 | 19400 | J | REG | 70900 | ug/kg |
| EL3-23 | 0 | 1 | MANGANESE | 2250 | 3630 | | REG | 27300 | ug/kg |
| EL3-23 | 0 | 1 | MERCURY | 2.86 | 9.53 | J | REG | 5.61 | ug/kg |
| EL3-23 | 0 | 1 | POTASSIUM | 2660 | 38800 | | REG | 57600 | ug/kg |
| EL3-23 | 0 | 1 | VANADIUM | 339 | 1940 | | REG | 6690 | ug/kg |
| EL3-23 | 0 | 1 | ZINC | 702 | 4840 | J | REG | 2250 | ug/kg |
| EL3-23 | 1 | 4 | 1,1-DICHLOROETHYLENE | 0.278 | 1.16 | | REG | 2.63 | ug/kg |
| EL3-23 | 1 | 4 | ALUMINUM | 4010 | 22600 | | REG | 18900000 | ug/kg |
| EL3-23 | 1 | 4 | ARSENIC | 847 | 4520 | | REG | 7880 | ug/kg |
| EL3-23 | 1 | 4 | BARIUM | 1070 | 4520 | | REG | 14800 | ug/kg |
| EL3-23 | 1 | 4 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 62.5 | 194 | | REG | 638 | ug/kg |
| EL3-23 | 1 | 4 | CALCIUM | 3160 | 67800 | | REG | 77700 | ug/kg |
| EL3-23 | 1 | 4 | CHROMIUM | 2320 | 4520 | | REG | 29300 | ug/kg |
| EL3-23 | 1 | 4 | COPPER | 791 | 9040 | J | REG | 3750 | ug/kg |
| EL3-23 | 1 | 4 | IRON | 9490 | 22600 | | REG | 31800000 | ug/kg |
| EL3-23 | 1 | 4 | LEAD | 621 | 4520 | | REG | 6210 | ug/kg |
| EL3-23 | 1 | 4 | MAGNESIUM | 7570 | 45200 | J | REG | 215000 | ug/kg |
| EL3-23 | 1 | 4 | MANGANESE | 5250 | 8470 | | REG | 11200 | ug/kg |
| EL3-23 | 1 | 4 | MERCURY | 3.38 | 11.3 | J | REG | 53.7 | ug/kg |
| EL3-23 | 1 | 4 | POTASSIUM | 6210 | 90400 | | REG | 116000 | ug/kg |
| EL3-23 | 1 | 4 | VANADIUM | 791 | 4520 | | REG | 73800 | ug/kg |
| EL3-23 | 1 | 4 | ZINC | 1640 | 11300 | J | REG | 2790 | ug/kg |
| EL3-23 | 8 | 12 | ALUMINUM | 1900 | 10700 | | REG | 5710000 | ug/kg |
| EL3-23 | 8 | 12 | ARSENIC | 401 | 2140 | J | REG | 1610 | ug/kg |
| EL3-23 | 8 | 12 | BARIUM | 508 | 2140 | | REG | 2440 | ug/kg |
| EL3-23 | 8 | 12 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 61.2 | 190 | J | REG | 1580 | ug/kg |
| EL3-23 | 8 | 12 | CHROMIUM | 1100 | 2140 | | REG | 6860 | ug/kg |
| EL3-23 | 8 | 12 | COPPER | 374 | 4280 | J | REG | 1030 | ug/kg |
| EL3-23 | 8 | 12 | IRON | 4490 | 10700 | | REG | 8060000 | ug/kg |
| EL3-23 | 8 | 12 | LEAD | 294 | 2140 | | REG | 4280 | ug/kg |
| EL3-23 | 8 | 12 | MAGNESIUM | 3580 | 21400 | J | REG | 34400 | ug/kg |
| EL3-23 | 8 | 12 | MANGANESE | 2490 | 4010 | | REG | 9430 | ug/kg |
| EL3-23 | 8 | 12 | POTASSIUM | 2940 | 42800 | J | REG | 33600 | ug/kg |
| EL3-23 | 8 | 12 | VANADIUM | 374 | 2140 | | REG | 21100 | ug/kg |
| EL3-23 | 8 | 12 | ZINC | 775 | 5350 | J | REG | 1240 | ug/kg |
| EL3-23 | 12 | 16 | ALUMINUM | 1960 | 11100 | | REG | 6550000 | ug/kg |
| EL3-23 | 12 | 16 | ARSENIC | 415 | 2210 | J | REG | 1910 | ug/kg |
| EL3-23 | 12 | 16 | BARIUM | 526 | 2210 | | REG | 3350 | ug/kg |
| EL3-23 | 12 | 16 | BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 60.1 | 187 | J | REG | 193 | ug/kg |
| EL3-23 | 12 | 16 | CHROMIUM | 1130 | 2210 | | REG | 9710 | ug/kg |
| EL3-23 | 12 | 16 | COPPER | 387 | 4430 | J | REG | 1290 | ug/kg |
| EL3-23 | 12 | 16 | IRON | 4650 | 11100 | | REG | 8260000 | ug/kg |
| EL3-23 | 12 | 16 | LEAD | 304 | 2210 | | REG | 3760 | ug/kg |
| EL3-23 | 12 | 16 | MAGNESIUM | 3710 | 22100 | J | REG | 55400 | ug/kg |
| EL3-23 | 12 | 16 | MANGANESE | 2570 | 4150 | | REG | 10900 | ug/kg |
| EL3-23 | 12 | 16 | POTASSIUM | 3040 | 44300 | | REG | 47900 | ug/kg |
| EL3-23 | 12 | 16 | VANADIUM | 387 | 2210 | | REG | 20100 | ug/kg |
| EL3-23 | 12 | 16 | ZINC | 802 | 5530 | J | REG | 1920 | ug/kg |

ft bgs - feet below ground surface
MDL - method detection limit
PQL - practical quantification limit
J - estimated result (above MDL; below PQL)
REG - regular sample
FD - field duplicate sample

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# APPENDIX B

# 1994 LRP 131-4L Subunit Site Evaluation Results Above Method Detection Limits

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## Table B.1. LRP 131-4L Site Evaluation Results Above MDL

| Customer ID | RFW # | Analyte | Qualifier | Result | Units |
|---|---|---|---|---|---|
| **Semi-Volatiles** | | | | | |
| 94174-8 | 004 | 2-Methylnaphthalene | J | 58 | ug/kg |
| 94174-3-2 | 008 | 2-Methylnaphthalene | J | 41 | ug/kg |
| 94174-6 | 002 | Acenaphthlene | | 390 | ug/kg |
| 94174-11 | 007 | Acenaphthlene | | 390 | ug/kg |
| 94174-7 | 003 | Acenaphthlene | J | 72 | ug/kg |
| 94174-3-2 | 008 | Acenaphthylene | J | 170 | ug/kg |
| 94174-3-2 | 008 | Anthracene | | 2600 | ug/kg |
| 94174-6 | 002 | Anthracene | | 1100 | ug/kg |
| 94174-7 | 003 | Anthracene | J | 110 | ug/kg |
| 94174-6 | 002 | Benzo(a)anthracene | | 3300 | ug/kg |
| 94174-3-2 | 008 | Benzo(a)anthracene | | 1500 | ug/kg |
| 94174-7 | 003 | Benzo(a)anthracene | J | 260 | ug/kg |
| 94174-5 | 001 | Benzo(a)anthracene | J | 150 | ug/kg |
| 94174-10 | 006 | Benzo(a)anthracene | J | 72 | ug/kg |
| 94174-3-7 | 009 | Benzo(a)anthracene | J | 56 | ug/kg |
| 94174-8 | 004 | Benzo(a)anthracene | J | 44 | ug/kg |
| 94174-9 | 005 | Benzo(a)anthracene | J | 37 | ug/kg |
| 94174-6 | 002 | Benzo(a)pyrene | | 2300 | ug/kg |
| 94174-3-2 | 008 | Benzo(a)pyrene | | 780 | ug/kg |
| 94174-7 | 003 | Benzo(a)pyrene | J | 260 | ug/kg |
| 94174-5 | 001 | Benzo(a)pyrene | J | 150 | ug/kg |
| 94174-10 | 006 | Benzo(a)pyrene | J | 62 | ug/kg |
| 94174-3-7 | 009 | Benzo(a)pyrene | J | 47 | ug/kg |
| 94174-8 | 004 | Benzo(a)pyrene | J | 40 | ug/kg |
| 94174-6 | 002 | Benzo(b)fluoranthene | | 3800 | ug/kg |
| 94174-3-2 | 008 | Benzo(b)fluoranthene | | 2100 | ug/kg |
| 94174-7 | 003 | Benzo(b)fluoranthene | J | 350 | ug/kg |
| 94174-5 | 001 | Benzo(b)fluoranthene | J | 230 | ug/kg |
| 94174-10 | 006 | Benzo(b)fluoranthene | J | 120 | ug/kg |
| 94174-3-7 | 009 | Benzo(b)fluoranthene | J | 82 | ug/kg |
| 94174-8 | 004 | Benzo(b)fluoranthene | J | 71 | ug/kg |
| 94174-11 | 007 | Benzo(b)fluoranthene | J | 58 | ug/kg |
| 94174-6 | 002 | Benzo(g,h,i)perylene | | 670 | ug/kg |
| 94174-3-2 | 008 | Benzo(g,h,i)perylene | J | 180 | ug/kg |
| 94174-7 | 003 | Benzo(g,h,i)perylene | J | 110 | ug/kg |
| 94174-5 | 001 | Benzo(g,h,i)perylene | J | 84 | ug/kg |
| 94174-6 | 002 | Benzo(k)fluoranthene | | 1400 | ug/kg |
| 94174-3-2 | 008 | Benzo(k)fluoranthene | J | 360 | ug/kg |
| 94174-9 | 005 | Benzo(k)fluoranthene | J | 360 | ug/kg |
| 94174-5 | 001 | Benzo(k)fluoranthene | J | 89 | ug/kg |
| 94174-10 | 006 | Benzo(k)fluoranthene | J | 59 | ug/kg |
| 94174-2-7 | 007 | bis(2-Ethylhexyl)phthalate | J | 400 | ug/kg |
| 94174-3-7 | 009 | bis(2-Ethylhexyl)phthalate | J | 390 | ug/kg |
| 94174-B-7 | 002 | bis(2-Ethylhexyl)phthalate | J | 380 | ug/kg |
| 94174-B-7 | 002 RE | bis(2-Ethylhexyl)phthalate | J | 380 | ug/kg |
| 94174-3-2 | 008 | bis(2-Ethylhexyl)phthalate | J | 380 | ug/kg |
| 94174-5 | 001 | bis(2-Ethylhexyl)phthalate | J | 380 | ug/kg |
| 94174-1-2 | 004 | bis(2-Ethylhexyl)phthalate | J | 370 | ug/kg |
| 94174-2-2 | 006 | bis(2-Ethylhexyl)phthalate | J | 370 | ug/kg |
| 94174-4-2 | 010 | bis(2-Ethylhexyl)phthalate | J | 370 | ug/kg |

## Table B.1. LRP 131-4L Site Evaluation Results Above MDL *(Continued)*

| Customer ID | RFW # | Analyte | Qualifier | Result | Units |
|---|---|---|---|---|---|
| 94174-B-2 | 001 RE | bis(2-Ethylhexyl)phthalate | J | 360 | ug/kg |
| 94174-7 | 003 | bis(2-Ethylhexyl)phthalate | J | 360 | ug/kg |
| 94174-9 | 005 | bis(2-Ethylhexyl)phthalate | J | 360 | ug/kg |
| SBLKFB | 94GB0560-MB1 | bis(2-Ethylhexyl)phthalate | J | 330 | ug/kg |
| 94174-1-7 | 005 | bis(2-Ethylhexyl)phthalate | J | 85 | ug/kg |
| 94174-B-2 | 001 | bis(2-Ethylhexyl)phthalate | J | 47 | ug/kg |
| 94174-6 | 002 | Chrysene | | 2500 | ug/kg |
| 94174-3-2 | 008 | Chrysene | | 1500 | ug/kg |
| 94174-7 | 003 | Chrysene | J | 200 | ug/kg |
| 94174-5 | 001 | Chrysene | J | 160 | ug/kg |
| 94174-10 | 006 | Chrysene | J | 92 | ug/kg |
| 94174-3-7 | 009 | Chrysene | J | 58 | ug/kg |
| 94174-8 | 004 | Chrysene | J | 46 | ug/kg |
| 94174-6 | 002 | Dibenzo(a,h)anthracene | J | 200 | ug/kg |
| 94174-3-2 | 008 | Dibenzo(a,h)anthracene | J | 89 | ug/kg |
| 94174-6 | 002 | Dibenzofuran | J | 160 | ug/kg |
| 94174-11 | 007 | Dibenzofuran | J | 160 | ug/kg |
| SBLKFB | 94GB0560-MB1 | Di-n-butylphthalate | | 410 | ug/kg |
| 94174-1-2 | 004 | Di-n-butylphthalate | JB | 340 | ug/kg |
| 94174-2-2 | 006 | Di-n-butylphthalate | JB | 290 | ug/kg |
| 94174-3-7 | 009 | Di-n-butylphthalate | JB | 270 | ug/kg |
| 94174-4-2 | 010 | Di-n-butylphthalate | JB | 270 | ug/kg |
| 94174-3-2 | 008 | Di-n-butylphthalate | JB | 260 | ug/kg |
| 94174-8 | 004 | Di-n-butylphthalate | JB | 170 | ug/kg |
| 94174-11 | 007 | Di-n-butylphthalate | JB | 150 | ug/kg |
| 94174-9 | 005 | Di-n-butylphthalate | JB | 140 | ug/kg |
| 94174-10 | 006 | Di-n-butylphthalate | JB | 130 | ug/kg |
| 94174-7 | 003 | Di-n-butylphthalate | JB | 120 | ug/kg |
| SBLKFP BSD | 94GB0566-MB1 | Di-n-butylphthalate | JB | 110 | ug/kg |
| 94174-6 | 002 | Di-n-butylphthalate | JB | 100 | ug/kg |
| 94174-5 | 001 | Di-n-butylphthalate | JB | 90 | ug/kg |
| SBLKFP BS | 94GB0566-MB1 | Di-n-butylphthalate | JB | 90 | ug/kg |
| SBLKFP | 94GB0566-MB1 | Di-n-butylphthalate | J | 80 | ug/kg |
| 94174-6 | 002 DL | Fluoranthene | | 6600 | ug/kg |
| 94174-3-2 | 008 | Fluoranthene | | 1800 | ug/kg |
| 94174-7 | 003 | Fluoranthene | | 670 | ug/kg |
| 94174-5 | 001 | Fluoranthene | J | 270 | ug/kg |
| 94174-10 | 006 | Fluoranthene | J | 190 | ug/kg |
| 94174-3-7 | 009 | Fluoranthene | J | 120 | ug/kg |
| 94174-8 | 004 | Fluoranthene | J | 79 | ug/kg |
| 94174-11 | 007 | Fluoranthene | J | 70 | ug/kg |
| 94174-9 | 005 | Fluoranthene | J | 60 | ug/kg |
| 94174-4-2 | 010 | Fluoranthene | J | 45 | ug/kg |
| SBLKFP BS | 94GB0566-MB1 | Fluorene | J | 330 | ug/kg |
| SBLKFP BSD | 94GB0566-MB1 | Fluorene | J | 330 | ug/kg |
| 94174-6 | 002 | Fluorene | J | 250 | ug/kg |
| 94174-11 | 007 | Fluorene | J | 250 | ug/kg |
| 94174-7 | 003 | Fluorene | J | 51 | ug/kg |
| 94174-6 | 002 | Indeno(1,2,3-cd)pyrene | | 1000 | ug/kg |
| 94174-3-2 | 008 | Indeno(1,2,3-cd)pyrene | J | 270 | ug/kg |
| 94174-7 | 003 | Indeno(1,2,3-cd)pyrene | J | 160 | ug/kg |

## Table B.1. LRP 131-4L Site Evaluation Results Above MDL *(Continued)*

| Customer ID | RFW # | Analyte | Qualifier | Result | Units |
|---|---|---|---|---|---|
| 94174-5 | 001 | Indeno(1,2,3-cd)pyrene | J | 81 | ug/kg |
| 94174-6 | 002 | Phenanthrene | | 3900 | ug/kg |
| 94174-7 | 003 | Phenanthrene | | 490 | ug/kg |
| 94174-3-2 | 008 | Phenanthrene | | 420 | ug/kg |
| 94174-5 | 001 | Phenanthrene | J | 120 | ug/kg |
| 94174-10 | 006 | Phenanthrene | J | 110 | ug/kg |
| 94174-3-7 | 009 | Phenanthrene | J | 64 | ug/kg |
| 94174-11 | 007 | Phenanthrene | J | 37 | ug/kg |
| 94174-6 | 002 | Pyrene | | 5000 | ug/kg |
| 94174-3-2 | 008 | Pyrene | | 1800 | ug/kg |
| 94174-7 | 003 | Pyrene | | 510 | ug/kg |
| 94174-5 | 001 | Pyrene | J | 260 | ug/kg |
| 94174-10 | 006 | Pyrene | J | 150 | ug/kg |
| 94174-3-7 | 009 | Pyrene | J | 100 | ug/kg |
| 94174-8 | 004 | Pyrene | J | 65 | ug/kg |
| 94174-9 | 005 | Pyrene | J | 55 | ug/kg |
| 94174-11 | 007 | Pyrene | J | 51 | ug/kg |
| 94174-4-2 | 010 | Pyrene | J | 46 | ug/kg |
| **Volatiles** | | | | | |
| VBLK | 94GVF323-MB1 | Methylene Chloride | | 5 | ug/Kg |
| 94174-9 | 005 | Toluene | J | 6 | ug/Kg |
| 94174-1-7 | 005 | Toluene | J | 4 | ug/Kg |
| **Pesticides and PCBs** | | | | | |
| 94174-5 | 001 | 4.4'-DDD | | 34 | ug/Kg |
| 94174-5 | 001 | 4.4'-DDT | | 16 | ug/Kg |
| **Inorganics** | | | | | |
| 94174-8 | 004 | Aluminum, Total | | 16700 | mg/Kg |
| 94174-4-2 | 010 | Aluminum, Total | | 16000 | mg/Kg |
| 94174-3-2 | 008 | Aluminum, Total | | 13800 | mg/Kg |
| 94174-10 | 006 | Aluminum, Total | | 13600 | mg/Kg |
| 94174-B-2 | 001 | Aluminum, Total | | 13400 | mg/Kg |
| 94174-5 | 001 | Aluminum, Total | | 12200 | mg/Kg |
| 94174-9 | 005 | Aluminum, Total | | 11200 | mg/Kg |
| 94174-7 | 003 | Aluminum, Total | | 9180 | mg/Kg |
| 94174-11 | 007 | Aluminum, Total | | 7150 | mg/Kg |
| 94174-B-7 | 002 | Aluminum, Total | | 6920 | mg/Kg |
| 94174-6 | 002 | Aluminum, Total | | 6820 | mg/Kg |
| 94174-1-7 | 005 | Aluminum, Total | | 6540 | mg/Kg |
| 94174-2-2 | 006 | Aluminum, Total | | 6470 | mg/Kg |
| 94174-1-2 | 004 | Aluminum, Total | | 5510 | mg/Kg |
| 94174-3-7 | 009 | Aluminum, Total | | 3510 | mg/Kg |
| 94174-4-2 | 010 | Arsenic, Total | | 7.9 | mg/Kg |
| 94174-3-2 | 008 | Arsenic, Total | | 5.4 | mg/Kg |
| 94174-10 | 006 | Arsenic, Total | | 3.9 | mg/Kg |
| 94174-1-2 | 004 | Arsenic, Total | | 3.8 | mg/Kg |
| 94174-B-7 | 002 | Arsenic, Total | | 3.3 | mg/Kg |
| 94174-8 | 004 | Arsenic, Total | | 3.3 | mg/Kg |
| 94174-5 | 001 | Arsenic, Total | | 3.1 | mg/Kg |
| 94174-1-7 | 005 | Arsenic, Total | | 2.6 | mg/Kg |
| 94174-6 | 002 | Arsenic, Total | | 2.5 | mg/Kg |
| 94174-9 | 005 | Arsenic, Total | | 2.5 | mg/Kg |

## Table B.1. LRP 131-4L Site Evaluation Results Above MDL *(Continued)*

| Customer ID | RFW # | Analyte | Qualifier | Result | Units |
|---|---|---|---|---|---|
| 94174-B-2 | 001 | Arsenic, Total | | 2.2 | mg/Kg |
| 94174-2-2 | 006 | Arsenic, Total | | 2.2 | mg/Kg |
| 94174-7 | 003 | Arsenic, Total | | 2.2 | mg/Kg |
| 94174-3-7 | 009 | Arsenic, Total | | 1.5 | mg/Kg |
| 94174-11 | 007 | Arsenic, Total | | 1.3 | mg/Kg |
| 94174-B-2 | 001 | Barium, Total | | 47.3 | mg/Kg |
| 94174-6 | 002 | Barium, Total | | 22.5 | mg/Kg |
| 94174-11 | 007 | Barium, Total | | 22.5 | mg/Kg |
| 94174-8 | 004 | Barium, Total | | 22.4 | mg/Kg |
| 94174-10 | 006 | Barium, Total | | 19.2 | mg/Kg |
| 94174-3-2 | 008 | Barium, Total | | 19.1 | mg/Kg |
| 94174-9 | 005 | Barium, Total | | 18.4 | mg/Kg |
| 94174-7 | 003 | Barium, Total | | 18 | mg/Kg |
| 94174-5 | 001 | Barium, Total | | 15.9 | mg/Kg |
| 94174-4-2 | 010 | Barium, Total | | 14.7 | mg/Kg |
| 94174-3-7 | 009 | Barium, Total | | 8.2 | mg/Kg |
| 94174-1-7 | 005 | Barium, Total | | 6.2 | mg/Kg |
| 94174-2-2 | 006 | Barium, Total | | 5 | mg/Kg |
| 94174-1-2 | 004 | Barium, Total | | 4.5 | mg/Kg |
| 94174-11 | 007 | Beryllium, Total | | 0.44 | mg/Kg |
| 94174-11 | 007 | Cadmium, Total | | 0.88 | mg/Kg |
| 94174-3-2 | 008 | Calcium, Total | | 3630 | mg/Kg |
| 94174-5 | 001 | Calcium, Total | | 3510 | mg/Kg |
| 94174-3-7 | 009 | Calcium, Total | | 2830 | mg/Kg |
| 94174-7 | 003 | Calcium, Total | | 1730 | mg/Kg |
| 94174-8 | 004 | Calcium, Total | | 1690 | mg/Kg |
| 94174-10 | 006 | Calcium, Total | | 887 | mg/Kg |
| 94174-4-2 | 010 | Calcium, Total | | 709 | mg/Kg |
| 94174-9 | 005 | Calcium, Total | | 675 | mg/Kg |
| 94174-6 | 002 | Calcium, Total | | 337 | mg/Kg |
| 94174-2-2 | 006 | Calcium, Total | | 314 | mg/Kg |
| 94174-11 | 007 | Calcium, Total | | 312 | mg/Kg |
| 94174-B-2 | 001 | Calcium, Total | | 170 | mg/Kg |
| 94174-1-7 | 005 | Calcium, Total | | 134 | mg/Kg |
| 94174-1-2 | 004 | Calcium, Total | | 129 | mg/Kg |
| 94174-B-7 | 002 | Calcium, Total | | 39.3 | mg/Kg |
| 94174-4-2 | 010 | Chromium, Total | | 29.6 | mg/Kg |
| 94174-8 | 004 | Chromium, Total | | 18.9 | mg/Kg |
| 94174-10 | 006 | Chromium, Total | | 17.6 | mg/Kg |
| 94174-5 | 001 | Chromium, Total | | 17 | mg/Kg |
| 94174-3-2 | 008 | Chromium, Total | | 16 | mg/Kg |
| 94174-9 | 005 | Chromium, Total | | 16 | mg/Kg |
| 94174-7 | 003 | Chromium, Total | | 12.6 | mg/Kg |
| 94174-1-7 | 005 | Chromium, Total | | 11.4 | mg/Kg |
| 94174-6 | 002 | Chromium, Total | | 10.9 | mg/Kg |
| 94174-2-2 | 006 | Chromium, Total | | 10.7 | mg/Kg |
| 94174-B-7 | 002 | Chromium, Total | | 10.2 | mg/Kg |
| 94174-B-2 | 001 | Chromium, Total | | 9 | mg/Kg |
| 94174-11 | 007 | Chromium, Total | | 8.4 | mg/Kg |
| 94174-1-2 | 004 | Chromium, Total | | 8.2 | mg/Kg |
| 94174-3-7 | 009 | Chromium, Total | | 4.9 | mg/Kg |

## Table B.1. LRP 131-4L Site Evaluation Results Above MDL *(Continued)*

| Customer ID | RFW # | Analyte | Qualifier | Result | Units |
|---|---|---|---|---|---|
| 94174-2-7 | 007 | Chromium, Total | | 3.7 | mg/Kg |
| 94174-8 | 004 | Cobalt, Total | | 1.8 | mg/Kg |
| 94174-11 | 007 | Cobalt, Total | | 1.8 | mg/Kg |
| 94174-5 | 001 | Copper, Total | | 11.7 | mg/Kg |
| 94174-8 | 004 | Copper, Total | | 9 | mg/Kg |
| 94174-3-2 | 008 | Copper, Total | | 7.4 | mg/Kg |
| 94174-7 | 003 | Copper, Total | | 7.4 | mg/Kg |
| 94174-4-2 | 010 | Copper, Total | | 7.1 | mg/Kg |
| 94174-10 | 006 | Copper, Total | | 5.8 | mg/Kg |
| 94174-9 | 005 | Copper, Total | | 5.4 | mg/Kg |
| 94174-11 | 007 | Copper, Total | | 4 | mg/Kg |
| 94174-3-7 | 009 | Copper, Total | | 3.9 | mg/Kg |
| 94174-B-2 | 001 | Copper, Total | | 3.3 | mg/Kg |
| 94174-6 | 002 | Copper, Total | | 3 | mg/Kg |
| 94174-3-2 | 008 | Cyanide, Total | | 5100 | ug/L |
| 94174-4-2 | 010 | Iron, Total | | 23500 | mg/Kg |
| 94174-8 | 004 | Iron, Total | | 15800 | mg/Kg |
| 94174-3-2 | 008 | Iron, Total | | 14500 | mg/Kg |
| 94174-5 | 001 | Iron, Total | | 14500 | mg/Kg |
| 94174-10 | 006 | Iron, Total | | 13600 | mg/Kg |
| 94174-9 | 005 | Iron, Total | | 13000 | mg/Kg |
| 94174-7 | 003 | Iron, Total | | 12400 | mg/Kg |
| 94174-1-2 | 004 | Iron, Total | | 8030 | mg/Kg |
| 94174-B-7 | 002 | Iron, Total | | 7800 | mg/Kg |
| 94174-1-7 | 005 | Iron, Total | | 7620 | mg/Kg |
| 94174-2-2 | 006 | Iron, Total | | 7550 | mg/Kg |
| 94174-B-2 | 001 | Iron, Total | | 7170 | mg/Kg |
| 94174-6 | 002 | Iron, Total | | 6710 | mg/Kg |
| 94174-11 | 007 | Iron, Total | | 6130 | mg/Kg |
| 94174-3-7 | 009 | Iron, Total | | 4950 | mg/Kg |
| 94174-2-7 | 007 | Iron, Total | | 2390 | mg/Kg |
| 94174-8 | 004 | Lead, Total | | 20.7 | mg/Kg |
| 94174-6 | 002 | Lead, Total | | 17.4 | mg/Kg |
| 94174-1-2 | 004 | Lead, Total | | 15.5 | mg/Kg |
| 94174-5 | 001 | Lead, Total | | 13 | mg/Kg |
| 94174-11 | 007 | Lead, Total | | 11.9 | mg/Kg |
| 94174-7 | 003 | Lead, Total | | 10.6 | mg/Kg |
| 94174-10 | 006 | Lead, Total | | 10.5 | mg/Kg |
| 94174-9 | 005 | Lead, Total | | 9.5 | mg/Kg |
| 94174-3-2 | 008 | Lead, Total | | 9.3 | mg/Kg |
| 94174-4-2 | 010 | Lead, Total | | 7.6 | mg/Kg |
| 94174-B-7 | 002 | Lead, Total | | 6.6 | mg/Kg |
| 94174-B-2 | 001 | Lead, Total | | 6.2 | mg/Kg |
| 94174-3-7 | 009 | Lead, Total | | 5.7 | mg/Kg |
| 94174-2-2 | 006 | Lead, Total | | 3.8 | mg/Kg |
| 94174-2-7 | 007 | Lead, Total | | 3.1 | mg/Kg |
| 94174-1-7 | 005 | Lead, Total | | 3 | mg/Kg |
| 94174-8 | 004 | Magnesium, Total | | 329 | mg/Kg |
| 94174-4-2 | 010 | Magnesium, Total | | 324 | mg/Kg |
| 94174-5 | 001 | Magnesium, Total | | 310 | mg/Kg |
| 94174-3-2 | 008 | Magnesium, Total | | 231 | mg/Kg |

## Table B.1. LRP 131-4L Site Evaluation Results Above MDL *(Continued)*

| Customer ID | RFW # | Analyte | Qualifier | Result | Units |
|---|---|---|---|---|---|
| 94174-B-2 | 001 | Magnesium, Total | | 222 | mg/Kg |
| 94174-10 | 006 | Magnesium, Total | | 209 | mg/Kg |
| 94174-7 | 003 | Magnesium, Total | | 199 | mg/Kg |
| 94174-9 | 005 | Magnesium, Total | | 193 | mg/Kg |
| 94174-11 | 007 | Magnesium, Total | | 182 | mg/Kg |
| 94174-6 | 002 | Magnesium, Total | | 122 | mg/Kg |
| 94174-3-7 | 009 | Magnesium, Total | | 101 | mg/Kg |
| 94174-1-7 | 005 | Magnesium, Total | | 58.9 | mg/Kg |
| 94174-2-2 | 006 | Magnesium, Total | | 53.6 | mg/Kg |
| 94174-B-7 | 002 | Magnesium, Total | | 43.2 | mg/Kg |
| 94174-1-2 | 004 | Magnesium, Total | | 34.9 | mg/Kg |
| 94174-2-7 | 007 | Magnesium, Total | | 20.4 | mg/Kg |
| 94174-B-2 | 001 | Manganese, Total | | 209 | mg/Kg |
| 94174-4-2 | 010 | Manganese, Total | | 67.3 | mg/Kg |
| 94174-11 | 007 | Manganese, Total | | 59.3 | mg/Kg |
| 94174-9 | 005 | Manganese, Total | | 48 | mg/Kg |
| 94174-8 | 004 | Manganese, Total | | 45.5 | mg/Kg |
| 94174-3-2 | 008 | Manganese, Total | | 44.7 | mg/Kg |
| 94174-7 | 003 | Manganese, Total | | 43.7 | mg/Kg |
| 94174-10 | 006 | Manganese, Total | | 41.5 | mg/Kg |
| 94174-6 | 002 | Manganese, Total | | 40.9 | mg/Kg |
| 94174-5 | 001 | Manganese, Total | | 35.1 | mg/Kg |
| 94174-3-7 | 009 | Manganese, Total | | 23.7 | mg/Kg |
| 94174-1-2 | 004 | Manganese, Total | | 11 | mg/Kg |
| 94174-B-7 | 002 | Manganese, Total | | 9.6 | mg/Kg |
| 94174-2-2 | 006 | Manganese, Total | | 9.5 | mg/Kg |
| 94174-1-7 | 005 | Manganese, Total | | 5.2 | mg/Kg |
| 94174-2-7 | 007 | Manganese, Total | | 1.8 | mg/Kg |
| 94174-11 | 007 | Mercury, Total | | 0.099 | mg/Kg |
| 94174-6 | 002 | Mercury, Total | | 0.092 | mg/Kg |
| 94174-B-2 | 001 | Nickel, Total | | 5.2 | mg/Kg |
| 94174-8 | 004 | Nickel, Total | | 4.8 | mg/Kg |
| 94174-10 | 006 | Nickel, Total | | 4.7 | mg/Kg |
| 94174-4-2 | 010 | Nickel, Total | | 4 | mg/Kg |
| 94174-3-2 | 008 | Nickel, Total | | 3.8 | mg/Kg |
| 94174-9 | 005 | Nickel, Total | | 3.8 | mg/Kg |
| 94174-5 | 001 | Nickel, Total | | 3.4 | mg/Kg |
| 94174-7 | 003 | Nickel, Total | | 3.3 | mg/Kg |
| 94174-11 | 007 | Nickel, Total | | 2.7 | mg/Kg |
| 94174-6 | 002 | Nickel, Total | | 2.2 | mg/Kg |
| 94174-B-7 | 002 | Nickel, Total | | 1.9 | mg/Kg |
| 94174-B-2 | 001 | Percent Solids | | 92.9 | % |
| 94174-11 | 007 | Percent Solids | | 91.5 | % |
| 94174-1-2 | 004 | Percent Solids | | 90.9 | % |
| 94174-6 | 002 | Percent Solids | | 90.9 | % |
| 94174-10 | 006 | Percent Solids | | 90.3 | % |
| 94174-7 | 003 | Percent Solids | | 90.2 | % |
| 94174-9 | 005 | Percent Solids | | 89.8 | % |
| 94174-1-7 | 005 | Percent Solids | | 89.6 | % |
| 94174-4-2 | 010 | Percent Solids | | 89.6 | % |
| 94174-2-2 | 006 | Percent Solids | | 88.9 | % |

## Table B.1. LRP 131-4L Site Evaluation Results Above MDL *(Continued)*

| Customer ID | RFW # | Analyte | Qualifier | Result | Units |
|---|---|---|---|---|---|
| 94174-3-2 | 008 | Percent Solids | | 88.2 | % |
| 94174-5 | 001 | Percent Solids | | 88.1 | % |
| 94174-8 | 004 | Percent Solids | | 87.3 | % |
| 94174-B-7 | 002 | Percent Solids | | 86.6 | % |
| 94174-3-7 | 009 | Percent Solids | | 83.5 | % |
| 94174-2-7 | 007 | Percent Solids | | 82.8 | % |
| 94174-4-2 | 010 | Potassium, Total | | 237 | mg/Kg |
| 94174-8 | 004 | Potassium, Total | | 213 | mg/Kg |
| 94174-3-2 | 008 | Potassium, Total | | 210 | mg/Kg |
| 94174-2-7 | 007 | Potassium, Total | | 195 | mg/Kg |
| 94174-11 | 007 | Potassium, Total | | 176 | mg/Kg |
| 94174-B-7 | 002 | Selenium, Total | | 1.3 | mg/Kg |
| 94174-1-7 | 005 | Selenium, Total | | 0.28 | mg/Kg |
| 94174-2-2 | 006 | Selenium, Total | | 0.26 | mg/Kg |
| 94174-3-2 | 008 | Selenium, Total | | 0.26 | mg/Kg |
| 94174-1-2 | 004 | Selenium, Total | | 0.21 | mg/Kg |
| 94174-9 | 005 | Selenium, Total | | 0.19 | mg/Kg |
| 94174-11 | 007 | Silver, Total | | 0.88 | mg/Kg |
| 94174-3-7 | 009 | Sodium, Total | | 38.8 | mg/Kg |
| 94174-8 | 004 | Sodium, Total | | 30.8 | mg/Kg |
| 94174-5 | 001 | Sodium, Total | | 29.9 | mg/Kg |
| 94174-7 | 003 | Sodium, Total | | 25.8 | mg/Kg |
| 94174-3-2 | 008 | Sodium, Total | | 23.4 | mg/Kg |
| 94174-2-2 | 006 | Sodium, Total | | 21.3 | mg/Kg |
| 94174-10 | 006 | Sodium, Total | | 20.8 | mg/Kg |
| 94174-11 | 007 | Sodium, Total | | 17.6 | mg/Kg |
| 94174-4-2 | 010 | Vanadium, Total | | 56.5 | mg/Kg |
| 94174-8 | 004 | Vanadium, Total | | 40.6 | mg/Kg |
| 94174-5 | 001 | Vanadium, Total | | 36.1 | mg/Kg |
| 94174-3-2 | 008 | Vanadium, Total | | 35.9 | mg/Kg |
| 94174-10 | 006 | Vanadium, Total | | 33.9 | mg/Kg |
| 94174-9 | 005 | Vanadium, Total | | 30.5 | mg/Kg |
| 94174-7 | 003 | Vanadium, Total | | 28.7 | mg/Kg |
| 94174-2-2 | 006 | Vanadium, Total | | 21.9 | mg/Kg |
| 94174-1-7 | 005 | Vanadium, Total | | 21.5 | mg/Kg |
| 94174-1-2 | 004 | Vanadium, Total | | 20.4 | mg/Kg |
| 94174-B-7 | 002 | Vanadium, Total | | 19.7 | mg/Kg |
| 94174-6 | 002 | Vanadium, Total | | 16.6 | mg/Kg |
| 94174-B-2 | 001 | Vanadium, Total | | 16.5 | mg/Kg |
| 94174-11 | 007 | Vanadium, Total | | 14.9 | mg/Kg |
| 94174-2-7 | 007 | Vanadium, Total | | 11.6 | mg/Kg |
| 94174-3-7 | 009 | Vanadium, Total | | 10.9 | mg/Kg |
| 94174-4-2 | 010 | Zinc, Total | | 16.3 | mg/Kg |
| 94174-8 | 004 | Zinc, Total | | 15.4 | mg/Kg |
| 94174-11 | 007 | Zinc, Total | | 13.9 | mg/Kg |
| 94174-9 | 005 | Zinc, Total | | 13.1 | mg/Kg |
| 94174-3-2 | 008 | Zinc, Total | | 12.7 | mg/Kg |
| 94174-5 | 001 | Zinc, Total | | 12.7 | mg/Kg |
| 94174-10 | 006 | Zinc, Total | | 10.8 | mg/Kg |
| 94174-7 | 003 | Zinc, Total | | 9.9 | mg/Kg |
| 94174-B-2 | 001 | Zinc, Total | | 7.6 | mg/Kg |

## Table B.1. LRP 131-4L Site Evaluation Results Above MDL *(Continued/End)*

| Customer ID | RFW # | Analyte | Qualifier | Result | Units |
|---|---|---|---|---|---|
| 94174-6 | 002 | Zinc, Total | | 7.6 | mg/Kg |
| 94174-3-7 | 009 | Zinc, Total | | 4.9 | mg/Kg |
| 94174-1-2 | 004 | Zinc, Total | | 3.9 | mg/Kg |
| 94174-2-2 | 006 | Zinc, Total | | 3.7 | mg/Kg |
| 94174-B-7 | 002 | Zinc, Total | | 3.6 | mg/Kg |
| 94174-1-7 | 005 | Zinc, Total | | 3.2 | mg/Kg |
| 94174-2-7 | 007 | Zinc, Total | | 2.9 | mg/Kg |

# APPENDIX C

## Preliminary Risk Screening Tables for the ECODS L-3 Subunit

| Table | | Page Number |
|---|---|---|
| Table C.1 | ECODS L-3 Preliminary PTSM Screening (All Soil Depths) | C-3 |
| Table C.2 | ECODS L-3 Preliminary Human Health COPC Screening (Soil 0 to 1 Feet) | C-5 |
| Table C.3 | ECODS L-3 Preliminary Ecological COPEC Screening (Soil 0 to 1 Feet) | C-6 |
| Table C.4 | ECODS L-3 Preliminary Ecological COPEC Screening (Soil 1 to 4 Feet) | C-7 |
| Table C.5 | ECODS L-3 Preliminary Tier II Contaminant Migration Screening (All Soil Depths) | C-8 |

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## Table C.1. ECODS L-3 Preliminary PTSM Screening (All Soil Depths)

| Analyte | Maximum Concentration[1] (mg/kg) | Noncarcinogenic Hazard Estimate | | Carcinogenic Risk Estimate | |
|---|---|---|---|---|---|
| | | Industrial RSL[2] (mg/kg) | Industrial HQ Estimate[3] | Industrial RSL[2] (mg/kg) | Industrial Risk Estimate[4] |
| *Inorganics* | | | | | |
| ALUMINUM | 21900 | 1.1E+06 | 2.0E-02 | -- | -- |
| ANTIMONY | 56.6 | 4.7E+02 | 1.2E-01 | -- | -- |
| ARSENIC | 13.1 | -- | -- | 3.0E+00 | 4.4E-06 |
| BARIUM | 285 | 2.2E+05 | 1.3E-03 | -- | -- |
| CADMIUM | 11.9 | 9.8E+02 | 1.2E-02 | -- | -- |
| CALCIUM | 52800 | EN[5] | -- | -- | -- |
| CHROMIUM[6] | 80.1 | 1.8E+06 | 4.5E-05 | 6.3E+00 | 1.3E-05 |
| COBALT | 4.67 | 3.5E+02 | 1.3E-02 | -- | -- |
| COPPER | 8370 | 4.7E+04 | 1.8E-01 | -- | -- |
| IRON | 31800 | 8.2E+05 | 3.9E-02 | -- | -- |
| LEAD | 1300 | 8.0E+02 | 1.6E+00 | -- | -- |
| MAGNESIUM | 2520 | EN[5] | -- | -- | -- |
| MANGANESE | 447 | 2.6E+04 | 1.7E-02 | -- | -- |
| MERCURY | 3.79 | 4.6E+01 | 8.2E-02 | -- | -- |
| NICKEL | 42.6 | 2.2E+04 | 1.9E-03 | -- | -- |
| POTASSIUM | 266 | EN[5] | -- | -- | -- |
| SELENIUM | 1.7 | 5.8E+03 | 2.9E-04 | -- | -- |
| SILVER | 1.43 | 5.8E+03 | 2.5E-04 | -- | -- |
| SODIUM | 270 | EN[5] | -- | -- | -- |
| VANADIUM | 73.8 | 5.8E+03 | 1.3E-02 | -- | -- |
| ZINC | 1120 | 3.5E+05 | 3.2E-03 | -- | -- |
| *Organics* | | | | | |
| 1,1-DICHLOROETHYLENE | 0.00765 | 1.0E+03 | 7.7E-06 | -- | -- |
| ACETONE | 0.0286 | 6.7E+05 | 4.3E-08 | -- | -- |
| BENZENE | 0.00339 | -- | -- | 5.1E+00 | 6.6E-10 |
| CARBON DISULFIDE | 0.00137 | 3.5E+03 | 3.9E-07 | -- | -- |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | 0.000696 | -- | -- | 1.0E+03 | 7.0E-13 |
| METHYL ETHYL KETONE | 0.00157 | 1.9E+05 | 8.3E-09 | -- | -- |
| METHYL TERTIARY BUTYL ETHER (MTBE) | 0.00043 | -- | -- | 2.1E+02 | 2.0E-12 |
| STYRENE | 0.000368 | 3.5E+04 | 1.1E-08 | -- | -- |
| TOLUENE | 0.00237 | 4.7E+04 | 5.0E-08 | -- | -- |
| XYLENES | 0.000712 | 2.5E+03 | 2.8E-07 | -- | -- |
| 1,1'-BIPHENYL | 0.692 | 2.0E+02 | 3.5E-03 | -- | -- |
| 2-METHYLNAPHTHALENE | 2 | 3.0E+03 | 6.7E-04 | -- | -- |
| ACENAPHTHENE | 9.27 | 4.5E+04 | 2.1E-04 | -- | -- |
| ANTHRACENE | 17.6 | 2.3E+05 | 7.7E-05 | -- | -- |
| BENZALDEHYDE | 0.222 | -- | -- | 8.2E+02 | 2.7E-10 |
| BENZO(G,H,I)PERYLENE | 9.67 | NA[7] | -- | NA[7] | -- |
| BENZO[A]ANTHRACENE | 25.9 | -- | -- | 2.1E+01 | 1.2E-06 |
| BENZO[A]PYRENE | 20.6 | -- | -- | 2.1E+00 | 9.8E-06 |
| BENZO[B]FLUORANTHENE | 26.9 | -- | -- | 2.1E+01 | 1.3E-06 |
| BENZO[K]FLUORANTHENE | 9.72 | -- | -- | 2.1E+02 | 4.6E-08 |
| BIS(2-ETHYLHEXYL)PHTHALATE | 37.1 | -- | -- | 1.6E+02 | 2.3E-07 |
| CARBAZOLE | 13.8 | NA[7] | -- | NA[7] | -- |
| CHRYSENE | 21.4 | -- | -- | 2.1E+03 | 1.0E-08 |
| DIBENZ[AH]ANTHRACENE | 2.7 | -- | -- | 2.1E+00 | 1.3E-06 |
| DI-N-BUTYL PHTHALATE | 0.0811 | 8.2E+04 | 9.9E-07 | -- | -- |
| FLUORANTHENE | 35 | 3.0E+04 | 1.2E-03 | -- | -- |
| FLUORENE | 10.5 | 3.0E+04 | 3.5E-04 | | |
| INDENO[1,2,3-CD]PYRENE | 8.91 | -- | -- | 2.1E+01 | 4.2E-07 |
| NAPHTHALENE | 5.66 | -- | -- | 8.6E+00 | 6.6E-07 |
| PHENANTHRENE | 33.9 | NA[7] | -- | NA[7] | -- |

## Table C.1. ECODS L-3 Preliminary PTSM Screening (All Soil Depths) *(Continued/End)*

| Analyte | Maximum Concentration[1] (mg/kg) | Noncarcinogenic Hazard Estimate | | Carcinogenic Risk Estimate | |
|---|---|---|---|---|---|
| | | Industrial RSL[2] (mg/kg) | Industrial HQ Estimate[3] | Industrial RSL[2] (mg/kg) | Industrial Risk Estimate[4] |
| PYRENE | 34 | 2.3E+04 | 1.5E-03 | -- | -- |
| CYANIDE | 1.22 | 1.5E+02 | 8.1E-03 | -- | -- |
| *Pesticides/PCBs* | | | | | |
| DDE | 0.000584 | -- | -- | 9.3E+00 | 6.3E-11 |
| DDT | 0.00107 | -- | -- | 8.5E+00 | 1.3E-10 |
| AROCLOR 1254 | 5.63 | -- | -- | 9.7E-01 | 5.8E-06 |
| AROCLOR 1260 | 2.17 | -- | -- | 9.9E-01 | 2.2E-06 |
| | | **Hazard Index** | **2.1E+00** | **Cumulative Risk** | **4.0E-05** |
| | | **PTSM?[8]** | **NO** | **PTSM?[9]** | **NO** |

1 - Maximum detected concentration from all soil sample depth intervals (samples EL3-1 through EL3-18).
2 - Nonradiological RSLs are default industrial worker soil values from the *EPA Regional Screening Levels Table* , dated May 2021.
3 - Hazard Estimate = maximum concentration / RSL concentration
4 - Risk Estimate = (maximum concentration / RSL concentration) x 1E-06
5 - EN = essential nutrient, RSL not available for this constituent.
6 - Chemical analysis for total chromium. A total chromium RSL is not available; both the trivalent chromium (noncarcinogen) and hexavalent chromium (carcinogenic) RSLs used for screening.
7 - NA = not available; RSL for this constituent is not available.
8 - Subunit potentially has PTSM if HI $\geq$ 10 for noncarcinogenic constituents.
9 - Subunit potentially has PTSM if cumulative risk $\geq$ 1E-03 for carcinogenic constituents.

## Table C.2. ECODS L-3 Preliminary HH COPC Screening (Soil 0 to 1 ft)

| Analyte | Maximum Concentration[1] (mg/kg) | Qual | Human Health Screening Value (mg/kg) | Human Health Screening Value Source[2] | Exceeds Human Health Screening Value? | 2X Average Background Concentration[3] (mg/kg) | Exceeds 2X Average Background?[4] | COPC?[5] |
|---|---|---|---|---|---|---|---|---|
| *Inorganics* | | | | | | | | |
| ALUMINUM | 14700 | | 7.7E+03 | 0.1xRSL | YES | 1.05E+04 | YES | **YES** |
| ANTIMONY | 21.7 | | 3.1E+00 | 0.1xRSL | YES | 2.69E+00 | YES | **YES** |
| ARSENIC | 4.1 | | 6.8E-01 | RSL | YES | 4.28E+00 | NO | NO |
| BARIUM | 84 | J | 1.5E+03 | 0.1xRSL | NO | 3.91E+01 | YES | NO |
| CADMIUM | 10.8 | | 7.1E+00 | 0.1xRSL | YES | 4.83E-01 | YES | **YES** |
| CALCIUM | 14700 | | EN[6] | Nutrient | NO | 4.76E+02 | YES | NO |
| CHROMIUM[7] | 71.9 | J | 3.0E-01 | RSL | YES | 1.54E+01 | YES | **YES** |
| COBALT | 0.677 | | 2.3E+00 | 0.1xRSL | NO | 1.55E+00 | NO | NO |
| COPPER | 53.6 | J | 3.1E+02 | 0.1xRSL | NO | 4.34E+00 | YES | NO |
| IRON | 13500 | | 5.5E+03 | 0.1xRSL | YES | 1.27E+04 | YES | **YES** |
| LEAD | 1300 | | 4.0E+01 | 0.1xRSL | YES | 1.03E+01 | YES | **YES** |
| MAGNESIUM | 1150 | | EN[6] | Nutrient | NO | 2.75E+02 | YES | NO |
| MANGANESE | 139 | | 1.8E+02 | 0.1xRSL | NO | 1.53E+02 | NO | NO |
| MERCURY | 0.361 | | 1.1E+00 | 0.1xRSL | NO | 7.10E-02 | YES | NO |
| NICKEL | 37 | | 1.5E+02 | 0.1xRSL | NO | 3.48E+00 | YES | NO |
| POTASSIUM | 212 | | EN[6] | Nutrient | NO | 2.16E+02 | NO | NO |
| SELENIUM | 1.51 | J | 3.9E+01 | 0.1xRSL | NO | 2.99E+00 | NO | NO |
| SILVER | 1.43 | J | 3.9E+01 | 0.1xRSL | NO | 7.28E-01 | YES | NO |
| SODIUM | 76.6 | J | EN[6] | Nutrient | NO | 4.02E+01 | YES | NO |
| VANADIUM | 31 | | 3.9E+01 | 0.1xRSL | NO | 3.91E+01 | NO | NO |
| ZINC | 321 | J | 2.3E+03 | 0.1xRSL | NO | 9.47E+00 | YES | NO |
| *Organics* | | | | | | | | |
| 1,1-DICHLOROETHYLENE | 0.00262 | | 2.3E+01 | 0.1xRSL | NO | -- | -- | NO |
| ACETONE | 0.0286 | | 6.1E+03 | 0.1xRSL | NO | -- | -- | NO |
| BENZENE | 0.00339 | J | 1.2E+00 | RSL | NO | -- | -- | NO |
| CARBON DISULFIDE | 0.00137 | J | 7.7E+01 | 0.1xRSL | NO | -- | -- | NO |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | 0.000696 | J | 5.7E+01 | RSL | NO | -- | -- | NO |
| METHYL ETHYL KETONE | 0.00157 | J | 2.7E+03 | 0.1xRSL | NO | -- | -- | NO |
| METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0004 | J | 4.7E+01 | RSL | NO | -- | -- | NO |
| STYRENE | 0.000368 | J | 6.0E+02 | 0.1xRSL | NO | -- | -- | NO |
| TOLUENE | 0.00224 | | 4.9E+02 | 0.1xRSL | NO | -- | -- | NO |
| XYLENES | 0.000449 | J | 5.8E+01 | 0.1xRSL | NO | -- | -- | NO |
| ANTHRACENE | 0.0905 | J | 1.8E+03 | 0.1xRSL | NO | -- | -- | NO |
| BENZALDEHYDE | 0.222 | | 1.7E+02 | RSL | NO | -- | -- | NO |
| BENZO(G,H,I)PERYLENE | 0.109 | J | NA[8] | NA[8] | NO | -- | -- | NO |
| BENZO[A]ANTHRACENE | 0.348 | | 1.1E+00 | RSL | NO | -- | -- | NO |
| BENZO[A]PYRENE | 0.251 | | 1.1E-01 | RSL | YES | -- | -- | **YES** |
| BENZO[B]FLUORANTHENE | 0.359 | | 1.1E+00 | RSL | NO | -- | -- | NO |
| BENZO[K]FLUORANTHENE | 0.129 | J | 1.1E+01 | RSL | NO | -- | -- | NO |
| BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 16.3 | | 3.9E+01 | RSL | NO | -- | -- | NO |
| CHRYSENE | 0.277 | | 1.1E+02 | RSL | NO | -- | -- | NO |
| DIBENZ[AH]ANTHRACENE | 0.0352 | J | 1.1E-01 | RSL | NO | -- | -- | NO |
| FLUORANTHENE | 0.776 | | 2.4E+02 | 0.1xRSL | NO | -- | -- | NO |
| INDENO[1,2,3-CD]PYRENE | 0.0986 | J | 1.1E+00 | RSL | NO | -- | -- | NO |
| PHENANTHRENE | 0.445 | J | NA[8] | NA[8] | NO | -- | -- | NO |
| PYRENE | 0.679 | | 1.8E+02 | 0.1xRSL | NO | -- | -- | NO |
| CYANIDE | 1.22 | J | 2.3E+00 | 0.1xRSL | NO | -- | -- | NO |
| *Pesticides/PCBs* | | | | | | | | |
| DDE | 0.000584 | J | 2.0E+00 | RSL | NO | -- | -- | NO |
| DDT | 0.00107 | J | 1.9E+00 | RSL | NO | -- | -- | NO |
| AROCLOR 1254 | 5.63 | J | 2.4E-01 | RSL | YES | -- | -- | **YES** |
| AROCLOR 1260 | 2.17 | J | 2.4E-01 | RSL | YES | -- | -- | **YES** |

1 - Maximum detected concentration from 0-1 ft soil interval (samples EL3-1 through EL3-18).
2 - Nonradiological RSLs are default residential soil values from the *EPA Regional Screening Levels Table* , dated May 2021.
3 - Background screening values obtained from *Background Soils Statistical Summary Report for Savannah River Site* , ERD-EN-2005,0223, Rev. 1, 10/06.
4 - For screening purposes, maximum concentration of only the naturally-occurring (nonanthropogenic) constituents are compared to 2X average background concentration.
5 - Constituents are identified as COPCs if the maximum detected concentration exceeds the human health screening value and the 2X average background concentration.
6 - EN = essential nutrient, RSL not available for this constituent.
7- Chemical analysis for total chromium. A total chromium RSL is not available; hexavalent chromium RSL used as a conservative screen.
8 - NA = not available, RSL for this constituent is not available.

## Table C.3. ECODS L-3 Preliminary ECO COPEC Screening (Soil 0 to 1 ft)

| Analyte | Maximum Concentration[1] (mg/kg) | Qual | Ecological Screening Value (mg/kg) | Ecological Screening Value Source[2] | Screening Level HQ[3] | Exceeds Ecological Screening Value? | 2X Average Background Concentration[4] (mg/kg) | Exceeds 2X Average Background?[5] | COPEC?[6] |
|---|---|---|---|---|---|---|---|---|---|
| *Inorganics* | | | | | | | | | |
| ALUMINUM | 14700 | | NA[7] | NA[7] | -- | NO | 1.05E+04 | YES | NO |
| ANTIMONY | 21.7 | | 2.7E-01 | a | 80.4 | YES | 2.69E+00 | YES | YES |
| ARSENIC | 4.1 | | 1.5E+01 | b | 0.3 | NO | 4.28E+00 | NO | NO |
| BARIUM | 84 | J | 3.3E+02 | b | 0.3 | NO | 3.91E+01 | YES | NO |
| CADMIUM | 10.8 | | 2.7E-01 | b | 40 | YES | 4.83E-01 | YES | YES |
| CALCIUM | 14700 | | EN[8] | Nutrient | -- | NO | 4.76E+02 | YES | NO |
| CHROMIUM[7] | 71.9 | J | 2.3E+01 | a | 3.1 | YES | 1.54E+01 | YES | YES |
| COBALT | 0.677 | | 1.3E+01 | ab | 0.1 | NO | 1.55E+00 | NO | NO |
| COPPER | 53.6 | J | 1.4E+01 | b | 3.8 | YES | 4.34E+00 | YES | YES |
| IRON | 13500 | | NA[7] | NA[7] | -- | NO | 1.27E+04 | YES | NO |
| LEAD | 1300 | | 1.1E+01 | a | 118.2 | YES | 1.03E+01 | YES | YES |
| MAGNESIUM | 1150 | | EN[8] | Nutrient | -- | NO | 2.75E+02 | YES | NO |
| MANGANESE | 139 | | 2.2E+02 | ab | 0.6 | NO | 1.53E+02 | NO | NO |
| MERCURY | 0.361 | | 1.3E-02 | ab | 27.8 | YES | 7.10E-02 | YES | YES |
| NICKEL | 37 | | 1.0E+01 | b | 3.7 | YES | 3.48E+00 | YES | YES |
| POTASSIUM | 212 | | EN[8] | Nutrient | -- | NO | 2.16E+02 | NO | NO |
| SELENIUM | 1.51 | J | 5.2E-01 | ab | 2.9 | YES | 2.99E+00 | NO | NO |
| SILVER | 1.43 | J | 2.6E+00 | b | 0.6 | NO | 7.28E-01 | YES | NO |
| SODIUM | 76.6 | J | EN[8] | Nutrient | -- | NO | 4.02E+01 | YES | NO |
| VANADIUM | 31 | | 4.7E+00 | b | 6.6 | YES | 3.91E+01 | NO | NO |
| ZINC | 321 | J | 4.6E+01 | a | 7.0 | YES | 9.47E+00 | YES | YES |
| *Organics* | | | | | | | | | |
| 1,1-DICHLOROETHYLENE | 0.00262 | | 4.0E-02 | a | 0.1 | NO | -- | -- | NO |
| ACETONE | 0.0286 | | 1.2E+00 | ab | 0.02 | NO | -- | -- | NO |
| BENZENE | 0.00339 | J | 1.2E-01 | a | 0.03 | NO | -- | -- | NO |
| CARBON DISULFIDE | 0.00137 | J | 5.3E-03 | a | 0.26 | NO | -- | -- | NO |
| DICHLOROMETHANE (METHYLENE CHLORIDE | 0.000696 | J | 2.1E-01 | a | 0.00 | NO | -- | -- | NO |
| METHYL ETHYL KETONE | 0.00157 | J | 1.0E+00 | a | 0.00 | NO | -- | -- | NO |
| METHYL TERTIARY BUTYL ETHER (MTBE) | 0.0004 | J | NA[7] | NA[7] | -- | NO | -- | -- | NO |
| STYRENE | 0.000368 | J | 1.2E+00 | a | 0.0003 | NO | -- | -- | NO |
| TOLUENE | 0.00224 | | 1.5E-01 | a | 0.01 | NO | -- | -- | NO |
| XYLENES | 0.000449 | J | 1.0E-01 | a | 0.004 | NO | -- | -- | NO |
| ANTHRACENE | 0.0905 | J | 2.9E+01 | a | 0.003 | NO | -- | -- | NO |
| BENZALDEHYDE | 0.222 | | NA[7] | NA[7] | -- | NO | -- | -- | NO |
| BENZO(G,H,I)PERYLENE | 0.109 | J | 1.1E+00 | a | 0.1 | NO | -- | -- | NO |
| BENZO[A]ANTHRACENE | 0.348 | | 7.3E-01 | b | 0.5 | NO | -- | -- | NO |
| BENZO[A]PYRENE | 0.251 | | 1.1E+00 | a | 0.2 | NO | -- | -- | NO |
| BENZO[B]FLUORANTHENE | 0.359 | | 1.1E+00 | a | 0.3 | NO | -- | -- | NO |
| BENZO[K]FLUORANTHENE | 0.129 | J | 1.1E+00 | a | 0.1 | NO | -- | -- | NO |
| BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 16.3 | | 2.0E-02 | a | 815.0 | YES | -- | -- | YES |
| CHRYSENE | 0.277 | | 1.1E+00 | a | 0.3 | NO | -- | -- | NO |
| DIBENZ[AH]ANTHRACENE | 0.0352 | J | 1.1E+00 | a | 0.03 | NO | -- | -- | NO |
| FLUORANTHENE | 0.776 | | 1.1E+00 | a | 0.7 | NO | -- | -- | NO |
| INDENO[1,2,3-CD]PYRENE | 0.0986 | J | 1.1E+00 | a | 0.1 | NO | -- | -- | NO |
| PHENANTHRENE | 0.445 | J | 1.1E+01 | b | 0.04 | NO | -- | -- | NO |
| PYRENE | 0.679 | | 1.1E+00 | a | 0.6 | NO | -- | -- | NO |
| CYANIDE | 1.22 | J | 9.8E-02 | b | 12.4 | YES | -- | -- | YES |
| *Pesticides/PCBs* | | | | | | | | | |
| DDE | 0.000584 | J | 2.1E-02 | a | 0.03 | NO | -- | -- | NO |
| DDT | 0.00107 | J | 2.1E-02 | ab | 0.1 | NO | -- | -- | NO |
| AROCLOR 1254 | 5.63 | J | 4.1E-02 | a | 137.3 | YES | -- | -- | YES |
| AROCLOR 1260 | 2.17 | J | 4.1E-02 | a | 52.9 | YES | -- | -- | YES |

1 - Maximum detected concentration from 0-1 ft soil interval (samples EL3-1 through EL3-18).
2 - ESV source: a = Table 3 in EPA Region 4 Ecological Risk Assessment Supplemental Guidance March Update (2018).
2 - ESV source: b = Los Alamos National Laboratory No Effect ESL for soil media (2017).
3 - Screening Level Hazard Quotient (HQ) = maximum detected concentration / ESV
4 - Background screening values obtained from *Background Soils Statistical Summary Report for Savannah River Site* , ERD-EN-2005,0223, Rev. 1, 10/06.
5 - For screening purposes, maximum concentration of only the naturally-occurring (nonanthropogenic) constituents are compared to 2X average background concentration.
6 - COPEC = constituent of potential ecological concern. Analyte identified as a COPEC if the maximum detected concentration exceeds the ecological screening value (i.e., HQ>1), if available, and exceeds 2X average background concentration
7 - NA = not available, ESV for this constituent is not available.
8 - EN = essential nutrient, not subject to further evaluation

## Table C.4. ECODS L-3 Preliminary ECO COPEC Screening (Soil 1 to 4 ft)

| Analyte | Maximum Concentration[1] (mg/kg) | Qual | Ecological Screening Value (mg/kg) | Ecological Screening Value Source[2] | Screening Level HQ[3] | Exceeds Ecological Screening Value? | 2X Average Background Concentration[4] (mg/kg) | Exceeds 2X Average Background?[5] | COPEC?[6] |
|---|---|---|---|---|---|---|---|---|---|
| *Inorganics* | | | | | | | | | |
| ALUMINUM | 21900 | | NA[7] | NA[7] | -- | NO | 1.05E+04 | YES | NO |
| ANTIMONY | 56.6 | | 2.7E-01 | a | 209.6 | YES | 2.69E+00 | YES | **YES** |
| ARSENIC | 9.06 | | 1.5E+01 | b | 0.6 | NO | 4.28E+00 | YES | NO |
| BARIUM | 279 | | 3.3E+02 | b | 0.8 | NO | 3.91E+01 | YES | NO |
| CADMIUM | 11.9 | | 2.7E-01 | b | 44.1 | YES | 4.83E-01 | YES | **YES** |
| CALCIUM | 52800 | J | EN[8] | Nutrient | -- | NO | 4.76E+02 | YES | NO |
| CHROMIUM[7] | 80.1 | | 2.3E+01 | a | 3.5 | YES | 1.54E+01 | YES | **YES** |
| COBALT | 4.67 | | 1.3E+01 | ab | 0.4 | NO | 1.55E+00 | YES | NO |
| COPPER | 3890 | | 1.4E+01 | b | 277.9 | YES | 4.34E+00 | YES | **YES** |
| IRON | 31300 | | NA[7] | NA[7] | -- | NO | 1.27E+04 | YES | NO |
| LEAD | 396 | | 1.1E+01 | a | 36.0 | YES | 1.03E+01 | YES | **YES** |
| MAGNESIUM | 2520 | J | EN[8] | Nutrient | -- | NO | 2.75E+02 | YES | NO |
| MANGANESE | 447 | | 2.2E+02 | ab | 2.0 | YES | 1.53E+02 | YES | **YES** |
| MERCURY | 0.161 | | 1.3E-02 | ab | 12.4 | YES | 7.10E-02 | YES | **YES** |
| NICKEL | 42.4 | | 1.0E+01 | b | 4.2 | YES | 3.48E+00 | YES | **YES** |
| POTASSIUM | 251 | | EN[8] | Nutrient | -- | NO | 2.16E+02 | YES | NO |
| SODIUM | 270 | J | EN[8] | Nutrient | -- | NO | 4.02E+01 | YES | NO |
| VANADIUM | 71.4 | | 4.7E+00 | b | 15.2 | YES | 3.91E+01 | YES | **YES** |
| ZINC | 917 | J | 4.6E+01 | a | 19.9 | YES | 9.47E+00 | YES | **YES** |
| *Organics* | | | | | | | | | |
| 1,1-DICHLOROETHYLENE | 0.00765 | J | 4.0E-02 | a | 0.2 | NO | -- | -- | NO |
| ACETONE | 0.0114 | | 1.2E+00 | ab | 0.01 | NO | -- | -- | NO |
| BENZENE | 0.00136 | J | 1.2E-01 | a | 0.01 | NO | -- | -- | NO |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | 0.000447 | J | 2.1E-01 | a | 0.002 | NO | -- | -- | NO |
| METHYL ETHYL KETONE | 0.00137 | J | 1.0E+00 | a | 0.001 | NO | -- | -- | NO |
| METHYL TERTIARY BUTYL ETHER (MTBE) | 0.00043 | J | NA[7] | NA[7] | -- | NO | -- | -- | NO |
| STYRENE | 0.000193 | J | 1.2E+00 | a | 0.0002 | NO | -- | -- | NO |
| TOLUENE | 0.00237 | | 1.5E-01 | a | 0.02 | NO | -- | -- | NO |
| XYLENES | 0.000712 | J | 1.0E-01 | a | 0.007 | NO | -- | -- | NO |
| 1,1'-BIPHENYL | 0.629 | J | 2.0E-01 | a | 3.145 | YES | -- | -- | **YES** |
| 2-METHYLNAPHTHALENE | 2 | | 2.9E+01 | a | 0.069 | NO | -- | -- | NO |
| ACENAPHTHENE | 9.27 | | 2.9E+01 | a | 0.320 | NO | -- | -- | NO |
| ANTHRACENE | 17.6 | | 2.9E+01 | a | 0.607 | NO | -- | -- | NO |
| BENZALDEHYDE | 0.052 | J | NA[7] | NA[7] | -- | NO | -- | -- | NO |
| BENZO(G,H,I)PERYLENE | 9.67 | | 1.1E+00 | a | 8.8 | YES | -- | -- | **YES** |
| BENZO[A]ANTHRACENE | 25.9 | | 7.3E-01 | b | 35.5 | YES | -- | -- | **YES** |
| BENZO[A]PYRENE | 20.6 | | 1.1E+00 | a | 18.7 | YES | -- | -- | **YES** |
| BENZO[B]FLUORANTHENE | 26.9 | | 1.1E+00 | a | 24.5 | YES | -- | -- | **YES** |
| BENZO[K]FLUORANTHENE | 9.72 | | 1.1E+00 | a | 8.8 | YES | -- | -- | **YES** |
| BIS(2-ETHYLHEXYL)PHTHALATE (DEHP) | 37.1 | | 2.0E-02 | a | 1855.0 | YES | -- | -- | **YES** |
| CARBAZOLE | 13.8 | | 7.0E-02 | a | 197.1 | YES | -- | -- | **YES** |
| CHRYSENE | 21.4 | | 1.1E+00 | a | 19.5 | YES | -- | -- | **YES** |
| DIBENZ[AH]ANTHRACENE | 2.7 | | 1.1E+00 | a | 2.45 | YES | -- | -- | **YES** |
| FLUORANTHENE | 35 | | 1.1E+00 | a | 31.8 | YES | -- | -- | **YES** |
| FLUORENE | 10.5 | | 2.9E+01 | a | 0.4 | NO | -- | -- | NO |
| INDENO[1,2,3-CD]PYRENE | 8.91 | | 1.1E+00 | a | 8.1 | YES | -- | -- | **YES** |
| NAPHTHALENE | 5.66 | | 2.9E+01 | a | 0.2 | NO | -- | -- | NO |
| PHENANTHRENE | 33.9 | J | 1.1E+01 | b | 3.08 | YES | -- | -- | **YES** |
| PYRENE | 34 | | 1.1E+00 | a | 30.9 | YES | -- | -- | **YES** |
| *Pesticides/PCBs* | | | | | | | | | |
| DDE | 0.000584 | J | 2.1E-02 | a | 0.03 | NO | -- | -- | NO |
| DDT | 0.00107 | J | 2.1E-02 | ab | 0.1 | NO | -- | -- | NO |
| AROCLOR 1254 | 2.39 | | 4.1E-02 | a | 58.3 | YES | -- | -- | **YES** |
| AROCLOR 1260 | 0.16 | J | 4.1E-02 | a | 3.9 | YES | -- | -- | **YES** |

1 - Maximum detected concentration from 1-4 ft soil interval (samples EL3-1 through EL3-18).
2 - ESV source: a = Table 3 in EPA Region 4 Ecological Risk Assessment Supplemental Guidance March Update (2018).
2 - ESV source: b = Los Alamos National Laboratory No Effect ESL for soil media (2017).
3 - Screening Level Hazard Quotient (HQ) = maximum detected concentration / ESV
4 - Background screening values obtained from *Background Soils Statistical Summary Report for Savannah River Site* , ERD-EN-2005,0223, Rev. 1, 10/06.
5 - For screening purposes, maximum concentration of only the naturally-occurring (nonanthropogenic) constituents are compared to 2X average background concentration.
6 - COPEC = constituent of potential ecological concern. Analyte identified as a COPEC if the maximum detected concentration exceeds the ecological screening value (i.e., HQ>1), if available, and exceeds 2X average background concentration
7 - NA = not available, ESV for this constituent is not available
8 - EN = essential nutrient, not subject to further evaluation

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## Table C.5. ECODS L-3 Preliminary Tier II CM Screening (All Soil Depths)

| Analyte | Retardation | Mean Travel Time | Predicted Concentration in Aquifer | Action Level | Failing Analytes[1] | Tier II $SSL_{T1/2}$ | Tier II $MLSSL_{T1/2}$ |
|---|---|---|---|---|---|---|---|
| | *[unitless]* | *[years]* | *[µg/L]* | | | *[mg/kg]* | |
| 1,1',-Biphenyl | 1.01E+02 | 4.07E+02 | | 8.30E-01 | | Infinite | Infinite |
| 2-Methylnaphthalene | 1.28E+02 | 5.16E+02 | | 3.60E+01 | | Infinite | Infinite |
| Acenaphthene | 7.91E+01 | 3.20E+02 | | 5.30E+02 | | Infinite | Infinite |
| Benzaldehyde | 1.28E+00 | 5.19E+00 | | 1.90E+01 | | Infinite | Infinite |
| Benzo(a)anthracene | 5.71E+03 | 2.31E+04 | | 3.00E-02 | | Infinite | Infinite |
| Benzo(a)pyrene | 1.54E+04 | 6.25E+04 | | 2.00E-01 | | Infinite | Infinite |
| Benzo(b)fluoranthene | 1.96E+04 | 7.93E+04 | | 2.50E-01 | | Infinite | Infinite |
| Benzo(k)fluoranthene | 1.96E+04 | 7.93E+04 | | 2.50E+00 | | Infinite | Infinite |
| Bis(2-ethylhexyl) phthalate | 1.77E+03 | 7.16E+03 | | 6.00E+00 | | Infinite | Infinite |
| Dibenz(a,h)anthracene | 2.85E+04 | 1.15E+05 | | 2.50E-02 | | Infinite | 1.89E+04 |
| Dibenzofuran | 1.46E+02 | 5.92E+02 | | 7.90E+00 | | Infinite | Infinite |
| Fluorene | 1.24E+02 | 5.01E+02 | | 2.90E+02 | | Infinite | Infinite |
| Indeno(1,2,3-c,d)pyrene | 5.96E+04 | 2.41E+05 | | 2.50E-01 | | Infinite | Infinite |
| Naphthalene | 2.00E+01 | 8.08E+01 | | 1.20E-01 | | Infinite | Infinite |
| Pyrene | 1.08E+03 | 4.39E+03 | | 1.20E+02 | | Infinite | 6.96E+03 |
| PCB 1254 | 4.93E+03 | 1.99E+04 | 1.96E+00 | 7.80E-03 | | 2.24E-02 | 4.02E-05 |
| PCB 1260 | 4.93E+03 | 1.99E+04 | 7.56E-01 | 7.80E-03 | | 2.24E-02 | 4.02E-05 |
| Antimony (metallic) | 3.19E+04 | 1.29E+05 | 4.56E+00 | 6.00E+00 | | 7.44E+01 | |
| Arsenic, Inorganic | 3.12E+02 | 1.26E+03 | 1.08E+02 | 1.00E+01 | | 1.21E+00 | |
| Barium | 3.28E+02 | 1.33E+03 | 2.23E+03 | 2.00E+03 | | 2.55E+02 | |
| Cadmium | 5.99E+02 | 2.42E+03 | 5.11E+01 | 5.00E+00 | | 1.17E+00 | |
| Cobalt | 3.20E+02 | 1.29E+03 | 3.75E+01 | 6.00E+00 | | 7.47E-01 | |
| Copper, Total | 3.99E+02 | 1.62E+03 | 5.38E+04 | 1.30E+03 | | 2.02E+02 | |
| Iron | 1.75E+03 | 7.09E+03 | 4.64E+04 | 1.40E+04 | | 9.56E+03 | |
| Lead and compounds | 2.15E+03 | 8.71E+03 | 1.55E+03 | 1.50E+01 | | 1.26E+01 | |
| Manganese | 3.99E+02 | 1.62E+03 | 2.87E+03 | 4.30E+02 | | 6.69E+01 | |
| Mercury (elemental) | 4.15E+02 | 1.68E+03 | 2.34E+01 | 2.00E+00 | | 3.24E-01 | |
| Nickel Soluble Salts | 5.19E+02 | 2.10E+03 | 2.10E+02 | 3.90E+02 | | 7.88E+01 | |
| Zinc (metallic) | 4.95E+02 | 2.00E+03 | 5.81E+03 | 6.00E+03 | | 1.16E+03 | |

1 - Failing Analytes were identified as Tier II COPCs and were evaluated further to determine Tier II COCs.

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# APPENDIX D

## Preliminary Risk Screening Tables for the LRP 131-4L Subunit

| Table | | Page Number |
|---|---|---|
| Table D.1 | LRP 131-4L Preliminary PTSM Screening (All Soil Depths) | D-3 |
| Table D.2 | LRP 131-4L Preliminary Tier II Contaminant Migration Screening (All Soil Depths) | D-4 |

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## Table D.1. LRP 131-4L Preliminary PTSM Screening (All Soil Depths)

| Analyte | Maximum Concentration[1] (mg/kg) | Noncarcinogenic Hazard Estimate | | Carcinogenic Risk Estimate | |
|---|---|---|---|---|---|
| | | Industrial RSL[2] (mg/kg) | Industrial HQ Estimate[3] | Industrial RSL[2] (mg/kg) | Industrial Risk Estimate[4] |
| *Inorganics* | | | | | |
| ALUMINUM | 16700 | 1.1E+06 | 1.5E-02 | -- | -- |
| ARSENIC | 7.9 | -- | -- | 3.0E+00 | 2.6E-06 |
| BARIUM | 47.3 | 2.2E+05 | 2.2E-04 | -- | -- |
| CALCIUM | 3630 | EN[5] | -- | -- | -- |
| CHROMIUM[6] | 29.6 | 1.8E+06 | 1.6E-05 | 6.3E+00 | 4.7E-06 |
| COPPER | 11.7 | 4.7E+04 | 2.5E-04 | -- | -- |
| IRON | 23500 | 8.2E+05 | 2.9E-02 | -- | -- |
| LEAD | 20.7 | 8.0E+02 | 2.6E-02 | -- | -- |
| MAGNESIUM | 329 | EN[5] | -- | -- | -- |
| MANGANESE | 209 | 2.6E+04 | 8.0E-03 | -- | -- |
| NICKEL | 5.2 | 2.2E+04 | 2.4E-04 | -- | -- |
| POTASSIUM | 237 | EN[5] | -- | -- | -- |
| SELENIUM | 1.3 | 5.8E+03 | 2.2E-04 | -- | -- |
| SODIUM | 38.8 | EN[5] | -- | -- | -- |
| VANADIUM | 56.5 | 5.8E+03 | 9.7E-03 | -- | -- |
| ZINC | 16.3 | 3.5E+05 | 4.7E-05 | -- | -- |
| *Organics* | | | | | |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | 0.005 | -- | -- | 1.0E+03 | 5.0E-12 |
| TOLUENE | 0.006 | 4.7E+04 | 1.3E-07 | -- | -- |
| 2-METHYLNAPHTHALENE | 0.058 | 3.0E+03 | 1.9E-05 | -- | -- |
| ACENAPHTHENE | 0.39 | 4.5E+04 | 8.7E-06 | -- | -- |
| ANTHRACENE | 2.6 | 2.3E+05 | 1.1E-05 | -- | -- |
| BENZO(G,H,I)PERYLENE | 0.67 | NA[7] | -- | NA[7] | -- |
| BENZO[A]ANTHRACENE | 3.3 | -- | -- | 2.1E+01 | 1.6E-07 |
| BENZO[A]PYRENE | 2.3 | -- | -- | 2.1E+00 | 1.1E-06 |
| BENZO[B]FLUORANTHENE | 3.8 | -- | -- | 2.1E+01 | 1.8E-07 |
| BENZO[K]FLUORANTHENE | 1.4 | -- | -- | 2.1E+02 | 6.7E-09 |
| BIS(2-ETHYLHEXYL)PHTHALATE | 0.4 | -- | -- | 1.6E+02 | 2.5E-09 |
| CHRYSENE | 2.5 | -- | -- | 2.1E+03 | 1.2E-09 |
| DIBENZ[AH]ANTHRACENE | 0.2 | -- | -- | 2.1E+00 | 9.5E-08 |
| DIBENZOFURAN | 0.16 | 1.2E+03 | 1.3E-04 | -- | -- |
| DI-N-BUTYL PHTHALATE | 0.41 | 8.2E+04 | 5.0E-06 | -- | -- |
| FLUORANTHENE | 6.6 | 3.0E+04 | 2.2E-04 | -- | -- |
| FLUORENE | 0.33 | 3.0E+04 | 1.1E-05 | | |
| INDENO[1,2,3-CD]PYRENE | 1 | -- | -- | 2.1E+01 | 4.8E-08 |
| PHENANTHRENE | 3.9 | NA[7] | -- | NA[7] | -- |
| PYRENE | 5 | 2.3E+04 | 2.2E-04 | -- | -- |
| *Pesticides/PCBs* | | | | | |
| DDD | 0.034 | -- | -- | 9.6E+00 | 3.5E-09 |
| DDT | 0.016 | -- | -- | 8.5E+00 | 1.9E-09 |
| | | **Hazard Index** | **8.9E-02** | **Cumulative Risk** | **8.9E-06** |
| | | **PTSM?[8]** | **NO** | **PTSM?[9]** | **NO** |

1 - Maximum detected concentration from all soil sample depth intervals (samples RFW-001 through RFW-010).
2 - Nonradiological RSLs are default industrial worker soil values from the *EPA Regional Screening Levels Table* , dated May 2021.
3 - Hazard Estimate = maximum concentration / RSL concentration
4 - Risk Estimate = (maximum concentration / RSL concentration) x 1E-06
5 - EN = essential nutrient, RSL not available for this constituent.
6 - Chemical analysis for total chromium. A total chromium RSL is not available; both the trivalent chromium (noncarcinogen) and hexavalent chromium (carcinogenic) RSLs used for screening.
7 - NA = not available; RSL for this constituent is not available.
8 - Subunit potentially has PTSM if HI $\geq$ 10 for noncarcinogenic constituents.
9 - Subunit potentially has PTSM if cumulative risk $\geq$ 1E-03 for carcinogenic constituents.

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## Table D.2. LRP 131-4L Preliminary Tier II CM Screening (All Soil Depths)

| Analyte | Retardation | Mean Travel Time | Predicted Concentration in Aquifer | Action Level | Failing Analytes[1] | Tier II $SSL_{T1/2}$ | Tier II $MLSSL_{T1/2}$ |
|---|---|---|---|---|---|---|---|
| | *[unitless]* | *[years]* | *[µg/L]* | | | *[mg/kg]* | |
| Benzo(a)anthracene | 5.46E+03 | 1.58E+04 | | 3.00E-02 | | Infinite | Infinite |
| Benzo(a)pyrene | 1.48E+04 | 4.28E+04 | | 2.00E-01 | | Infinite | Infinite |
| Benzo(b)fluoranthene | 1.87E+04 | 5.43E+04 | | 2.50E-01 | | Infinite | Infinite |
| Dibenz(a,h)anthracene | 2.73E+04 | 7.90E+04 | | 2.50E-02 | | Infinite | 31319.72109 |
| p,p'-DDD | 6.99E+02 | 2.02E+03 | | 3.20E-02 | | Infinite | 6.13E-03 |
| Arsenic, Inorganic | 7.63E+02 | 2.21E+03 | 2.37E+01 | 1.00E+01 | | 3.33E+00 | |
| Cadmium | 5.73E+02 | 1.66E+03 | 3.52E+00 | 5.00E+00 | | 1.25E+00 | |
| Iron | 1.68E+03 | 4.86E+03 | 3.21E+04 | 1.40E+04 | | 1.02E+04 | |
| Lead and compounds | 2.06E+03 | 5.96E+03 | 2.31E+01 | 1.50E+01 | | 1.35E+01 | |
| Manganese | 3.82E+02 | 1.11E+03 | 1.25E+03 | 4.30E+02 | | 7.17E+01 | |

1 - Failing Analytes were identified as Tier II COPCs and were evaluated further to determine Tier II COCs.

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# ATTACHMENT A

# Field Geologic Log for LSW020 Boring

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# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/17/02 | Sheet: 1 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Dave Wilcox | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 1 | 0–6 | | 100 | 0'–6.0' SANDY CLAY to CLAYEY SAND: dark yellowish orange (10YR 6/8) to moderate reddish brown (10R 4/6), fine grained, subangular, poorly sorted, firm, low permeability, dry. | |
| 2 | 6–16 | | 100 | 6.0'–16.0' CLAYEY SAND: moderate reddish orange (10R 6/6), very fine to fine grained, angular to subangular, poorly sorted, soft to firm, low to fair permeability, dry. | |
| | 16 | | | 16.0–16.5' CLAYEY SAND: as above | |
| 3 | 16.5–20 | | 100 | 16.5'–26.0' SANDY CLAY to CLAY: moderate reddish brown (10R 4/6) to pale red (10R 6/2), sandy (0–50%) 16.5'–19.0', then clean 19.0'–26.0', soft to firm, low to high plasticity, very low permeability, damp to dry. | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/17/02 | Sheet: 2 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Dave Wilcox | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 3 | 20–26 | | 100 | 16.5' – 36.0' See previous page for description | |
| 4 | 26–36 | | 100 | 26.0' – 36.0' CLAY: pale red (10R6/2) to yellowish gray (5Y8/1), clean, moderate to high plasticity, firm, very low permeability, dry. | |
| 5 | 36–40 | | 100 | 36.0' – 46.0' SANDY CLAY to SILTY CLAY: moderate reddish orange (10R6/4) to yellowish gray (5Y8/1), sandy (10-40%) (sand is very fine grained), moderate plasticity, soft, very low permeability, | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/17/02 | Sheet: 3 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Dave Wilcox | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 5 | 40 1 2 3 4 5 6 | | 100 | 36.0' - 46.0' See previous page for description | |
| 6 | 6 7 8 9 50 1 2 3 4 5 6 | | 100 | 46.0' - 51.0' CLAY: yellowish grey (5Y 8/1), clean to sandy (0-30% sand), mostly clean, moderate to high plasticity, very low permeability, dry. | |
| | | | | 51.0' - 56.0' CLAYEY SAND to SANDY CLAY: Pale yellowish orange (10YR 8/6) to pale red purple (5RP 6/2), fine to coarse grained, subangular, poorly sorted, fair permeability, damp. | |
| 7 | 6 7 8 9 60 | | 100 | 56.0' - 66.0' CLAYEY SAND to SILTY SAND: light red (5R 6/6) to very pale orange (10YR 8/2), medium to coarse grained, subangular, poorly sorted, clayey (5-15%), silty (5-10%), soft to loose, fair to good permeability, wet. Tight, clean clay 58.0' - 58.75'. | Fair to good Sand 59.0' - 66.0' |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/17/02 | Sheet: 4 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Dave Wilcox | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 7 | 60–66 | | 100 | 58.0'–66.0' See previous page for description.<br>Some gravel ¼" – 3" 62.0'–66.0' | Fair to good sand 58.0'–66.0' |
| 8 | 66–76 | | 100 | 66.0'–76.0' CLAYEY SAND to SILTY SAND: moderate orange pink (10R 7/4), medium to coarse grained, subangular, poorly sorted, clayey (5–15%), silty (5–10%), soft, fair to good permeability, wet. Abundant gravel ¼" – 3" throughout | fair to good sand 66.0'–76.0' |
| 9 | 76–80 | | 100 | 76.0'–86.0' CLAYEY SAND to SILTY SAND: moderate reddish orange (10R6/6) to pale yellowish orange (10R 8/6), medium to coarse grained, subangular, poorly sorted, clayey (5–10%), silty (5–10%), fair to good permeability, wet. Abundant gravel ¼" – 3" throughout | fair to good sand 76.0'–86.0' |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/17/02 | Sheet: 5 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Dave Wilcox | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 9 | 80–86 | | 100 | 76.0' – 86.0' See previous page for description | Fair to good sand 76.0' – 86.0' |
| 10 | 86–92 | | 60 | 86.0' – 87.0' SILTY SAND to CLAYEY SAND: as above.<br>87.0' – 92.0' SILTY SAND: dark yellowish orange (10YR 6/6), very fine to fine grained, angular to subangular, well sorted, silty (5-10%), loose, fair to good permeability, wet.<br>No recovery 92.0' – 96.0'; probably silty sand as above. | Fair to good sand 86.0' – 92.0' |
| 11 | 96–101 | | 100 | 96.0' – 101.0' SILTY SAND: dark yellowish orange (10YR 6/6), very fine to fine grained, subangular, well sorted, silty (10-20%), loose, fair to good permeability, wet. | Fair to good sand 96.0' – 101.0' |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/17/02 | Sheet: 6 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Dave Wilcox | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 11 | 100–106 | | 100 | 101.0'–106.0' CLAYEY SAND: dark yellowish orange (10YR 6/6), very fine to fine grained, subangular, well sorted, clayey (10–20 %), soft, moderate plasticity, low permeability, wet. | |
| 12 | 106–116 | | 100 | 106.0'–116.0' SILTY SAND to CLAYEY SAND: dark yellowish orange (10YR 6/6), fine to medium grained, subangular, fairly well sorted, silty (10–15%), clayey (5–10%), soft, fair permeability, wet. | Fair sand 106.0'–116.0' |
| 13 | 116–123 | | 100 | 116.0'–123.0' SILTY SAND: dark yellowish orange (10YR 6/6) to moderate reddish orange (10R 6/6), fine to medium grained, subangular, well sorted, silty (5–15%), good permeability, wet. | Good Sand 116.0'–123.0' |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L- Area Southern Groundwater | | Date: 6/17/02 | Sheet: 7 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| | 120 | | | 116.0'-123.0' See previous page for description | |
| | 1 | | | | |
| | 2 | | | | |
| 13 | 3 | | 100 | 123.0'-124.0' CLAYEY SAND: greyish orange (10YR7/4) to light red (5R6/6), medium grained, subangular, poorly sorted, with frequent stringers of clay throughout interval. | Tan Clay at 124.0' |
| | 4 | | | | |
| | 5 | | | 124.0'-126.0' CLAY: moderate reddish orange (10YR6/6), clay, with sandy pods/lenses, moderate to high plasticity, firm, very low permeability, dry. | |
| | 6 | | | | |
| | 7 | | | | |
| | 8 | | | 126.0'-136.0' CLAYEY SAND: moderate reddish brown (10R4/6) to dark yellowish orange (10YR6/6), fine grained, subangular, well sorted, clayey (10-40%), fair to low permeability, wet to dry. | |
| 14 | 9 | | | | |
| | 130 | | 100 | | |
| | 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| | 4 | | | | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | 136.0'-146.0' CLAYEY SAND to SANDY CLAY: dark yellowish orange (10YR6/6), fine to medium grained, subangular, moderately well sorted, clayey (15-80%), low to moderate plasticity, low permeability, wet to dry. | |
| 15 | 8 | | | | |
| | 9 | | 100 | | |
| | 140 | | | | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L - Area Southern Groundwater | | Date: 6/18/02 | Sheet: 8 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Rotosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 15 | 140–146 | | 100 | 136.0' - 146.0' SANDY CLAY to CLAYEY SAND: see previous page for description.<br>Becomes sandy clay 143.0'-144.5' | |
| 16 | 146–156 | | 100 | 146.0' - 149.0' CLAYEY SAND: dark yellowish orange (10YR 6/6), fine to medium grained, angular to subangular, well sorted, clayey (15 - 25%), soft, low to moderate plasticity, fair permeability, wet.<br>149.0' - 156.0' SILTY SAND: dark yellowish orange (10YR 6/6), fine to medium grained, angular to subangular, well sorted, silty (5-10%), good permeability, wet. | Good Sand 149.0'-156.0' |
| 17 | 156–160 | | 100 | 156.0' - 162.0' CLAYEY SAND: pale yellowish orange (10YR 8/6), fine to medium grained, angular to subangular, well sorted, clayey (10 - 20%), fair permeability, wet | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/19/02 | Sheet: 9 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 17 | 160–166 | | 100 | 162.0' – 166.0' SAND: pale yellowish orange (10YR 8/6), fine to medium grained, angular to subangular, well sorted, clean to slightly silty (0-2%), good permeability, loose, wet. | Good Sand 162.0'-166.0' |
| 18 | 166–176 | | 100 | 166.0' – 168.0' SAND: as above<br>168.0' – 176.0' CLAYEY SAND: greyish yellow (5Y8/4), fine to coarse grained, subangular, poorly sorted, clayey (10-50%), fair to low permeability, soft, with abundant sandstone gravel ¼" – 4" throughout. | Good Sand 166.0'-168.0' |
| 19 | 176–180 | | 100 | 176.0' – 181.0' CLAYEY SAND: greyish yellow (5Y8/4), fine to medium grained, subangular, poorly sorted, clayey (10-40%), soft, fair permeability, with abundant sandstone gravel throughout. | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/19/02 | Sheet: 10 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 19 | 180–186 | | 100 | 181.0'–186.0' SILTY SAND to CLAYEY SAND: dark yellowish orange (10YR6/6), very fine to fine grained, subangular, well sorted, silty (5–10%), clayey (5–10%), soft to loose, good permeability, wet. | Good sand 181.0'–186.0' |
| 20 | 186–194 | | 100 | 186.0'–194.0' SILTY SAND to CLAYEY SAND: pale yellowish orange (10YR8/6), fine grained, subangular, well sorted, silty (5–10%) 186.0'–190.0', then clayey to very clayey (15–50%) 190.0'–194.0', good permeability 186.0–190.0', fair to low permeability 190.0'–194.0, wet. | Good Sand 186.0'–190.0' |
| | 194–196 | | | 194.0'–196.0' SANDY CLAY: dark greenish gray (5GY4/1), soft to firm, moderate to high plasticity, sandy (10–30%), low to very low permeability, wet to dry | Green Clay at 194.0' |
| 21 | 196–200 | | 100 | 196.0'–206.0' SANDY CLAY to CLAYEY SAND: dark greenish gray (5GY4/1), soft to hard, low to high plasticity, sandy (5–80%) (very fine to fine grained) to clayey (5–70%), low to very low permeability, wet to dry. | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/19/02 | Sheet: 11 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 21 | 200–206 | | 100 | 196.0' - 206.0' SANDY CLAY to CLAYEY SAND: see previous page for description. | |
| 22 | 206–216 | | 100 | 206.0' - 216.0' SILTY SAND: dark greenish gray (5GY4/1), very fine grained, subangular, very well sorted, silty (5-15%), soft to loose, good permeability, wet. | Good Sand 206.0-216.0' |
| 29 | 216–220 | | 100 | 216.0' - 226.0' SILTY SAND: dark greenish gray (5GY4/1), very fine to fine grained, angular to subangular, very well sorted, silty (<5-20%), some portions slightly clayey (5-10%), soft to loose, good permeability, wet | Good Sand 216.0'-226.0' |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L- Area Southern Groundwater | | Date: 6/19/02 | Sheet: 12 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 23 | 220–226 | | 100 | 216.0'-226.0' SILTY SAND: see previous page for description. | |
| 24 | 226–236 | | 100 | 226.0'-236.0' SILTY SAND: dark greenish gray (5GY4/1), very fine grained, subangular, very well sorted, soft to loose, good permeability, wet, silty (<5-15%). | Good Sand 226.0'-236.0' |
| 25 | 236–240 | | 100 | 236.0'-241.0' SILTY SAND: dark greenish gray (5GY4/1), very fine grained, subangular, very well sorted, silty (5-15%), soft, good permeability, wet. | Good Sand 236.0'-241.0 |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L - Area Southern Groundwater | | Date | Sheet: 13 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Tim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 25 | 240 – 246 | | 100 | 241.0'-246.0' SAND: medium gray (N5), fine grained, subangular, very well sorted, slightly silty (2-5%), loose, very good permeability, wet. | Very Good Sand 241.0'-246.0' |
| 26 | 246 – 256 | | 100 | 246.0'-256.0' SAND: medium gray (N5) to medium light gray (N6), fine to medium grained, well sorted, slightly silty (2-5%), loose, very good permeability, wet. | Very Good Sand 246.0'-256.0' |
| 27 | 256 – 264 | | 100 | 256.0'-264.0' SAND: medium gray (N5), medium grained, well sorted, slightly silty (2-5%), loose, very good permeability, wet. | Very Good Sand 256.0'-264.0' |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/26/02 | Sheet: 14 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| | 260 | | | 256.0' – 264.0' SAND: see previous page for description. | |
| 27 | 1–3 | | 100 | | |
| | 4–6 | | | 264.0' – 266.0' SILTY SAND: medium gray (N5), very fine grained, subangular, very well sorted, silty (10–15%), well compacted, fair permeability, wet. | |
| | 7–9 | | | 266.0' – 276.0' CLAYEY SAND: medium grey (N5), very fine to fine grained, angular to subangular, poorly sorted, fair to low permeability, clayey (10–50%), wet. Clay is mostly in form of thin stringers and lenses throughout the sand. | |
| 28 | 270 | | 100 | | |
| | 1–6 | | | | |
| | 7–9 | | | 276.0' – 286.0' CLAYEY SAND to SILTY SAND: medium gray (N5), very fine to fine grained, angular to subangular, moderately well sorted, clayey (5–40%), fair permeability, wet. Clay is mostly in thin stringers throughout sand, but also mixed in with the sand. | |
| 29 | 280 | | 100 | | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L - Area Southern Groundwater | | Date: 6/20/02 | Sheet: 15 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 29 | 280 1 2 3 4 5 6 | | 100 | 276.0'-286.0' CLAYEY SAND to SILTY SAND: See previous page for description. | |
| 30 | 7 8 9 290 1 2 3 4 5 6 | | 100 | 286.0'-296.0' CLAYEY SAND to SILTY SAND: medium grey (N5), very fine to fine grained, angular to subangular, well sorted, clayey (15-15%), silty (5-10%), soft, fair permeability, wet. | |
| 31 | 7 8 9 300 | | 100 | 296.0'-306.0' CLAYEY SAND to SILTY SAND: medium grey (N5), fine to medium grained, subangular, poorly sorted, clayey (5-30%), silty (5-10%), soft, fair to low permeability, wet to dry | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L - Area Southern Groundwater | | Date: 6/20/02 | Sheet: 16 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 31 | 300–306 | | 100 | 296.0'–306.0' CLAYEY SAND to SILTY SAND: see previous page for description. | |
| 32 | 306–316 | | 100 | 306.0'–316.0' SAND: medium gray (N5), fine to medium grained, subangular, well sorted, silty (5-10%), loose, very good permeability, wet | Very good sand 306'–316'. |
| 33 | 316–320 | | 100 | 316.0'–326.0' SAND: medium gray (N5) to medium light gray (N6), medium to coarse grained, subangular, well sorted, silty to slightly silty (2–5%), loose, very good permeability, wet | Very Good Sand 316'–326' |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/20/02 | Sheet: 17 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 33 | 320 | | 100 | 316.0' - 326.0' SAND: see previous page for description. | |
| 34 | 326 | | 100 | 326.0' - 336.0' SILTY SAND: light gray (N7) to medium gray (N5), medium to coarse grained, subangular, poorly sorted, silty (10-20%), very good permeability, wet. Sand containing fossil tree trunks at 332.0' - 333.0' and 334.0' - 335.0'. | Very good sand 326.0' - 336.0' |
| | 330 | | | Solid lignite 332.0' - 333.0' and 334.0' - 335.0', fossil tree trunks. | |
| 35 | 336 | | 100 | 336.0' - 346.0' CLAYEY SAND to SILTY SAND: dark gray (N3) to light gray (N7), very fine to fine grained, subangular, poorly sorted, clayey (10-30%), silty (10-20%), Fair to low permeability, wet. | |
| | 340 | | | | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/20/02 | Sheet: 18 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 35 | 340 | | 100 | 336.0'-346.0' CLAYEY SAND to SILTY SAND: See previous page for description. | |
| 36 | 350 | | 100 | 346.0'-356.0' SILTY SAND: medium grey (N5), very fine to fine grained, subangular, well sorted, silty (20-30%), with thin lenses and pods of sandy clay throughout; soft, fair to low permeability, wet. | |
| 37 | 360 | | 100 | 356.0'-366.0' SILTY SAND: medium grey (N5), very fine to fine grained, angular to subangular, poorly sorted, silty (20-30%), with thin stringers of sandy clay decreasing downward; soft fair permeability, wet. | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/21/02 | Sheet: 19 of 80 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Wayne Smith | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 37 | 360 | | /00 | 356.0' - 366.0' SILTY SAND: see previous page for description. | |
| 38 | 370 | | /00 | 366.0' - 374.0' SILTY SAND: medium gray (N5), very fine to fine grained, subangular, moderately well sorted, silty (20 - 30%), soft to loose, good permeability, wet. | |
| | | | | 374.0' - 376.0' CLAY: yellowish gray (5Y8/1), hard, dense, friable, low plasticity, very low permeability, sandy (20%), silty (10%), dry. | Ellenton Clay at 374.0' |
| 39 | 380 | | /00 | 376.0' - 386.0' CLAY: yellowish grey (5Y8/1) to very light grey (N8), hard, dense, low to moderate plasticity, very low permeability, sandy (20-30%), silty (10%), small grains of pyrite, dry. | |

# Field Geologic Log

| | | | |
|---|---|---|---|
| Project: L-Area Southern Groundwater | | Date: 6/21/02 | Sheet: 20 of 20 |
| Well Number: LSW-20 | Location: | Drilling Subcontractor: Prosonic | |
| Logs Prepared By: Jim Furlow | | Driller: Dave Wilcox | |
| Company: SAIC | | Drilling Method: Rotasonic Core | |

| Run Number | Depth Below Ground Surface (Feet) | Lithology | Percent Recovery | Sample Description | Drilling Comments/Remarks |
|---|---|---|---|---|---|
| 39 | 380 | | 100 | 376.0'-386.0' See previous page for description. | |
| | 1 | | | | |
| | 2 | | | | |
| | 3 | | | 383.0'-386.0' Clay becomes sandier (30-50%), siltier (20%), softer. | |
| | 4 | | | | |
| | 5 | | | | |
| | 6 | | | Small gravel to ¼ inch | |
| | 7 | | | T.D. of Boring 386.0' 6/21/02 | |
| | 8 | | | | |
| | 9 | | | | |
| | 390 | | | | |
| | 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| | 4 | | | | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | | |
| | 8 | | | | |
| | 9 | | | | |
| | 400 | | | | |

# ATTACHMENT B

# Field Geologic Log for LSW 4C Boring

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OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L-Area Southern Groundwater Characterization | REFERENCE DATUM: | DATE: 9/14/01 | SHEET: 1 OF 9 |
| | | DRILLING CONTRACTOR: Prosonic | |
| WELL NO.: LSW-04 | SRP COORDINATES: | DRILLER: Michael Coleman | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 1 | 0–7 | | 100 | 0 – 7.5' Clayey Sand: greyish orange (10YR 7/4), fine to medium grained, subangular, some gravel to ½", soft to firm, low plasticity, damp. | |
| 2 | 8–17 | | 100 | 7.5' – 17.5' Clayey Sand: yellowish gray (5Y 8/1) to dark yellowish orange (10YR 6/6) to moderate reddish brown (10R 4/6), fine to coarse grained, mostly fine grained, subangular to subrounded, very clayey. 7.5' – 10', low plasticity, faintly laminated, damp to dry. | |
| 3 | 8–20 | | 100 | | |

OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L-Area Southern Groundwater Characterization | REFERENCE DATUM: | DATE: 9/14/01 | SHEET: 2 of 9 |
| WELL NO.: LSW-04 | SRP COORDINATES: | DRILLING CONTRACTOR: Prosonic | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLER: Michael Coleman | |
| | | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 3 | 20 1 2 3 4 5 6 7 | | 100 | 17.5'-27.5' Clayey Sand: white (N9) to moderate reddish brown (10R 4/6) to dark yellowish orange (10YR 6/6), fine to very fine grained, subangular, low plasticity, dry to damp. | |
| 4 | 8 9 30 1 2 3 4 5 6 7 | | 100 | 27.5'-37.5' Clayey Sand: moderate reddish brown (10R 4/6) to dark yellowish orange (10YR 6/6), fine grained, subangular, highly laminated, soft, low plasticity, damp. | |
| 5 | 8 9 40 | | 100 | 37.5'-40.0' Clayey Sand: as above | |

OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L-Area Southern Groundwater Characterization | | DATE: 9/14/01 | SHEET: 3 OF 9 |
| | REFERENCE DATUM | DRILLING CONTRACTOR: Prosonic | |
| WELL NO.: LSCW-04 | SRP COORDINATES | DRILLER: Michael Coleman | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 5 | 40 | | 100 | 40.0'-47.5' Silty Sand: moderate reddish brown (10R4/6) to white (N9) to dark yellowish orange (10YR6/6), fine grained, subangular to subrounded, slightly clayey, soft, damp, highly laminated to mottled. | |
| 6 | 50 | | 100 | 47.5'-56.0' Clayey Sand to Sandy Clay: pale yellowish orange (10YR8/6) to pale red purple (5RP6/2) to grayish orange pink (5YR7/2), very fine to fine grained, silty, soft, damp, highly laminated, moderate to high plasticity | |
| | | | | 56.0'-57.5' Sandy Clay: light brownish gray (5YR6/1) to moderate orange pink (10R7/4), fine grained, soft to firm, highly laminated, high plasticity. | |
| 7 | 60 | | 100 | | |

OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L-Area Southern Groundwater Characterization | REFERENCE DATUM: | DATE: 9/14/01 | SHEET: 4 OF 9 |
| | | DRILLING CONTRACTOR: Prosonic | |
| WELL NO.: LSW-04 | SRP COORDINATES: | DRILLER: Michael Coleman | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 7 | 60 | | 100 | 57.5'-67.5' Clayey Sand: grayish pink (5RP 8/2) to pale red (5R 6/2), very fine to coarse grained, mostly fine grained, subangular, becomes silty and less clayey 66'-67.5', soft, low plasticity, laminated, damp. | |
| | 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| | 4 | | | | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | | |
| 8 | 8 | | 100 | 67.5'-70.0' Clayey Sand: moderate orange pink (10R 7/4) to pale yellowish orange (10YR 8/6), very fine to medium grained, mostly very fine grained, subangular, silty, laminated, soft, damp to wet. | |
| | 9 | | | | |
| | 70 | | | | |
| | 1 | | | 70.0'-77.5' Silty Sand: pale yellowish orange (10YR 8/6) to dark yellowish orange (10YR 6/6), fine grained, subangular, soft to loose, wet, becomes only slightly silty 75.0-77.5'. | |
| | 2 | | | | |
| | 3 | | | | |
| | 4 | | | | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | | |
| 9 | 8 | | 100 | | |
| | 9 | | | | |
| | 80 | | | | |

OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L-Area Southern Groundwater Characterization | REFERENCE DATUM: | DATE: 9/14/01 | SHEET: 5 OF 9 |
| WELL NO.: LSW-04 | SRP COORDINATES: | DRILLING CONTRACTOR: Prosonic | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLER: Michael Coleman | |
| | | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 9 | 80–87 | | 100 | 77.5'–85.5' Sand: dark yellowish orange (10YR6/6), fine grained, subangular, slightly silty to silty, loose to soft, wet.<br>85.5'–87.5' Clayey Sand: dark yellowish orange (10YR6/6), fine to medium grained, subangular to subrounded, silty, soft, laminated, wet. | |
| 10 | 88–97 | | 100 | 87.5'–97.5' Clayey Sand to Silty Sand: dark yellowish orange (10YR6/6) to pale reddish brown (10R5/4) to yellowish gray (5Y8/1), fine to medium grained, subangular, laminated, soft to firm, wet. | |
| 11 | 98–100 | | 100 | | |

OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L-Area Southern Groundwater Characterization | REFERENCE DATUM: | DATE: 9/14/01 | SHEET: 6 OF 9 |
| WELL NO.: LSW-04 | SRP COORDINATES: | DRILLING CONTRACTOR: Rotosonic | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLER: Michael Coleman | |
| | | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 11 | 100–107 | | 100 | 97.5'–107.5' Silty Sand to Clayey Sand: very pale orange (10YR 8/2) to dark yellowish orange (10YR 6/6), fine to medium grained, subangular, soft to stiff, low plasticity, laminated, wet. | |
| 12 | 108–115 | | 100 | 107.5'–109.5' Alternating Clayey Sand and Clay: pale yellowish orange (10YR 8/6) to dark yellowish orange (10YR 6/6), fine grained, subangular, laminated, soft, low to high plasticity, wet to dry.<br>109.5'–114.0' Sand: dark yellowish orange (10YR 6/6), fine to medium grained, clean to slightly silty, subangular, loose, wet.<br>114.0'–115.5' Clayey Sand: dark yellowish orange (10YR 6/6) to grayish brown (5YR 3/2), fine to medium grained, soft, plastic, wet.<br>115.5'–117.5' Clay: dark yellowish orange (10YR 6/6), silty to sandy, stiff to hard, low to moderate plasticity, dense, dry, laminated. | Tan Clay |
| | 117–120 | | | 117.5'–118.5' Clayey Sand: dark yellowish orange (10YR 6/6), fine grained, subangular, stiff, dense, lignitic, laminated, damp. | |

OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L-Area Southern Groundwater Characterization | | DATE: 9/17/01 | SHEET: 7 OF 9 |
| | REFERENCE DATUM | DRILLING CONTRACTOR: Prosonic | |
| WELL NO.: LSW-04 | SRP COORDINATES | DRILLER: Michael Coleman | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 13 | 120–127 | | 100 | 119.5'–127.5' Clayey Sand to Sandy Clay: yellowish gray (5Y8/1) to grayish orange (10YR 7/4), very fine to fine grained, subangular, soft, dense, laminated, becomes silty and sandier in lower portion, fine to medium grained. | |
| 14 | 128–137 | | 100 | 127.5'–137.5' Sand: yellowish gray (5Y8/1) to pale yellowish orange (10YR 8/6), fine grained, subangular, slightly silty 127.5'–132.0', then silty 132.0'–137.5', loose to soft, wet, faintly laminated 135.0'–137.5'. | |
| 15 | 138–140 | | 100 | | |

OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L- Area Southern Groundwater Characterization | REFERENCE DATUM: | DATE: 9/17/01 | SHEET: 8 OF 9 |
| | | DRILLING CONTRACTOR: Prosonic | |
| WELL NO.: LSW-04 | SRP COORDINATES: | DRILLER: Michael Coleman | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 15 | 140 | | 100 | 137.5'-144.0' Silty Sand to Clayey Sand: pale yellowish orange (10YR 8/6), fine to medium grained, subangular, soft, faintly laminated, locally lignitic, wet. | |
| | 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| | 4 | | | 144.0'-147.5' Clayey Sand: dark yellowish brown (10YR 4/2), very fine to fine grained, subangular to subrounded, soft, low to moderate plasticity, locally lignitic/carbonaceous, wet. Becomes while (N9), very clayey, laminated in last 3 inches of run. | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | | |
| 16 | 8 | | 100 | 147.5'-155.0' Silty Sand to Clayey Sand: yellowish gray (5Y 8/1) to dark yellowish orange (10YR 6/6), very fine to fine grained, soft to loose, locally very clayey, lignitic, wet. | |
| | 9 | | | | |
| | 150 | | | | |
| | 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| | 4 | | | 155.0'-157.5' Sand: dark yellowish orange (10YR 6/6), very fine grained, subangular, loose, slightly silty, wet. | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | | |
| 17 | 8 | | 100 | 157.5'-162.5' Sand: pale yellowish orange (10YR 8/6), very fine grained, angular to subangular, loose, clean to slightly silty, wet | |
| | 9 | | | | |
| | 160 | | | | |

OSR 30-3

## FIELD GEOLOGIC LOG

| | | | |
|---|---|---|---|
| PROJECT: L-Area Southern Groundwater Characterization | REFERENCE DATUM: | DATE: 9/17/01 | SHEET: 9 OF 9 |
| | | DRILLING CONTRACTOR: Prosonic | |
| WELL NO.: LSW-04 | SRP COORDINATES: | DRILLER: Michael Coleman | |
| LOGGED BY: Jim Furlow | COMPANY: SAIC | DRILLING METHOD: Rotosonic | |

| RUN NUMBER | DEPTH, FEET | LITHOLOGY | PERCENT RECOVERY | SAMPLE DESCRIPTION | DRILLING COMMENTS |
|---|---|---|---|---|---|
| 17 | 160, 1, 2 | | 100 | | |
| 18 | 3, 4, 5, 6, 7 | | 100 | 162.5'–167.5' Sand: yellowish gray (5YR8/1) to dark yellowish orange (10YR6/6) very fine to fine grained, angular to subangular, clean to slightly silty, loose, wet. | |
| 19 | 8, 9, 170, 1, 2 | | 100 | 167.5'–170.5' Sand: dark yellowish orange (10YR6/6), fine grained, subangular, silty to slightly clayey, soft, lignitic, wet.<br>170.5'–172.5' Clayey Sand: dark yellowish orange (10YR6/6), very fine to fine grained, subangular, stiff, low to moderate plasticity, laminated, wet. | |
| 20 | 3, 4, 5, 6, 7 | | 100 | 172.5'–174.0' Silty Clay: dark yellowish orange (10YR6/6), stiff to hard, low plasticity, dense, dry<br>174.0'–177.5' Sandy Clay to Clayey Sand: grayish black (N2), fine grained to silty, stiff to soft, low plasticity, some small gravel to ½" dia., wet. | |
| | 8, 9, 180 | | | T.D. 177.5' 9/17/01 | |

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